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

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ABBREVIATIONS

AEWA	Agreement on the Conservation of African-Eurasian Migratory Waterbirds
BD	Birds Directive
Bern Convention	Council of Europe Convention on the Conservation of European Wildlife and Natural Habitats
CBD	Convention on Biological Diversity
CMS	Convention on Migratory Species
EIA	Environmental Impact Assessment
EQSD	Environmental Quality Standards Directive
EU	European Union
FD	Floods Directive
HD	Habitats Directive
MEA	Multilateral Environmental Agreement
ND	Nitrates Directive
NVZ	Nitrate Vulnerable Zone
Ramsar Convention	Convention on Wetlands of International Importance Especially as Waterfowl Habitat
SEA	Strategic Environmental Assessment
SBSTTA	Subsidiary Body on Scientific, Technical and Technological Advice
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
WRMA	Water Resources Management Authority
WUA	Water User Association

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 Azerbaijan 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 Azerbaijan.

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; and
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 Azerbaijan and the need to provide a standard methodology across the other reports in Armenia and Georgia, 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?

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

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.

EXECUTIVE SUMMARY

The Republic of Azerbaijan, which shares territorial borders with Russia in the north along the Samur River, Georgia in the northwest, Armenia in the west and southwest, and Iran and Turkey in the south, has limited water resources in comparison with other countries in the South Caucasus (less than one thousand cubic meter of water per person per year) but is rich in biological diversity. The main water bodies comprise rivers, lakes, reservoirs and glaciers. About 67-70 per cent of water resources are part of transboundary networks.

There is concern over the quantity and quality of all surface waters – especially the ecological situation in the largest two trans-boundary rivers, the Kura and Ara(k)s. Among the issues related to water resources management are: problems with the institutional framework, increasing water scarcity, degradation of water quality, water-related hazards including flooding and the impacts of agriculture, industry and urban development. Various legislation, policies and administrative structures exist to deal with environmental issues in water. Both water legislation and environment legislation in Azerbaijan are based on a complex series of legislative enactments and legal standards, in addition to a wide-range of national policy directions, programmes and action plans. However, it is recognized that further work needs to be done to strengthen legislation in both fields.

This report considers the coherence of national legislation, policy and institutional arrangements with the Water Framework Directive, and it's associated Directives, with a focus on the requirements needed to support effective freshwater ecosystem conservation. The review includes 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. Consideration will then be given to some of the specific water Directives, including those dealing with urban waste water, environmental quality standards, nitrates and flooding.

Coherence with the Water Framework Directive

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

Currently water management in Azerbaijan is not organised on the basis of river basin districts. Within the work being carried out under international projects consideration is being given to division of the territory into basin districts, but these proposals would need to be adopted by the Government and would require administrative and institutional changes, as well as changes in policy. There is a need to designate river basin districts within Azerbaijan as a first step to implementing integrated river basin management. Proposed river basin districts under the *Environmental Protection of International River Basins* project should be given formal consideration at the governmental level.

Given that river basin management does not take place in Azerbaijan, many of the practices and procedures that fall within this framework in EU legislation (e.g. identifying and analysing river basin districts, preparing river basin management plans and programmes of measures, etc.) do not take place in Azerbaijan. In addition, while responsibilities for State bodies are defined in legislation, there is formally no “competent authority” to be responsible for river basin management according to EU WFD. There is a need to clarify the responsibilities of State bodies concerned in water and environmental matters, and to strengthen integrated governance in these fields (in addition to the need to create Basin Management Organizations and Public Basin Councils in different River Basins Districts).

It should be noted that soon some amendments will be made to water law according to international (EU) legislation as work is ongoing in this direction.

While in practice some inter-state cooperation exists (including some which may be viewed as establishing “appropriate administrative arrangements” such as the Iran-Azerbaijan Commission, Azerbaijan-Russian cooperation in relation to Samur River and an anticipated agreement with Georgia on water resources) international cooperation

is incomplete, and does not adopt a river basin management approach. There are no any specific frameworks for developing transboundary arrangements.

The need for monitoring programmes is recognized within the water legislative framework, and some monitoring is carried out. Formally these are not tied to specific water bodies identified in river basins, but are designed to monitor regime or pollution of entire river below towns (often in the upstream as well) that is impacted by human activity, although pilot projects in two river basins based on WFD compliant monitoring programmes are being developed. In practice, however, monitoring programmes are limited by lack of technical and financial capacities.

Coherence with the Urban Waste Water 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	Partial Equivalence
Monitoring programmes	Low Equivalence
Preparation of a programme of measures	Low Equivalence

Although there is long-standing legislation on water supply and sanitation, this does not extend to requirements to assess the status of urban wastewater collection and treatment. There is currently no system for identifying areas sensitive to urban waste water discharge or assessing the impact from agglomerations of different scales.

While there is currently 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. There is currently no system for monitoring urban waste water discharges.

It should be noted that currently a governmental working group is preparing a new draft legislation on urban waste water management according to international standards.

Coherence with the Environmental Quality Standards Directive

Application of environmental quality standards to water bodies	Partial Equivalence
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A system of applying environmental quality standards to waters does exist in relation to surface waters, but it is based on a somewhat out-dated and rudimentary pollution index and in any case is not applied to waters as widely as the WFD requires (for example, it is not as wide in scope of the WFD list of “priority” (polluting) substances and their corresponding limits on concentrations).

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	Low Equivalence

There appears to be no equivalent practice currently in Azerbaijan. While some monitoring of nitrates does take place, this is not part of a formal monitoring programme for nitrates and is not connected to system of managing nitrates. NVZs are not designated and no management plans or codes of good practice have been adopted. Current initiatives exploring these matters need to be extended and formally implemented.

Coherence with the Floods Directive

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

While there is comprehensive legislation on flood prevention and flood responses, there is no overall integrated planning, risk assessment and management strategy, which impedes the ability to identify and mitigate the impacts of flooding events on biodiversity. There is also little work undertaken in conducting flood assessments and mapping flood risks.

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	Low Equivalence

The protection of biodiversity in Azerbaijan is quite extensive, and a comprehensive and adaptable system of protected areas is provided through the legislation. While the designation of protected areas does not completely correspond to the objectives and criteria in the Habitats Directive, and while some of the protective measures contained in EU legislation are not fully replicated, the overall framework in Azerbaijan does resemble that in the EU, and the potential for stringent protection exists through State controls or subsidiary legislation. In order to strengthen the protection of freshwater ecosystems, further attention should be paid to designating key freshwater biodiversity areas, which are sites of particular importance for the persistence of freshwater biodiversity but currently unprotected. Establishing specific criteria for selecting sites eligible for identification as sites of national importance would facilitate this.

While sectors of rivers falling within the boundaries of Nature Special Protected Areas are protected and applied in line with the general requirements of the law, there appears to be no formal register of sites and no formal mechanism for ensuring nature protection legislation and water legislation are connected.

Coherence with Other Legislation

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

Current legislation provides a limited EIA procedure, but it does not correspond to the objectives or criteria in the EU EIA Directive or the Espoo Convention. Legislation currently being drafted reflects these instruments more closely, but still requires further development to be closely equivalent.

There is currently no law or other procedure in place to conduct strategic environmental assessments.

There is relatively extensive legislation on freedom of and access to information, including environmental information, in Azerbaijan although it only partially reflects equivalent legislation in the EU and under international conventions and has not created an open system of government. As regards environmental information and public participation specifically, there are only limited rights for the public and no specific procedures for responding to information requests or participation in environmental decision-making.

Recommendations

Recommendation 1 | Develop a vision and strategy for river basin management.

Recommendation 2 | Take preliminary actions for river basin management.

Recommendation 3 | Reform the legislative instruments.

Recommendation 4 | Strengthen water monitoring programmes.

Recommendation 5 | Improve a system for managing nitrates.

Recommendation 6 | Strengthen flooding and disaster risk assessment and management.

Recommendation 7 | Consider new legislative amendments and designations for freshwater habitats protection.

Recommendation 8 | Strengthening a system for licensing and control.

Recommendation 9 | Complete a legal framework for Strategic Environmental Assessment and Environmental Impact Assessment.

PART 1 | BACKGROUND

1.1 Water Sector in Azerbaijan

1.1.1 Water resources in Azerbaijan

The Republic of Azerbaijan, with a territory of 86,600 km², is a coastal State bordering the Caspian Sea and sharing territorial borders with Russia in the north along the Samur River, Georgia in the northwest, Armenia in the west and southwest and Iran and Turkey in the south. The Caspian coastline runs from the Astara River to the Samur River for 825 km.

There are 8,359 rivers in Azerbaijan. Most of these are small tributaries, although two (Kur and Ara(k)s Rivers) have a length of more than 500 km. There are 5,141 rivers in the Kur River basin, 1,177 in the Ara(k)s River basin, while the number of rivers that flow directly into the Caspian Sea is 3,218. Common river network density is about 0.36 km/km². In addition to rivers, surface waters comprise lakes, reservoirs and glaciers. About 67-70 per cent of water resources are part of transboundary networks.

The water resources of Azerbaijan are limited in comparison with other countries in the South Caucasus and accounts for only 1/3 of Kura basin water resources is formed within Azerbaijan. From the water supply point, Azerbaijan is considered to be one of the driest regions of the world with approximately 100,000 m³/year of water per km², and the annual amount of water per person is 950 to 1,000 m³/year. Moreover, the water resources are shared unequally, with good water availability in some mountainous regions compared to significant shortages in some lowlands.

1.1.2 Economic use of water

Water withdrawal and waste water. In 2005, the total water withdrawal for agricultural, domestic and industrial purposes was 11.5 km³, of which 60-70 % was used in agriculture, 20-25% to other economic activities and the remainder for water supply of cities and other residential areas. Water losses makes up 3-4 km³. The annual production of wastewater is about 0.57 km³. Most wastewater is produced by industries such as cotton cleaning, cotton oil production, fish-curing and grape processing. It is estimated that 18% of the produced wastewater is treated.

Agriculture. Agriculture is strategically important for the country's social and economic development, as it provides income and employment for about 40% of the work force, while ensuring household and national food security. Azerbaijan is highly dependent on irrigation for most of its agricultural production. The total area of irrigated land exceeds 1.4 million hectares, about 30 per cent of the total utilized agricultural area of the country. Irrigation uses 70% of the water diverted from rivers, and there are significant opportunities to enhance productivity and efficiency of water use in irrigated agriculture.¹

Table 1 provides data related to annual water abstractions and use by sector. For the year 2013, the total water abstraction is about 12.5 billion m³, of which about 8.230 billion m³ are usefully consumed and about 4.28 billion m³ constitute losses.

Table 1. Water abstractions from the Kura River and sectoral use

Water Abstraction (million m ³)	2000	2005	2007	2008	2009	2010	2013
Total water abstraction	11 100	12 050	12 270	11 700	11 425	11 566	12 500
Total water consumption	6 580	8 600	8 370	7 880	7 640	7 720	8 230
of which:							
Domestic purposes	450	520	360	350	380	400	310
Industrial needs	2 315	2 360	2 160	2 040	1 640	1 740	2 060
Drinking water	82	61	50	41	46	54	53
Irrigation supplies	3 820	5 710	5 840	5 475	5 590	5 500	5 750
Volume of recycled and Consequently used water	1 875	2 225	2 080	2 490	1 890	1 790	2 185
Water losses in conveyance	3 050	3 460	3 900	3 850	3 785	3 850	4 280
Discharge of sewage waters	4 115	4 885	5 245	5 335	4 825	6 040	5 175

Source: Data provided by Amelioration JSC.

1. Most crop production takes place on irrigated lands in the plains area of the Kura-Ara(k)s River basin. Yields of most crops are low by international standards (World Bank, 2012).

Irrigation supplies were about 5.75 billion m³, which is about 70% compared to total amount consumed (8.23 billion m³); and about 46% when compared to the total abstracted amount of 12.5 billion m³. The losses, mostly in the conveyance of water supplies for irrigation, municipal and other uses and application to irrigated lands, are quite high – about 35%.

Irrigation and drainage development: Irrigation is essential to both Azerbaijan's agriculture and economy as it supports water requirements of a large part of Azerbaijan's cropped land (World Bank, 2012). Current irrigated area is reported to be 1.45 million ha and the total cultivated land is about 2.1 million ha². The total area sown to agricultural crops in 2013 (including rain-fed areas) was 1.68 million ha according to data from the State Statistical Committee. Out of the 1.45 million ha equipped for irrigation, 615,000 ha are subject to various degrees of salinity: 60 000 ha are salinized to a high degree, 124,000 ha to a medium degree, and 431,000 ha to a slight degree. The total length of the drainage network is 31,000 km, covering almost 600,000 ha in 1995, all in the areas equipped for irrigation.

Water for domestic, municipal and industrial purposes: To supply water for drinking and other domestic purposes, the Azersu JSC, has tapped diverse surface and subsurface water sources. Since the waters of Kura river are heavily polluted, the city of Baku is supplied with good quality water obtained from distant sources.

1.2 Policy and Legislative Context

Both water legislation and environment legislation in Azerbaijan are based on a complex series of legislative enactments and legal standards. The main laws include: the Water Code of the Republic of Azerbaijan (in effect since March 17, 1998), Law on Melioration and Irrigation (September 26, 1996), Law on Water Supply and Sewage (January 31, 2000), Law on Hydro-meteorological Activity (August 25, 1998) and the Law on Environmental Protection (August 10, 1999). In addition, the Government has approved a number of decisions, defining more detailed rules for water and environmental management, for example including decisions on environmental monitoring, exploitation and protection of water objects, pollution control, etc.

In addition to legislative provisions, the management of water and the environment is subject to a wide-range of national policy directions, programmes and action plans. The President has approved comprehensive state programs and national plans on socio-economic development in Azerbaijan, use of natural resources, including water resources and environmental protection. These programs and plans include the following:

- State Program on poverty reduction and sustainable development in the Republic of Azerbaijan in 2008-2015. September 15, 2008, No. 3043 (2nd Program);
- State Program on socio-economic development of the regions of the Republic of Azerbaijan in 2009-2013. April 14, 2009, No. 80 (2nd Program. 3rd Plan is about to be prepared);
- State Program on sustainable supply of the population with food products in the Republic of Azerbaijan in 2008-2015. August 25, 2008, No. 3004 (2nd Program);
- Integrated Action Plan on improvement of ecological situation in 2006-2010. September 28, 2006, No. 1697 (2nd Plan is about to be prepared);
- National Program on ecologically sustainable socio-economic development in the Republic of Azerbaijan. February 18, 2003. No. 1152 (former National Action Plan was adopted in 1998);
- National Program on restoration and enhancement of forests in the Republic of Azerbaijan. February 18, 2003, No. 1152;
- State Program on efficient use of summer-winter pastures, hayfields and prevention of desertification in the Republic of Azerbaijan. May 22, 2004, No. 222;
- Program for Hydrometeorology Development in the Republic of Azerbaijan. January 28, 2004, No. 62;
- State Program on use of alternative and renewable energy sources in the Republic of Azerbaijan. October 21, 2004, No. 462 (2nd State Program is under development);
- State Program on development of tourism in 2010-2014 in the Republic of Azerbaijan. April 6, 2010, No. 838 (2nd Program);

2. Annex D on Irrigation and Drainage provides detailed information about land use in Azerbaijan.

- National Strategy and Action Plan on protection and sustainable use of biological diversity in the Republic of Azerbaijan. March 24, 2006. No. 1368;
- State Program on development of resorts in the Republic of Azerbaijan in 2009-2018. February 6, 2009, No. 125.

In addition to socio-economic development and environmental protection issues, all of these state programs and national plans cover issues related to efficient use and sustainable management of natural resources, including water resources, land and forest resources, combating desertification and climate change, reduction of land and forest degradation, reduction of water pollution and measures to prevent flood and mudflows.

A number of State bodies, specialized institutions and organizations are engaged in the management of water and environmental resources.

The Ministry of Ecology and Natural Resources (MENR) has responsibilities related to the management of water sector, flooding, mudflow, submergence, landslide and natural disasters. Its main functions include: preparing State programmes on the use and protection of water bodies; organizing hydrometeorology services; and follow the implementation of proposals, etc. Within the composition of the Ministry, several bodies have functions related to water, including: the Ecology and Nature Use Policy Department, Environmental Protection Office, National Hydrometeorology Department, regional field departments and other institutions which control rational use and protection of water bodies and lands.

The Ministry of Emergency Situations (MES) has responsibilities and competence in the area of management of flood, mudflow, submergence, landslide and other similar natural disasters.

The State Agency for Water Resources (SAWR), which falls under the MES, ensures protection of water reservoirs of national importance; oversees technical maintenance of water reservoirs; conducts monitoring of water bodies, hydrotechnical structures and water supply systems; and undertakes measures to improve water resources management. The Agency participates in the protection of water bodies, hydrotechnical structures and water supply systems in emergency situations and takes part in the mitigation of the results of the emergency situations jointly with other structural units of the Ministry and relevant public institutions.

The Azerbaijan Amelioration and Water Economy OJSC, in line with its Charter, implements functions related to supply water consumers with water (primarily irrigation water) within its authorities, organize use of surface water bodies, operation and protection of state-owned amelioration and irrigation systems, distribute water taken from water bodies in the established order and organize control over use thereof, provide relevant state bodies with proposals on use, protection of surface water bodies and prevention of harmful effects of water, and monitoring data on surface water bodies, develop and implement measures on prevention of harmful effect of waters and mitigation of its results, organize operation of coast protection facilities.

“Azersu” OJSC, a non-state institution, and its relevant agencies and subordinate institutions deal with public drinkable water supply and wastewater management.

The state control on quality of water, particularly drinkable water is exercised by the Ministry of Health, its central and local bodies.

The coordination between the state and non-state bodies function in the water sector of Azerbaijan and the leadership over the whole sector is exercised by the Cabinet of Ministers and its relevant departments.

1.3 Key Threats, Challenges and Opportunities

The mix of geographic, biological and climatic conditions in Azerbaijan has led to an outstanding level of diversity in its flora and fauna. Azerbaijan's biodiversity importance is internationally recognized, as part of the Caucasus Ecoregion, an area that is included as one the 25 most endangered and diverse ecosystems on Earth, in global biodiversity assessments conducted collaboratively by major international conservation groups during the past decade. An Ecoregional Conservation Plan for the Caucasus, coordinated by WWF, in close cooperation with other international NGOs and foundations, was published in 2006 and has been used to guide biodiversity conservation efforts in this area for many years.

Among this rich biodiversity is substantial freshwater and freshwater-dependent wildlife. Azerbaijan is an important migratory path for many species travelling from Europe and Russia and south to Africa and Asia, and the lakes and wetlands of Azerbaijan attract many waterfowl species that migrate through or winter in the country.

In the Kura-Ara(k)s Valley and Floodplain, for example, a number of large reservoirs and natural lakes form significant wetland habitat for migratory and breeding bird populations as well as wetland plant communities, which provide food for hundreds of thousands of ducks, swans, coots and other resident and migratory bird species. A number of the waterfowl using these wetlands are internationally threatened. Other freshwater biodiversity includes over a hundred species of fish and various species of turtles, lizards and snakes.

There is concern over the quantity and quality of all surface waters – especially the ecological situation in the largest two trans-boundary rivers, the Kura and Ara(k)s. The data from the Georgian-Azerbaijani border show values higher than maximum allowable concentrations (MACs) for phenols, oil products, metals and sulphates. The Ara(k)s River water entering Azerbaijan is reported to exhibit concentrations in excess of one hundred times the MACs for copper, molybdenum and other heavy metals. Water related hazards – floods and droughts – occur more frequently causing substantial damage to the life and property.

Issues related to water resource management are: related to the institutional framework, increasing water scarcity, degradation of water quality, water-related hazards including flooding, and low productivity and water use efficiency in agricultural sector. Agriculture is strategically important for the country's social and economic development, as it provides income and employment for about 40% of the work force, while ensuring household and national food security. Agriculture is also important since irrigation uses 70% of the water diverted from rivers, and there are significant opportunities to enhance productivity and efficiency of water use in irrigated agriculture.³

The administrative structure currently in place needs to be strengthened to ensure optimal use of country's water resources in meeting its diverse needs including food security, good quality water for domestic purposes, managing floods and maintaining healthy river eco-systems. The water sector's institutional framework suffers from a lack of integration and that coordination among related authorities is weak. Of particular concern is the absence of a sector information generation and dissemination programme.

3. Most crop production takes place on irrigated lands in the plains area of the Kura-Ara(k)s River basin. Yields of most crops are low by international standards (World Bank, 2012).

PART 2 | INTERNATIONAL AND EUROPEAN LEGAL FRAMEWORK

This report assesses the extent of coherence between legislative and governance mechanisms for the conservation of freshwater biodiversity in Azerbaijan with that in the European Union. The starting point for any analysis of the legal frameworks governing freshwater ecosystem conservation, however, must necessarily be the various international legal rules. These rules represent not only internationally-agreed standards and principles but also set out the framework that EU law seeks to implement in its freshwater policies, and also – to the extent that they are Parties to the relevant agreements – the framework for the South Caucasus countries.

The international rules relevant to freshwater ecosystem conservation fall into three broad categories: international water conventions; conservation and biodiversity conventions; and other environmental conventions, for example dealing with environmental impact assessments. In general, the participation of Azerbaijan in these types of agreements is high for conservation/biodiversity and environmental conventions.

Table 2. Participation in international treaties

Instrument	Status
Water Conventions	
Convention on the Protection and Use of Transboundary Watercourses and International Lakes	03.08.2000
Protocol on Water and Health	09.01.2003
Protocol on Civil Liability and Compensation for Damage Caused by the Transboundary Effects of Industrial Accidents on Transboundary Waters	-
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	28.03.2000
Convention on Biological Diversity	03.08.2000
Convention on Migratory Species	-
Agreement on the Conservation of African-Eurasian Migratory Waterbirds	-
Convention on Wetlands of International Importance Especially as Waterfowl Habitat	21.09.2001
Other Environmental Conventions	
United Nations Framework Convention on Climate Change	16.05.1995
Convention on Environmental Impact Assessment in a Transboundary Context	25.03.1999
Protocol on Strategic Environmental Assessment	-
Convention on Access to Information, Public Participation in Decision Making	23.03.2000

Key	Party	Non-Party / Signatory only
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2.1 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 Azerbaijan.

2.2 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 million hectares. There are 7 Ramsar sites in the South Caucasus countries with two of them in Azerbaijan.
- 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.

2.3 Other 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 to this Convention 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.

2.4 EU Legislation

2.4.1 The Water Framework Directive

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.

2.4.2 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.

2.5 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 an 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.

2.6 EU Approximation

Since 1999, the Partnership and Cooperation Agreement⁴ (PCA) has provided the legal framework for EU-Azerbaijan bilateral relations in the areas of political dialogue, trade, investment, and economic, legislative and cultural cooperation. Following the inclusion of the South Caucasus into the European Neighbourhood Policy in 2004, an ENP Action Plan⁵ was signed between Azerbaijan and the EU in 2006 covering issues ranging from democratisation to poverty alleviation, and including cooperation both on water and environmental matters. In 2010, the EU and Azerbaijan began negotiations on an Association Agreement, but no agreement has been concluded.

The State Commission of the Republic of Azerbaijan on EU Integration implements relevant activities with respective organizations in relation to the approximation of Azerbaijan water and environmental legislation into EU legislation, especially with respect to the Flood and Water Framework Directives, according to the 2006 Action Plan. Approximation of national policy and legislation to EU norms also occurs within the framework of integrated water resources management planning in Azerbaijan, which was included into the State Program on social-economic development of regions of the Republic of Azerbaijan for years 2009-2013 and continues to be considered in other on-going programmes. In particular, much work has been carried out under the support of the EU Environmental Protection of International River Basins Project, including the application of WFD principles on water monitoring, assessment and river basin management planning through a pilot project in the Central Kura River Basin District. A draft mechanism for implementation of the river basin management approach in Azerbaijan has also been developed, and is under consideration by relevant authorities.

4. eeas.europa.eu/delegations/azerbaijan/documents/eu_azerbaijan/eu-az_pca_full_text.pdf.

5. eeas.europa.eu/enp/documents/action-plans/index_en.htm.

PART 3 | COHERENCE ANALYSIS OF NATIONAL LEGISLATION AND POLICY

3.1 Coherence with the Water Framework Directive

This section will consider the coherence of national legislation, policy and institutional arrangements with the Water Framework Directive, and its associated Directives, with a focus on the requirements needed to support effective freshwater ecosystem conservation. The review includes 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. Consideration will then be given to some of the specific water Directives, including those dealing with urban waste water, environmental quality standards, nitrates and flooding.

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

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 or international body as competent authority (WFD, Art. 3(6)).

At the national level, two ministries (the Ministry of Ecology and Natural Resources and the Ministry of Emergency Situations) have extensive responsibilities for the management of water and environmental matters. Other ministries (notably those dealing with agriculture and energy) have responsibilities for matters affecting water use and water resources. While the responsibilities and competences of each Ministry are defined in national law, these defined responsibilities overlap and in practice there is not always clear understanding – or even agreement – on the responsibilities within government.

There are some proposals to create a State Water Commission for the coordination of water management organizations, as a national level entity to apply a basin management approach according to IWRM principles, and to Public Basin Councils in different river basin districts. The proposals have yet to be adopted, however.

Benchmarking	Partial Equivalence
While responsibilities for State bodies are defined in legislation, there is no “competent authority” to be responsible for river basin management according to EU WFD. and there is a need to strengthen integrated governance in these fields. There is need to create Basin Management Organizations and Public Basin Councils in different River Basins Districts.	

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.

Azerbaijan has entered into a number of international agreements and other cooperative arrangements with its neighbours. In particular, regular cooperation takes place with Iran (Ara(k)s river) and Russia (Samur river) on

joint protection and use of water resources of the shared rivers, to which end relevant working groups have been created and meet regularly. Cooperation with Iran takes place through the Iran-Azerbaijan Commission which was established subject to an agreement signed between the Islamic Republic of Iran and the former USSR in 1963. The Commission meets annually to consider issues of joint use of water and energy resources of the Ara(k)s River and to resolve any problems that arise out of such use. (A proposed intergovernmental Treaty on the Demarcation of Waters has not been signed yet, however). As regards Russia, an agreement was signed between Azerbaijan and Russia on September 3, 2009 on joint use of water resources of the Samur river.

A number of other agreements have been concluded which also address cooperation on freshwater conservation. These include: Memorandum of Understanding among the Ministry of Environment of Georgia and the State Committee for Ecology and Natural Resources of Azerbaijan Republic on Collaboration in the Development and Implementation of the Pilot Project On Monitoring and Assessment in the Mtkvari/Kura River Basin; Agreement between the Governments of Georgia and Azerbaijan Republic on Collaboration in Environmental Protection; and Protocol on Results of Negotiation between the Governmental Delegations of Georgia and Republic of Azerbaijan on Water Resources Usage.

An agreement is expected to be signed soon on the use of water resources of the trans-boundary rivers with Georgia, including the Kura and Khram rivers.

Benchmarking	Partial Equivalence
While in practice some inter-state cooperation exists, including some which may be viewed as establishing “appropriate administrative arrangements” such as the Iran-Azerbaijan Commission, formal international cooperation is in practice rather limited and moreover transboundary approaches needs to incorporate more widely and more routinely a river basin management approach. A specific legal framework should be developed to provide a foundation for transboundary river basin management. In particular, the objectives, powers and functions of government in this regard (including specification of the roles of the different Ministries involved in developing international agreements concerning environment and water) should be defined, and the principles and criteria for transboundary cooperation should be determined.	

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 coordinate programmes of measures and other relevant programmes within the river basin district;
- They form the main progress reporting mechanism.

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.

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, shall 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.

Currently water management in Azerbaijan is not organised on the basis of river basin districts. Within the work being carried out under the EU Environmental Protection of International River Basins project there is a proposal on division of the territory into basin districts, but these proposals would need to be adopted by the Government and would require administrative and institutional changes.

Benchmarking	Low Equivalence
There is a need to designate river basin districts within Azerbaijan as a first step to implementing integrated river basin management. Proposed river basin districts under the Environmental Protection of International River Basins project should be given formal consideration at the governmental level.	

3.1.2.2 Analysis of the characteristics of river basin districts

Article 5 of the WFD requires that each EU Member State carries 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.

Formally, analyses of the characteristics of river basins considered according to principles of WFD needs to be part of the policy or legislative framework of water management in Azerbaijan. Nevertheless, some work in this regard has been undertaken through the EU Environmental Protection of International River Basins Project, where characteristics of the basin district were analysed for a pilot region (Central Kura River Basin District). Some work was also undertaken in the Ganikh (Alazan) river basin through support of the EU Kura TECIS project. It is anticipated that the RBMP for the Central Kura Basin District will be completed in the near future, taking into account the analyses undertaken, and that future RBMPs will undertake similar analyses.

Benchmarking	Low Equivalence
There is no legislative requirement or policy directive for conducting an analysis of the characteristics of river basin districts, as anticipated by the WFD. Moreover, while institutions exist with the mandate to conduct the analyses (at least partly), there needs to be capacity-building (technical, financial and personnel training) on assessment techniques, supported by specific guidance on what should be included in each of the assessments required (for example, based on Annex II and III of the WFD). Given the underlying importance of these analyses for effective water policy, increased attention should be paid to developing the capacities required.	

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.

The Water Code of the Republic envisages measures and provides regulations for pollution monitoring. According to the water legislation and legislation on environmental protection, the monitoring of water sources is to be implemented by the Environmental Monitoring Department of the Ministry of Ecology and Natural Resources. Specific rules on water resources monitoring are set out in a Cabinet Decision (Decision of Cabinet of Ministers of the Azerbaijan Republic, No. 90 of 1 July 2004, concerning "Rules for Conducting of Environmental and Natural Resources Monitoring"). These rules create certain basic obligations to monitor water resources and its environmental status, but do not fully anticipate the specifications set out in Annex V, WFD. Furthermore, in practical terms there are limited technical and financial capacities to conduct detailed monitoring programmes.

Nevertheless, within the measures for monitoring and assessment of status of water resources internationally acknowledged principles are of high priority.

Necessary measures are taken for introduction of monitoring methods in Azerbaijan which are used in Joint Monitoring Programs conducted in Ganikh River Basin within the framework of Kura TACIS project implemented with EU financial support and corresponds to the Water Framework Directive principles.

At the project level, since 2012 some activities were carried out under the EU Environmental Protection of International River Basins Project in the pilot region (Central Kura River Basin District) and also partly in the Ganikh (Alazan) river basin according to criteria based on a WFD compliant monitoring programme. Now draft monitoring program and monitoring strategy for Azerbaijan prepared by the project experts according to EU WFD requirements is under review.

Benchmarking	Partial Equivalence
The need for monitoring programmes is recognized within the water legislative framework, and monitoring is carried out. Formally these are not tied to Water Bodies of specific river basins according to WFD, although pilot projects in two river basins based on WFD compliant monitoring programmes are being developed. In practice, however, monitoring programmes are limited by lack of technical and financial capacities.	

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 be also a 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 3. 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).

Though the basin approach is considered in Water Code but in practice there are currently no detailed requirements or provision for river basin management planning in Azerbaijan, although the Regional Development State Program of Azerbaijan for 2014-2018 foresees the development of RBMPs. Work is being carried out under the Environmental Protection of International River Basin project, and a draft RBMP has been developed for a pilot region – the Central Kura River Basin District. The similar work has been carried out in the Ganikh (Alazan) river basin under the EU Kura TECIS project. The Central Kura River Basin RBMP has been developed using the framework and methodologies set out in the WFD, and addresses many of the matters outlined in the table above, although there are infrastructural, technical and financial limitations to providing some of the data and analyses required.

The draft RBMP for the Central Kura River Basin District has been published and is currently undergoing a consultation with stakeholders in Central Kura. The Environmental Protection of International River Basin project is supporting the consultation and as produced Stakeholder Management Guidance advising on ways to facilitate the involvement of the public into the RBMP process.

Benchmarking	Low Equivalence
There is currently no detailed provision for application of basin approach and development of river basin management plans in Azerbaijan according to EU WFD. There is need to develop RBMPs in different River Basins Districts, according to methodology used in the "Environmental Protection of International River Basins Project".	

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 the following considerations:

- Proposals for any modification of the current procedures for licensing abstractions and consenting discharges should they not prove sufficient for Directive requirements;
- Basic measures required to implement Community legislation for the protection of water in the river basin district as set out in the related Directives (UWWTD, ND, etc.);
- Any pricing measures or other economic instruments intended to provide incentives to encourage more sustainable and efficient water use;
- If the above is not sufficient to meet Directive requirements, Member States may need to employ supplementary measures such as those listed in Table 4;
- In exceptional cases additional measures may be needed to protect the aquatic environment. This may be so for international river basins.

The programme of measures will also identify:

- Any heavily modified and artificial water bodies within the river basin districts and the actions necessary to secure and maintain their lesser objective of good ecological potential; and
- Any derogations, permanent or temporary, that are sought in respect of individual water bodies.

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.
<i>Based on Annex VI (Part A) of Directive 2000/60/EC</i>	<i>Based on Annex VI (Part B) of Directive 2000/60/EC</i>

There is no formal mechanism for developing over-arching programmes to implement existing legislation or (since they do not exist) to achieve overall environmental or quality targets for water. Nevertheless, there is work being done in close collaboration with the EU Environmental Protection of International River Basins Project where within the draft RBMP a programme of measures has been developed for a pilot region (Central Kura River Basin District). As noted, it is expected that in near future the government will extend RBMP planning beyond the pilot project, and this would include implementing programmes of measures in the central Kura basin district and for other basin districts.

Benchmarking	Low Equivalence
Being able to achieve a fully comprehensive system of programmes of measures in some way off, since there is a need first to establish a more comprehensive regime of legislative measures, and to set water quality targets which would enable supplementary measures to be identified and evaluated. Nevertheless, it is possible in the meantime to apply the approach of the WFD by establishing formal requirements to develop a programme of measures to implement, in the first place, legislative requirements (and, in the second place, to implement supplementary measures to achieve such targets or other objectives as may be set). The work for the pilot project under the Environmental Protection of International River Basins Project again provides a framework upon which to build a formalised approach.	

3.2 Coherence with the Urban Waste Water Treatment Directive

Pollution from urban waste-water discharged into freshwater ecosystems can be a substantial threat to conservation. The Urban Waste Water Treatment Directive (UWWTD)⁶ 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.);⁷
- 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.

It is based on four main principles: planning; regulation; monitoring; and information and reporting.

Urban water is regulated in Azerbaijan under the Law on Water Supply and Sanitation, 1990. The purpose of the Law is to regulate relations concerning supply of the population, enterprises, institutions and organizations with water complying with state quality standards and discharge of effluent wastewater. Water supply and effluent wastewater discharge is based on the following principles: (a) cost recovery; (b) supply of qualitative water of requested quantity; (c) rational management of water resources; and (d) creation of reliable water purification and effluent wastewater discharge system.

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

The Law on Water Supply and Sanitation was adopted in 1990, which has amongst its aims the regulation of relations concerning supply of the population, enterprises, institutions and organizations with water complying with state quality standards and discharge of effluent wastewater. Water supply and effluent wastewater discharge is based on the following principles: (a) cost recovery; (b) supply of qualitative water of requested quantity; (c) rational management of water resources; and (d) creation of reliable water purification and effluent wastewater discharge

6. Council Directive 91/271/EEC concerning urban waste-water treatment, 21 May 1991.

7. "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.

system. In conformity with this Law, the government is required to carry out zoning of the administrative territory under its jurisdiction for the purpose of water supply and effluent wastewater discharge and the designation of enterprises responsible for water supply and effluent wastewater discharge. Water supplying organizations are responsible for industrial, domestic and potable water supply.

There are no specific provisions concerning urban wastewater treatment, however, except some very general and uncertain requirements (and some minor and regulations concerning sanitary-hygienic norms and rules on hygienic requirements) but these do not give detailed or enforceable legal requirements to assess the status of urban wastewater collection and treatment. The key mechanism for water quality assessment and management appears to be through the licensing of water supply enterprises (designated under the law). However, again these do not appear to give detailed or enforceable legal requirements to assess the status of urban wastewater collection and treatment.

Benchmarking	Low Equivalence
Although there is long-standing legislation on water supply and sanitation, this does not extend to requirements to assess the status of urban wastewater collection and treatment.	
Currently governmental activities are ongoing to develop a new legislation on urban waste water management according to international standards.	

3.2.2 Identification of sensitive areas and agglomerations

The Law on Water Supply and Sanitation includes requirements on the government (MENR) to carry out zoning of the administrative territory under its jurisdiction for the purpose of water supply and effluent wastewater discharge. Although some environmentally sensitive areas, including water sources which are in National Parks and protected areas programmes, are protected in areas where national water supply and sanitation projects are implemented, there is no specific assessment of areas which are sensitive to urban waste water discharge, or at risk due to agglomeration size. A draft mechanism for application of EU UWWTD has been developed under the Environmental Protection of International River Basins Project, which considers identification of sensitive areas and agglomerations.

Benchmarking	Low Equivalence
There is currently no system for identifying areas sensitive to urban waste water discharge or assessing the impact from agglomerations of different scales.	

3.2.3 Establishment of systems of prior regulation or authorisation

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.

In accordance with the water legislation of Azerbaijan, special water utilization has to be licensed. License for the utilization of water sources is granted by the Ministry of Ecology and Natural Resources, State Committee on Melioration and Irrigation, "Absheron" Stock Company and the State Committee on Architecture and Construction. This is not tied specifically to discharges into urban wastewater collection systems, however, and there is no specific mechanism to regulate quantities or manners of discharge.

Currently by support of WB and other donor organizations under National Water supply and Sanitation programs rehabilitated sewage systems in region centres consider should treatment of waste waters before discharging to environment according to international standards.

Benchmarking	Partial Equivalence
Though existing licensing frameworks do exist and their extension to urban waste water is foreseen, it is important to apply international approaches in licensing or authorization system to deal with charges of urban wastewater from different sectors or sources. Article 11 of the UWWTD provides a starting point, but a licensing system would require specific national legislation providing the means to require, administer and enforce licences, supported by effective, appropriate and transparent administrative and decision-making procedures concerning the grant, suspension, revocation, etc. of licences.	

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.

While there are general monitoring programmes for water, neither discharges from urban waste water treatment plants nor the amounts and composition of sludges disposed of to surface waters are monitored specifically.

Benchmarking	Low Equivalence
Current monitoring system needs to be strengthened to be able to monitor urban waste water discharges as it is required by international legislation.	

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.

3.3.1 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.

Current water quality standards of surface water bodies in Azerbaijan is based on the former Soviet Union pollution index. The classification method is carried out using the results of annual measurement of 6 elements (dissolved oxygen, BOD, Phenol, Cu, Oil Products, NH₄), with the calculation of the annual average of each of above variables is carried by dividing measured values to their numbers for each variable. The average amounts after should be divided to the allowed Maximum Permitted Concentration (MPC) of each variable. Then the average of 6 variables should be calculated and compared with classification table below.

Table 5. Categories used by MoE for river classification

Index	< 0.3	0.3-1	1-2.5	2.5-4	4.0-6.0	6.0-10.0	> 10.0
Cat.	Very clean	Clean	Lightly polluted	Polluted at medium level	Significantly polluted	Heavily polluted	Hazardously polluted

There are no established EQS for household and industrial waste waters discharged into water bodies after treatment facilities. Work is ongoing in this direction to harmonize it with the WFD, in the context of developing a National Ecological Classification system for Azerbaijan. The classification system is designed to follow the WFD approach, and will use ecological status assessment based on biological, chemical and hydro-morphological monitoring.

Benchmarking	Partial Equivalence
Some EQS exist in relation to surface waters, but these are based on a somewhat out-dated and rudimentary Soviet Union pollution index and in any case are not applied to waters as widely as the WFD requires.	

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; areas of land which drain into polluted waters or waters at risk of pollution and which contribute to nitrate pollution) and the establishment of: (a) action plans and codes of good agricultural practice; and (b) monitoring programmes for such zones.

There appears to be no equivalent practice currently in Azerbaijan. Currently, nitrate levels are not monitored and assessed as part of a formal nitrate monitoring programme, although the Environmental Monitoring Department of MENR carries out monitoring of nitrate concentrations as part of the national water monitoring programme, and aWFD-compliant monitoring program (operational, investigative and surveillance) is being created under the Central Kura pilot project. It is expected in 2016 this program will be approved for official application in Azerbaijan.

The Government has previously planned to implement programs on applying best irrigation practices (installation of drip irrigation systems, etc.), which will result with minimising of water/land pollution by nitrates, but these have yet to be implemented.

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	Low Equivalence
There appears to be no equivalent practice currently in Azerbaijan. While some monitoring of nitrates does take place, this is not part of a formal monitoring programme for nitrates and is not connected to system of managing nitrates. NVZs are not designated and no management plans or codes of good practice have been adopted. Current initiatives exploring these matters need to be extended and formally implemented.	

3.5 Coherence with the Floods Directive

The management and regulation of floods (including flash floods and submergences) is implemented through several legislative acts. In addition to the Water Code, these include:

- Law on Hydrometeorological Activity (1998), which sets out duties in relation to carrying out observation and research, compilation of information and transfer of such information to the relevant authorities in relation to hydro-meteorological and environmental pollution in cases of natural disasters;
- Law on Amelioration and Irrigation (1996), which regulates irrigation, drainage and similar activities (hydro-amelioration) and specifically safeguards against environmental risks, such as erosion, landslide, flood, flash floods, etc.;

- Law on Environmental Protection (1999), which contains rules on emergency ecological situations (including flooding) and setting up of zones of ecological disaster, according to which flood response measures can be established by the government, in particular to prevent or minimize ecological damage;
- Law on Ecological Safety (1999), which contains various provisions to protect the lives and health of individuals from hazards which may arise as a result of impact of natural and anthropogenic factors;
- Town Planning and Construction Code (2012), which prohibits construction if it represents a flooding risk requires areas to protected for purposes of flood prevention to be identified in certain development plans;
- Various others, which touch on flood risks and flood impacts to some extent, including: Land Code (1999), Law on Water Supply and Wastewater (1999), Law on Safety of Hydrotechnical Structures (2002), among others. In addition, there is a specific subordinate legal act: Rules for identification and use of flood zones, the sizes and borders of their protection zones (2004).

The Water Code specifies the framework principles for prevention of harmful effects of waters and elimination of their consequences (Article 92). The Article defines that relevant executive authorities and users of water bodies should take relevant actions to prevent and reduce the risks of (and risks of damage impact from) floods and related risks (e.g. destruction of dikes and other facilities and their shores; erosion, swamping and salinization of soil; forming of ravines, sliding and sinking of soil, stream flow occurrences and other harmful phenomena, etc.). In the event of the natural disaster and accident in water bodies users of water bodies can be under specific obligations to participate in the actions taken to prevent and eliminate the results of the harmful effect of waters. The performance of such actions is agreed with relevant executive authorities and municipal authorities.

While several laws provide a framework for management and responses to floods, there is presently limited work in mapping flood risks. According to the State Programme on Poverty Reduction and Sustainable Development in the Republic of Azerbaijan in 2008-2015 (September 2008, No. 3043, 2nd Programme) there is need to identify and map zones in which flood- and submergence-related risks are anticipated, and to prepare regular forecasts and deliver them to relevant bodies.

Undertaking of preliminary flood assessment	Low Equivalence
Preparation of flood hazards maps, flood risks maps and flood risk management plans	Low Equivalence
While there is comprehensive legislation on flood prevention and flood responses, there is no overall integrated planning, risk assessment and management strategy, which impedes the ability to identify and mitigate the impacts of flooding events on biodiversity. There is also little work undertaken in conducting flood assessments and mapping flood risks.	

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 (both Directives 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).

Azerbaijan is a party to a number of international conservation conventions, including the European Convention on Conservation of European Wildlife and Natural Habitats (Bern Convention), the Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar Convention), the Convention on Biological Diversity, the Convention to Combat Desertification and the Framework Convention on Protection of Caspian Sea Environment.

From a global perspective, and largely driven by its own capacities, Azerbaijan has come a long way towards protecting its natural wealth: over the past eight years it has already established a significant number of protected areas which now cover more than 600,000 ha, which is around 8% of the country's total area. Currently, there are more than 40 protected areas. Besides, through corresponding decrees of the Cabinet of Ministers, the areas of Pirgulu, Türyançay, İsmayilli, İlisu and Garayazi Nature Reserves were increased approximately two- to three fold, and the Gakh, Hirkan and Ara(k)sboyu (Nakhchivan AR) State Nature Sanctuaries were created.

National Protected Areas are created under the Law on Specially Protected Nature Areas, which defines a number of categories, depending on their aim, protection procedure and utilization principle (Article 4): Strict Nature Reserve; National Park; Nature Park; Ecological Park; State Natural Sanctuary; Nature Monument; Zoological Park; Botanical Garden; Medical Resorts; Hunting Reserves.

National Parks are run by the MENR, and are the public lands or bodies of water of special environmental, historical and other importance, which bear the status of governmental protection. Functions of the National Parks include:

- to preserve natural complexes, exotic and standard natural zones, historical-cultural sites;
- to create opportunities for tourism and rest (recreation);
- to develop and apply scientific methods of nature conservation and ecological enlightenment;
- to enlighten the population from ecological standpoint;
- to implement ecological enlightenment;
- to restore the damaged natural and historical-cultural complexes and sites.

The first national park established was Zangezur National Park in 2003. Since then a further 8 national parks have been established; the most recent being the Samur-Yalama National Park in 2012. Currently, the area of the territory of National Parks is 3.7 %.

State Reserves are designated areas for the purpose of preserving fauna, flora and their ecosystems. State Reserves bear the status of governmental establishments aimed at environmental protection and scientific researches. They are particularly designed for the protection of typical and rare natural complexes. The utilization of the lands of State natural reserves, as well as animals and plants, found within their boundaries for industrial purposes is prohibited by the law. [1] Activities in this sector are regulated by MENR. In total more than 2.5% of Azerbaijan is under protection as a State Reserve.

Special regimes are established for protection and exploitation of water resources within the protected territories, and there is also special protection for wetlands (which amount to over 200,000 hectares in Azerbaijan).

While the legislation is extensive, there are some significant differences with the EU nature Directives. First, at a general level while fauna is widely protected, there could be wider protection and increased coverage for wild birds and plants. Second, the legislation does not provide sufficiently detailed criteria for selecting sites eligible for identification as sites of national importance and designation as special areas of conservation. Third, Azerbaijan legislation does not provide for some specific protection requirements provided for in the EU Directives; for instance, the prohibition of the disturbance of certain species or requirements of plan and project assessment, etc.

Benchmarking	Partial Equivalence
The protection of biodiversity in Azerbaijan is quite extensive, and a comprehensive and adaptable system of protected areas is provided through the legislation. While the designation of protected areas does not completely correspond to the objectives and criteria in the Habitats Directive, and while some of the protective measures contained in EU legislation are not fully replicated, the overall framework in Azerbaijan does resemble that in the EU, and the potential for stringent protection exists through State controls or subsidiary legislation. In order to strengthen the protection of freshwater ecosystems, further attention should be paid to designating key freshwater biodiversity areas, sites which are of particular importance for the persistence of freshwater biodiversity but which are currently unprotected. Establishing specific criteria for selecting sites eligible for identification as sites of national importance would facilitate this.	

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. This is an administrative measure designed to ensure that a proper link is maintained between nature protection legislation and water legislation, and that the need to designate freshwater sites is kept under review.

While sectors of rivers falling within the boundaries of Nature Special Protected Areas are protected and applied in line with the general requirements of the law, there appears to be no formal register of sites and no formal mechanism for ensuring nature protection legislation and water legislation are connected.

Benchmarking	Low Equivalence
There is no register of protected areas for freshwater sites.	

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

Although there are specific Decrees on ratification of the Espoo Convention (1999) for EIA and the Aarhus Convention (2000) on public participation, there is no specific law on environmental impact assessment in Azerbaijan. Rather, the general Environmental Protection Law (1990) sets out the largely the old Soviet system of State Ecological Expertise (SEE). The Environmental Protection Law states the basics of SEE in Azerbaijan as a process of “identification of the environment’s correspondence with the quality norms and ecological requirements aimed at revelation, prevention, and prediction of possible negative impact of economic activities on the environment and related consequences” (Article 50). This definition, while acknowledging the necessity of taking into account environmental considerations, presents a technocratic approach to environmental issues, whereby the legislation

provides that economic activities must reflect certain limits for using natural resources rather than mechanisms to achieve minimal environmental impacts through preventive and mitigation measures. Moreover, while the possibility for “civic environmental reviews” (also known as Public Ecological Expertise) is provided (Article 58), no procedures are set out for such reviews and the results of these reviews are only “informative and deliberative in nature”.

While the legislation provides little direction for conducting EIAs, in 1996, the Government adopted an Environmental Impact Assessment Manual, prepared with support from UNDP, which sets out EIA procedures corresponding to the systems applied in other countries.

A draft law is under development, which provides both for environmental impact assessment and strategic environmental assessment.⁸ While this reflects some elements of the EU EIA and SEA Directives (and the corresponding international agreements), an opinion paper published by UNECE⁹ has noted that various elements are lacking. These include certain gaps in EIA documentation required; lack of a scoping procedure; some provisions on public ecological expertise but no particular details of public participation mechanisms; and a lack of provisions on transboundary EIA (which can be particularly relevant in the context of projects affecting freshwater). A need to amend provisions of the Urban Planning and Construction Code was also identified, so as to ensure consistent application.

Benchmarking	Low Equivalence
Current legislation provides a limited EIA procedure, but it does not correspond to the objectives or criteria in the EU EIA Directive or the Espoo Convention. Legislation currently being drafted reflects these instruments more closely, but still requires further development to be closely equivalent.	

3.7.2 Strategic environmental assessment

There is currently no law or other procedure in place to conduct strategic environmental assessments, although informally some basic SEAs might be carried out (State Commission for Urban Planning and Architecture representatives informed the author that SEA had been conducted for the new Regional Development Plan for Greater Baku).

As noted above, a new law is being drafted which will cover both EIA and SEA, but it is doubtful if the new law will fully cohere with EU standards.

Benchmarking	Low Equivalence
There is currently no law or other procedure in place to conduct strategic environmental assessments.	

3.7.3 Public participation and access to information

Rules on access to environmental information and public participation matters are primarily set out in a specific Law “On Access to Environmental Information” (March 12, 2002, No.270-IIQ), but access to information is also governed by a range of other legal instruments including the Constitution of the Republic of Azerbaijan,¹⁰ the general Environmental Protection Law (1990) and laws on “Information, Informatization and Protection of Information”, “Freedom of Information”, “Procedures for Review of Citizens’ Applications”, “Mass Media” and “State Secret”.

The Law on Access to Environmental Information sets out a range of responsibilities for the government, including:

- keeping the register of environmental information and ensuring public accessibility of registers and archives;
- defining a common form and periods of environmental information periodically provided on mass media;
- taking measures to increase environmental information available in electronic form through general communication facilities;

8. Draft Law on Environmental Impact Assessment of the Republic of Azerbaijan. Available at: <www.unece.org/fileadmin/DAM/env/eia/meetings/2015/December_9_Baku_SEA_for_the_National_Strategy/ENG/Azerbaijan_Draft_EIA_Law_03_August_2015_EN.pdf>. The latest draft was revised in August 2015.

9. www.unece.org/fileadmin/DAM/env/eia/sea_protocol/Opinion_paper_draft_Law_of_Azerbaijan_on_EIA_final_AS_DS_clean.pdf.

10. According to the Constitution of the Republic of Azerbaijan, everyone has the right to live in a healthy environment, to collect information on environmental situation and get the compensation for the damage to his/her health and property with regard to environmental crime.

- publishing national reports, as well as the information on the environmental situation (quality and pollution), at least once every three years;
- drawing up reports on environmental condition no less than once a year, include them in the electronic databank accessible to the public, take measures to improve cadastral and register systems concerning the environmental pollution.

The Ministry of Ecology and Natural Resources is the main responsible body for preparation of environmental reports.

The Law on the Environmental Protection establishes further public rights, including rules on the formation and role of public organizations (NGOs) in the environmental sphere.

Benchmarking	Partial Equivalence
There is relatively extensive legislation on freedom of and access to information, including environmental information, in Azerbaijan. As regards environmental information and public participation specifically, legislation considers rights for the public participation in environmental decision-making.	

PART 4 | CONCLUSIONS AND RECOMMENDATIONS

4.1 Commentary and Conclusions

Azerbaijan has made progress since Soviet times in reforming environmental and water legislation in order (among other things) to better protect freshwater ecosystems. On the other hand, both environmental and water legislation needs continued improvement. Most importantly, river basin management and other IWRM principles need to be fully developed and implemented.

For inclusion of RBM and IWRM in the legislative framework, it may be anticipated that some substantial changes may need to be introduced into the legal, administrative and planning structures in Azerbaijan. Logically, these could be developed through the existing Water Code but it would be necessary to prepare a separate draft law on the additions and amendments to the Code. As a continuation of these works, a provision stipulating adoption of a specific normative legal act specifying the detailed implementing measures for RBM and IWRM (for instance, the Rules) and specifying the responsibilities of the relevant body or bodies of executive power (e.g. Cabinet of Ministers) should be included into the text of Code. The approaches of the European Water Directives and relevant international conventions need to be taken into consideration.

The text below summarises the current state of play in Azerbaijan 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 to be responsible for river basin management according to EU WFD.	Partial Equivalence
Strengthen of administrative arrangements for international rivers, lakes and coastal waters	Partial Equivalence
Identification of river basin districts	Low Equivalence
Analysis of the characteristics of river basin districts	Low Equivalence
Establishment of programmes for monitoring water quality	Partial Equivalence
Preparation of river basin management plans	Low Equivalence
Preparation of a programme of measures	Low Equivalence

Currently water management in Azerbaijan is not organised on the basis of river basin districts. Within the work being carried out under international projects consideration is being given to division of the territory into basin districts, but these proposals would need to be adopted by the Government and would require administrative and institutional changes, as well as changes in policy. There is a need to designate river basin districts within Azerbaijan as a first step to implementing integrated river basin management. Proposed river basin districts under the Environmental Protection of International River Basins project should be given formal consideration at the governmental level.

Given that river basin management does not take place in Azerbaijan, many of the practices and procedures that fall within this framework in EU legislation (e.g. identifying and analyzing river basin districts, preparing river basin management plans and programmes of measures, etc.) do not take place in Azerbaijan. In addition, while responsibilities for State bodies are defined in legislation, there is formally no single “competent authority” to be responsible for river basin management according to EU WFD. There is a need to clarify the responsibilities of State bodies concerned in water and environmental matters, and to strengthen integrated governance in these fields (in addition to the need to create Basin Management Organizations and Public Basin Councils in different River Basins Districts).

While in practice some inter-state cooperation exists, including some which may be viewed as establishing “appropriate administrative arrangements” such as the Iran-Azerbaijan Commission, international cooperation is incomplete, and does not adopt a comprehensive river basin management approach. Nor are there any specific regional frameworks or policy for developing transboundary arrangements.

The need for monitoring programmes is recognized within the water legislative framework, and some monitoring is carried out. Formally these are not tied to specific water bodies (according to WFD approach) in specific river basins, although pilot projects in two river basins based on WFD compliant monitoring programmes are being developed. In practice, however, monitoring programmes are limited by lack of technical and financial capacities.

4.1.2 Coherence with the Urban Waste Water 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	Partial Equivalence
Monitoring programmes	Low Equivalence

Although there is long-standing legislation on water supply and sanitation, this does not extend to requirements to assess the status of urban wastewater collection and treatment. There is currently no system for identifying areas sensitive to urban waste water discharge or assessing the impact from agglomerations of different scales.

Existing licensing frameworks do exist and their extension to urban waste water is foreseen but current licensing or authorization system in place to deal with charges of urban wastewater from sectors need to be strengthened including system for monitoring urban waste water discharges.

4.1.3 Coherence with the Environmental Quality Standards Directive

Application of environmental quality standards to water bodies	Partial Equivalence
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A system of applying environmental quality standards to waters does exist in relation to surface waters, but it is based on a somewhat out-dated and rudimentary Soviet Union pollution index and in any case is not applied to waters as widely as the WFD requires (for example, it is not as wide in scope of the WFD list of “priority” (polluting) substances and their corresponding limits on concentrations).

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	Low Equivalence

There appears to be no equivalent practice currently in Azerbaijan. While some monitoring of nitrates does take place, this is not part of a formal monitoring programme for nitrates and is not connected to system of managing nitrates. NVZs are not designated and no management plans or codes of good practice have been adopted. Current initiatives exploring these matters need to be extended and formally implemented.

4.1.5 Coherence with the Floods Directive

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

While there is comprehensive legislation on flood prevention and flood responses, there is no overall integrated planning, risk assessment and management strategy, which impedes the ability to identify and mitigate the impacts of flooding events on biodiversity. There is also little work undertaken in conducting flood assessments and mapping flood risks.

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	Low Equivalence

The protection of biodiversity in Azerbaijan is quite extensive, and a comprehensive and adaptable system of protected areas is provided through the legislation. While the designation of protected areas does not completely correspond to the objectives and criteria in the Habitats Directive, and while some of the protective measures

contained in EU legislation are not fully replicated, the overall framework in Azerbaijan does resemble that in the EU, and the potential for stringent protection exists through State controls or subsidiary legislation. In order to strengthen the protection of freshwater ecosystems, further attention should be paid to designating key freshwater biodiversity areas - sites of particular importance for the persistence of freshwater biodiversity, which are currently unprotected. Establishing specific criteria for selecting the sites of special importance would facilitate the process.

While sectors of rivers falling within the boundaries of Nature Special Protected Areas are protected and applied in line with the general requirements of the law, there appears to be no formal register of sites and no formal mechanism for ensuring nature protection legislation and water legislation are connected.

4.1.7 Other Legislation

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

Current legislation provides a limited EIA procedure, but it does not correspond to the objectives or criteria in the EU EIA Directive or the Espoo Convention. Legislation currently being drafted reflects these instruments more closely, but still requires further development to be closely equivalent.

There is currently no law or other procedure in place to conduct strategic environmental assessments.

There is relatively extensive legislation on freedom of and access to information, including environmental information, in Azerbaijan although it only partially reflects equivalent legislation in the EU and under international conventions. As regards environmental information and public participation specifically, legislation specify rights for the public to information requests or participation in environmental decision-making.

4.2 Recommendations

Recommendation 1 | Develop a vision and strategy for river basin management.

Despite the various initiatives supported by the donor community, and despite recognition by government institutions of its validity and benefit, water policy and legislation in Azerbaijan has not yet been aligned with a river basin management approach. It is increasingly recognized, worldwide, that integrated approaches are needed in economic sectors which use and impact on the environment, and as such it is difficult to see how the protection of freshwater ecosystems, habitats and wildlife can be fully ensured without closer integration of water management and environmental protection concerns.

As a high priority, therefore, attention should be given to developing a system of RBM in Azerbaijan. This needs to be undertaken first by developing a vision and strategy for introducing and developing RBM, through a process involving stakeholders from all sectors concerned (water, environment, agriculture, industry, etc.) . A common vision, shared by all major stakeholders, at the national level is a pre-requisite to the development of a strategy, and then policy and administrative and regulatory systems, for RBM. There are several reasons why the development of a national vision and the elaboration of explicit strategic objectives are essential:

- They are indispensable support to the political decision to develop (and provide government finance for) for regulatory reform;
- A shared vision entails a process which promotes understanding of the importance of a country's natural environment, amongst all stakeholders;
- They highlight national issues related to each sector and bring together all government administrations and non-governmental stakeholders into a common process;
- They build a common understanding on the priorities for national policies and on the objectives of integrating water policy with other sectors (including the environmental sector).

The creation of a national vision for RBM entails a comprehensive and inclusive process, to be conducted among

all concerned administrations and in partnership with the major stakeholders. It is an iterative process (the national vision should be periodically reviewed and adapted, based on a proper evaluation process) and can be developed as knowledge, capacity and ambitions develop.

There is need to develop an approach concerning what a national vision should contain. For an established sector such as the water sector, it should start with an inventory of the existing position (including by reviewing the various economic sectors that use water) and an assessment of the ambitions and aims for the sector. Objectives for the different economic sectors could be very different, but should be reflected in the vision. Taking into account the various sectors, the vision should provide a realistic, credible and motivating representation of the future. As a minimum, the two major elements that should be included in the vision are: general objectives and priorities, as the main political statement of intentions and goals for the water sector; and common principles and guidelines, to ensure consistency and common aims in each sectoral or sub-sectoral strategy.

A draft National Water Strategy, developed through the support of UNECE, needs to be adopted by the Government.

Recommendation 2 | Take preliminary actions for river basin management.

While a national vision and strategy are developed, current progress towards implementing RBM approaches should continue and be further developed, at least informally. The development of a comprehensive policy, legislative and administrative

Currently, actions related to RBM have developed informally through project activities, and mostly focussed on one river basin – the Central Kura River Basin District. Other river basins should be identified, and initial steps taken informally to introduce principles of RBM in these districts.

At the same time, steps should be taken to build capacity towards RBM. Areas of focus for capacity-building might include:

- Training of government officials in the principles of RBM and IWRM more generally;
- Development of the skills and data to carry out modelling and planning work that are not currently adequately available within State institutions;
- Promotion of inter-sectoral coordination within State institutions, for example through the establishment of an integrated water resources policy committee;
- The assessments foreseen in the WFD need to be carried out to gain a better understanding of the status of freshwater ecosystems and the impact of human activities on them. In particular, analysis and knowledge on what would be the best allocation (both in economic and efficiency terms) for the different water users in the basin is needed.

Recommendation 3 | Reform the legislative instruments.

Ultimately, formal endorsement by Government of all RBM plans will be needed to ensure that all levels of government have a consistent planning vision, that the private sector has a clear prioritization of future investments and that the protections for the environment can be assured. This can only be achieved by reforming the legislation. A process should be initiated, as part of the overall strategy, and consistent with the vision, to undertake a substantial reform of the current Water Code to reformulate water management into an integrated, river basin management approach.

Recommendation 4 | Strengthen water monitoring programmes.

Overall, improved coordination and harmonization of surface water and groundwater quantity and quality monitoring activities should be encouraged. Obtaining reliable, timely, good-quality, and publicly available data on water quantity and quality are precursors to a functioning integrated water management and planning system. In order to strengthen the monitoring of water quantity and quality:

- Water monitoring programmes should be expanded to ensure that all major environmental threats are monitored, including by expanding the scope of environmental quality standards and monitoring discharges related to urban waste water and nitrates;
- Renewed investment needs to be made in the monitoring infrastructure (including institutional capacity building), with opportunities to introduce new technologies and approaches to data collection, verification, and management. In many cases, equipment could also be modernized with greater automation and real-time monitoring added;

- Improvements in the coordination and harmonization across the various departments responsible for monitoring is essential, so as to avoid duplication and make the information collected more widely available. This may include the use of integrated monitoring approaches such as joint water quantity and quality stations.

Recommendation 5 | Improve a system for managing nitrates.

There is currently no coherent system for managing nitrates in Azerbaijan. As noted above, formal systems to monitor and evaluate the impact of nitrates should be included within the general water monitoring programme. While data currently does not exist to enable the clear identification of nitrate vulnerable zones, provisional NVZs should be established where – based on the precautionary principle – there is at least an indication of vulnerability. Interim management plans or codes of good practice should also be adopted.

Recommendation 6 | Strengthen flooding and disaster risk assessment and management.

The risk of water related hazards including floods and droughts has increased in recent years. Flood risks and mitigation plans need to be given a higher priority with national disaster risk assessment and management, and increased emphasis should be placed on risk management and planning, including as relates to environmental impacts.

Recommendation 7 | Consider new legislative amendments and designations for freshwater habitats protection.

Amendments to the current legislation should be considered to strengthen biodiversity protection in a number of key areas. In particular, legislative amendments should provide specific (detailed) criteria for selecting sites eligible for designation as a national park or other special area of conservation. The legislative amendments should be supported by administrative strengthening and increased monitoring and assessment to carry out the new designations (which should fully take account of freshwater habitats). In addition, the new legislation should strengthen specific protection requirements similar to those in the EU Directives; for instance, the prohibition of the disturbance of certain species or requirements of plan and project assessment, etc.

Recommendation 8 | Strengthen a system for licensing and control.

As the permitting process is the main regulatory tool for IWRM, strengthening the Water Permit System is essential. This function needs to be devolved to the basin management organizations (BMOs) as their capacities develop. Ensuring compliance of water permits is currently insufficient primarily due to lack of resources.

Compliance involves a monitoring function and an enforcement action function. These roles and responsibilities have been separated under the current legislative framework. Greater cooperation (preferably legislated) on inspection and enforcement is needed among agencies.

Compliance history should be made a more explicit part of the permitting process. Compliance promotion (and more reliance on self-monitoring) is weak. Categorizing the size of water uses and pollution discharges, including establishing a limit for which a water use permit (WUP) is not required, would help to enhance efficiency of the system.

Recommendation 9 | Complete a legal framework for Strategic Environmental Assessment and Environmental Impact Assessment.

The current process to draft a new law on SEA and EIA should continue and be completed. Attention should be paid to ensure that the new law corresponds closely to the objectives and criteria in the EU EIA and SEA Directives and the EIA Convention and ESA Protocol.

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