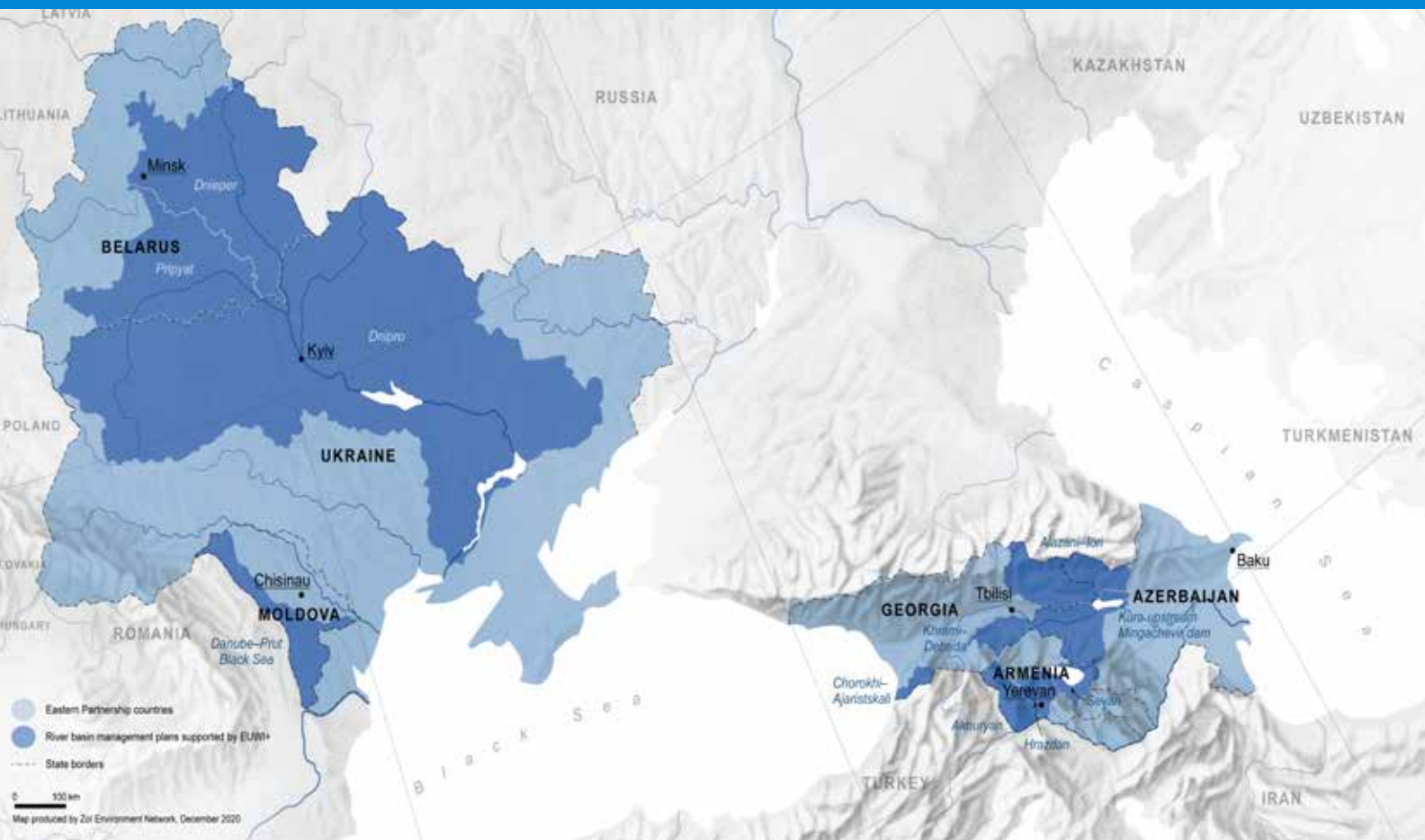


Water Policy Highlights Azerbaijan



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In 2016, a major EU-funded project, the European Union Water Initiative Plus (EUWI+), was started to help strengthen water management in Azerbaijan and the five other EaP countries. The European Commission selected the OECD and UN Economic Commission for Europe (UNECE) along with the EU member states of Austria (Environment Agency) and France (International Office for Water) to jointly implement the project. With EUR 23.5 million from the EU budget and EUR 1 million from Austria and France, the EUWI+ project aimed to strengthen management of national and transboundary water resources and develop tools to improve the long-term quality of all waters. It included EUR 6 million of direct investments in the EaP countries including Azerbaijan to improve river basin policies, management planning and water quality monitoring.

With the project ending in mid-2021, this summary highlights milestones of EUWI+ in Azerbaijan. It recalls the state of water governance that led to the creation of the project. It highlights efforts to strengthen management of water resources at the national level and also in transboundary rivers. It also identifies tools developed to improve the long-term quality of all waters. Finally, it identifies outstanding issues for further action.



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Water management is a key environmental challenge for Azerbaijan

Water governance

The Eastern Partnership (EaP) builds on the willingness of the EU's six Eastern neighbours – Armenia, Azerbaijan, Belarus, Georgia, Republic of Moldova and Ukraine – to align their policies and legislation to the European Union. EaP countries share a legacy of environmental problems and face new pressures, including from climate change, as they pursue economic growth and benefits for citizens. Environmental co-operation is thus a principal focus area of work for the EaP.

While EaP countries update their environmental legislation, they also need to strengthen administrative capacity; enforcement of legislation; and public participation and awareness of environmental challenges. There are important links between poverty and the environment, such as access to clean drinking water and appropriate sanitation.

Addressing transboundary resource management and pollution is another complex issue, which includes ensuring the necessary institutional and legal frameworks are in place. EaP countries need to strengthen procedures for implementing commitments under multilateral environmental agreements. They also need to

As a downstream country, Azerbaijan is vulnerable to water resource and water quality risks. It is also prone to damaging flood and drought events, which climate change is making more severe. The need for co-operation and joint management of transboundary water resources is of great importance for Azerbaijan.

strengthen their capacity to implement projects financed by international organisations and donors.

Better environmental policies bring significant economic and social benefits. A strong water sector that supports the population, all sectors of the economy and the environment is a key part of this process.

The Republic of Azerbaijan has relatively scarce water resources and high demands in terms of irrigation, as well as a growing population in urban coastal areas. The river systems are dominated by interconnected irrigation networks, which in the past made it one of the most productive agricultural areas on Earth. As those irrigation lands are rehabilitated, improved water resources management is critical to meet the country's development goals. It needs to focus on integrated water resource management (IWRM) and increased efficiency of use. Azerbaijan has invested much effort in the past 15 years in improving water supply to urban residents on the coast, as well as rural populations. To that end, it has embarked on an impressive wastewater treatment programme. However, some water quality and environmental issues have yet to be addressed. The water management and regulation framework is considered underfunded and fragmented.

Unlike its neighbour Georgia, Azerbaijan has not signed an Association Agreement with the European Union. However, once adopted, the new Water Strategy will commit the country to approximation of the Water Framework Directive (WFD) and institutionalisation of the water management framework. The first step is the creation of a National Water Commission under the Cabinet of Ministers charged with implementation of a multi-million euro water strategy over the next 18 years.

Azerbaijan is located on the Kura river and its affluent Aras river. As a downstream country, it is vulnerable to water resource and water quality risks. Further, it is also prone to highly damaging flood and drought events, which climate change is making more severe. Thus, the need for co-operation and joint management of transboundary water resources is of great importance for Azerbaijan. It has participated in a series of transboundary projects



promoted by the National Policy Dialogues and the Global Environment Facility. It has also hosted regional conferences on implementation of the Sustainable Development Goals, including related to climate change. However, there has been no basin-wide agreement on transboundary water resources management. Azerbaijan and Georgia have been negotiating a transboundary agreement for several years with support from the UN Economic Commission for Europe (UNECE) under the Water Convention. In spite of major progress, these discussions have not yet concluded.

The EUWI+ project

In 2016, a major EU-funded project, the European Union Water Initiative Plus (EUWI+) was started to help strengthen water management in Azerbaijan and the five other EaP countries. The European Commission selected the OECD and UNECE along with the EU member states of Austria (Environment Agency) and France (International Office for Water) to jointly implement the project. With EUR 23.5 million from the EU

budget and EUR 1 million from Austria and France, the EUWI+ project aimed to strengthen the management of national and transboundary water resources and develop tools to improve the long-term quality of all waters. It allocated EUR 6 million of direct investments in the EaP countries to improve river basin management planning and water quality monitoring, including Azerbaijan.

The regional EUWI+ project built on results from earlier EU-funded water governance actions in EaP countries. These included facilitation of the EUWI National Policy Dialogues by the OECD and UNECE in 2006-15, as well as the EU Environmental Protection of International River Basins (EPIRB) project.

EUWI+ has also drawn synergies with other EU-funded projects and activities, including the Shared Environmental Information System (SEIS) East project. The SEIS aims to facilitate access to environmental information and its integration into the knowledge-based economy.



Development of Azerbaijan's national water policy to 2016



Azerbaijan lies between the mountain ranges of the Greater Caucasus in the north and minor Caucasus in the south. It is drained by the Kura and Aras rivers, transboundary water sources that converge and flow into the Caspian Sea in the south of the country. It has a population of 10 million (2019) with 2.5 million in the capital of Baku and the Absheron peninsula on the Caspian Sea coast. The central plain is semi-arid and water resources are limited, but it is fed by the rivers draining the two mountain ranges. After oil and gas, agriculture is the major economic sector. Indeed, the irrigated lands of the central plain were once the most intensively cultivated in the Soviet Union. Multi-functional reservoirs regulate flow in the two major rivers, providing irrigation water, flood control, hydropower generation and environmental protection. On the

Kura, the larger river, water flows into extensive and complex irrigation distribution systems that are regulated from the large Mingachevir reservoir close to the Georgian border.

Key water issues facing Azerbaijan include water supply and sanitation (WSS); irrigation demands and decline of the distribution networks; localised pollution; flooding, particularly on the Kura; and decreasing storage capacity in the Mingachevir reservoir due to siltation. These problems are compounded by an inadequate and underfunded water resource management and regulatory framework. Climate change is likely to exacerbate the problems. As glaciers melt, river flows and floods increase. Then, as temperatures rise, changes to precipitation patterns reduce water availability in the summer.



Legislative and strategic frameworks

At 1997, as Azerbaijan emerged from the centralised planning of the Soviet Union, the country was quick to develop its Water Code. This established institutional roles and responsibilities, as well as standards. The country has political will to tackle problems, evidenced by its support and regional leadership of the UN Sustainable Development Goals, and declared intention to approximate to the WFD. Large-scale investments in WSS and irrigation projects have shown there is no shortage of financial commitment to the water sector. For instance, the Asian Development Bank approved a USD 600 million financing facility; and the second WSS 2 project, completed in 2017, was worth USD 300 million. Despite these substantial investments, the management and regulatory framework is severely underfunded.

Work on a National Water Strategy began with support of UNECE and the Asian Development Bank, as well as later by the European Union under the EPIRB project. However, due to institutional challenges, a final draft could not be agreed and remained unresolved by 2016.

River Basin Management Planning

The application of river basin management plans (RBMPs) has been held back due to absence of principles and guidelines, and the absence of delineation of the national river basins under the Water Code and secondary legislation. Under the EPIRB project, RBM planning focused on some tributaries of the upper Kura that feeds the Mingachevir reservoir. However, the pilot plan was fragmented and did not comply with WFD requirements. Given limited technical capacity, substantial support was needed. Still, local interest was high and there was enthusiastic involvement of the local administration and laboratory.

Monitoring and analysis

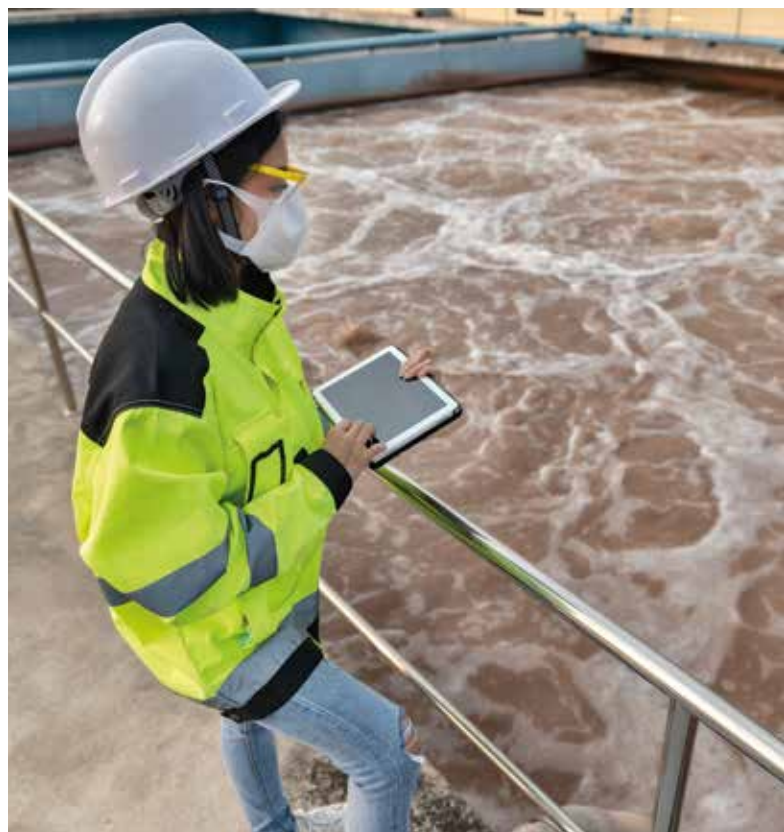
In 2016, the central water laboratory was underfunded and equipment outdated, although management leadership was strong. A smaller, less capable laboratory monitored the Caspian Sea and it was unclear why the two facilities had not been combined. The effectiveness of regional laboratories for both ambient and regulatory monitoring was unclear. There was no capacity for biological monitoring, although at the end of the EPIRB project the central laboratory did have a biological unit. Transboundary locations sought monitoring data for both their quality and quantity, but surveys were not routine and key monitoring stations were in poor condition. Information management and data sharing were limited and historical efforts to establish water cadastre have remained unfulfilled.

Transboundary water management

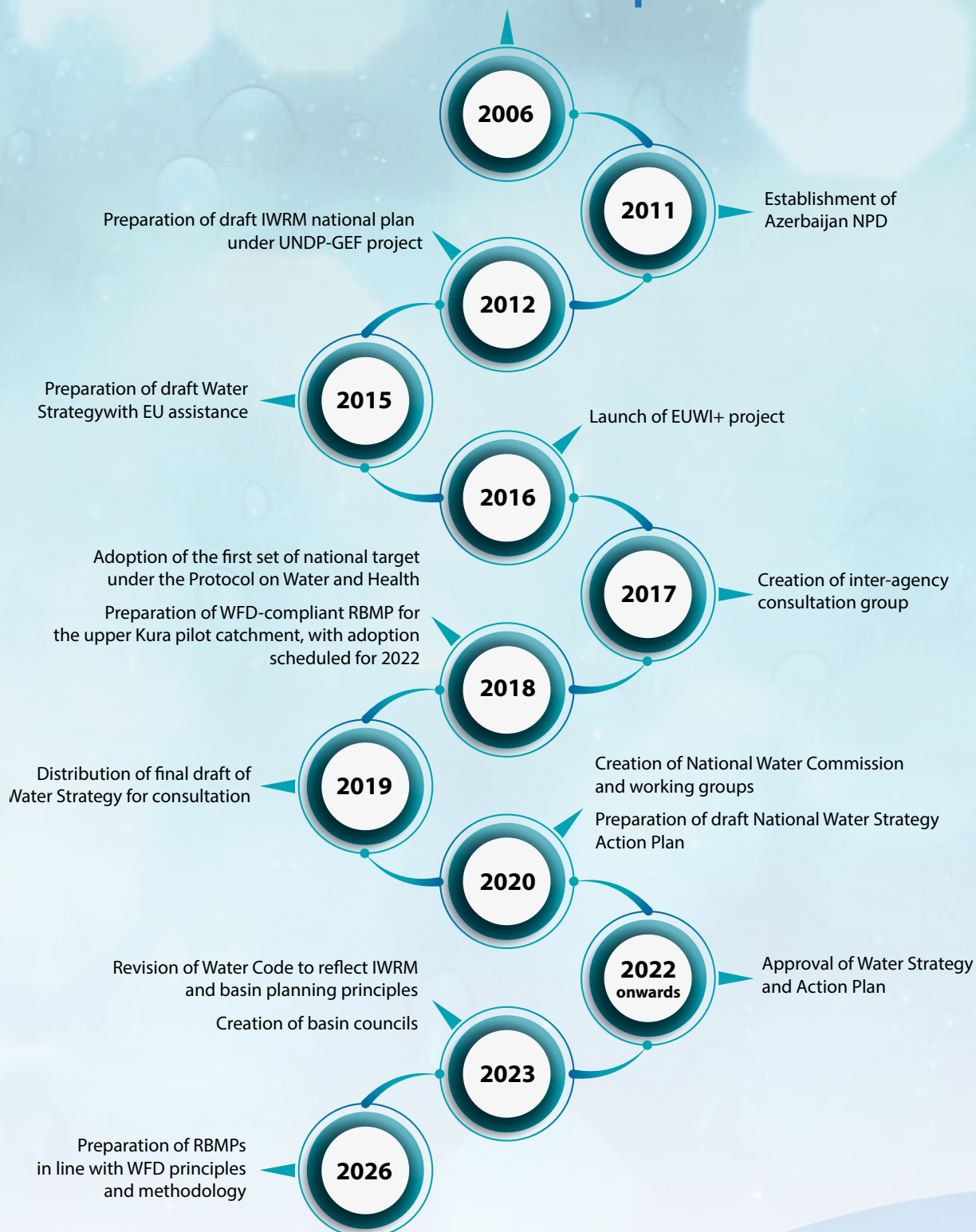
Numerous international interventions dating to 2000 have sought transboundary co-operation around the Kura and Aras basins. These efforts were supported by USAID, the United Nations Development Programme-Global Environment Facility (UNDP-GEF) and the European Union and continued with the second GEF Kura project. There has been no meaningful implementation of a basin-wide Strategic Action Programme. Despite many years of effort, Azerbaijan had not reached an agreement with Georgia on the Kura under the UNECE Water Convention in 2016. As part of a bilateral agreement between Azerbaijan and Iran on the Aras River, the Commission meets annually to agree water on quantity quotas. However, there is no basin-wide agreement on the Aras River either.

Capacity building

Technical capacity in the water sector in Azerbaijan needs strengthening. The oil and gas industry is more competitive for jobs, attracting the most able young people. A vibrant community of non-governmental organisations is also lacking. However, the National Academy of Sciences has expertise in the water sector. As of 2016, Baku State University had plans to build technical capacity through the creation of IWRM Academy, with funding by the UNDP-GEF Kura project.



Launch of EUWI NPD process



EUWI+ project support to water policy reform in Azerbaijan

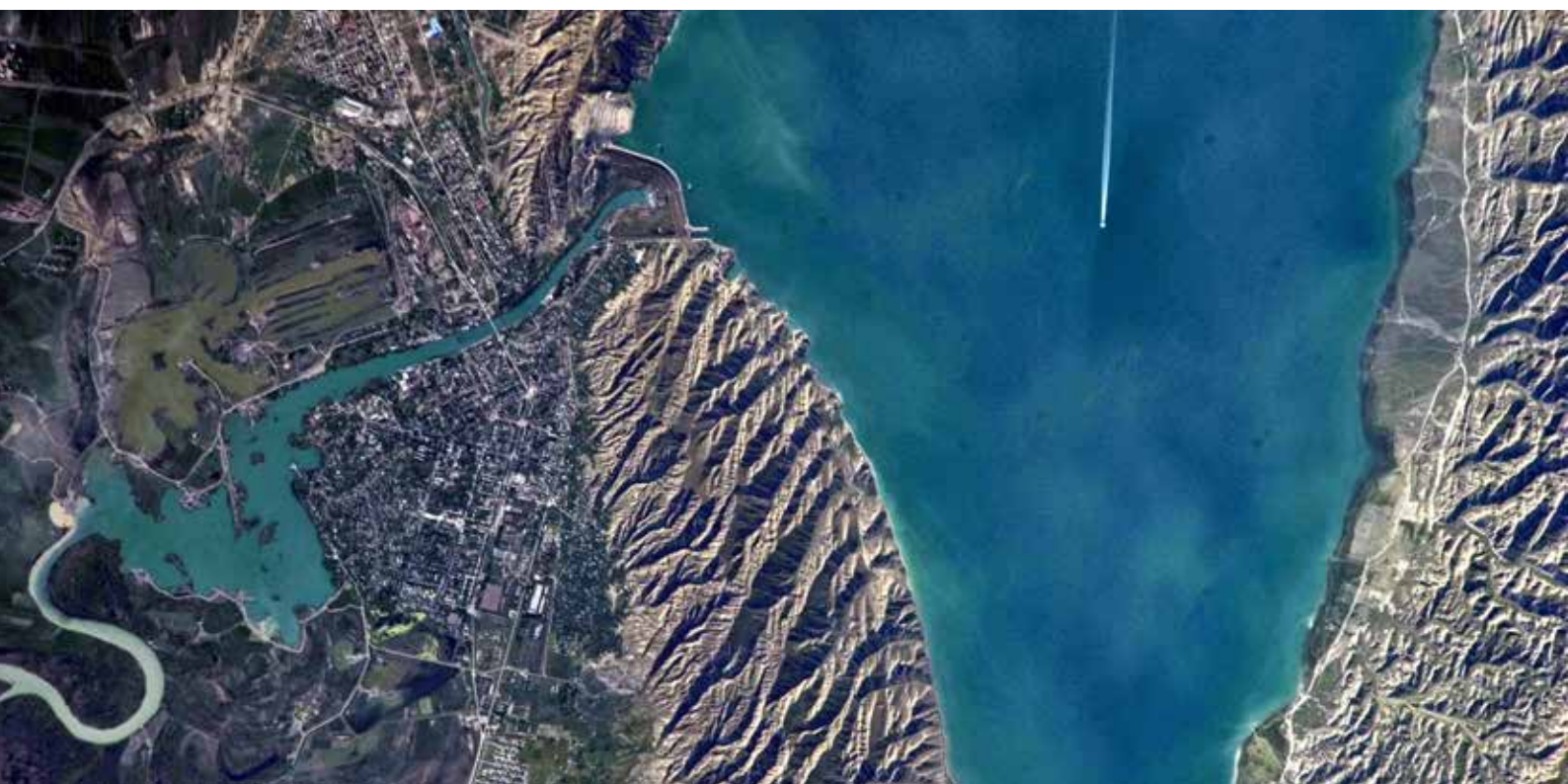
Development of a national strategic planning framework

EUWI+ has helped Azerbaijan develop its Water Strategy and decision-making framework in the water sector, carrying on the work of UNECE, Asian Development Bank and the EPIRB project. It has been challenging to balance the interests and needs of government stakeholders, requiring a significant investment of time by the project team. The resulting Water Strategy breaks down water-related activities into short-, medium- and long-term interventions spread over 18 years. These aim to meet the country's economic and social objectives, while protecting the environment. Critically, the strategy brings together objectives of the Sustainable Development Goals, principally targets under goals 6 and 13, and the objectives of the WFD and its associative directives. Thus, the document is a Water Strategy, an IWRM strategy and a pivotal document for reform of natural resources management – a notable achievement. The EUWI+ project has also helped develop a detailed National Water Strategy Action Plan that will form part of the final document.

A key component of the strategy has been the application of economic instruments to manage and influence water use across the sectors. The EUWI+ project has encouraged this trend and the OECD has made considerable inputs into the strategy in this direction. The strategy, which is pending adoption, is being advanced by the newly established National Water Commission and supporting working groups under the Cabinet of Ministers.

River Basin Management Planning

The EUWI+ has helped Azerbaijan develop a WFD-compliant RBMP for the upper Kura – a key location in the water resource system of Azerbaijan – upstream of the Mingachevir dam and involving local experts. Under the previous EU EPIRB project, an RBMP developed for some tributaries of this basin fell short of WFD compliance and was not implementable. Although still a pilot, the new plan concerns a complete hydrographic unit (concerning around 20% of the country area) and better integrates the planning and monitoring requirements of the



WFD. It has built solid technical knowledge of the intricate RBMP process both in the Ministry of Ecology and Natural Resources, and the private sector. A decision-making framework is still needed to implement the plan, including its Programme of Measures and a sustainable and technically capable basin council. Around 80% of the estimated budget of the programme of measures concerns sanitation which is usual for a first generation of RBMPs. However, the involvement of local stakeholders and extensive local consultation are encouraging signs. A key next step in river basin planning will be to define the national basins, as the Water Code is not definitive. The Water Code is scheduled to be revised in 2023.

Support to transboundary water management

As stated above, transboundary management of water resources is a key issue for Azerbaijan. This is especially the case for the Kura River, where co-operation on water quality, quantity and flooding is essential with the upstream countries, particularly Georgia. Through the project, UNECE has continued to support bilateral negotiations and studies between Azerbaijan and Georgia on an agreement under the Water Convention. Although no agreement has been reached to date, the countries have clearer understanding of the transboundary issues. With development of RBMPs in the upper Kura in both countries, new progress is expected.

Improved water monitoring and analysis

The project has supported monitoring programmes and systems in terms of both supply of multiple analytical equipment, sampling in the field and also crucial training on quality standards; strong bonds were formed between the project team members and laboratory management and staff. However, systems need much more strengthening (diverse staff, operational budget, data collection for both surface and groundwater), as reflected in the draft National Strategic Action Plan.

With respect to monitoring, the introduction of WFD monitoring of coastal and transitional waters (CTW) on the Caspian Sea has been a highlight. The Caspian is an important water body to Azerbaijan. Its protection and management is a priority for the government, which hosts the secretariat of the Tehran (Caspian Environmental) Convention. The population of Azerbaijan is heavily concentrated on the Caspian coast.

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Land-based sources and their control is an important requirement of the WFD, but monitoring of the receiving waters of the Caspian is limited. The project has commissioned assessments of coastal river basins and their delineation of associated coastal and transitional water bodies. The project has conducted training in CTW monitoring and provided equipment to the CTW laboratory.

The EUWI+ project has continued the work of previous EU projects in introducing biological monitoring and WFD-compliant ecological classification systems to Azerbaijan. Staff in the new biological monitoring department of the central laboratory have been trained and provided with the necessary equipment for both lab and field work. The project has also made links with national experts in the National Academy of Sciences and Baku State University to help the ministry develop ecological classification systems.

Multi-stakeholder dialogue as a driver of policy reform

The National Policy Dialogue (NPD) on water has supervised the national water policy reform process. A multi-stakeholder platform with cross-ministerial support, the NPD recognises the horizontal nature of water and its importance to the citizens and economy of Azerbaijan. It has also brought together donors and other international projects to share experiences and identify synergies to aid implementation and streamline progress.

Data management

The EUWI+ project supported data management services and tools (e.g. dedicated server) in Azerbaijan and implemented the first interoperability process to automatize the daily integration of hydrological data. This is a first step to reinforce water data management at national scale.



Water policy reform achievements

Improved strategic planning builds confidence and attracts donor support

- assistance provided for new Water Strategy and Strategy Action Plan
- support provided to develop a national water strategic framework
- support to implementation of the Water Convention and completion of report on SDG indicator 6.5.2. to produce a snapshot on transboundary water cooperation and identify gaps
- support to adoption of the first set of national targets under the Protocol on Water and Health to enhance access to water and sanitation.

Water sector becomes increasingly aligned with EU legislation and good practice; the public are increasingly involved in water management

- the first WFD-compliant RBMP in the upper Kura basin developed.

International commitments and transboundary water management are well integrated and drive sector progress

- support provided for transboundary water co operation with Georgia on the Kura River under the UNECE Water Convention.

Stakeholder engagement increased and cross-sector importance of policy coherence recognised

- National Policy Dialogue on Water active with strong political support.

Improved monitoring and data management inform high-level decision making and resource prioritisation

- investment in equipment to the central and regional laboratories and support in laboratory accreditation
- development of quality assurance for accreditation of the central laboratory
- investment to refurbish hydrological and groundwater monitoring systems
- introduction of WFD-compliant coastal and transitional waters monitoring on the Caspian Sea coast
- training and development of type-specific WFD Ecological Classification Systems for benthic invertebrates.

Future opportunities for the national water policy reform journey

The four-year regional EUWI+ project completed its activities in Azerbaijan in July 2021, but the water reform journey will continue. While the country has made progress since 2016, the discussions and implementation during the project have exposed a number of outstanding issues.

Post-pandemic recovery and a sustainably financed water sector

In addition, the global pandemic caused by COVID-19 has impacted the public budgets of all EaP countries, including Azerbaijan. The need to respond to environmental challenges has never been greater, yet budgets face conflicting pressures as countries prioritise finances for recovery. The COVID-19 pandemic has shone a light on the importance of access to clean drinking water and adequate sanitation and the significance of hygiene in communities.

In Azerbaijan, the WSS sector has received significant political and financial support. However, as evidenced by the National Water Strategy, other sectors need investment and the regulatory and management framework is severely underfunded. The implementation of the Water Strategy and commitment to its comprehensive National Water Strategy Action Plan (NWSAP) is the next step. The NWSAP has significant cost implications in the short to medium term that Azerbaijan needs to prioritise.

In approximating to the WFD, the immediate challenges include re-equipment and refurbishment of laboratories and monitoring systems, strengthening of the licensing and permitting systems, and their policing. Despite development of the Water Strategy and formation of the National Water Commission, IWRM remains aspirational; the sectors operate independently. Under an extension of the EUWI+ project the following activities might be considered:



- **Assistance in development of secondary legislation.**

Neither the Water Code nor the Water Strategy defines the boundaries of the composite river basins. However, the timetable for plan development is clearly set out. With no Association Agreement or Comprehensive and Enhanced Partnership Agreement with the European Union, the extent to which the WFD and associated directives (including for urban wastewater treatment) are implemented is unclear. This makes it challenging to set planning objectives. This issue may be addressed through secondary legislation targeted at specific issues such as RBMP and monitoring protocols.

- **Operationalising the National Water Strategy and Action Plan.**

The adoption of the Strategy and Action Plan was not achieved as of 2021. Once adopted, a launch event could bring together national stakeholders and national and international donors, reinforcing the government's commitment to the water sector and the environment. Such an event would create a platform for future longer-term technical assistance and investment support. In the short term, working groups under the Water Commission could receive technical support.

- **Development of a pilot RBMPs.** Apart from an RBMP for the Lower Kura basin, an RBMP is to be developed in the coastal zone South of the Absheron peninsula with monitoring in the coastal rivers and coastal waters. The RBMP would be WFD-compliant but have physical limitations. In addition, CTW monitoring would continue to be supported in the Kura Delta. After its approbation (which means a national preliminary process out of which delineation of River Basin Districts is a relevant step), the RBMP upstream Mingachevir dam could be implemented through river basin organisations to be created, consistency between sectoral policies, project owners' involvement, and funding tools. A challenge will be to harmonise the technical content of RBMPs on both sides of the borders with Armenia and Georgia inside the whole Kura River Basin.

- **Formation and training of basin councils.** The roles, responsibilities and legal obligations of the basin councils set out in secondary legislation would be the next step in any RBMP programme in the priority river basins of Azerbaijan. The rules and procedures and membership of the Councils need to be agreed and their financial support assured by central and local government. Training of Council members and technical support staff in RBMP and IWRM is essential, as is a targeted public awareness campaign.



As the world recovers from the COVID-19 pandemic and responds to a changing climate, this challenging backdrop provides the catalyst and focus for the next phase of the water policy reform journey in Azerbaijan.

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- **Data sharing.** The process of a water information system integrating data from various data producers needs to be strengthened through: providing tools and training to reinforce metadata production and increase availability of metadata in on-line metadata catalogues; developing interoperability between the national platform and some existing national information systems; supporting data digitalisation and development of a national database; developing web services to facilitate data sharing.
- **Continued UNECE Water Convention support to the bilateral Agreement between Azerbaijan and Georgia** should be linked to other EUWI+ activities such as information management and data-sharing agreements, transboundary monitoring and development of an umbrella RBMP on the upper Kura. Support could be also continued in the water and sanitation field in the implementation of the Protocol on Water and Health targets, set in 2018. Specifically, those could be revised taking into account the lessons learned from the COVID-19 pandemic.
- **National Policy Dialogues (NPD).** These act as a co-ordination forum for IWRM and implementation of the Water Strategy and Action Plan, thus supporting the Water Commission in this task and engaging international donors. The mandate of the NPD should be more clearly defined and streamlined.



- **Laboratory support.** The central laboratories are at the heart of the regulatory monitoring system and need constant technical support with quality management, analytical protocols, equipment training and accreditation. A strong relationship between the EUWI+ team and the laboratories should be maintained, also to introduce other biological quality elements.
- **Development and strengthening of information portals and water cadastres.** These are critical management and regulatory tools that should be linked to the SEIS II programme where appropriate.
- **Public awareness and consultation.** Enhanced public awareness, understanding and support would improve the daily use of water resources, notably by agriculture, industry and local communes. Regular public information

and practical involvement of water users in basin councils promotes understanding, local ownership and support for better protection, reduced pollution and more efficient and balanced use of resources as well as benefits provided by ecosystems services. These are all essential to strengthen water management in Azerbaijan.

As the world recovers from the COVID-19 pandemic and responds to a changing climate, this challenging backdrop provides the catalyst and focus for the next phase of the water policy reform journey in Azerbaijan. Future reforms must strive for cross-sectoral policy coherence. In so doing, they must recognise the horizontal nature and value of water as the sector targets improvements for the health of citizens, the environment and the economy; fulfilling international commitments; and making the best use of limited financial resources.





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