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STUDY ON COHERENCE OF THE LEGAL FRAMEWORK GOVERNING CONSERVATION OF FRESHWATER ECOSYSTEMS AND USE OF WATER RESOURCES IN GEORGIA WITH THE RELEVANT EU ENVIRONMENTAL LEGISLATION

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ABBREVIATIONS

AA	Association Agreement between the European Union and the European Atomic Energy Community and their Member States, of the one part, and Georgia, of the other part
AEWA	Agreement on the Conservation of African-Eurasian Migratory Waterbirds
APA Georgia	Agency of Protected Areas, LEPL under the Ministry of Environment and Natural Resources Protection of Georgia
BD	Birds Directive
Bern Convention	Council of Europe Convention on the Conservation of European Wildlife and Natural Habitats
CA	Competent Authority (CA)
CBD	Convention on Biological Diversity
CENN	Caucasus Environmental NGO Network
CMS	Convention on Migratory Species
DRR	Disaster Risk Reduction
EBA	Endemic Bird Area (EBA)
EIA	Environmental Impact Assessment
EQSD	Environmental Quality Standards Directive
EU	European Union
FD	Floods Directive
GIZ	Deutsche Gesellschaftfür Internationale Zusammenarbeit
HD	Habitats Directive
HMWBs	Heavily-Modified Water Bodies
IBAs	Important Bird Areas
IRBMP	Integrated River Basin Management Plan
LEPL	Legal Entity under Public Law
MAD	Maximum Admissible Discharge
MEA	Multilateral Environmental Agreement
MENRP	Ministry of Environment and Natural Resources Protection of Georgia
ND	Nitrates Directive
NEA Georgia	National Environmental Agency, LEPL under the Ministry of Environment and Natural Resources Protection of Georgia
NVZ	Nitrate Vulnerable Zone
PoM	Programme of Measures
Ramsar Convention	Convention on Wetlands of International Importance Especially as Waterfowl Habitat
RBD	River Basin District
SEA	Strategic Environmental Assessment
SBSTTA	Subsidiary Body on Scientific, Technical and Technological Advice
SWOT Analyses	Strengths, Weaknesses, Opportunities and Threats Analyses
UBA	Federal Environment Agency (Germany)
UN	United Nations
UN Watercourses Convention	UN Convention on the Law of the Non-Navigational Uses of International Watercourses
UNECE	United Nations Economic Commission for Europe
UNECE Water Convention	UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes
UWWTD	Urban Waste Water Treatment Directive
WFD	Water Framework Directive
WSSD	World Summit on Sustainable Development

INTRODUCTION

This report represents a national component of the Regional Study on Coherence of the Legal Frameworks Governing Conservation of Freshwater Ecosystems and Use of Water Resources in South Caucasus Countries with the relevant EU Environmental Legislation.

The study was implemented in the framework of the regional project – "Advise to Governments in the development of Strategies to protect Freshwater Ecosystems in the South Caucasus", financially supported by the German Federal Environment Ministry's Advisory Assistance Programme (AAP) for environmental protection in the countries of Central and Eastern Europe, the Caucasus and Central Asia and other countries neighbouring the European Union. The project was supervised by the German Federal Environment Agency (UBA) and implemented by WWF Caucasus Programme Office, WWF Armenia and WWF Azerbaijan in close cooperation with WWF Germany.

The regional project aimed to (i) review the existing national legal frameworks governing conservation of freshwater ecosystems and use of water resources in the South Caucasus countries; (ii) analyse their coherence with the relevant EU environmental legislation; and (iii) elaborate recommendations for further harmonization. The project also highlighted the importance of regional cooperation for the protection of transboundary freshwater ecosystems and sustainable use of shared water resources in the South Caucasus.

The Regional Study on Coherence of the Legal Frameworks Governing Conservation of Freshwater Ecosystems and Use of Water Resources in South Caucasus Countries with the relevant EU Environmental Legislation comprises three National Reports (Armenia, Azerbaijan, Georgia) and a Regional Report.

METHODOLOGY

This report assesses the extent of coherence between legislative and governance mechanisms for the conservation of freshwater biodiversity in Georgia with that in the European Union. The EU frameworks represent not only a comprehensive and detailed system for freshwater ecosystem management, but are themselves based on internationally-agreed standards and principles set out in international agreements on transboundary water and/or environmental cooperation which – to the extent that it is a Party or intends to become a Party to the relevant agreements –also apply to Georgia.

This study considers the coherence of national legislation, policy and institutional arrangements with two groups of EU legislation, with a focus on the requirements needed to support effective freshwater ecosystem conservation:

1. The Water Framework Directive (WFD), including an assessment of coherence with the administrative arrangements foreseen by the WFD and the key steps to be taken under the river basin planning and management approaches; additionally, consideration is given to some of the specific Water Directives, including those dealing with urban waste water, environmental quality standards, nitrates and flooding;
2. Key environmental legislation – the Habitats and Birds Directives and the Directives on Environmental Impact Assessment (EIA), Strategic Environmental Assessment (SEA) and access to environmental information.

Given the scale of this report, the overall complexity and level of EU legislation, the present stage of development of legislation in these sectors in Georgia and the need to provide a standard methodology across the other reports in Armenia and Azerbaijan, the analysis of EU legislation is necessarily high level and focusses on key and indicative measures which might form the future foundations of legislative development in the South Caucasus. The key and indicative measures relate to establishment of the main institutional structures for river basin management under the WFD; measures for attaining good environmental quality ("good status") of waters, including by taking conservation measures and/or limiting environmental threats and impacts under environmental legislation.

For each key element selected for analysis, a benchmarking process is used to highlight the general level of coherence.

This benchmarking is carried out through three main steps:

Step 1: Does equivalent national legislation exist?

Step 2: Is the EU obligation partly or extensively met in national legislation?

Step 3: Is the EU obligation partly or extensively met (or capable of being so) in national implementation?

Low Equivalence	There is no legislation covering the EU measure being compared, or legislation exists covering the same measure-type exists but the specific provisions do not correspond to the measures contained in EU legislation. Achieving close equivalence would require completely new legislation to be introduced.
Partial Equivalence	Legislation exists covering the same measure-type as that in the EU legislation being compared, and some of the elements of the EU measure can be identified in the national measure. Implementation may be limited. Achieving close equivalence would need amendments to be made to existing legislation and/or institutional, administrative or capacity strengthening to improve implementation.
Close equivalence	Legislation exists covering the same measure-type as that in the EU legislation being compared, and elements which are likely to achieve or mostly achieve similar results to the EU measure can be identified in the national measure. Amendments to achieve closer equivalence might still be envisaged, but do not significantly impact the effect of the national measure.

Against these basic criteria, a benchmark is applied as follows:

Given the current context of the EU-Georgia Association Agreement, through which substantial reforms to Georgian water and environmental legislation are in an advanced state of preparation, this report analyses the proposed draft legislation in Georgia, where it has been feasible and where the drafting and promulgating procedure are in the advanced stages. Since it is not possible to assess the implementation of draft legislation, where assessments have been required of implementation aspects the report authors have assessed implementation and institutional / governance structures relating to existing legislation, and considered the future capacities to implement the new legislation.

EXECUTIVE SUMMARY

Water resources are abundant in Georgia, comprising significant surface water and groundwater resources. Georgia has more than 26,000 rivers with total length of some 60 000 km, more than 800 fresh water lakes, 43 artificial water reservoirs and glaciers. Georgia is also rich in ground water resources - the total volume of fresh ground water is estimated to be about 24 million cubic meters. Water resources are of significant importance for the population of Georgia, and freshwater ecosystems support important habitats for the rich terrestrial and aquatic biodiversity. Two wetland areas are designated as Ramsar sites (wetlands of international importance): Ispani Mire (770 ha) and Wetlands of Central Kolkheti (33,710 ha).

The ecosystems are subject to a range of threats: pollution from different point and diffuse sources, including households, industry, agriculture, defective waste landfills and illegal dumpsites and impacts from industrial sectors such as mining, hydropower generation and the food industry.Pollution from chemicals used in agriculture and discharge of industrial waste and human waste threatens many of the species associated with Georgia's freshwater ecosystems. Habitats, important for biodiversity are being lost to construction projects, including hydroelectricity transmission lines, new roads and railways, and industrial and urban development.

Policy and Legislative Context

In Georgia, water is currently managed according to a model based on administrative boundaries. No general national policy document related to water management exists. The Ministry of Environment and Natural Resources Protection of Georgia (MENRP)is the key institution dealing with surface water-related issues. MENRP is responsible for the state management and protection of surface water as well as for setting up water monitoring systems. The other main stakeholders include: the Ministry of Labour, Health and Social Affairs of Georgia; the Ministry of Regional Development and Infrastructure; and the Ministry of Agriculture.

The main legislation regulating the sector is the Water Law of 1997, but there are more than 15 other major laws in Georgia that significantly influence the protection and management of water resources and the associated environmental concerns. However, the legislation contains numerous contradictory provisions, is very fragmented and substantially out of date. As recognised in the National Environmental Action Programme, it does not encompass all aspects of water management and protection and lacks linkages to other sectors.

International Law

Georgia is a party to a number key international conventions concerning freshwater ecosystem conservation, although it is not a party to the two main water conventions: the UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes (which is concerned with prevention and control of pollution of transboundary watercourses by ensuring rational use of water resources) or the UN Convention on the Law of the Non-Navigational Uses of International Watercourses (which aims to deal with the problems affecting many international watercourses resulting from, among other things, increasing demands and pollution).

It is, on the other hand, a party to the key environmental agreements including the Convention on Biological Diversity (CBD); the Convention on the Conservation of Migratory Species of Wild Animals (CMS/Bonn Convention); the Agreement on the Conservation of African-Eurasian Migratory Waterbirds (CMS AEWA); the Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar Convention); and the Council of Europe Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention).

EU Law

The principal EU legal instrument for the water sector, including environmental and conservation aspects, with which this Study is primarily concerned, is the Water Framework Directive (WFD). This Directive imposes a general requirement to achieve "good status" for European water, defined to include ecological protection and a minimum chemical standard. The key element of the Directive is the introduction of water management based on "river basins" rather than on administrative or political boundaries. The WFD is supplemented by a number of associated Directives, dealing with specific aspects of water policy (e.g. urban waste water, nitrates, etc.) or implementing specific details of water policy, such as setting environmental quality standards.

Concerning conservation policy, the Habitats and Birds Directives are the principal EU instruments designed to implement nature conservation and protection measures within the Union. They implement, in particular, EU and Member States obligations under the key biodiversity instruments and are built around two pillars: the Natura 2000 network of protected sites and a system of species protection. There are close links between the WFD and the Habitats and Birds Directives, with the former containing specific obligations to integrate protected sites and species requirements into water management.

EU Association Agreement

On 27 June 2014, Georgia and the European Union signed an Association Agreement. The agreement is designed for gradual approximation of Georgia to EU standards and regulations in broad range of areas, among them water quality and water resources management, environmental protection and governance and management of natural resources. Annex XXVI to the agreement mentions number of EC Directives in the area of water quality and water resource management including marine environment, to which Georgia should gradually approximate its legislation and international instruments within the stipulated timeframes.

In order to comply with the requirements of the Association Agreement and for the approximation of Georgian water quality protection and resource management legislation, the draft Law on Water Resources Management has been developed. The draft law was developed in line with the requirements of the EU Water Framework Directive. Currently, the draft law is being discussed through the official inter-ministerial discussion process.

Coherence with the Water Framework Directive

Administrative Arrangements

Designation of competent authority (CA)

In principle, national legislation reflects the WFD. However, attention will need to be given to ensuring that the CA interacts effectively with other regulators and authorities – and includes them in river basin management. The corresponding requirements will need to be included into the charters and other regulatory documents of those authorities to ensure their participation in river basin management. Special consideration should be given to participation of local self-governance institutions, as the rights and responsibilities over managing natural resources within their territories is granted and required under the existing governance system of Georgia.

Benchmarking	Close Equivalence

Establishment of administrative arrangements for international rivers, lakes and coastal waters

The WFD requires that a river basin covering the territory of more than one State is assigned to an international river basin district and that for such areas the appropriate administrative arrangements are established. In principle, the designation of the MENRP extends to international river basin district. However, it is likely that specific administrative arrangements will need to be established, and there should be more comprehensive cooperation with countries sharing international water bodies.

Benchmarking	Partial Equivalence

River Basin Management

Identification of river basin districts

The WFD requires that individual river basins are assigned to individual river basin districts. Currently the water sector in Georgia is managed based on administrative boundaries. The draft Water Resource Management Law intends to replace the existing administration principles in water resource management and introduce the approach of integrated river basin management. This among others includes the requirement for identification of river basin districts. Six river basin districts have been identified and draft legislation prepared to formalise these once the new WRM law is in place.

Benchmarking	Close Equivalence

Analysis of the characteristics of river basin districts

The WFD requires that an analysis of characteristics is carried out for each river basin districts, and sets out detailed technical specifications to this end. The new framework law recognises the need for the analysis of the characteristics of river basin districts within the planning process. The detailed requirements for such assessments in the WFD are largely reflected in the new framework law and implementing resolutions. Key to successful implementation, however, will be the development of adequate capacity (human resources, technical, financial) and expertise to carry out the assessments effectively.

Benchmarking	Close Equivalence

Establishment of programmes for monitoring water quality

The WFD establishes the requirements for the monitoring of surface water status, groundwater status and protected areas. Monitoring programmes are required to establish a coherent and comprehensive overview of water status within each river basin district.

The requirements for monitoring programmes in the draft law and the corresponding implementing legislation are extensive and specific. In developing national monitoring programmes – at the river basin level – attention will need to be given to planning and developing the individual elements of the monitoring program. Applying the monitoring programme will also require increased technical and infrastructural capacity.

Benchmarking	Close Equivalence

Preparation of river basin management plans

The WFD requires river basin management plans to be developed, and sets out a wide list of the elements that must be covered by each RBMP, as well as rules on public participation in the development and adoption of RBMPs.

The draft law and the corresponding implementing legislation adopts the river basin planning approach fully, and makes extensive and detailed provision for the content, structure and process for RBM planning. The framework set out in the draft legislation may be considered to be capable of delivering RBM planning as envisaged by the WFD. However, in order to deliver the planning processes fully and effectively, attention will need to be given to building administrative, technical and infrastructural capacities, and to identifying and sourcing the necessary levels of financial and staff support.

Benchmarking	Close Equivalence

Preparation of a programme of measures

The programme of measures is at the heart of river basin management planning, as it sets out the actions to be taken during the plan period to secure WFD objectives.

The new framework law and implementing legislation recognises the need for the development of a program of measures, based on the structure set out in the WFD, and in principle all of the supplementary measures envisaged in the WFD could be available under national legislative, administrative or industrial practice. While the legislative framework established under the draft legislation appears in close conformity to the WFD, in practice the viability of PoMs will depend on having an effective legislative regime for basic measures (including the legislative measures discussed below) and having the data and capacity to identify the need for and appropriately select supplementary measures.

Benchmarking	Close Equivalence

Coherence with the Urban Waste Water Directive

The Urban Waste Water Treatment Directive (UWWTD) aims to protect the environment from the adverse effects of urban waste water discharges and discharges from certain industrial sectors. It concerns the collection, treatment and discharge of domestic waste water or the mixture of domestic waste water with industrial waste water and/or run-off rain water.

Assessment of the status of urban waste water collection and treatment

A preliminary requirement in the UWWTD is to assess the status of urban waste water collection and treatment.

Under the current legal framework there appears to be little equivalence. A key initial action will be to develop a fuller assessment of the status of urban waste water collection and treatment in Georgia. The data resulted from the assessment of the status of urban waste water collection and treatment within the particular river basin district should be required for planning, regulating and monitoring purposes. Municipalities should be given responsibility to collect such information and to provide it to the Basin Management Unit as part of legally established data exchange programme in river basin management.

Benchmarking	Low Equivalence

Identification of sensitive areas and agglomerations

More stringent rules are set down for areas identified as “sensitive” (UWWTD, Art. 5 and Annex II). In these areas, Member States must implement more advanced treatment for larger agglomerations.

Currently, no measures are in place in Georgia for the identification of sensitive areas (even though such areas inevitably exist), or for the implementation of specific measures for water discharged into such areas. The draft legislation does not currently make specific provision, although the responsibility for identifying sensitive areas and agglomerations falls within the competence of the MENRP. Specific legislation needs to be drafted, defining sensitive areas and defining the process for introducing more stringent measures. A process also needs to be defined to keep the status of sensitive areas (and potential sensitive areas) under review.

Benchmarking	Low Equivalence

Establishment of systems of prior regulation or authorisation

The UWWTD requires pre-authorisation of all discharges of urban wastewater, of discharges from the food-processing industry and of industrial discharges into urban wastewater collection systems.

While there is currently in Georgian legislation no licensing or authorization system in place to deal with charges of urban wastewater from any sector, existing licensing frameworks do exist and their extension to urban waste water is foreseen. The details of this remain to be developed.

Benchmarking	Low Equivalence

Monitoring programmes

The UWWTD requires Member States to establish monitoring programmes for urban waste water.

The draft law on water resources management and the implementing legislation includes provisions on the state monitoring system of water resources. It may be anticipated that in developing national monitoring programmes – at the river basin level – the requirements for monitoring urban waste water will be included. Applying the monitoring programme will again require increased technical and infrastructural capacity.

Benchmarking	Partial Equivalence

Coherence with the Environmental Quality Standards Directive

Article 16 of the WFD requires the European Commission to identify priority substances among those presenting significant risk to or via the aquatic environment, and to set EU Environmental Quality Standards (EQSs) for those substances in water, sediment and/or biota (which are set out in a specific Directive on Environmental Quality Standards).

The WFD / EQSD require administrations to determine and apply environmental quality standards to surface water, sediment and/or biota, based on the identification of “priority” polluting substances.

A system of environmental quality standards currently exists in Georgia, although this is focussed on public health and does not include most of the priority substances under EU legislation. The draft law on water management requests adoption of a governmental resolution on “adoption of the environmental quality standards of water” for the surface water bodies.

Benchmarking	Partial Equivalence

Coherence with the Nitrates Directive

Identification of polluted waters and designation of nitrate vulnerable zones

The two fundamental steps under the Nitrates Directive are to identify polluted waters or waters at risk and designation of nitrate vulnerable zones (NVZ).

The existing draft law on water resources management establishes, that the identification of polluted waters or waters at risk as well as designation of nitrate vulnerable zones should be the responsibility of the Ministry of Environment and Natural Resources Protection but does not specify the details of how these processes are to be achieved. The draft law recognises the requirements to identify polluted waters and to establish NVZs but does not specify the details of how these processes are to be achieved.

Benchmarking	Low Equivalence

Establishment of action plans and codes of good agricultural practices for nitrate vulnerable zones

According to the EU-Georgia Association Agreement, the Government of Georgia is required to establish action plans and codes of good agricultural practices for nitrate vulnerable zones within seven years of the entry into force of the Agreement as per Articles 4 and 5 of the EU Nitrates Directive.

The draft Law on Water Resources Management indicates that development of action plans and codes of good agricultural practices for nitrate vulnerable zones are the responsibility of the Ministry of Agriculture.

Benchmarking	Low Equivalence

Establishment of a monitoring programme

For the purpose of designating and revising the designation of vulnerable zones, Member States are required to implement a monitoring programme, including monitoring the nitrate concentration in freshwaters and reviewing the eutrophic state of their fresh surface waters, estuarial and coastal waters.

The draft law recognises the requirements to identify polluted waters and to establish NVZs but does not specify the details of how these processes are to be achieved.

Benchmarking	Partial Equivalence

Coherence with the Floods Directive

Undertaking of preliminary flood assessment

The Flood Directive requires the establishment of a “baseline” through a preliminary flood assessment, conducted in accordance with certain criteria in the Directive.

The draft law incorporates to some extent flood risks within the planning process, and this can build on some data and flood planning processes that already exist (albeit if somewhat limited). Roles and responsibilities of local government (municipal and regional level) in the provision data for and conducting preliminary flood assessments need to be clarified and adequately defined in legislation.

Preparation of flood hazards maps, flood risks maps and flood risk management plans

The EU-Georgia Association Agreement Roadmap includes plans to develop “the guidelines for flood risk management plans” by 2018. The Draft Law on Management of Water Resources requests development of the programs for the management of the risks of the adverse impacts of water. Although the details have yet to be

developed, it appears that the draft law sets the framework for developing flood risk management plans and that these are to be based on specific guidelines and given a regulatory basis.

Benchmarking	Partial Equivalence

Coherence with the Birds and Habitats Directives

The Habitats Directive requires the establishment of a coherent ecological network of special areas of conservation, based on designated special areas of conservation. The Directive sets out detailed criteria for selecting sites eligible for designation.

Designation of protected areas for species and habitats

A system for species and habitats protection exists currently, but it is more restrictive in scope than the EU Natura 2000 system and it is not integrated into water management. The new law on biological diversity will extend protections and conservation controls for species and habitats and will establish a system closer in scope and form to that established by the EU nature Directives. While it is recognised that the process for extending biodiversity protection in Georgia is to a large extent a distinct exercise from water policy, attention needs to be given to the integrations between the Habitats and Water Directives. Effective criteria need to be developed for identifying, designating and protecting freshwater ecosystems and habitats dependent upon freshwater. Respective provisions should be incorporated into the legislation governing other sectors such as forest legislation.

Benchmarking	Partial Equivalence

Establishment of a register of protected areas for freshwater sites

Current mechanisms exist for recording and registering various types of protected zones in freshwater areas, and these will be expanded in the draft laws. Also, the draft water law specifically envisages the creation of a State register of protected water bodies, and requires that such bodies be recognised in the RBM planning process. However, specific legislation will be necessary to establish the rules and procedures for assigning protected status to the water bodies, to identify the procedure and criteria for inclusion in the State register of protected water bodies and to establish the legal controls arising from inclusion. Respective provisions should be incorporated into other cross-cutting legislation.

Benchmarking	Close Equivalence

Undertake surveillance of habitats and species

The legal frameworks exist or are anticipated to develop comprehensive biodiversity monitoring programmes. However, these need to be elaborated in future legislation, and then need to be implemented effectively – which will require additional capacity building and investment. In developing monitoring programmes, the legislation needs to pay attention to the need to integrate biodiversity monitoring with water monitoring programmes and river basin planning processes.

Benchmarking	Partial Equivalence

Coherence with Other Legislation

Environmental impact assessment

The general concept of environmental impact assessment (EIA) was introduced into Georgian legislation in 1996 by the Law on Environmental Protection; and specifically by Chapter X on “Environmental Requirements when Making Decision on Activity and Carrying out Activity.” The EIA process is well established in Georgia but was significantly weakened per the 2005 Law on Licenses and Permits and as a result of substantial reduction of the number of activities classified as environmentally sensitive and requiring management and supervision. Still EIAs are carried out on a most significant projects, including those which affect freshwater. The current regulatory system does not fully reflect the EU or EIA Convention models, but the new draft law introduces more consistency.

Benchmarking	Close Equivalence

Strategic environmental assessment

There is currently no specific legal basis for strategic environmental assessment (SEA) procedures in Georgia, but the draft law has been developed to be consistent with the EU or EIA Convention models. Proper and effective implementation will require developing the administrative and technical expertise to conduct SEAs fully.

Benchmarking	Close Equivalence

Public participation and access to information

Notwithstanding the presence of Constitutional rights on access to environmental information, and the general frameworks that exist to implement the Aarhus Convention, the procedures for guaranteeing access to environmental information and participation in environmental decision-making are, on the whole, lacking. Specific legislation and administrative protocols should be developed, setting out in particular the rights of citizens to request information and the procedures for government to deal with such requests and setting out agreed procedures governing when and how to conduct public consultations on environmental policy and planning decisions.

Benchmarking	Partial Equivalence

Recommendations

While the legislative programme is not yet complete, attention needs to be given now to the programme for implementing the new legislative, administrative and technical procedures anticipated in the new framework. Adoption of new legislation is not the end of a process, but the beginning and the draft law raises many implementation challenges. The following recommendations emerge from the analysis in this study, in the context of supporting improved freshwater ecosystem conservation.

General Recommendations

- Recommendation 1 | Complete the legislative programme.
- Recommendation 2 | Begin to develop capacity building strategies for river basin planning.
- Recommendation 3 | Establish an inter-ministerial coordination mechanism.
- Recommendation 4 | Develop closer legislative integration.
- Recommendation 5 | Give higher priority to transboundary issues.

Specific Recommendations

- Recommendation 6 | Integrate RBMPs into other planning actions at the basin level.
- Recommendation 7 | Develop guidelines and tools for adoption of Programmes of Measures.
- Recommendation 8 | Develop regulations for data management.
- Recommendation 9 | Integrate flood risk management plans into other planning actions.
- Recommendation 10 | Strengthen biodiversity protection in water bodies.
- Recommendation 11 | Strengthen integration in environmental monitoring.
- Recommendation 12 | Develop criteria and procedures for implementing special zones.

PART 1 | BACKGROUND

1.1 Overview of Freshwater Ecosystems in Georgia

Water resources are abundant in Georgia, comprising significant surface water and groundwater resources. Georgia has more than 26,000 rivers with a total length of some 60,000 km. Most of them are short mountainous rivers with a length less than 25 km. Two of the longest rivers are Kura (or Mtkvari in Georgian, 1,364 km of which 390km is within Georgia) and Rioni (327 km). Kura originates in Turkey and runs eastward across the plains of eastern Georgia and Azerbaijan into the Caspian Sea, while Rioni, originating in the Greater Caucasus with the smaller Enguri and Kodori rivers, runs through the fertile Kolkheti Lowlands into the Black Sea to the west.

The annual mean total flow of the river network is approximately 61.5 billion cubic metres, 52.7 billion of which arises within the territory of Georgia. Hydrologically, Georgia can be divided into two basins: the Black Sea Basin in the west of the country, and the Caspian Sea Basin in the east. The Black Sea Basin is significantly richer in water resources, with about 75% of the country's total internal renewable surface water resources generated there. Georgia has more than 800 fresh water lakes. Most of them are small in size, with an area less than 1 km². There are 43 artificial water reservoirs created for hydro energy, irrigation and drinking purposes.Glaciers cover about 1% of the total surface of the country and accumulate about 23.8 km³ of water.

Georgia is also rich in ground water resources located in the limestone of Great Caucasus and many aquifers, especially in the lower slope of Great Caucasus and on the plateau of Akhalkalaki and Marneuli. The total volume of fresh ground water is estimated to be about 24 million cubic meters. Renewable groundwater resources are estimated at 573 m3/s, of which 285 m3/s are usable.[1]

Water covers 8,765 km² or 11 per cent of the territory of Georgia, but water resources are not equallydistributed throughout the country. The inhabitants of the eastern regions of Georgia frequently suffer from severe water shortages, while the western regions are subject to flooding due to an overabundance ofrainfall. Long-term average annual precipitation varies between 500 mm in the southeast of Georgia and more than 2,500 mm in the south of the BlackSea coastal zone.

Freshwater ecosystems support important habitats for the rich terrestrial and aquatic biodiversity. 91 fish species are present in the fresh waters of Georgia, of which 30 are migratory species. There are 13 fish species listed in the Red List of Georgia, including all species of sturgeon. Marshes are a typical component of the Georgian landscape, especially in the Kolkheti plain and on the volcanic plateau of southern Georgia, and support their own unique biodiversity. The wetland alder forests and unique peat bogs located in the coastal Kolkheti lowlands, as well as Paliastomi Lake, are designated as Ramsar sites. Kolkheti National Park and Kobuleti Nature Reserve and Managed Reserve include coastal peat bogs that are especially important for their unique floristic composition and abundance of endemic and relict species.[2]

Various species of birds, especially waterbirds, depend on the freshwater ecosystems for permanent habitat or use as wintering sites. Nesting species in internationally important numbers are present. Georgia has 31 Important Bird Areas (IBAs) and one Endemic Bird Area (EBA) designated by Birdlife International. Those areas support 84 waterbird species, including some that are globally threatened.[3]

1. United Nations Economic Commission for Europe, Georgia Third Environmental Performance Review, New York and Geneva, 2016 p.108 available from: http://www.unece.org/environmental-policy/environmental-performance-reviews/ongoing-reviews.html
2. *Id.* p.109
3. BirdLife International (2015) Country profile: Georgia. available from: http://www.birdlife.org/datazone/country/georgia.

1.2 Key Threats, Challenges and Opportunities

The water resources are of significance both for the population and for the wildlife and natural habitats of Georgia. The main water users are: hydropower, households, agriculture and industry, while the freshwater ecosystems support important habitats for Georgia's rich biodiversity.

Considering the lack of significant oil and gas reserves, hydropower is the main domestic energy resource in Georgia available in abundant amounts. It is estimated that the country's total hydropower potential offers sufficient opportunities to completely supply internal demand as well as to provide significantly to the export market. However, the planned extensive development of the hydropower generation projects raises important questions related to their impacts on the environment.

Major water sector related problem is pollution of waters from different point and diffuse sources, including households, industry, agriculture, defective waste landfills and illegal dumpsites. Due to insufficient monitoring of surface waters, data for surface water status are limited. However, even the limited existing monitoring data indicate that pollution from urban wastewater discharges is a general problem. High levels of ammonia and BOD3 are reported for most of the observed rivers. Concentrations of heavy metals exceed permissible levels at certain locals on particular rivers. Untreated municipal wastewater is responsible for 67% of all surface water pollution. Industrial sectors strongly affecting surface water quality are: mining, oil production and food industry.[4]

The irrigation system is mainly located in eastern Georgia, whereas western Georgia is characterized by drainage. The area potentially suitable for irrigation has been estimated at 700,000 ha, of which 500,000 ha could be irrigated with infrastructure built during the Soviet era. However, during the 1990s due to conflicts, problems associated by land reform, transition to market economy and loss of traditional trading partners, the irrigated area was reduced to 200,000 ha. The source for irrigation water is surface water and the main technology is surface irrigation.[5]

All 72 municipalities and 5 self-governing towns in Georgia have centralized drinking water supply systems. These use mainly groundwater. Most of these systems are outdated and are not working to capacity, characterized by leakages and secondary contamination. Provision of safe water to the people is a growing issue in Georgia.

Most water supply systems are not linked to sewerage collection and treatment facilities. Meanwhile it is estimated that 50% of the sewage systems in the country are out-dated. Repairs and maintenance have been limited due to insufficient investments, and most wastewater is discharged to the rivers untreated. Untreated municipal wastewater is a major cause of surface water pollution in Georgia, and as such a key threat to biodiversity. Presently, there is only one fully operational biological waste water treatment plant (WWTP), while another one provides only primary, mechanical treatment.

1.3 EU Association Agreement

In 1997 the Parliament of Georgia adopted the Resolution on Harmonization of the Legislation of Georgia with the Legislation of the European Union. The Resolution states that for the purposes of enhancing integration of Georgia with the EU institutions, approximation, harmonization of legal systems and providing compliance, from September 1, 1998, each law and normative act to be adopted by the Parliament of Georgia must be in conformity with the standards and norms established by the European Union.[6] In 2001 the President of Georgia issued Decree No. 613 on the Strategy for Harmonizing of the Legislation of Georgia with EU Legislation. One of the main aims of the Strategy is the harmonization of environmental legislation, including that related to water management.[7] The inclusion of Georgia in the European Neighbourhood Policy (ENP) and adoption of the European Neighbourhood Policy Action Plan (ENPAP) in November 2006 positively influenced the harmonization process.

On 27 June 2014, in the margins of the European Council meeting in Brussels, Georgia and the European Union signed an Association Agreement (AA). The agreement is designed for the gradual approximation of Georgia to EU standards and regulations in a broad range of areas, among them environmental protection and governance and management of natural resources. The voluminous agreement is accompanied by 34 annexes, which list hundreds of EU laws to be taken up by Georgia, along with specific dates for the approximations (with timeframes ranging from two to ten years).[8]

4. National Environmental Action Programme of Georgia for 2012 –2016, Tbilisi, 2012, available from: http://moe.gov.ge/index.php?lang_id=ENG&sec_id=32
5. Georgia National Consultations on Water in the Post-2015 Development Agenda, Tbilisi, 2013 p.2
6. Resolution of the Parliament of Georgia on Harmonization of the Legislation of Georgia with the Legislation of the European Union (2 September 1997), available in English at: <www.mof.ge/common/get_doc.aspx?doc_id=5691>.
7. Presidential Decree No. 613 on the Strategy for Harmonizing of the Legislation of Georgia with the EU Legislation, (June 14, 2001)
8. EU – Georgia Association Agreement. Available at: <eeas.europa.eu/georgia/pdf/eu-ge_aa-dcfta_en.pdf>.

Title IV, Chapter 3 of the EU – Georgia Association Agreement specifically mentions EU-Georgia cooperation in the area of "water quality and resource management, including flood risk management, water scarcity and droughts as well as marine environment".[9] Annex XXVI to the EU – Georgia agreement mentions number of EC Directives in the area of water quality and water resource management including marine environment, to which Georgia should gradually approximate its legislation and international instruments within the stipulated timeframes.[10]

The abovementioned commitments which are part of the Association Agreement have a tremendous significance for Georgia, as international treaties signed by the President and ratified by Parliament are part of the national legal system and take precedence over national laws unless they contradict the Constitution of Georgia.[11]

The Ministry of Environment and Natural Resources Protection of Georgia (MENRP), in co-operation with an EU-funded project, has developed precise Road Maps for the implementation of the EU-Georgia Association Agreement in the fields of environment and climate action.[12] These roadmaps enable the Ministry to plan and monitor implementation of the legal approximation, policy making and similar activities in line with the specific requirements of the environment and climate action chapters of the Association Agreement.

Nine sector-specific roadmaps have been produced in accordance with the structure of the Association Agreement, among them: Water quality and water resources management (including marine environment but excluding drinking water). As the road maps are designed to serve as planning tools to the MENRP, they do not address the requirements which are out of the scope of the Ministry or are shared with other Ministries. For example, the approximation requirements on drinking water quality (quality standards, monitoring, and information dissemination) are shared with the Ministry of Labour, Health and Social Affairs and the Ministry of Agriculture. The Ministry of Agriculture, for example, is responsible for the establishment of good agricultural practices for nitrate vulnerable zones. The Ministry of Regional Development and Infrastructure should be leading in urban wastewater collection and treatment.

In order to comply with the requirements of the Association Agreement and for the approximation of Georgian water quality protection and resource management legislation, the draft Law on Water Resources Management has been developed.[13]

The new draft law was developed in line with the requirements of the EU Water Framework Directive. The draft law went through the public hearings and currently, is being discussed through the official inter-ministerial discussion process.[14] The draft law includes or anticipates various secondary legislation, to be adopted by the specific timeframe to support implementation. Some of this secondary legislation has already been prepared. As noted above, reforms and other developments impacting on water resources policy and management are also ongoing in other sectors; this includes preparation of new legislation in the fields of EIA, SEA, the Forest Code and the Law on Biodiversity.

1.4 National Policy and Legislative Context

In Georgia, water is managed according to a model based on administrative boundaries. No general national policy document related to water management exists. National water policies are defined by numerous legislative acts and water-related responsibilities are scattered among various state institutions. The Ministry of Environment and Natural Resources Protection (MENRP) is the key institution at the national level dealing with surface water-related issues. MENRP is responsible for the state management and protection of surface water as well as for setting up water monitoring systems.

The other main stakeholders include: the Ministry of Labour, Health and Social Affairs of Georgia, with responsibility for defining policy that ensures a safe environment for public health. Specifically, this Ministry develops environmental quality standards, including those for drinking water, surface waters and groundwater. The Ministry of Regional Development and Infrastructure is responsible for implementing regional development policy including coordination and support of the development of water supply and sanitation systems in the regions of Georgia.

9. *Id.* Title IV, Chapter 3
10. *Id.* Annex XXVI
11. Constitution of Georgia, Article 6
12. "Roadmaps for EU Approximation in the Environmental and Climate Action Fields", developed under EU funded project "Development of an Action Plan for the Implementation of the EU-Georgia Association Agreement - Environmental Chapters". Available from moe.gov.ge/files/news_img/2015/ivnisi/sagzao_ruka/Final_Roadmaps_-_Gaertianebuli.pdf
13. Law on Water Resource Management of Georgia was developed as a result of this cooperation. UNECE is the strategic partner of EU Water Initiative Component for supporting the Policy Dialogue processes on IWRM. Policy Dialogue is the main operational instrument of the EU Water Initiative for Eastern Europe, the Caucasus and Central Asia, launched at the World Summit on SustainableDevelopment in Johannesburg in 2002 with the aim to support the implementation of the water-related Millennium Development Goals (MDGs).
14. Draft Law of Georgia on Water Resources Management, available from: http://moe.gov.ge/index.php?lang_id=GEO&sec_id=69&info_id=3914

The Ministry also manages the 100% state-owned water service company Ltd United Water Supply Company of Georgia. The Ministry of Agriculture of Georgia is responsible for monitoring, supervision and state control over drinking water safety parameters and compliance with established drinking water quality standards, as well as for water management for irrigation; Local Self-Governance Institutions are responsible for the management of water resources of local importance but they generally have very limited competences; water management is highly centralized.

There are more than 15 major laws in Georgia that significantly influence the protection and management of water resources and the associated environmental concerns. However, mainly, water resources management in Georgia is currently regulated by the Water Law of 1997. The Law provides for protection and use of surface waters but largely leaves out legal regulation of groundwater and coastal waters. While Georgia's legislation has continued its further evolution since adoption of the Law in 1997, practically no effort has been made to ensure consistency of the latest water legislation with the basic principles and provisions of the Law. Currently, water resource management legislation contains numerous contradictory provisions and is very fragmented. The Water Law is outdated and fails to respond to modern requirements. It does not encompass all aspects of water management and protection and lacks linkages to other sectors.[15] In order to resolve existing legislative inconsistencies and fully address all water-related issues, the development of the new Law on Water with the subsequent detailed regulations became the absolute necessity. In addition, EU-Georgia Association Agreement requests harmonization of Georgian water quality protection and resource management legislation with the European law. The draft Law on Water Resources Management has been developed by the MENRP in line with the requirements of the EU Water Framework Directive. The draft law has been through a series of public hearings and is currently being discussed through official inter-ministerial discussion processes. The draft law anticipates various secondary legislation, to be adopted in accordance with a specific timeframe in the law, in order to support its implementation. Some parts of the secondary legislation have been already prepared.

Finally, the National Environmental Action Program of Georgia for 2012-2016 states the following long-term goals and short-term targets, related to water resources: "The long-term goal is to ensure safe water quality and adequate water quantity for human health and aquatic ecosystems. To achieve this goal it is necessary to reach the following four short-term targets and respective measures:

- Target 1: Establishment of an effective water management system;
- Target 2: Establishment of effective pollution prevention and water abstraction control mechanisms;
- Target 3: Reduction of water pollution from untreated municipal wastewater;
- Target 4: Reduction of pollution from diffuse sources in agriculture.[16]

While each of these targets is significant in protecting freshwater ecosystems, and it is noteworthy that the need to ensure adequate water quality and quantity to support aquatic ecosystems is expressly recognized within the long-term goal, none of the targets directly relates to the conservation status of freshwater ecosystems.

Other reforms and developments, mostly related to the EU association, with an impact on water resources policy and management are also on-going in other sectors. This comprises in particular, in the context of freshwater ecosystem conservation, the preparation of significant new environmental and natural resources legislation, including new draft laws (and corresponding secondary legislation) on environmental impact assessment (EIA) and strategic environmental assessment (SEA), the Forest Code and a new law on Biodiversity.

15. National Environmental Action Programme of Georgia for 2012 –2016, Tbilisi, 2012, p. 19.
16. *Id*, p.19

PART 2 | INTERNATIONAL AND EUROPEAN LEGAL FRAMEWORK

2.1 International Law

The international rules relevant to freshwater ecosystem conservation fall into three broad categories: (i) international water conventions; (ii) conservation and biodiversity conventions; and (iii) other environmental conventions, for example dealing with environmental impact assessments. In general, the participation of Georgia in these types of agreements is high for conservation/biodiversity and environmental conventions, but Georgia has yet to ratify either of the water conventions.

Table 1. Participation in international treaties

Instrument	Status
Water Conventions	
Convention on the Protection and Use of Transboundary Watercourses and International Lakes	-
Protocol on Water and Health	-
Protocol on Civil Liability and Compensation for Damage Caused by the Transboundary Effects of Industrial Accidents on Transboundary Waters	signed
UN Convention on the Law of the Non-Navigational Uses of International Watercourses	-
Conservation Conventions	
Convention on the Conservation of European Wildlife and Natural Habitats	08.05.2009
Convention on Biological Diversity	02.06.1994
Convention on Migratory Species	01.06.2000
Agreement on the Conservation of African-Eurasian Migratory Waterbirds	01.08.2001
Convention on Wetlands of International Importance Especially as Waterfowl Habitat	07.06.1997
Other Environmental Conventions	
United Nations Framework Convention on Climate Change	29.07.1994
Convention on Environmental Impact Assessment in a Transboundary Context	-
Protocol on Strategic Environmental Assessment	signed
Convention on Access to Information, Public Participation in Decision Making	11.04.2000

Key	Party	Non-Party / Signatory only

2.2 International Water Conventions

There are principally two international conventions that set out the frameworks for international cooperation in the management and use of transboundary waters:

- the **UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes** (UNECE Water Convention, or Helsinki Convention), which establishes a framework for cooperation between the member countries of the United Nations Economic Commission for Europe (UNECE) on the prevention and control of pollution of transboundary watercourses by ensuring rational use of water resources with a view to sustainable development; and
- the **UN Convention on the Law of the Non-Navigational Uses of International Watercourses** (UN Water Convention), which aims to deal with "the problems affecting many international watercourses resulting from, among other things, increasing demands and pollution" (Preamble, para. 4).

Whilst addressing cooperation in transboundary waters both Conventions contain principles of good environmental governance and management that can be applied in national waters. For example, whilst differently stated, both Conventions include requirements to manage water in a rational, environment-friendly manner; to use water in a reasonable and equitable way; and to conserve and restore ecosystems. The UNECE Water Convention emphasizes a number of key environmental principles, such as the precautionary principle, the polluter pays principle and the principle that water resources must be managed so that the needs of the present generation are met without compromising the ability of future generations to meet their own needs.

The UN Water Convention also adds the key principle that in the absence of agreement or custom to the contrary, no use of an international watercourse enjoys inherent priority over other uses and as such considers in-stream water uses just as important as other types of water utilization. The UN Water Convention also lays down a framework for planning measures, including exchange of information concerning planned measures and notification of other riparian States of potential adverse effects and procedures for the urgent implementation of planned measures.

Due to the presence of a number of transboundary waters, and its important position as an upstream country, the two water conventions are of considerable relevance to Georgia; but these circumstances perhaps also explain the potential difficulties in Georgia participating in these instruments at the current time.

2.3 International Conservation Conventions

There are several international conventions that touch on conservation of freshwater ecosystems to varying extents. The key instruments include:

- The **Convention on Biological Diversity** (CBD), which provides wide obligations to protect and use sustainably biological diversity and its components. There has been significant work within the CBD programme of work on inland waters biodiversity, covering the roles both of water availability and water quality (and pollution prevention) in sustaining healthy aquatic ecosystems. For example, under goal 1.1, objective (b) refers to the adoption of integrated river basin management strategies, aimed at restoring or improving the quality, supply, functions and values of inland water resources. Activities 1.1.2 (for Parties) and 1.1.10(a) (for SBSTTA) relate to the development of management strategies for inland water ecosystems that aim to secure the environmental flows required for maintaining ecosystem functioning and integrity.
- The **Convention on Wetlands of International Importance Especially as Waterfowl Habitat** (“Ramsar Convention”) seeks to maintain the ecological character of Wetlands of International Importance and to plan for the "wise use", or sustainable use, of all of the wetlands in member States’ territories. The Convention has three main 'pillars' of activity: the designation of wetlands of international importance as Ramsar sites; the promotion of the wise-use of all wetlands in the territory of each country; and international co-operation with other countries to further the wise-use of wetlands and their resources. Currently there are nearly 2200 designated sites, covering a total area of more than 200 millionhectares. There are 7 Ramsar sites in the South Caucasus countries with two of them in Georgia.
- The **Convention on the Conservation of Migratory Species of Wild Animals** (Bonn Convention), which promotes cooperation in the conservation of migratory species, and in particular those species the conservation status of which is unfavourable. As with the Bern Convention, lists of species to be protected are provided in Appendices. Appendix I lists species for which parties are required to provide “immediate protection”. In order to protect the species listed in Appendix I, the Range State parties are required to conserve or restore the habitats of endangered species; to prevent, remove, compensate for or minimize the adverse effects of activities or obstacles that impede the migration of the listed species; and to the extent feasible and appropriate, to prevent, reduce or control factors that are endangering or are likely to further endanger the species.
- Appendix II of the Bonn Convention lists species for which parties are to conclude multilateral agreements for their conservation and management. Such agreements include the **Agreement on the Conservation of African-Eurasian Migratory Waterbirds** (AEWA), which covers over 250 species of birds ecologically dependent on wetlands for at least part of their annual cycle. The range of the agreement covers 118 countries, including the South Caucasus countries. Parties to the Agreement are called upon to engage in a wide range of conservation actions which are described in a comprehensive Action Plan which addresses issues such as species and habitat conservation, management of human activities, research and monitoring, education and information and implementation.
- The **Council of Europe Convention on the Conservation of European Wildlife and Natural Habitats** (Bern Convention), which aims “to conserve wild flora and fauna and their natural habitats [… and in particular…] endangered and vulnerable species, including endangered and vulnerable migratory species.” The Convention lists protected species on four Appendices: Appendix I lists strictly protected flora species, Appendix II lists strictly protected fauna species, Appendix III lists protected fauna species, while Appendix IV lists prohibited means and methods of killing, capture and other forms of exploitation.

2.4 International Environmental Conventions

Various other international conventions and instruments are potentially relevant to freshwater ecosystem conservation. Several of these do not address (at least to any significant extent) freshwater ecosystem conservation directly, but nevertheless are of considerable significance – for example, the UN Framework Convention on Climate Change (and other instruments addressing climate change impacts). For the purposes of this study, particular attention is given to three key instruments (each adopted under the auspices of the UNECE) which address environmental decision-making and planning:

- The **UNECE Convention on Environmental Impact Assessment in a Transboundary Context** (EIA Convention) requires parties to assess the environmental impact of certain activities (essentially, development projects) at an early stage of planning.
- The **Protocol on Strategic Environmental Assessment** requires its Parties to evaluate the environmental consequences of their official draft plans and programmes (and also addresses policies and legislation, though the application of SEA to these is not mandatory).
- The **Convention on Access to Information, Public Participation in Decision Making and Access to Justice in Environmental Matters** (Aarhus Convention) establishes a number of rights of the public with regard to the environment, in particular: the right of everyone to receive environmental information that is held by public authorities; the right to participate in environmental decision-making; and access to justice in environmental matters, i.e. the right to review procedures to challenge public decisions that have been made without respecting the two aforementioned rights or environmental law in general.

2.5 EU Legislation

2.5.1 The Water Framework Directive and Related Directives

The Water Framework Directive is the EU's overall legal framework for matters related to water policy. From both legislative and policy perspectives it has a number of notable features, which are founded in general principles of integrated water resources management (IWRM), the most important of which for the purposes of the present study are as follows.

First, it is designed to operate as a single, integrated code for water resources management – its scope covers all inland waters, and the Directive streamlined or integrated existing European water and water-related legislation (replacing – either by incorporation or adoption into the framework – old water Directives, and integrating provisions of other relevant Directives into the framework).

Second, it is target based: it imposes a general requirement for ecological protection and a minimum chemical standard for all surface waters (achieving "good status" for all waters by a set deadline). This target is legally binding, which means that Member States must not only comply with the specific legislative requirements of EU water legislation, but must also take additional measures at the national level to ensure that "good status" is achieved.

Third, and most significant from the perspective of this study, the Directive introduced a new model for water management based on 'river basins', or geographical areas, rather than on administrative or political boundaries. According to this approach, water characteristics, human impacts, management needs, etc. are all assessed at the river basin level, and planning and institutional arrangements are set up at the river basin level, involving all stakeholders connected to the particular river basin. The key actions that Member States need to take include:

- identifying the individual river basins lying within their national territory and assign them to individual River Basin Districts (RBDs);
- identifying competent authorities, with responsibility for each RBD;
- characterising river basin districts in terms of pressures, impacts and economics of water uses (including a register of protected areas lying within the river basin district);
- establishing and implementing monitoring programmes and networks;
- based on the monitoring programme and the analysis of the characteristics of the river basin, identifying a programme of measures to ensure "good status" for the waters in the RBD can be achieved;
- producing and publishing River Basin Management Plans (RBMPs) for each RBD.

While the WFD is intended to be an integrated code for water regulations, it also includes a number of 'Daughter Directives' covering specific issues.[17] These include the Groundwater Directive, which essentially complements the WFD by setting out measures to prevent and control groundwater pollution, including criteria for assessing good groundwater chemical status, criteria for the identification of significant and sustained upward trends and the definition of starting points for trend reversals; and a range of other Directives dealing with specific types of water, water-use or water-threat. These latter include the Urban Waste Water Treatment Directive, the Nitrates Directive, the Flood Directive,[18] and also the Environmental Quality Standards Directive, which addresses water pollution by toxic substances and diffuse pollution from industry, agriculture and surface water run-off. Specific provisions of these Directives are described in the following Chapter.

2.5.2 The Habitats and Birds Directives

The Habitats and Birds Directives are the EU instruments designed to implement nature conservation and protection measures within the Union. They implement, in particular, EU and Member States obligations under the key biodiversity instruments (Convention on Biological Diversity, Convention on Migratory Species and the Bern Convention). In total, the Directives protect over 1,000 animals and plant species and over 200 so-called "habitat types" of European importance (e.g. special types of forests, meadows, wetlands, etc.).

The legislation is built around two pillars: the Natura 2000 network of protected sites and the strict system of species protection. Article 6 of the Habitats Directive defines how Natura 2000 sites are managed and protected and require that EU Member States:

- take appropriate conservation measures to maintain and restore the habitats and species for which the site has been designated to a favourable conservation status;
- avoid damaging activities that could significantly disturb these species or deteriorate the habitats of the protected species or habitat types.

Any plan or project likely to have a significant effect on a Natura 2000, either individually or in combination with other plans or projects, shall undergo an appropriate assessment (in effect, an EIA) to determine its implications for the site. The competent authorities can only agree to the plan or project after having ascertained that it will not adversely affect the integrity of the site concerned (unless the plan or project is considered to be of overriding public interest).

As part of its integrated approach, the WFD builds in close links with the two nature directives. Both the nature directives and the WFD aim at ensuring healthy aquatic ecosystems while at the same time ensuring a balance between water/nature protection and the sustainable use of natural resources. Indeed there are many synergies as the implementation of measures under the WFD will generally benefit the objectives of the nature directives.

Article 1 (a) of the WFD clearly mentions the protection and enhancement of the status of aquatic ecosystems and with regard to their water needs also the protection of terrestrial ecosystems and wetlands directly depending on them. In Article 6.1, the WFD stipulates the establishment of a register of protected areas "which have been designated as requiring special protection … for the protection of their surface water and groundwater or for the conservation of habitats and species directly depending on water". The register must contain "areas designated for the protection of habitats or species where the maintenance or improvement of the status of water is an important factor in their protection" (Annex IV, (v) WFD).

Any Natura 2000 site with water-dependent (ground- and/or surface water) habitat types or species protected under the nature Directives has to be considered for the register of protected areas under the WFD. These areas are summarised as "water-dependent Natura 2000 sites" and for such sites, the objectives of Birds/Habitats Directives and WFD both apply.

17. The term 'daughter' directives is misleading because it suggests that these specific directives are subsidiary to the WFD whereas they are formally separate, independent pieces of legislation based on the EU Treaty and there is no hierarchy between directives. The European Commission prefers the term 'specific' directives, but "daughter" is more commonly used.
18. Other Directives, not assessed in this report, include Directives dealing with drinking water and bathing water quality.

2.6. Other Legislation

The Birds and Habitats Directives form the cornerstone of Europe's nature conservation policy. A number of other instruments are potentially relevant to some extent, and are included to some degree in this study. These include sectoral legislation, such as fisheries (although inland/freshwater fisheries are on the whole not regulated by EU legislation under the Common Fisheries Policy and are subject to national-level rules).

Of general relevance in an environmental context are the instruments dealing with environmental impacts assessment (EIA) and strategic environmental assessment (SEA). The EIA Directive establishes environmental assessment procedures for projects likely to have an impact on the environment. The EIA procedure can be summarized as follows: the developer may request the competent authority to say what should be covered by the EIA information to be provided by the developer (scoping stage); the developer must provide information on the environmental impact (EIA report – Annex IV); the environmental authorities and the public (and affected Member States) must be informed and consulted; the competent authority decides, taken into consideration the results of consultations. The public is informed of the decision afterwards and can challenge the decision before the courts.

The SEA Directive applies to a wide range of public plans and programmes (e.g. on land use, transport, energy, waste, agriculture, etc.). Certain types of plan or programme are subject to mandatory SEA requirements, while others are go through a screening process to determine whether there are likely to be “significant environmental effects”. The screening procedure is based on criteria set out in Annex II of the Directive. The SEA procedure can be summarized as follows: an environmental report is prepared in which the likely significant effects on the environment and the reasonable alternatives of the proposed plan or programme are identified. The public and the environmental authorities are informed and consulted on the draft plan or programme and the environmental report prepared.

PART 3 | COHERENCE ANALYSIS OF NATIONAL LEGISLATION AND POLICY

3.1 Coherence with the Water Framework Directive

3.1.1 Administrative Arrangements

The administrative and planning framework lie at the heart of integrated water management in the WFD. Planning, management and environmental protection is organized around river basin districts (RBDs), and each RBD has an authority (the "competent authority") with general responsibility for ensuring the Directive is given effect. The competent authority has certain specific responsibilities under the WFD (for example, approving draft River Basin Management Plans, approving proposals for environmental objectives and programmes of measures, etc.), as well as ensuring coordination and consistent implementation across other public bodies.

3.1.1.1 Designation of Competent Authority (CA)

One of the fundamental obligations in the WFD is to "ensure the appropriate administrative arrangements, including the identification of the appropriate competent authority, for the application of the rules of this Directive within each river basin district" (WFD, Art. 3(2)). This does not imply the need to create a specific body – the WFD confirms that Member States may identify an existing national orinternational body as competent authority (WFD, Art. 3(6)).

The draft law on Water Resource Management of Georgia identifies Ministry of Environment and Natural Resources Protection of Georgia as the Competent Authority for the river basin management and foresees the establishment of the Basin Management Unites within its competences for each river basin district.

In addition, the Draft Law requests establishment of the Consultation and Coordination Councils (Basin Councils) for each of the RBDs. The main responsibility of such councils is planned be provision of consultations, proposals and conclusions and coordination of the parties during the elaboration and implementation of IRBPs. The adoption of the special governmental resolution on "Creation of Basin Management Consultation and Coordination Councils and Approval of the Typical Charter" is required under the draft law. The draft resolution has been prepared[19] and is planned to be submitted to the government for adoption after the main Law is enacted. Basin Councils are expected to play an important role in reviewing the analysis of the characteristics of river basin districts.

Benchmarking	Close Equivalence
In principle, national legislation reflects the WFD. However, attention will need to be given to ensuring that the CA interacts effectively with other regulators and authorities – and includes them in river basin management. The corresponding requirements should be included into the charters and other regulatory documents of those authorities to ensure their participation in river basin management. Also, the consideration will need to be given (and kept under review) to how the CA operates in respect of each river basin district. Special consideration should be given to participation of local self-governance institutions, as the rights and responsibilities over managing natural resources within their territories is granted and required under the existing governance system of Georgia. The Consultation and Coordination Councils (Basin Councils) should provide strong assistance in this regard.	

3.1.1.2 Establishment of administrative arrangements for international rivers, lakes and coastal waters

Where river basin districts comprise rivers, lakes or coastal waters that transcend national boundaries, integrated (and effective) water management requires international cooperation. Article 3(3) of the WFD requires Member States to ensure that a river basin covering the territory of more than one Member State is assigned to an international river basin district and that for such areas, the appropriate administrative arrangements are established, including the identification of the appropriate competent authority. While (by necessity), a Member State has responsibility to ensure application of the Directive only with respect to the portion of any international river basin district lying within its territory, the Competent Authority has certain additional responsibilities concerning international cooperation.

19. Draft Resolution of the Government of Georgia on "Creation of Basin Management Consultation and Coordination Councils and Approval of the Typical Charter", available from: http://moe.gov.ge/index.php?lang_id=GEO&sec_id=69&info_id=3960

According to the AA, Georgia shall implement Identification of river basin districts and establishment of administrative arrangements of international rivers, lakes and coastal waters within four years of the entry into force of the agreement.[20]

Georgia represents upstream as well as downstream parts of the international river basins in the region. Waters enter the territory of Georgia from Turkey and Armenia and flow into the Black Sea or into the Caspian Sea via the territories of Russia and Azerbaijan. Four, out of a total of six, river basin districts identified by the new draft water legislation cross the national borders of Georgia and belong to international RBDs. They are: Alazani-Iori RBD, Mtkvari RBD, Khrami-Debeda RBD, Chorokhi-Adjaristsklis RBD.[21] There are some transboundary lakes in the Mtkvari river basin that are shared with Turkey (Kartsakhi Lake) or with Azerbaijan (Jandara Lake). In addition, as a Black Sea country, Georgia shares marine waters with other coastal countries.

In principle, the Ministry of Environment and Natural Resources Protection also acts as the CA in respect of international river basin districts (and to this extent, the comments in respect of the CA above apply here). However, there appears to have been no formal attempts to establish administrative arrangements for international RBDs yet, either within national territory or in cooperation with neighbouring countries.

Nevertheless, some bilateral cooperation takes place (albeit stopping short of establishing administrative arrangements for transboundary waters). Several bilateral agreements with neighbouring countries cover water resources to some extent, while some international assistance projects in the water sector are focussed on transboundary rivers, and there are some positive developments with bilateral cooperation with Azerbaijan and Turkey aimed at exchanging water monitoring data, but discussing administrative arrangements related to the joint management of the transboundary waters seems to be premature or even non-realistic taking into account current political and other circumstances.[22]

Benchmarking	Partial Equivalence
In principle, the designation of the MENRP extends to international RBDs. However, it is likely that specific administrative arrangements will need to be established, and there should be more comprehensive cooperation with countries sharing international water bodies.	

3.1.2 River basin management

The central feature of the WFD, around which all its other elements are arranged, is the use of river basins as the basic unit for all water planning and management actions. This recognises that water respects physical and hydrological boundaries, but not political and administrative limits. Member States are required to identify the individual river basins lying within their national territory and assign them to individual river basin districts. Having done this, a range of obligations arises including requirements to carry out analyses of the characteristics of the river basins, including environmental and economic analyses, to establish monitoring programmes and to ensure that a River Basin Management Plan (RBMP) is produced for each RBD.

Essentially the Plans perform the following functions:

- They act as an inventory and documentation mechanism for the information gathered including: environmental objectives for surface and ground waters, quality and quantity of waters, and the impact of human activity on water bodies;
- They co-ordinate programmes of measures and other relevant programmes within the river basin district;
- They form the main progress reporting mechanism to the EC as required by WFD Article 15.

An important feature of the planning process before a RBMP can be finalised is that stakeholders and the general public must be consulted on its content and the proposals in it.

20. EU – Georgia Association Agreement; available at: <eeas.europa.eu/georgia/pdf/eu-ge_aa-dcfta_en.pdf>.
21. Draft resolution of the Government of Georgia on “Approval of the Boundaries of Basin Territorial Entities of River Basin Management” available from: <moe.gov.ge/index.php?lang_id=GEO&sec_id=69&info_id=3960>.
22. USAID/Governing for Growth (G4G) in Georgia, Water Sector Initial Assessment Report, (2015) Annex 1, International Assistance in Water Sector

3.1.2.1 Identification of river basin districts

Article 3(1) WFD requires that Member States identify the individual river basins lying within their national territory and, for the purposes of this Directive, assign them to individual river basin districts. Small river basins may be combined with larger river basins or joined with neighbouring small basins to form individual river basin districts where appropriate. Where groundwaters do not fully follow a particular river basin, they shall be identified and assigned to the nearest or most appropriate river basin district. Coastal waters shall be identified and assigned to the nearest or most appropriate river basin district or districts.

Currently, management of the water sector in Georgia is based on administrative boundaries. The draft Law on Water Resources Management intends to replace the existing administration principles and introduce the approach of integrated river basin management. This among others includes the requirement for identification of river basin districts. The law requests adoption of the special governmental resolution on the identification of the river basin districts and establishment of their borders. The draft resolution has been prepared and is planned to be submitted to the government for adoption after the main Law is enacted. According to the new legislation the territory of Georgia will be divided into 6 River Basin Districts.[23]

Chorokhi-Adjaristkali pilot basin was identified by the "Environmental Protection of International River Basins Project" in order to develop River Basin Management Plan according to the requirements of the WFD.[24]

Benchmarking	Close Equivalence
While the existing law is based on administrative boundaries, the new framework law takes up the concept of river basin management, and expressly calls for the identification of river basin districts. Moreover, 6 river basin districts have been identified and draft legislation prepared to formalise these once the new WRM law is in place.	

3.1.2.2 Analysis of the characteristics of river basin districts

Article 5 of the WFD requires each EU Member State to carry out, for each of its river basin districts:

- an analysis of its characteristics (including the type of water body);
- a review of the impact of human activity on the status of surface waters and on groundwater; and
- an economic analysis of water use.

Annex II and III set out the detailed technical specifications for the analysis of environmental and economic characteristics including the assessment of significant anthropogenic pressures and impacts in surface waters and groundwater. This analysis forms the basis for the assessment of the status of surface waters and groundwater and illustrates, which water bodies are "at risk" of failing the environmental objectives. The future developments of monitoring networks and of the programme of measures are based on the results of this analysis.

The Draft Law requests adoption of the special governmental resolution on "defining and approval of the procedure for development, review and adoption of River Basin Management Plans (RBMPs)". The analysis of the characteristics of river basin districts is included as an important component of the planning process. The draft resolution has been prepared[25] and is planned to be submitted to the government for adoption after the main Law is enacted. According to the new draft legislation, the main responsibility for preparation of the RBMPs, including the analysis of environmental and economic characteristics, the assessment of significant anthropogenic pressures and impacts rests upon the MENRP. The implementing resolution elaborates in more detail what needs to be included in the assessments (see Table 3 - Elements and structure of river basin management plan, below, in particular parts 1 and 2).

According to the new draft legislation, the main responsibility for preparation of the RBMPs, including the analysis of environmental and economic characteristics, the assessment of significant anthropogenic pressures and impacts rests upon the MENRP. The Ministry also intends creation of the River Basin Management Units for each River Basin District. These units should be major institutions responsible for coordination of the basin planning, managing and monitoring. Currently technical capacity within the Ministry is extremely low to enable the establishment and adequate staffing of the River Basin Management Units.

23. Draft resolution of the Government of Georgia on "Approval of the Boundaries of Basin Territorial Entities of River Basin Management" available from: <moe.gov.ge/index.php?lang_id=GEO&sec_id=69&info_id=3960>.
24. The "Environmental Protection of International River Basins Project" reinforces current actions in environmental protection and water resources management, supported by previous EU funded trans-boundary projects in the region in terms of cooperation as well as convergence towards the principles of Integrated Water Resources Management (IWRM) and the EU Water Framework Directive (WFD), by joint development of River Basin Management Plans (RBMPs) in selected pilot river basins of the wider Black Sea region. More information available at: <blacksea-riverbasins.net>
25. Draft resolution of the Government of Georgia on "defining and approval of the procedure for development, review and adoption of River Basin Management Plans" available from: <moe.gov.ge/index.php?lang_id=GEO&sec_id=69&info_id=3960>..

Benchmarking	Close Equivalence
The new framework law recognises the need for the analysis of the characteristics of river basin districts within the planning process. The detailed requirements for such assessments in the WFD are largely reflected in the new framework law and implementing resolutions. Key to successful implementation, however, will be the development of adequate capacity (human resources, technical, financial) and expertise to carry out the assessments effectively.	

3.1.2.3 Establishment of programmes for monitoring water quality

Article 8 of the WFD establishes the requirements for the monitoring of surface water status, groundwater status and protected areas. Monitoring programmes are required to establish a coherent and comprehensive overview of water status within each river basin district.The objective of monitoring is to establish an overview within each river basin district. It should also permit the classification of all surface water bodies into one of five classes and groundwater into one of two classes. Detailed (minimum) specifications for the monitoring programmes are set out in Annex V, and cover:

- Chemical status of all groundwater bodies or groups of bodies determined to be at risk;
- Reliable assessment of quantitative status of all groundwater bodies or groups of bodies;
- Estimates of the direction and rate of flow in groundwater bodies that cross Member States boundaries. This should be used in the assessment of long term trends, both as a result of changes in natural conditions and through anthropogenic activity;
- Estimates of pollutant loads transferred across international boundaries or discharged into seas;
- Assessments of changes in status of water bodies;
- Causes of water bodies failing to achieve environmental objectives;
- The magnitude and impacts of accidental pollution;
- Compliance assessments with the standards and objectives of Protected Areas;
- A quantification of reference conditions (where they exist) for surface water bodies.

Currently, the existing monitoring of water quality in Georgia is not performed taking into account river basin district boundaries, and only partially covers the specifications for monitoring programmes in the WFD. The Draft Law requests adoption of a special governmental resolution on “planning and the fulfilment of the water resources monitoring”, which has been prepared and is planned to be submitted to the government for adoption after the main Law is enacted.[26] The draft resolution is based specifically on the requirements of the Article 8 and Annex V of the WFD, as outlined above, and is a substantial and highly technical document.

In practice, however, successful implementation will depend on substantial development of monitoring capacities. As the proposed monitoring system significantly differs from the one currently existing in Georgia, its establishment and implementation will require significant investment in new infrastructure and the technical capacity of personnel.

Benchmarking	Close Equivalence
The requirements for monitoring programmes are extensive and specific. In developing national monitoring programmes at the river basin level attention will need to be given to planning and developing the individual elements of the monitoring program. Applying the monitoring programme will also require increased technical and infrastructural capacity.	

26. Draft Governmental Resolution on “adopting the rules for planning and implementation of the water resources monitoring program”, at: <moe.gov.ge/index.php?lang_id=GEO&sec_id=69&info_id=3960>.

3.1.2.4 Preparation of river basin management plans

A key component of the WFD is the development of river basin management plans which are reviewed on a six yearly basis and which set out the actions required within each river basin to achieve set environmental quality objectives.

Every Member State must ensure that a River Basin Management Plan (RBMP) is produced for each RBD wholly within its territory (Article 13). This effectively provides the delivery mechanism for the Programme of Measures to achieve 'good status'. In the case of transboundary river basins, the Member States concerned must work jointly, with the aim of producing a single International RBMP. If a single plan is not produced, each Member State is responsible for preparing a RBMP for at least the portion of the RBD that lies in its territory.

Annex VII sets out the elements that must be covered by each RBMP (see below for a summary). The information required is extensive (see table below), covering every aspect of the river basin planning process and, if requested by the Commission, access to supplementary information must be made available by the Member State. Within the plan, there must also be a so-called gap analysis where, for each water body, any discrepancy between its existing status and that required by the Directive is identified.

A key element in the WFD for the development of RBMPs concerns public participation.

Article 14 of the WFD specifies that Member States shall encourage the active involvement of all interested parties in the implementation of the Directive and development of river basin management plans. Member States are required inform and consult the public, including users, in particular for:

- the timetable and work programme for the production of river basin management plans and the role of consultation;
- the overview of the significant water management issues in the river basin; and
- the draft river basin management plan.

At least six months is to be allowed for comments, in order to allow active involvement and consultation, and the RBMP must contain a summary of the public information and consultation measures taken, their results and the changes to the plan made as a consequence (WFD, Annex VII).

Table 2. Summary of the issues to be covered in the River Basin Management Plan

- General description of the characteristics of the river basin district, including a map showing the location and boundaries of the surface and ground water bodies and a further map showing the types of surface water bodies within the basin.
- Summary of the significant pressures and the impact of anthropogenic activity on the status of surface and ground waters, including point source pollution, diffuse pollution and related land use, the quantitative status of water including abstractions and an analysis of other impacts of human activity on water status.
- Map showing any protected areas.
- Map of the monitoring network.
- Map of the results of the monitoring programme showing the status of all water bodies and protected areas.
- List of the environmental objectives set for all water bodies, including those where the use has been made of derogations.
- Summary of the economic analysis of water use.
- Summary of the programme or programmes of measures.
- Register of any more detailed programmes and management plans and a summary of their contents.
- Summary of the public information and the consultation measures taken, their results and the changes to the plan as a consequence.
- List of competent authorities.
- Contact points and procedures for obtaining background documentation and information, including actual monitoring data.

Based on Guidance Document No 1, Common Implementation Strategy for the Water Framework Directive (2000/60/EC).

At a general level, the approach of river basin management plans is fully taken up within the new draft law. Thus, RBMPs are to be prepared, and are to be used as the central management tool. As noted above, this will entail a fundamental shift in water policy and management in Georgia, which has previously been based on administrative unit planning.

The special governmental resolution on "defining and approval of the procedure for development, review and adoption of River Basin Management Plans" (mentioned above, and which will be submitted to the government for adoption after the main Law is enacted) contains details both as to the content of RBMPs and the procedure for adopting them. The elements to be included in each RBMP are set out as follows:

Table 3. Elements and structure of river basin management plan (draft national legislation)

1. River basin district (RBD) general analysis, which includes:
   - 1.1 Characteristics of water body types within river basin district (hydrology, hydrogeology, geology, etc.);
   - 1.2 Review of the environmental impact of human activity on bodies of surface water or groundwater and economic analysis of water use;
   - 1.3 Determination and mapping of the types of eco-regions of surface water bodies;
   - 1.4 Identification of the location of surface water and groundwater bodies and mapping their boundaries with appropriate DelCodes;
   - 1.5 Identification of reference conditions for surface water bodies.
2. Resume of the assessment of significant impact of human activity on the status of surface water or groundwater bodies and risks, which includes:
   - 2.1 List of possible point sources of pollution;
   - 2.2 Possible diffuse sources of pollution including the land use description;
   - 2.3 Assessment of impact on water quantitative characteristics including the information on water abstraction;
   - 2.4 Assessment of anthropogenic impact on water statuses;
   - 2.5 List of water bodies at risk and potentially at risk.
3. Elaboration and mapping of register for protected water bodies (including drinking water bodies).
4. A monitoring network map designed for defining water body status , which shall include results of the monitoring through which the statuses have been defined for:
   - 4.1 Surface waters (ecologic and chemical); and
   - 4.2 Ground waters (chemical and quantitative).
5. List of environmental objectives set out for surface waters, ground waters and protected water bodies including the information related to the exceptions for setting the environmental objectives and other related information.
6. Review of activity program designed for the achievement of environmental objectives.
7. Review of water use economic analysis, which is elaborated using the relevant methodology and contains information on:
   - 7.1 Water use in terms of usage for economic purposes;
   - 7.2 Economic analysis of water use;
   - 7.3 Economic control mechanisms;
   - 7.4 Cost and benefit analyses as selection criteria for activities to achieve environmental objectives.
8. List /brief description of other programs and management plans elaborated within the basin district, which have or may have negative impact on water body within the RBD.
9. River basin management plan should contain information on public discussions and consultations held at the preparation stage as well as the results to be incorporated in the management plans.
10. River basin management plan should contain information on competent authorities and local representations, details of contact person and procedure for requesting basic documents and the ones referred to in article 6 of this procedure.

Article 5, draft Governmental Resolution on "defining and approval of the procedure for development, review and adoption of River Basin Management Plans.

As can be seen, the elements included in the draft resolution are comprehensive, detailed and extensively reflect the guideline issues to be covered, as summarised in Table 2. Conservation success will ultimately depend both on building administrative capacity to develop, monitor and apply the planning process as set out in the draft resolution and on building the technical capacities (in terms of infrastructure, financial and human resourcing, expertise, etc.) to fulfil each element of the planning process effectively. This represents a significant challenge given the extent of the gap between current planning processes (and capacities to implement those) and the planning processes seen under the RBM approach. Nevertheless, there is some pre-existing experience under technical projects which goes some way to meeting the needs of the draft resolution – for example, a pilot RBMP was developed for Chorokhi-Adjaristkali river basin by the "Environmental Protection of International River Basins Project".[27]

The draft resolution also takes up the other key element of RBM planning: public participation and consultation. Article 6 of the draft resolution, on "Public involvement in development and review of river basin management plans" recognizes that:

> *Participation of stakeholders and community in elaboration, review and updating of river basin plans is reasonable and necessary. The goal of such involvement of stakeholders and civil society is to integrate their views in the decision-making process.*

On this basis, the resolution sets out a detailed and time-specific process for consultation and public participation, the key elements of which are:

- At least 3 years prior to the start date of the RBMP validity period, a timeline and procedure for the development of the plan, as well as information of planned consultations should be published and made available for public to obtain comments from stakeholders;
- At least 2 years prior to the start date of the RBMP validity period, a general analysis of the RBD including the list of main problems related to water management should be published and made available for public to obtain comments from the stakeholders;
- At least 1 year prior to the start date of the RBMP validity period, the draft plan should be published and made available for public to obtain comments from the stakeholders. This stage also includes public discussions;
- Stakeholders and the wider community must be provided with at least 6 months for making comments in writing;
- The public must be provided with the basic information and documents upon request that were used during the elaboration of the RBMP;
- The final RBMP must contain information on the public consultations held and must include information on how the results of those consultations were incorporated.

These requirements apply equally to the initial development of RBMPs and to any revisions and updating.

As with the provisions on the content and structure of RBMPs, these provisions are comprehensive and ambitious but will require a focus on building capacity if they are to be successful. The new provisions imply a level and nature of engagement with stakeholders that arguably goes beyond current consultation practice in Georgia.

Benchmarking	Close Equivalence
The new law adopts the river basin planning approach fully, and makes extensive and detailed provision for the content, structure and process for RBM planning. The framework set out in the draft legislation may be considered to be capable of delivering RBM planning as envisaged by the WFD. However, in order to deliver the planning processes fully and effectively, attention will need to be given to building administrative, technical and infrastructural capacities, and to identifying and sourcing the necessary levels of financial and staff support. In the first place, priority should be given to establishing a template or model for the development of RBMPs, which process should itself be based on a consultative approach, which will enable the specific requirements of the draft resolution to be fulfilled in the planning process.	

27, Above, n. 24.

3.1.2.5 Preparation of a programme of measures

The programme of measures is at the heart of river basin management planning, as it sets out the actions to be taken during the plan period to secure WFD objectives. It builds on the gap analysis and includes two main groups of measures:

- Basic measures, being the minimum measures that must be applied so as to implement the requirements for the protection of water in the river basin district as set out in the related EU legislation (including the water Directives and other Directives, such as those concerning with nature protection, insofar as they apply to water, etc.); and
- If it appears that implementation of basic measures alone will be insufficient to meet the targets of the Directive, or of individual RBMPs (in particular, for example, achievement of good status for the waters), Member States must employ supplementary measures to keep the RBMP on track.

The Directive identifies the legislation which makes up the body of rules to be met through basic measures, and provides an indicative (but not exclusive) list of the types of supplementary measures that may be included (see Table 4).

Table 4. Measures to be included in the Programme of Measures

Measures required under the following Directives	Supplementary measures that may be included
• Bathing Water Directive - (76/160/EEC) • Birds Directive - (79/04/EEC) • Drinking Water Directive - (80/778/EEC) as amended by Directive - (98/83/EC) • Major Accidents (Seveso II) Directive - (96/82/EC) • Environmental Impact Assessment Directive - (85/337/EEC) • Sewage Sludge Directive - (86/278/EEC) • Urban Wastewater Treatment Directive - (91/271/EEC) • Plant Protection Products Directive - (91/414/EEC) • Nitrates Directive - (91/676/EEC) • Habitats Directive - (92/43/EEC) • Integrated Pollution Prevention and Control Directive - (96/61/EC)	• Legislative, administrative, economic and fiscal instruments • Abstraction and emission controls • Negotiated environmental agreements • Codes of good practice • Demand management measures • Efficiency and re-use measures • Artificial recharge of aquifers • Recreation and the restoration of wetlands • Construction projects • Desalination plants • Rehabilitation projects • Education projects • Research, development and demonstration projects • Other relevant measures
Based on Annex VI (Part A) of Directive 2000/60/EC	*Based on Annex VI (Part B) of Directive 2000/60/EC*

In addition to these requirements, the WFD identifies various other measures that might be included in a PoM, including any derogations, permanent or temporary, that are sought in respect of individual water bodies and any measures for heavily-modified water bodies (HMWBs) within the river basin districts (which might be subject to the lesser objective of good ecological potential).

The procedures contained within the special governmental resolution on defining and approval of the procedure for development, review and adoption of River Basin Management Plans include provisions on the preparation of programmes of measures to achieve good environmental status. Moreover, in principle all of the supplementary measures envisaged in the WFD could be available under national legislative, administrative or industrial practice. The challenge exists, however, to identify the need for supplementary measures and then to select and implement measures appropriately.

The pilot river basin management plan developed for the Chorokhi-Adjaristkali river basin, includs a programme of measures to achieve good environmental status,[28] and offers some experience. The PoM consists of: 1) Scope of the Report, information used, methodology; 2) Basic measures for water bodies "at risk"; 3) Additional (supplementary) measures for Water Bodies "at Risk"; 4) Basic and supplementary measures for HMWBs not considered as an exemption; and 5) Measures for maintaining the status quo for water bodies "not at risk", both surface and ground waters. The pilot programme took as its basis the requirements of the WFD but developed specific guidance for the development of the PoM (Draft Guidance Document on the Development of Programme of Measures and the Achievement of Environmental Objectives According to the EU WFD) and also took into account data from a Pressure-Impact Analysis for Adjaristskali-Chorokhi River Basin.

Benchmarking	Close Equivalence
The new framework law and implementing legislation recognises the need for the development of a program of measures, based on the structure set out in the WFD, and in principle all of the supplementary measures envisaged in the WFD could be available under national legislative, administrative or industrial practice. The draft guidance produced within the Chorokhi-Adjaristkali river basin pilot provides a template for a process approach to developing PoMs. While the legislative framework established under the draft legislation appears in close conformity to the WFD, in practice the viability of PoMs will depend on having an effective legislative regime for basic measures (including the legislative measures discussed below) and having the data and capacity to identify the need for and appropriately select supplementary measures.	

3.2 Coherence with the Urban Waste Water Treatment Directive

Pollution from urban waste water discharged into freshwater ecosystems can be substantial threat to conservation. The Urban Waste Water Treatment Directive (UWWTD)[29] aims to protect the environment from the adverse effects of urban waste water discharges and discharges from certain industrial sectors (identified in Annex III of the Directive). It concerns the collection, treatment and discharge of domestic waste water or the mixture of domestic waste water with industrial waste water and/or run-off rain water.

Specifically the Directive requires:

- the Collection and treatment of waste water in all agglomerations of >2000 population equivalents (p.e.);[30]
- secondary treatment of all discharges from agglomerations of > 2000 p.e., and more advanced treatment for agglomerations >10 000 population equivalents in designated sensitive areas and their catchments;
- a requirement for pre-authorisation of all discharges of urban wastewater, of discharges from the food-processing industry and of industrial discharges into urban wastewater collection systems;
- monitoring of the performance of treatment plants and receiving waters; and
- control of sewage sludge disposal and re-use, and treated waste water re-use whenever it is appropriate.

The Directive is based on four main principles: planning (including assessment); regulation; monitoring; and information and reporting.

3.2.1 Assessment of the status of urban waste water collection and treatment

Due to insufficient monitoring of surface waters, data for surface water status are limited. Based on the data of the Georgian Environmental Agency, the results of the chemical monitoring reveal that the untreated municipal waste waters remain the major source of the pollution of surface waters and are responsible for 67% of all surface water pollution, with ammonia being the main pollutant. This is caused by substantially inadequate conditions of the municipal waste water collection and treatment facilities.[31]

28. Programme of Measures, December 2014, id., available at <blacksea-riverbasins.net/system/files_force/Programme%20of%20Measures_04-02-15.pdf>.
29. Council Directive 91/271/EEC concerning urban waste-water treatment, 21 May 1991.
30. "Agglomeration" is defined as an area where the population and/or economic activities are sufficiently concentrated for urban waste water to be collected and conducted to an urban waste water treatment plant or to a final discharge point. A population equivalent of 1 means the organic biodegradable load having a five-day biochemical oxygen demand (BOD5) of 60g of oxygen per day.
31. National Environmental Action Programme of Georgia for 2012 –2016, Tbilisi, 2012, p.17 available from: http://moe.gov.ge/index.php?lang_id=ENG&sec_id=32

Currently, about 70% of the urban population is connected to the sewerage system, but only 26% of the wastewater is being treated mostly by primary, mechanical treatment only. There is only one, fully operational biological wastewater treatment plant in Georgia. Official data on the amounts of discharge and treated water is not consistent and unreliable. The rural population is not connected to wastewater systems and there are no wastewater data available.[32] One of the most important strategic documents, "Socio-Economic Development Strategy of Georgia – Georgia 2020" acknowledges the importance of transferring the water management system towards the European model of integrated river basin management. It defines overall strategic objectives as including provision of the entire population with continuous water supply and adequate sanitation, including waste water management systems for each urban area.

The requirements related to the assessment of the status of urban waste water collection and treatment are insufficiently covered in existing national legislation.There are no mechanisms or systematic tools that promote prevention of pollution by domestic consumption. In general, there is no control of wastewater, as the licensing system, supervision and management is practically non-existent and management relies on emissions self-monitoring.[33] There are no specific provisions concerning urban waste water treatment, except the general and somewhat uncertain requirements under the Water Law of 1997 and some minor regulations (sanitary-hygienic norms and rules and hygienic requirements) approved in non-systematic way by the Ministry of Labour, Social Affairsand Health.[34] The newly enacted "Waste Management Code"[35] explicitly excludes management of waste waters or water contamination from its scope.

In the future, assessment of the status of urban waste water collection and treatment will be partly covered by the new law on water resources management.The Ministry of Infrastructure and Regional Development of Georgia takes a lead in the field of urban waste water treatment related activities, as it is responsible for implementing regional development policy including coordination and support of the development of water supply and sanitation systems in the regions of Georgia. The important planning document on the regional level is regional development strategies, which are developed for the period up to 2017 or 2021 for all nine regions of Georgia. Among others, the key objectives defined in the strategies are improvement of the regional infrastructure services, including water supply and sanitation.[36]

One of the water sector related targets, being identified in the National Environmental Action Programme of Georgia for 2012 –2016 is: "reduction of water pollution from untreated municipal wastewater".

Benchmarking	Low Equivalence
Under the current legal framework there appears to be little equivalence. A key initial action will be to develop a fuller assessment of the status of urban waste water collection and treatment in Georgia. The data resulted from the assessment of the status of urban waste water collection and treatment within the particular river basin district should be required for planning, regulating and monitoring purposes. Municipalities should be given responsibility to collect such information and to provide it to the Basin Management Unit as part of legally established data exchange programme in river basin management.	

3.2.2 Identification of sensitive areas and agglomerations

More stringent rules are set down for areas identified as "sensitive" (UWWTD, Art. 5 and Annex II). UWWTD, Annex II identifies the types of water that should be rerated as "sensitive areas":

- freshwater bodies, estuaries and coastal waters which are eutrophic or which may become eutrophic if protective action is not taken;
- surface freshwaters intended for the abstraction of drinking water which contain or are likely to contain more than 50 mg/l of nitrates; and
- areas where further treatment is necessary to comply with other EU water-related Directives.

32. United Nations Economic Commission for Europe, Georgia Third Environmental Performance Review, New York and Geneva, 2016; available from: <www.unece.org/environmental-policy/environmental-performance-reviews/ongoing-reviews.html>.
33. *Id*
34. Water Sector Convergence Plan for Georgia.
35. Waste Management Code of Georgia, 2015 Article 2.2 e; available at: <matsne.gov.ge/en/document/view/ 2676416>.
36. The State Strategy – Regional Development of Georgia 2010-2017, adopted by the Governmental Resolution of Georgia Nr.172, available from: <static.mrdi.gov.ge/550c24ee0cf24147438b16f6.pdf>.

In these areas, Member States must implement more advanced treatment for agglomerations>10,000 population equivalents (including as a minimum meeting certain specific standards set out in Annex I to the Directive).

Currently, no measures are in place in Georgia for the identification of sensitive areas (even though such areas inevitably exist), or for the implementation of specific measures for water discharged into such areas. According to the existing draft Law, the Ministry of Environment and Natural Resources Protection will be responsible for identification of sensitive areas and agglomerations. Specific sub-legislation describing rules and process for identification will be required. The role of relevant sectors and the local government needs to be clarified and translated into legal requirements.

Benchmarking	Low Equivalence
The draft legislation does not currently make specific provision, although the responsibility for identifying sensitive areas and agglomerations falls within the competence of the MENRP. Specific legislation needs to be drafted, defining sensitive areas and defining the process for introducing more stringent measures. A process also needs to be defined to keep the status of sensitive areas (and potential sensitive areas) under review.	

3.2.3 Establishment of systems of prior regulation or authorisation

One of the key methods of control in the UWWTD (Art. 11) is a requirement for pre-authorisation of all discharges of urban wastewater, of discharges from the food-processing industry and of industrial discharges into urban wastewater collection systems. This requirement necessarily needs to be established, administered and enforced by means of legislation and needs to be supported by effective and appropriate administrative and decision-making procedures.

Currently only the activities which require a general environmental permit are subject of prior regulation and authorisation for water discharges. Those are rather limited as per the 2005 Law on Licenses and Permits.That law substantially reduced the number of activities classified as environmentally sensitive and requiring management and supervision. The permitting system for surface water abstraction and discharges was removed.

Wastewater discharges from activities that do not require an environmental impact permit are regulated by the 2008 Ministry Order No. 745 on Environmental Technical Regulations.[37] The Technical Regulation on environmental protection has been elaborated for all activities which do not require an environmental permit.[38] The regulation includes rules for wastewater discharges into surface water from industrial and non-industrial sources as well as rules for water abstraction surface waters.

Georgian legislation requires the EIA procedure to be followed for waste water treatment plants with a capacity exceeding 1000m3 per day.[39] This is a different parameter to that used in the EU, where legislation on EIA covers waste water treatment plants with a capacity exceeding 150 000 population equivalent.

The new legislation, which is currently under development, will reintroduce a system of pre-authorisation, along with the development of the technical rules for urban water discharges. According to the draft water resources management law, the Minister of environmental and natural resources protection should issue an order, to establish terms and conditions for issuing the water discharge and abstraction permits. Further subsidiary legislation is envisaged to define the rules for calculating of maximum admissible discharge norms for the pollutants discharged with wastewater into surface water bodies. This draft resolution has already been prepared and is intended to be submitted to the government for adoption after the main Law is enacted.[40]

Benchmarking	Low Equivalence
While there is currently no licensing or authorization system in place to deal with charges of urban wastewater from any sector, some licensing frameworks do exist and their extension to urban waste water is foreseen. The details of this remain to be developed.	

37. Technical regulation for water discharge into surface water bodies from industrial and non-industrial facilities; and technical regulation for water extraction from surface water bodies, Both regulations adopted on November 13, 2008 by the Resolution No.745 of the Minister of Environmental Protection and Natural Resources.
38. Governmental resolution #17 of 3 January 2014 on adoption of technical regulations for environmental protection.
39. Law of Georgia on Environmental Impact Permit, Art 4
40. Draft resolution of the Government of Georgia on “Approval of the Technical Regulation on Calculating of Maximum Admissible Discharge (MAD) Norms for the Pollutants, Discharged with wastewater into surface water bodies” available from: <moe.gov.ge/index.php?lang_id=GEO&sec_id=69&info_id=3960>.

3.2.4 Monitoring programmes

Article 15 of the UWWTD requires Member States to establish monitoring programmes for urban waste water, in particular to monitor (i) discharges from urban waste water treatment plants to verify compliance with the requirements of the Directive and (ii) amounts and composition of sludges disposed of to surface waters. Additionally, in the case of a discharge in less sensitive areas and in the case of disposal of sludge to surface waters, Member States are required to monitor and carry out any other relevant studies to verify that the discharge or disposal does not adversely affect the environment.

The draft Law on Water Resources Management includes provisions on the state monitoring system of water resources. It requests adoption of the special governmental resolution on "planning and the fulfilment of the water resources monitoring". The draft resolution has been prepared and is planned to be submitted to the government for adoption after the main Law is enacted.[41]

Benchmarking	Partial Equivalence
It may be anticipated that in developing national monitoring programmes at the river basin level the requirements for monitoring urban waste water will be included. Applying the monitoring programme will again require increased technical and infrastructural capacity.	

3.3 Coherence with the Environmental Quality Standards Directive

Article 16 of the WFD requires the European Commission to identify priority substances among those presenting significant risk to or via the aquatic environment, and to set EU Environmental Quality Standards (EQSs) for those substances in water, sediment and/or biota. In 2001 a first list of 33 priority substances was adopted (Decision 2455/2001) and in 2008 the EQSs for those substances were established (Directive on Environmental Quality Standards (Directive 2008/105/EC) or EQS Directive / EQSD; last amended by Directive 2013/39/EU).

The EQS Directive establishes the maximum acceptable concentration and/or annual average concentration for 33 priority substances and 8 other pollutants. (These are derived at European level and apply to all Member States, and are referred to as Annex X substances of the WFD). In addition, the WFD (Annex V, section 1.2.6) establishes the principles to be applied by the Member States to develop EQSs for Specific Pollutants that are 'discharged in significant quantities'. (These are also known as Annex VIII substances of WFD).

According to Annex V, point 1.4.3 of the WFD and Article 1 of the EQSD, good chemical status is reached for a water body when it complies with the EQS for all the priority substances and other pollutants listed in Annex I of the EQSD.

Application of environmental quality standards to water bodies

The key obligation under the WFD / EQSD is to determine and apply environmental quality standards to surface water, sediment and/or biota, based on the identification of "priority" polluting substances (EQSD, Art. 3). Since, the priority substances are determined at European level and apply to all Member States coherence with EU legislation strictly speaking implies that the same substances be identified and subjected to EQS. In practical terms, however (at least initially), the South Caucasus countries should identify and determine their own priority polluting substances.

The 1996 Guidelines for Surface Water Pollution Protection define maximum allowable concentrations for 50 parameters differentiated for the following uses of surface water:

- Drinking water;
- Water for recreational use; and
- Water for fish water bodies (categories I and II).

Category I applies to surface water bodies used for the protection and reproduction of commercially valuable fish species with living requirements of high oxygen content in the water, reproduction and feeding areas, wintering areas of high-value fish species and other commercially valuable organisms as well as protected areas of any aqua-farming. Category II applies to other waterbodies used for fishing activities.

41. Draft Governmental Resolution of Georgia on "adopting the rules for planning and implementation of the water resources monitoring program" available from: <moe.gov.ge/index.php?lang_id=GEO&sec_id=69&info_id=3960>.

The parameters are mostly heavy metals, nutrients, conventional organic parameters and some others. Nearly all the priority substances, such as pesticides and other pollutants, which are defined in the EU Directives, are excluded. [42]

Environmental Quality Standards, among them for surface water are established by the order of the Minister of Health and Social Protection.[43]

The monitoring network for surface water quality has improved from 41 points in 2009 to 69 points in 2014 and at 32 rivers and 8 lakes compared with the 72 rivers monitored in the late 1990s. It is expected to include 20 more points in 2015/6. The number of monitored parameters was increased to 33, and these are mainly inorganic ones. Although equipped recently, all three existing laboratories lack human resources and laboratory reagents. From 2014, some priority substances are included, but the majority of the dangerous substances, such as polyaromatics and pesticides, are not measured.

The draft law on water management requests adoption of the special normative act on “adoption of the environmental quality standards of water” for the surface water bodies. This should be adopted by governmental resolution. The Annex of such normative act will be the bases for classification of the surface water bodies according to their status.

Benchmarking	Partial Equivalence
A system of environmental quality standards currently exists, although this is focussed on public health and does not include most of the priority substances under EU legislation. Adoption of the planned governmental resolution on environmental quality standards of water for the surface water bodies will determine priority polluting substances.	

3.4 Coherence with the Nitrates Directive

3.4.1 Identification of polluted waters and designation of nitrate vulnerable zones

The two fundamental steps under the Nitrates Directive are to identify polluted waters or waters at risk and designation of nitrate vulnerable zones (Article 3).

1. Identification of water polluted, or at risk of pollution, such as:
    - surface freshwaters, in particular those used or intended for the abstraction of drinking water, containing or that could contain (if no action is taken to reverse the trend) a concentration of more than 50 mg/l of nitrates;
    - groundwater containing or that could contain (if no action is taken to reverse the trend) more than 50 mg/l of nitrates;
    - freshwater bodies, estuaries, coastal waters and marine waters, found to be eutrophic or that could become eutrophic (if no action is taken to reverse the trend).
2. Designation as "Nitrate Vulnerable Zones"(NVZs) of:
    - areas of land which drain into polluted waters or waters at risk of pollution and which contribute to nitrate pollution. (Member States can also choose to apply measures to the whole territory instead of designating NVZs.

The National Environmental Action Programme of Georgia has identified reduction of pollution from diffuse sources in agriculture to be one of the long-term goals (target 4).[44] In Georgia, the use of fertilizers has fluctuated considerably over the past 15 years. Due to sharp price increases, fertilizer use diminished to 2,500 tons a year in 2006, which translated to about 8kg per sown hectare. Since then, fertilizer use has increased significantly. In 2013, total fertilizer use was 35,300 tons – about 136 kg per sown hectare.[45]

Currently in Georgia there are no laws, policies or programs that enable the management of water resources used in agriculture, the prevention of pollution caused by agricultural activity, promotion of the sustainable use of water or the parsimonious use of pollutants, such as pesticides and fertilizers.[46] The existing draft law on water resources management establishes that the identification of polluted waters or waters at risk as well as designation

42. United Nations Economic Commission for Europe, Georgia Third Environmental Performance Review, New York and Geneva, 2016 available from: <www.unece.org/environmental-policy/environmental-performance-reviews/ongoing-reviews.html>.
43. Order of the Minister of Health and Social Protection #279/n dated 16 August 2001 on establishing of the environmental quality norms.
44. National Environmental Action Programme of Georgia for 2012 –2016, Tbilisi, 2012, p. 17; available from: <moe.gov.ge/index.php?lang_id=ENG&sec_id=32>.
45. United Nations Economic Commission for Europe, Georgia Third Environmental Performance Review, New York and Geneva, 2016 available from: <www.unece.org/environmental-policy/environmental-performance-reviews/ongoing-reviews.html>.
46. *Id*

of nitrate vulnerable zones should be the responsibility of the MENPR.[47] Road Maps for the implementation of the EU-Georgia Association Agreement in the fields of environment and climate action establishes that polluted waters or waters at risk should be identified and nitrate vulnerable zones should be designated within the period from 2017 to 2022 (Act.3.22).[48]

Benchmarking	Low Equivalence
The draft law recognises the requirements to identify polluted waters and to establish NVZs but does not specify the details of how these processes are to be achieved.	

3.4.2 Establishment of action plans and codes of good agricultural practices for nitrate vulnerable zones

According to the EU-Georgia Association Agreement, the Government of Georgia is required to establish action plans and codes of good agricultural practices for nitrate vulnerable zones within seven years of the entry into force of the Agreement as per Articles 4 and 5 of the EU Nitrates Directive. Also one of the recommendations of the latest Environmental Performance Review of Georgia states: "The Ministry of Agriculture should develop action plans and codes of good agricultural practice for nitrate vulnerable zones" (recommendation 4.4).[49] Road Maps for the implementation of the EU-Georgia Association Agreement in the fields of environment and climate action includes plans to develop legislation "on Water Pollution from Agricultural Sources" by 2017. The new legislation should be developed jointly by the MENRP and the Ministry of Agriculture (Act.3.15).[50]

The draft law on water resources management indicates that development of action plans and codes of good agricultural practices for nitrate vulnerable zones are the responsibility of the Ministry of Agriculture.

Benchmarking	Low Equivalence
In line with the Association Agreement, the development of action plans and codes of good agricultural practices for nitrate vulnerable zones are anticipated in the future regulatory framework. However, currently no such framework exists and no action plans or codes have been adopted.	

3.4.3 Establishment of a monitoring programme

For the purpose of designating and revising the designation of vulnerable zones, Member States are required to implement a monitoring programme, including monitoring the nitrate concentration in freshwaters and reviewing the eutrophic state of their fresh surface waters, estuarial and coastal waters. The monitoring surveys are to be reviewed at least every four years, and must use reference methods of measurement set out in the Directive (Annex IV).

The Ministry of Agriculture performs registration of pesticides and agronomic chemicals, as well as controls compliance with the defined safety parameters for the drinking water and performs the external, selective laboratory control of drinking water.[51]

The draft law on water resources management includes provisions on the state monitoring system of water resources and requests adoption of the special governmental resolution on "planning and the fulfilment of the water resources monitoring". The draft resolution is prepared and is planned to be submitted to the government for adoption after the main Law is enacted (as for the monitoring programmes described above). The National Environmental Agency of the Ministry carries out monitoring of nitrate concentrations only in fresh surface waters (selected sites), no groundwater, systematic monitoring of coastal waters and estuaries.

Benchmarking	Partial Equivalence
The draft legislation under development anticipates the need to include a nitrates monitoring program within the overall system for water quality monitoring.	

47. Draft Law of Georgia on Water Resources Management, chapter 6
48. "Roadmaps for EU Approximation in the Environmental and Climate Action Fields", developed under EU funded project "Development of an Action Plan for the Implementation of the EU-Georgia Association Agreement - Environmental Chapters", 2015, available from <moe.gov.ge/files/news_img/2015/ivnisi/ sagzao_ruka/ Final_Roadmaps_-_Gaertianebuli.pdf>.
49. United Nations Economic Commission for Europe, Georgia Third Environmental Performance Review, New York and Geneva, 2016 available from: <www.unece.org/environmental-policy/environmental-performance-reviews/ongoing-reviews.html>.
50. "Roadmaps for EU Approximation in the Environmental and Climate Action Fields", developed under EU funded project "Development of an Action Plan for the Implementation of the EU-Georgia Association Agreement - Environmental Chapters", 2015, available from <moe.gov.ge/files/news_img/2015/ivnisi/ sagzao_ruka/ Final_Roadmaps_-_Gaertianebuli.pdf>.
51. Law of Georgia on Public Health(2007) Article 33, Jurisdiction of the Ministry of Agriculture of Georgia in the field of Public Health, (d), (g), available from: <matsne.gov.ge/en/document/view/21784>.

3.5 Coherence with the Floods Directive

3.5.1 Undertaking of preliminary flood assessment

Georgia is exposed to a wide variety of natural hazards. Floods are very frequent with recorded high water levels during the spring and summer months, when snow starts to melt. The high level of precipitation, characteristic of the foothill rivers of the Caucasus, has a significant impact on river hydrology and freshwater biodiversity. Debris flows and mudslides present a high risk.[52]

There is currently no national policy or strategy on disaster risk reduction (DRR). The existing legislation is almost exclusively related to disaster management and emergency response. At the regional level, government adopted Regional Development Plans for all regions of Georgia, covering 2014-2021. A SWOT Analysis conducted for each region included an assessment of the disaster risk profile and analysis of DRR and climate change adaptation capacities.[53]

In 2014 Georgia undertook a DRR Capacity Assessment, which provided an analysis of capacity strengths and gaps and offered a set of recommendations which will form the basis for the development of the National Plan of Action for Capacity Development in Disaster Risk Reduction.[54] Among changes in the water legislation, which Georgian Government has committed to approximate its national legislation are regulations on assessment and management of flood risks. (The plan to assess flash flood risks in the river basins in Georgia is included in the National Environmental Action Programme of Georgia for 2012 –2016.[55])

Road Maps for the implementation of the Association Agreement in the fields of environment and climate action includes plans to draft a by-law “on the management of flood risks"; the timeframe is estimated to be 2017 and the nominated responsible state institution is the Natural and Anthropogenic Disaster Service of NEA.[56]

The draft water resources management law includes requirements for the identification of the zones bearing the risks of the adverse impacts of water.[57] According to the draft, “The programs for the management of the risks of the adverse impacts on water are the part of the integrated river basin management plan”. Also: “The rule for the establishment of the programs for the management of the risks of the adverse impacts of water with the identification of aforementioned zones is regulated by means of the statute on the river basin management plans”. The existing draft of the statute only mentions programmes of the management of the risks of the adverse impacts of water without defining the rules.

Benchmarking	Partial Equivalence
The draft law incorporates to some extent flood risks within the planning process, and this can build on some data and flood planning processes that already exist (albeit if somewhat limited). Roles and responsibilities of local government (municipal and regional level) in the provision data for and conducting preliminary flood assessments need to be clarified and adequately defined in legislation.	

3.5.2 Preparation of flood hazards maps, flood risks maps and flood risk management plans

NEA of MENRP is mandated to monitor ongoing hydro-meteorological, geodynamic and geological events. It holds information on the floods which have occurred in Georgia during 1916-1996, namely, the water flow cadastre of floods having occurred during this period, processes and analyses these data and provides information on flood probability and their forecasted frequency throughout the country, according the regions. Current observation data is rather limited. NEA also develops flood hazard maps in GIS format for regions of Georgia.

While the official national risk profile of Georgia does not exist, in 2012, the Caucasus Environmental NGO Network (CENN) and NEA developed an Atlas of Natural Hazards and Risks in Georgia (at the scale 1:10000). It contains

52. DRR Capacity Assessment Report Georgia 2014, p 10, available from: <police.ge/files/pdf/sagangebos_statistika/kanonebi/DRR%20Capacity%20Assessment%20Repot%20Georgia%202014.pdf>
53. Regional Development 2013, brief review of current situation, existing gaps and priorities, Ministry of Regional Development and Infrastructure, available at: <static.mrdi.gov.ge/52b1ba050cf27286d7af38dc.pdf>.
54. DRR Capacity Assessment Report Georgia 2014, p 10, available from: <police.ge/files/pdf/sagangebos_ statistika/kanonebi/DRR%20Capacity%20Assessment%20Repot%20Georgia%202014.pdf>.
55. Measure 1. “Specify flash flood risks in the river basins of Georgia 2012-2016”, Target 2. “Prevention/reduction of negative impacts of floods and flash floods in river basins of Georgia” of Chapter 10 “Disasters” (National Environmental Action Programme of Georgia for 2012 –2016 (NEAP 2) adopted January 2012)
56. “Roadmaps for EU Approximation in the Environmental and Climate Action Fields”, developed under EU funded project “Development of an Action Plan for the Implementation of the EU-Georgia Association Agreement - Environmental Chapters”, available from: <moe.gov.ge/files/news_img/2015/ivnisi/sagzao_ruka/Final_Roadmaps_-_Gaertianebuli.pdf>.
57. Draft Law of Georgia on Management of Water resources, article 37 “Management of the risks of adverse impacts of water”

maps and explanatory text related to natural hazards, exposure, vulnerability and risk in Georgia. The Atlas also shows baseline maps of the natural and human conditions, and various types of vulnerabilities (physical, social, ecological, economic) and risk typical to Georgia's territory.[58]

Roadmaps for the implementation of the Association Agreement in the fields of environment and climate action include plans to develop "the guidelines for flood risk management plans" by 2018. The responsible state institution should be Natural and Anthropogenic Disaster Service/ NEA and the Emergency Department of the MIA.[59]

The draft law on management of water resources requests development of the programs for the management of the risks of the adverse impacts of water. The programs (management plans) are considered to be the part of the integrated river basin management plans. And the regulatory base for the development of such plans should be included within the sub-law (governmental resolution) on the River Basin Management Plans.[60]

However, the existing draft of the resolution does not include the provision on the flood management plans.[61] Also, it is necessary to clearly establish ways of integrating flood risk management plans (including preliminary flood risk assessment and flood hazards and risks maps) into other planning actions, e.g. local land-use plans, resettlement and development plans, infrastructural projects, sectoral plans, management plans of protected areas, and natural resources management plans. Existing legislation includes general requirement for this[62] but there is a need to define rules, methodologies and procedures.

Benchmarking	Partial Equivalence
Although the details have yet to be developed, it appears that the draft law sets the framework for developing flood risk management plans and that these are to be based on specific guidelines and given a regulatory basis.	

3.6 Coherence with the Birds and Habitats Directives

3.6.1 Designation of protected areas for species and habitats

The fundamental obligation under the Habitats Directive (and the Birds Directive) is to establish a coherent ecological network of special areas of conservation, composed of sites hosting the natural habitat types and the habitats of the species identified nationally as needing protection. The natural habitat types and the species' habitats concerned are to be maintained or, where appropriate, restored at a favourable conservation status in their natural range. In order to create these protections, Member States must designate sites as special areas of conservation. The Directive sets out detailed criteria for selecting sites eligible for designation (HD, Annex III).

The framework Georgian law on wildlife aims to ensure the protection and restoration of wildlife habitats, the diversity of species, and the preservation of genetic resources.[63] This is supplemented by legislation on:

- protected areas, under which protected areas are to be created in order to protect and restore the most important national heritage – unique, rare and endemic ecosystems, plant and animal species, natural formations and cultural areas to ensure that they are used for scientific, educational, recreational purposes, as well as with the purpose of developing natural resource-saving economies;[64] and
- endangered species and habitats, according to which the protection of habitats having significance for threatened species (being those on the Georgian Red list and Red Book) outside of protected areas is provided under certain specific conservation requirements.[65]

In order to comply with the requirements of the Association Agreement and for the approximation of Georgian biodiversity protection and resource management legislation, the Ministry with support from GIZ has developed a draft Law on Biological Diversity. The draft law was developed in line with the requirements of the EU Habitats and Birds Directives. The main goal of the law is to establish legal regime for species and habitats protection.

58. Atlas of Natural Hazards and Risks in Georgia, 2012, available from: <drm.cenn.org/index.php/en>
59. "Roadmaps for EU Approximation in the Environmental and Climate Action Fields", developed under EU funded project "Development of an Action Plan for the Implementation of the EU-Georgia Association Agreement - Environmental Chapters", 2015, available from: <moe.gov.ge/files/news_img/2015/ivnisi/sagzao_ruka/Final_Roadmaps_-_Gaertianebuli.pdf>.
60. Draft Law of Georgia on Water Resources Management, Article 39, 2, available from: <moe.gov.ge/index.php?lang_id=GEO&sec_id=69&info_id=3914>.
61. Draft governmental resolution on the procedure of elaboration, review and approval of river basin management plans, available from: <moe.gov.ge/index.php?lang_id=GEO&sec_id=69&info_id=3960>.
62. The Law of Georgia on Water, Art.15, at: <matsne.gov.ge/ka/document/view/33448?impose=translateEn>.
63. Law of Georgia on wildlife, art 15, at:<matsne.gov.ge/ka/document/view/33352?impose=original>.
64. The Law of Georgia on the system of protected areas of Georgia, available from: <matsne.gov.ge/ka/document/view/32968>.
65. The Law of Georgia on Red List and Red Book, available from: <moe.gov.ge/files/kanonmdebloba/kanonebi_seqtemberi_2013/14_kanoni_witeli_nuskhisa_da_witeli_wignis_shesakheb.pdf>.

It will substitute the existing Law on Red List and Red Species, and will introduce the Emerald Network (i.e. a Natura 2000 equivalent) to Georgia. The law will ensure protection and restoration of ecosystems essential for wild plants and animal species.In order to protect a particular habitat the territory could be assigned status of Emerald Network site or status of the territory important for birds. Article 22 of the draft law requests that protection goals are incorporated during planning processes at central, regional and municipal levels.The linkage with river basin planning is not explicitly mentioned. The draft currently undergoes the public hearings and is being discussed through the official inter-ministerial discussion process. The draft law includes number of secondary legislation, to be adopted by the specific timeframe to support implementation.

Benchmarking	Partial Equivalence
A system for species and habitats protection exists currently, but it is more restrictive in scope than the EU Natura 2000 system and it is not integrated into water management. The new law on biological diversity will extend protections and conservation controls for species and habitats and will establish a system closer in scope and form to that established by the EU nature Directives. While it is recognised that the process for extending biodiversity protection in Georgia is to a large extent a distinct exercise from water policy, attention needs to be given to the integrations between the Habitats and Water Directives. Effective criteria need to be developed for identifying, designating and protecting sites in or dependent upon freshwater, and respective provisions should be incorporated into the legislation governing other sectors such as forest legislation (e.g. provisions to assign protected or conservation status to forest with important or threated freshwater ecosystems or habitats).	

3.6.2 Establishment of a register of protected areas for freshwater sites

Article 6 of the WFD requires that a register is maintained, and kept under review, of protected areas for freshwater sites designed under the Habitats or Birds Directives.

The existing Georgian legislation envisages creation of sanitary-protection zones for protection of water resources used for drinking and domestic water supply, as well as for medicinal and resort purposes. The Law provides for division of sanitary-protection zones of water supply facilities into several territories and gives them special regimes. These include the foreshores of rivers, lakes, reservoirs, roadways of main and other channels. The law forbids application of toxic chemicals and fertilizers within water-protecting zones, as well as accumulation, discharge and burial of different waste. Moreover, according to the law, any activity having potential impact on water and the status of a water body must be supported by an environmental permit. In reality the number of activities which require environmental permit were significantly reduced as per the 2005 Law on Licenses and Permits.

Special regimes are established for protection and exploitation of water resources within the protected territories.

The draft water law requires the maps of the protected water zones to be part of the river basin management plans.[66] The draft governmental resolution on “defining and approval of the procedure for development, review and adoption of River Basin Management Plans” includes requirement for elaboration and mapping of protected water bodies and creation of the register of protected water bodies within the river basin districts. The State register of protected water bodies is mentioned. (A protected water body is defined under the resolution as “water body, which is included in the state register of protected water bodies and for which the special protection regime is established”). However, specific legislation is necessary for establishing rules and procedures for assigning protected status to the water bodies, as well as for creation of the State register of protected water bodies.

Benchmarking	Close Equivalence
Current mechanisms exist for recording and registering various types of protected zones in freshwater areas, and these will be expanded in the draft laws. Also, the draft water law specifically envisages the creation of a State register of protected water bodies, and requires that such bodies be recognised in the RBM planning process. However, specific legislation will be necessary to establish the rules and procedures for assigning protected status to the water bodies, to identify the procedure and criteria for inclusion in the State register of protected water bodies and to establish the legal controls arising from inclusion.	

66. Draft Law of Georgia on Water Resources Management, Article 28, 3d, available from: <moe.gov.ge/index.php?lang_id=GEO&sec_id=69&info_id=3914>.

3.6.3 Undertake surveillance of habitats and species

The Draft Law on Biological Diversity requires the development and adoption of two sub-legislative acts relevant to the habitats and species monitoring.These are concerned with: (1) the establishment of rules for monitoring and assessment of the red list species, and (2) the State system for the monitoring of biological diversity. In accordance with the Association Agreement, these legal acts should follow the requirements of the EU Habitats and Birds Directive.

Article 7 of the draft law establishes that development and implementation of the biodiversity monitoring programmes is the responsibility of MENRP. Article 9 of the draft law is devoted to the monitoring of the biological diversity. The priority habitats and species for State monitoring are Georgian and Caucasus endemic species, species included in the Georgian Red List, as well as priority species and habitats under the EU Birds and Habitats Directives.

During development of the system of biological diversity, it is important to establish clear links with the River Basin planning and management, as well as with water resources monitoring system, which is being developed under the new law of water management.

Benchmarking	Partial Equivalence
The legal frameworks exist or are anticipated to develop comprehensive biodiversity monitoring programmes. However, these need to be elaborated in future legislation, and then need to be implemented effectively – which will require additional capacity building and investment. In developing monitoring programmes, the legislation needs to pay attention to the need to integrate biodiversity monitoring with water monitoring programmes and river basin planning processes.	

3.7 Coherence with other Legislation

The other instruments considered in this study comprise EU rules on environmental impact assessment; strategic environmental assessment; and access to information, public participation and access to justice in environmental matters.

The EU's EIA Directive establishes environmental assessment procedures for projects likely to have an impact on the environment, which are very closely modelled on the UNECE EIA Convention. The EIA procedure can be summarized as follows: the developer may request the competent authority to say what should be covered by the EIA information to be provided by the developer (scoping stage); the developer must provide information on the environmental impact (EIA report – Annex IV); the environmental authorities and the public (and affected Member States) must be informed and consulted; the competent authority decides, taken into consideration the results of consultations. The public is informed of the decision afterwards and can challenge the decision before the courts, something which frequently occurs in Member States.

The SEA Directive applies to a wide range of public plans and programmes (e.g. on land use, transport, energy, waste, agriculture, etc.). Certain types of plan or programme are subject to mandatory SEA requirements, while others are go through a screening process to determine whether there are likely to be "significant environmental effects". The screening procedure is based on criteria set out in Annex II of the Directive. The SEA procedure can be summarized as follows: an environmental report is prepared in which the likely significant effects on the environment and the reasonable alternatives of the proposed plan or programme are identified. The public and the environmental authorities are informed and consulted on the draft plan or programme and the environmental report prepared.

Certain requirements concerning public participation and access to information are built in to the WFD and other EU instruments discussed in this report, such as the Habitats Directive and the EIA and SEA Directives. In addition, however, there exists overarching EU legislation on access to environment information and public participation in decision-making (designed to implement the UNECE Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters). These instruments provide duties and rights which go beyond those in the WFD and other Directives, but which nevertheless form an important part of the governance framework for water and environmental management. The two instruments concerned are:

- Directive 2003/4/EC on public access to environmental information, which requires Member States to make certain information on the environment available to the public and provides certain rights to citizens to request information on environmental matters; and

- Directive 2003/35/EC providing for public participation in respect of the drawing up of certain plans and programmes relating to the environment, which sets out various requirements to ensure citizens are properly consulted in environmental decision-making.

3.7.1 Environmental impact assessment

The general concept of environmental impact Assessment was introduced into Georgian legislation in 1996 by the Law on Environmental Protection; and specifically by Chapter X on "Environmental Requirements when Making Decision on Activity and Carrying out Activity."[67]

More detailed EIA related rules are included in the Law on Environmental Impact Permit and the Law on Ecological Expertise.[68] General rules on issuing permits are given in the Law on Licenses and Permits, where the environmental impact permit is listed among a number of other different permits. The Law on Environmental Impact Permit provides the legal basis for the issuance of an environmental impact permit for the activity to be performed in the territory of Georgia. The law gives a complete list of activities subject to environmental examination (Article 4, Chapter II) and defines environmental examination through the EIA process as an obligatory step for obtaining authorization for implementation of the proposed development. The Law describes procedures for the issuance of environmental impact permits including for their implementation, carrying out ecological expertise during the issuance of permits, public information and participation in the process of environmental impact assessment and decision-making on the issuance of permits. The Environmental Impact Assessment report should be provided for public hearing before its submission to the State institution responsible for granting the environmental permit.

Additionally, a new draft Environmental Assessment Code has been prepared within the EIA Department of the MENRP.[69] The Code will introduce strategic environmental assessment and will cover both EIA and SEA and will ensure harmonization with the EU relevant legislation (technical assistance is being provided by UNECE). The draft law has already been through public consultations and is now undergoing inter-ministerial and other legal procedures prior to adoption.

Benchmarking	Close Equivalence
The EIA process is well established in Georgia, and EIAs are carried out on a range of projects, including those which affect freshwater. However, EIA regime in Georgia was significantly weakened per the 2005 Law on Licenses and Permits and as a result of substantial reduction of the number of activities classified as environmentally sensitive and requiring management and supervision. The current regulatory system does not fully reflect the EU or EIA Convention models, but the new draft law introduces more consistency.	

3.7.2 Strategic environmental assessment

There is currently no specific law for SEA in Georgia, although as noted above the new draft law on environmental assessment introduces the mandatory use of SEA for plans and programs.[70] Along with the requirements of the relevant EU legislation, it will transpose into the national legislation the requirements of the Protocol on Strategic Environmental Assessment in a Transboundary Context. This will have important implications to the water policy within Georgia but also to Georgia's transboundary waters and international river basins. According to the existing draft of the new EA Code: "The strategic documents which implementation may cause significant impact on the environmental and human health shall be subject to strategic environmental assessment"[71]. In practice some SEAs have been conducted for selected plans or programmes under a number of donor-funded projects.

Benchmarking	Partial Equivalence
There is currently no specific legal basis for SEA procedures in Georgia, but the draft law has been developed to be consistent with the EU or EIA Convention models. Proper and effective implementation will require developing the administrative and technical expertise to conduct SEAs fully.	

67. The Law on Environmental Protection, Article 37 (1996). Available at: <www.elaw.org/node/2766>.
68. The Law of Georgia on Environmental Impact Permit (2007). Available at: <w3.cenn.org/CENN_Projects/ BfW_mining/Documents/Laws%20in%20English/7.%20The%20Law%20of%20Georgia%20on%20Environmental%20Impact%20Permit%20_Eng.pdf>. The Law of Georgia on the State Ecological Expertise. Available at: <matsne.gov.ge/ka/document/view/20212>.
69.The draft Environmental Assessment Code, available from: http://moe.gov.ge/files/PDF%20%20qartuli/gancxadebebi/2015/sajaro_ganxilva_bitadze/_შეფასების_კოდექსის_პროექტი.pdf
70. *Id.*
71. *Id*, Part III Strategic Environmental Assessment, Article 16. General obligations

3.7.3 Public participation and access to information

Certain requirements concerning public participation and access to information are built in to the WFD and other EU instruments discussed in this report, such as the Habitats Directive and the EIA and SEA Directives. In addition, however, there exists overarching EU legislation on access to environment information and public participation in decision-making (designed to implement the UNECE Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters). These instruments provide duties and rights which go beyond those in the WFD and other Directives, but which nevertheless form an important part of the governance framework for water and environmental management. The two instruments concerned are:

- Directive 2003/4/EC on public access to environmental information, which requires Member States to make certain information on the environment available to the public and provides certain rights to citizens to request information on environmental matters; and
- Directive 2003/35/EC providing for public participation in respect of the drawing up of certain plans and programmes relating to the environment, which sets out various requirements to ensure citizens are properly consulted in environmental decision-making.

Having access to the information about the status of the environment is one of the constitutional rights of Georgian citizens. “A person has the right to receive full, objective and timely information regarding the status of the environment and the conditions of labour.”[72]

Since 2000, Georgia has been a party to the Aarhus Convention and at a general level the current Georgian Legislation is in compliance with most of the requirements of the Convention.[73] The obligations of the Convention regarding freedom and accessibility of information are reflected in the administrative legislation of Georgia, particularly in Chapter 3: “Freedom of Information” of the General Administrative Code. The General Administrative Code contains the procedures for submission of an appeals to the administrative court; the procedures for consultations and decision-making; as well as procedures for citizens to appeal to the court in cases of violation of their rights in the fields of access to information or participation in the decision making process.[74] There are also duties in legislation requiring the Ministry of Environment and Natural Resources Protection to issue a National Report on the State of Environment every three years.[75]

Although the general frameworks exist for access to information, public participation and access to justice, the general provisions are not translated into specific procedures.[76] Moreover, public inclusion into decision-making processes is rare.[77]

Benchmarking	Partial Equivalence
Notwithstanding the Constitutional rights on access to environmental information, and the general frameworks that exist to implement the Aarhus Convention, the procedures for guaranteeing access to environmental information and participation in environmental decision-making are, on the whole, lacking. Specific legislation and administrative protocols should be developed, setting out in particular the rights of citizens to request information and the procedures for government to deal with such requests and setting out agreed procedures governing when and how to conduct public consultations on environmental policy and planning decisions.	

72. Constitution of Georgia, Art. 37(5), available at: <www.parliament.ge/uploads/other/28/ 28803.pdf>.
73. See Aarhus Convention Implementation Report from Georgia. (2010). Available from: <www.unece.org/ fileadmin/DAM/env/pp/reporting/NIRs%202011/Georgia_NIR_2011_e.pdf>.
74. The General Administrative Code of Georgia, chapter 3 (1984). Available at: https://matsne.gov.ge/en/document/view/16270
75. Resolution #389 of 25 June 1999 by President of Georgia „On the rules of preparation of a national state of the environment report” and amendments thereto of 1 November 2010 (Resolution #876 of 1 November 2010 by President of Georgia)
76. Green Alternative, Policy Brief “Convergence of Georgian Legislation with the EU Law, Horizontal Environmental Legislation” (2013) p.4
77. Sustainable Development and Reforms in Georgia, Lia Todua, Shota Murgulia, Centre for Strategic Research and Development of Georgia (CSRDG).

PART 4 | CONCLUSIONS AND RECOMMENDATIONS

4.1 Commentary and Conclusions

At a very general level, it is clear that Georgia is making significant progress in strengthening its water and environmental legislation, and since this is within the framework of the EU Association Agreement, the legislative developments closely reflect the EU acquis. Key priorities over the next few years will include completing the legislative programme, in particular in relation to those areas that are still behind in EU equivalency, and to develop and apply the support strategies, particularly as regards capacity building and investment in personnel, administration and technical / infrastructural requirements. In a sense, adopting new legislation is only the first step and the more challenging work begins once the laws come into force – i.e. how to achieve the objectives of the legislation.

The text below summarises the current state of play in Georgia against the key markers analysed in this study, and is followed by some general conclusions and recommendations.

4.1.1 Coherence with the Water Framework Directive

Designation of Competent Authority	Close Equivalence
Establishment of administrative arrangements for international rivers, lakes and coastal waters	Partial Equivalence
Identification of river basin districts	Close Equivalence
Analysis of the characteristics of river basin districts	Close Equivalence
Establishment of programmes for monitoring water quality	Close Equivalence
Preparation of river basin management plans	Close Equivalence
Preparation of a programme of measures	Close Equivalence

In principle, the draft national legislation very close reflects the general institutional framework of the WFD. In particular: (i) there is a designation of the competent authority, which is supported by an institutional framework which transcends to the river basin level; (ii) water management and governance is arranged at the river basin level; and (iii) a detailed framework for RBM planning is set out, including procedures for developing a programme of measures tied to RBM plans.

The level of change between current policy and legislative and administrative practice and that foreseen on the new law is substantial and, therefore, presents a significant challenge for the government to implement it. Success in implementing the new law will depend on developing adequate capacity (human resources, technical, financial) and expertise not only to carry out the assessments, monitoring and analysis envisaged in river basin planning, but also to implement the administrative processes required to develop, adopt and monitor river basin plans. The institutional structure envisaged in the draft law, including for example the coordinating Basin Councils, should assist in developing the models of consultation and integration that will be required to achieve successful river basin planning.

A potential gap in the future water management arrangements relates to water bodies shared with other countries. While in principle the legislative and institutional framework extends to cooperation in international RBDs, it is likely that specific administrative arrangements will need to be established, and there should be more comprehensive cooperation with countries sharing international water bodies.

4.1.2 Coherence with the Urban Waste Water Treatment Directive

Assessment of the status of UWW collection and treatment	Low Equivalence
Identification of sensitive areas and agglomerations	Low Equivalence
Establishment of systems of prior regulation or authorisation	Low Equivalence
Monitoring programmes	Partial Equivalence

Under the current legal framework there appears to be little equivalence with EU legislation. In particular, there are no detailed assessments of UWW collection and treatment systems, and the draft legislation does not currently make provision for identifying sensitive areas and agglomerations. Key initial actions to bring the legal and administrative framework in line include: developing a fuller assessment of the status of urban waste water collection and treatment; formalizing systems to generate, analyze and exchange data from assessments in particular so that they may be used in river basin management planning; and defining sensitive areas and defining the processes to manage and monitor them. In addition, the anticipated extension of current licensing controls to deal with discharges of urban wastewater will be an important step in controlling pollution.

4.1.3 Coherence with theEnvironmental Quality Standards

Application of environmental quality standards to water bodies	Partial Equivalence

A system of environmental quality standards currently exists, although this is focussed on public health and does not include most of the priority substances under EU legislation, control of which is essential to good freshwater ecosystem health. The draft water law anticipates the application of EQS for water, but specific legislation will need to be introduced to define the standards and how they are to be monitored and controlled.

4.1.4 Coherence with the Nitrates Directive

Identification of polluted waters and designation of nitrate vulnerable zones	Low Equivalence
Establishment of action plans and codes of good agricultural practices for nitrate vulnerable zones	Low Equivalence
Monitoring programme	Partial Equivalence

While there is no detailed assessment of the impacts of nitrates on freshwater conservation in Georgia, the harmful effects are in general well known and the National Environmental Action Programme of Georgia has identified reduction of pollution from diffuse sources in agriculture to be one a long-term goal. Currently, there is little in the existing or draft legislation dealing with nitrates, although the draft law recognises the requirements to identify polluted waters and to establish NVZs while roadmaps for the implementation of the Association Agreement outline that polluted waters or waters at risk should be identified, nitrate vulnerable zones should be designated and action plans and codes of good agricultural practices should be developed.

4.1.5 Coherence with the Floods Directive

Undertaking of preliminary flood assessment	Partial Equivalence
Preparation of flood hazards maps, flood risks maps and flood risk management plans	Partial Equivalence

While flooding as a weather event is outside of human control, the impacts of flooding can be managed when sufficient planning and precautions are developed. These measures should include assessment of potential environmental as well as human impacts, and where necessary should include measures to minimise biodiversity disturbance or loss and other environment harm.

The draft law incorporates to some extent flood risks within the river basin planning process, but there are needs to develop the information base, to extend current planning approaches and to define more clearly the roles and responsibilities of local government (municipal and regional level). Although the details have yet to be developed, it appears that the draft law sets the framework for developing flood risk management plans and that these are to be based on specific guidelines and given a regulatory basis.

4.1.6 Coherence with the Birds and Habitats Directives

Designation of protected areas for species and habitats	Partial Equivalence
Establishment of a register of protected areas for freshwater sites	Close Equivalence
Undertake surveillance of habitats and species	Partial Equivalence

In addition to measures taken to ensure the quality of the water itself, protecting freshwater ecosystems also requires measures to be taken to protect individual species and habitats that are endangered or otherwise in need of conservation support. A system for species and habitats protection exists currently in Georgia, but it is more restrictive in scope than the EU Natura 2000 system and it is not integrated into water management. The new law on biological diversity will extend protections and conservation controls for species and habitats and will establish a system closer in scope and form to that established by the EU nature Directives.

While it is recognised that the process for extending biodiversity protection in Georgia is to a large extent a distinct exercise from water policy, attention needs to be given to the integrations between the Habitats and Water Directives. Effective criteria need to be developed for identifying, designating and protecting sites in or dependent upon freshwater. Current mechanisms exist for recording and registering various types of protected zones in freshwater areas, and these will be expanded in the draft laws. Also, the draft water law specifically envisages the creation of a State register of protected water bodies, and requires that such bodies be recognised in the RBM planning process. However, specific legislation will be necessary to establish the rules and procedures for assigning protected status to the water bodies, to identify the procedure and criteria for inclusion in the State register of protected water bodies and to establish the legal controls arising from inclusion.

4.1.7 Coherence with other Legislation

Environmental impact assessment	Close Equivalence
Strategic environmental assessment	Partial Equivalence
Public participation and access to information	Partial Equivalence

The EIA process is well established in Georgia, and EIAs are carried out on a range of projects, including those which affect freshwater. The current regulatory system does not fully reflect the EU or EIA Convention models, but the new draft law introduces more consistency.

There is currently no specific legal basis for SEA procedures in Georgia, but the draft law has been developed to be consistent with the EU or EIA Convention models. Proper and effective implementation will require developing the administrative and technical expertise to conduct SEAs fully.

Notwithstanding the Constitutional rights on access to environmental information, and the general frameworks that exist to implement the Aarhus Convention, the procedures for guaranteeing access to environmental information and participation in environmental decision-making are, on the whole, lacking. Specific legislation and administrative protocols should be developed, setting out in particular the rights of citizens to request information and the procedures for government to deal with such requests and setting out agreed procedures governing when and how to conduct public consultations on environmental policy and planning decisions.

4.2 Recommendations

While the legislative programme is not yet complete (see Recommendation 1), attention needs to be given now to the programme for implementing the new legislative, administrative and technical procedures anticipated in the new framework. Adoption of new legislation is not the end of a process, but the beginning of one and the draft law raises many implementation challenges. The following general and specificrecommendations identify some of the key needs that emerge from the analysis in this study, in the context of supporting improved freshwater ecosystem conservation.

4.2.1 General Recommendations

Recommendation 1 | Complete the legislative programme.

An on-going priority is to complete the legislative programme. In a number of areas, legislation has yet to be adopted which will enable Georgia to have fully equivalent legislation to that in the EU, although in most cases that legislation is planned. Continuing attention will be required, of course, to ensure that further legislation reflects the corresponding EU legislation and aims of the Association Agreement.

Recommendation 2 | Begin to develop capacity building strategies for river basin planning.

In order to deliver the legislative and planning processes fully and effectively, attention will need to be given to building administrative, technical and infrastructural capacities, and to identifying and sourcing the necessary levels of financial, technical and human support. A process should be established to develop capacity building programmes for implementing the new legislative, administrative and technical procedures anticipated in river basin management and planning. Attention needs to be given to building administrative, technical and infrastructural capacities, and to identifying and sourcing the necessary levels of financial and staff support. The process should start with a preliminary needs analysis, to determine the priorities and key strategies for funding and learning.

Recommendation 3 | Establish an inter-ministerial coordination mechanism.

While the WFD and the draft water law foresees a highly integrated approach to water management, many of the coordinating and integrating mechanisms in the legislation will take a number of years to become established. In the short to medium term, an inter-ministerial coordination mechanism for integrated water policy should be established. All relevant Ministries and government agencies should be represented (including at least the MENRP, Ministry of Labour, Health and Social Affairs, Ministry of Agriculture, Ministry of Regional Development and Infrastructure, Ministry of Energy, Ministry of Foreign Affairs and Ministry of Finance), and representatives should be senior officials. The purpose of the mechanism would be to ensure coordination across different government portfolios (including coordination of the nine sector-specific roadmaps under the Association Agreement).

Recommendation 4 | Develop closer legislative integration.

Water policy, more than many other policies, is highly inter-sectoral. It is essential that proper links exist between the different sectoral legislative regimes, as legal instruments are the main way of defining rules which apply to all actors and stakeholders, be they public or private. Thus, particular attention should be paid to the legal framework, which should be both efficient and consistent. This needs to be applied in relation to all relevant legislation, but it may be noted that some mechanisms exist for dealing with cross-sectoral issues: in particular, SEA and EIA address the inter-section between economic and developmental activities and the environment (including the freshwater environment). However, there is also a need to strengthen the links between water, forest, biodiversity and other legislation for adequate protection of the freshwater ecosystems. This requires – among other things - that assessment, permitting and other procedures in each area of sectoral legislation complements and does not conflict with freshwater conservation legislation, and ensuring that monitoring and enforcement powers under each area of sectoral legislation and under water legislation do not lead to any gaps and are clearly defined and understood where there is overlapping jurisdiction.

Recommendation 5 | Give higher priority to transboundary issues.

Currently, transboundary river basin management and other international cooperative issues are somewhat absent. As a first step, consideration should be given to ratification of the two water Conventions, while in the longer-term opportunities for bilateral and sub-regional cooperation on transboundary water management should be explored.

4.2.2 Specific Recommendations

Recommendation 6 | Integrate RBMPs into other planning actions at the basin level.

While river basin management planning itself represents a mechanism to enable water management, planning and decision-making to take account of other sectors, interests and processes, this integration will be impeded (or worse, bypassed) if connecting processes are not aligned with the river basin mechanisms. Other planning (and other land and water use) actions will therefore need to reflect the existence of river basin management mechanisms, including as necessary through legislative changes. The current processes to develop legislation under the EU Association Agreement are arguably too isolated, and need to be more joined up. For example, and as noted above, Article 22 of the draft law concerningbiological diversity requests that protection goals are incorporated during planning processes at central, regional and municipal levels, but the linkage with river basin planning is not explicitly mentioned.

Recommendation 7 | Develop guidelines and tools for adoption of Programmes of Measures.

While the general legislative framework established under the draft legislation appears in close conformity to the WFD, in practice the viability of PoMs will depend on having an effective legislative regime for basic measures (i.e. the equivalent national legislation to the EU legislation listed in the first column of Table 4 - Measures to be included in the Programme of Measures) and having the decision-making and analytical processes and capacity (e.g. for data collection and assessment) to identify the need for and appropriately select supplementary measures. Processes will need to be developed, at least at the river basin level but also nationally, to (a) evaluate whether basic measures are being implemented fully and effectively, and then (b) determine the need for and select supplementary measures. While some decisions on supplementary measures will need to be taken at the national level (e.g. is additional legislation required, or emission controls, etc.) some could be taken at the river basin level. However, guidance will need to be developed on how to carry out these assessments and make corresponding decisions, and models and guidelines will need to be developed for implementing supplementary measures (e.g. codes of good practice, negotiated environmental agreements, education projects, etc.).

Recommendation 8 | Develop regulations for data management.

Access to good quality, reliable data is key to effective environmental and water governance. The first step is of course to generate the data, and once generated it is imperative that it is accessible to those that need it and it is used properly in decision-making. To some extent, this will rely on capacity building measures related to data processes (see General Recommendations) but it will also need to be supported by specific regulations. These regulations can formalise systems to generate, analyse and exchange data related to water and/or the environment – for example, by defining responsibilities on individuals and companies to provide information, or on public bodies to collect information; and by establishing legally robust data exchange and data sharing programmes for river basin management, including specific requirements to make use of certain data when available. Regulations should also address matters such as personal data protection, commercial confidentiality and access to environmental information. Municipalities should also be given responsibility to collect relevant information and to provide it to the Basin Management Unit as part of legally established data exchange programme in river basin management.

Recommendation 9 | Integrate flood risk management plans into other planning actions.

Roadmaps for the implementation of the Association Agreement in the fields of environment and climate action include plans to develop “the guidelines for flood risk management plans” by 2018. The completion of these guidelines will be an important step, but should be developed in an integrated manner, taking account not only of environment and climate actions but also water and other (e.g. planning, agriculture, etc.) policies.

Flood risk management plans (including preliminary flood risk assessment and flood hazards and risks maps) should be integrated into other planning actions, for example local land-use plans, resettlement and development plans, infrastructural projects, sectoral plans, management plans of protected areas and natural resources management plans. Existing legislation includes general requirement for this but there is a need to define rules, methodologies and procedures – for example, to include specific rules on publication and exchange of information and on consultation during planning or decision-making processes. Additionally, the roles and responsibilities of local government (municipal and regional level) in the provision data for and conducting preliminary flood assessments need to be clarified and adequately defined in legislation.

Recommendation 10 | Strengthen biodiversity protection in water bodies.

While it is recognised that the process for extending biodiversity protection in Georgia is to a large extent a distinct exercise from water policy, attention needs to be given to the integrations between the Habitats and Water Directives. Effective (objective and scientific) criteria need to be developed for identifying biodiversity or habitats in need of protection and a regular process for considering and reviewing decisions on designating and protecting sites in or dependent upon freshwater should be developed. Respective provisions should be incorporated to the legislation governing other sectors such as forest legislation (e.g. provisions to assign protected or conservation status to forest with important or threated freshwater ecosystems or habitats). Specific legislation may be necessary for establishing rules and procedures for assigning protected status to the water bodies (e.g. specific protection zones, recognizing the different uses, threats and demands related to water use), as well as for creation of the State register of protected water bodies.

Recommendation 11 | Strengthen integration in environmental monitoring.

As has been noted, there is a need to ensure that water and environmental legislation and governance are developed in an integrated manner, and the approach of close integration needs to be followed through at the operational level, for example (and in particular) in relation to environmental monitoring. In developing monitoring programmes, the legislation needs to pay attention to the need to integrate biodiversity monitoring with water monitoring programmes and river basin planning processes. This is not only a question of operational efficiency (collect once, use many times) but ensures that data is accessible (e.g. by ensuring inter-operability between different uses and users) and that conflicts in environmental data are minimised.

Recommendation 12 | Develop criteria and procedures for implementing special zones.

A recurring feature in water and environmental legislation is the use of special zones or areas to manage certain threats and/or implement certain protections. There is extensive existing experience in such zones in the environmental sector (protected areas, etc.) but some of the zones in EU water legislation are new – for example, sensitive areas under the UWWTD or nitrate vulnerable zones under the Nitrates Directive. The legislation will need to define clearly the procedures for establishing such zones (in particular, which body will have responsibility for designating them, how the designated zones will be publicised and enforced, etc.), and guidelines should be developed for all stakeholders on managing their responsibilities within these zones.

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