EU4Environment in Eastern Partner Countries: Water Resources and Environmental Data (ENI/2021/425-550)

DELINEATION OF RIVER BASIN DISTRICTS IN AZERBAIJAN First proposal







DELINEATION OF RIVER BASIN DISTRICTS IN AZERBAIJA First proposal 2 March 2023





EU4Environment in Eastern Partner Countries: Water Resources and Environmental Data (ENI/2021/425-550)

ABOUT THIS REPORT

AUTHORS

SEGUIN Philippe, International Office for Water (OiEau) VERDIYEV Rafig, Country Programme Representative in Azerbaijan

DISCLAIMER

This document was produced with the financial support of the European Union and written by the partners of the EU4Environment - Water and Data consortium. The views expressed herein can in no way be taken to reflect the official opinion of the European Union or the Governments of the Eastern Partnership Countries. This document and any map included herein are without prejudice to the status of, or sovereignty over, any territory, to the delimitation of international frontiers and boundaries, and to the name of any territory, city or area.

IMPRINT

Owner and Editor: EU4Environment-Water and Data Consortium

Umweltbundesamt GmbH Office International de l'Eau (IOW)

Spittelauer Lände 5 21/23 rue de Madrid 1090 Vienna, Austria 75008 Paris, FRANCE

Reproduction is authorised provided the source is acknowledged.

March 2023

ABOUT EU4ENVIRONMENT – WATER RESOURCES AND **ENVIRONMENTAL DATA**

This Programme aims at improving people's wellbeing in EU's Eastern Partner Countries and enabling their green transformation in line with the European Green Deal and the Sustainable Development Goals (SDGs). The programme's activities are clustered around two specific objectives: 1) support a more sustainable use of water resources and 2) improve the use of sound environmental data and their availability for policy-makers and citizens. It ensures continuity of the Shared Environmental Information System Phase II and the EU Water Initiative Plus for Eastern Partnership programmes.

The programme is implemented by five Partner Organisations: Environment Agency Austria (UBA), Austrian Development Agency (ADA), International Office for Water (OiEau) (France), Organisation for Economic Co-operation and Development (OECD), United Nations Economic Commission for Europe (UNECE). The programme is principally funded by the European Union and co-funded by the Austrian Development Cooperation and the French Artois-Picardie Water Agency based on a budget of EUR 12,75 million (EUR 12 million EU contribution). The implementation period is 2021-2024.

https://eu4waterdata.eu

CONTENTS

LIST OF ABBREVIATIONS	6
EXECUTIVE SUMMARY	8
1. AZERBAIJAN WATER CODE AND DRAFT STRATEGY	9
1.1. RIVER BASIN DISTRICTS IN THE WATER CODE OF AZERBAIJAN	
2. RIVER BASIN DISTRICTS IN THE EUROPEAN WATER FRAMEWORK DIRECTIVE (WFD)	. 11
2.1. EXTRACT FROM THE WFD	11
2.2. EXTRACT FROM EU GUIDANCE 1: WORK PACKAGE 1, IDENTIFICATION OF RIVER BASIN DISTRICTS IN MEMBER STATES, OVERVIEW, CRITERIA AND CURRENT STATE OF PLAY, 2002	
2.3. DELINEATION OF RIVER BASIN DISTRICTS IN THE EUROPEAN UNION	11
3. PROPOSAL OF RIVER BASIN DISTRICTS DELINEATION IN AZERBAIJAN	. 15

List of abbreviations

ADA	Austrian Development Agency
Azersu JSC	JSC Water Supply and Sanitation of Azerbaijan
BQE	Biological Quality Elements
DoA	. Description of Action
DG NEAR	Directorate-General for Neighbourhood and Enlargement Negotiations of the European Commission
EaP	. Eastern Partners
EC	European Commission
EEA	. European Environment Agency
EECCA	. Eastern Europe, the Caucasus and Central Asia
EMBLAS	. Environmental Monitoring in the Black Sea
EPIRB	Environmental Protection of International River Basins
ESCS	Ecological Status Classification Systems
EU	. European Union
EUWI+	. European Union Water Initiative Plus
GEF	. Global Environmental Fund
ICPDR	International Commission for the Protection of the Danube River
INBO	International Network of Basin Organisations
IOW/OIEau	International Office for Water, France
IWRM	Integrated Water Resources Management
MENR	Ministry of Ecology and Natural Resources
NESB	National Executive Steering Board
NFP	National Focal Point
NGOs	Non-Governmental Organisations
NPD	National Policy Dialogue
OECD	Organisation for Economic Cooperation and Development
RBD	. River Basin District
RBMP	. River Basin Management Plan
Reps	Representatives (the local project staff in each country)
ROM	Result Oriented Monitoring
ToR	.Terms of References
UBA	.Umweltbundesamt GmbH, Environment Agency Austria
UNDP	United Nations Development Programme
UNECE	United Nations Economic Commission for Europe
WFD	. Water Framework Directive

WRSA Water Resources State Agency of Ministry of Emergency Situations

Executive Summary

The delineation of River Basin Districts is an important first step of Integrated Water Resources Management implementation in a country, as River Basins constitutes the core unit for water management.

The concept of River Basins as a management unit exists in the regulation of Azerbaijan. However, the River Basin Districts have not been delineated yet.

According to the recommendations of the first guidance document elaborated for the implementation of the European Water Framework Directive and to the results of a workshop partly dedicated to this topic held in Baku on 23 February 2023 with institutional stakeholders, the delineation of three River Basin Districts has been proposed in Azerbaijan:

- 1. The Kura-Araz River Basin District
 - The Lower Kura-Araz Sub-Basin 1.1
 - 1.2 The Upper Araz Sub-Basin
- 2. The Northern Coastal Streams River Basin District
- 3. The Southern Coastal Streams River Basin District

The delineation matches with administrative units (districts and economic regions) except for one economic region.

This delineation needs official adoption, which would allow a River Basin Organisation to clarify the competencies of the concerned bodies.

1. Azerbaijan water code and draft strategy

The concept of River Basin Districts exists in Azerbaijani regulations (Water Code, draft Strategy). However, their delineation does not exist yet.

1.1. River Basin Districts in the Water Code of Azerbaijan

Azərbaycan Respublikası Prezidentinin 2020-ci il 15 aprel tarixli 1986 nömrəli Sərəncamı ilə yaradılmış Komissiya hazırda su ehtiyatlarının idarə edilməsi, müxtəlif su istifadəçiləri arasında ehtiyatların bölünməsi üzrə tənzimləyici funksiyasını yerinə yetirir.

Mövcud institusional struktur sahəvi yanaşma prinsiplərini əks etdirir və milli və hövzə səviyyələrində bütün maraqlı tərəflərin iştirakı və əməkdaşlığına əsaslanan SEİİE və Çay Hövzəsinin İdarəçiliyinin Planlaşdırılması (ÇHİP) prinsiplərinin tələblərinə cavab vermir.

SEİİE-nin tətbiqi və ÇHİP-lərin işlənib hazırlanması və həyata keçirilməsi üçün su ehtiyatlarının idarəçiliyi üzrə məsul olan milli və hövzə səviyyəli qurumların olmasına ehtiyac vardır. Bu gün SEİlE prinsiplərinin həyata keçirilməsinə cavabdehlik daşıyan və ÇHİP-nin qəbul edilməsi və icrası üzrə məsul olan səlahiyyətli qurum təyin edilməmişdir.

Ümumilikdə, Azərbaycanda hazırki su idarəçiliyi sisteminin SEİİE prinsiplərini daha yaxşı əks etdirmək üçün su qanunvericiliyi ilə əlaqədar beynəlxalq təcrübənin öyrənilməsinə ehtiyac vardır.

Established by order No. 1986 of the President of the Republic of Azerbaijan dated April 15, 2020, the Commission currently performs the regulatory function of managing water resources and their allocation among various water users.

Reflecting the sectoral approach principles, the existing institutional framework fails to meet the requirements of IWRM and River Basin Management Planning (RBMP) principles that are based on participation and cooperation of all stakeholders at the national and basin levels.

There is a need for national and basin authorities that would be responsible for water resources management, implementation of IWRM, as well as the development and implementation of RBMPs. To date, no competent responsible authority has been appointed to implement the IWRM principles as well as to adopt and implement the RBMP.

In general, it is necessary to study the international experience of water legislation to better reflect the principles of IWRM in the Azerbaijani system of water resources management.

1.2. River basin districts in the DRAFT National Strategy of Efficient Use of Water **Resources of Azerbaijan (2021 version)**

6. Çay hövzələrinin integrasiyalı idarə edilməsi planı

Azərbaycanda ÇHİP-ləri hazırlamaq və onları işlək vəziyyətə gətirmək üçün hövzə rayonlarının sərhədlərini müəyyənləşdirməyə, milli qanunverici və institusional çərçivələri nəzərə alaraq, hövzə yanaşmasının tətbiqi mexanizmlərini hazırlamağa və qəbul etməyə ehtiyac vardır.

Çay hövzəsi rayonları (alt-rayonların) anlayışı Azərbaycanın iqtisadi və inzibati rayonları ilə əlaqələndirilə bilər. Qəbul edilmiş sərhədlər çərçivəsində iqtisadi regionlar ayrı-ayrılıqda, yaxud digər bir və ya daha çox regionlarla birgə bir hövzə rayonunu təşkil edə bilər.

Azərbaycan Respublikasının Su Məcəlləsində nəzərdə tutulan hövzə yanaşmasının həyata keçirilməsi üçün mexanizmin hazırlanması və daha sonra onun bütün sərhədləri müəyyənləşdirilmiş rayonlar üzrə icra edilməsi zəruridir və bu, növbəti illərdə su sektorunun strateji inkişafında əsas diqqət mərkəzində olacaqdır.

15. Su ehtiyatlarından səmərəli istifadəyə dair Milli Strategiyanın həyata keçirilməsi üzrə Fəaliyyət Planı, I mərhələ: 2021-2026-cı illər

15.2.3 Çay hövzələrinin sərhədlərinin müəyyənləşdirilməsi ilə bağlı Azərbaycan Respublikasının Su Məcəlləsi və digər normativ hüquqi aktlara müvafiq dəyişikliklərin edilməsi

Section 6. Integrated river basin management plan (RBMP)

To develop and commission RBMPs in Azerbaijan, it is necessary to define the boundaries of basin regions, as well as to develop and adopt mechanisms to apply the basin approach, while taking into account the national legislative and institutional framework.

The concept of river basin district (subdistrict) can be associated with the economic and administrative districts of Azerbaijan. Within the accepted boundaries, economic districts can - separately or along with one or more districts - form a basin region.

To implement the basin approach stipulated by the Water Code of the Republic of Azerbaijan, it is necessary to develop a mechanism and then implement it throughout all districts with determined boundaries. This represents the main focus of the strategic development of the water sector in the coming years.

15. Action Plan on the implementation of the National Strategy for the efficient use of Water Resources, Stage I: 2021-2026

15.2.3 Make relevant amendments to the Water Code of the Republic of Azerbaijan and other normative legal acts on the determination of the boundaries of river basins.

2. River basin districts in the European Water Framework Directive (WFD)

2.1. Extract from the Water Framework Directive

Article 2 Definitions

5. "River basin district" means the area of land and sea, made up of one or more neighbouring river basins together with their associated groundwater and coastal waters, which is identified under Article 3(1) as the main unit for management of river basins.

Article 3 Coordination of administrative arrangements within river basin districts

1. Member States shall 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 neighboring small basins to form individual river basin districts where appropriate.

Where groundwater does not fully follow a particular river basin, it shall be identified and assigned to the nearest or most appropriate river basin district.

Coastal waters shall be identified and assigned to the nearest or most appropriate river basin district or districts.

2. Member States shall 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 lying within their territory

2.2. Extract from EU Guidance 1: Work Package 1, Identification of River Basin Districts in Member States, Overview, criteria and current state of play, 2002

If a river basin is sufficiently large and adjacent to other similarly large river basins, it is likely to be designated as a stand-alone individual river basin district, even when there may exist different physical conditions within its own catchment area. The principles of natural unity of the hydrologic cycle and integrated water management do apply for this approach.

In case of small river basins, adjacent to larger ones, or of several neighbouring small basins, it will be worth considering combining or joining them to form river basin districts, provided that their geographical size and functional characteristics do not hinder the development of efficient water management.

2.3. Delineation of River Basin Districts in the European Union

In the European Union, the River Basin Districts are a clustering of catchments area, usually bigger than administrative units of which they rarely follow the boundaries.

However in France, as there are many municipalities (36,000) which are the smallest administrative units, the River Basin Districts follow their administrative boundaries.

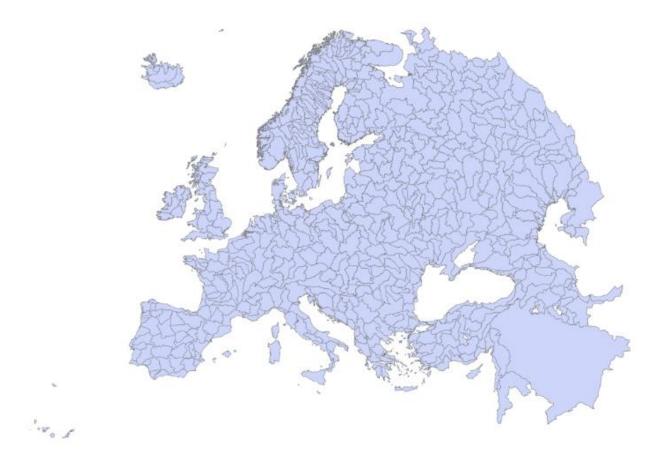


Figure 1: Main European catchments (Ecrins, <u>EEA, 2012</u>)

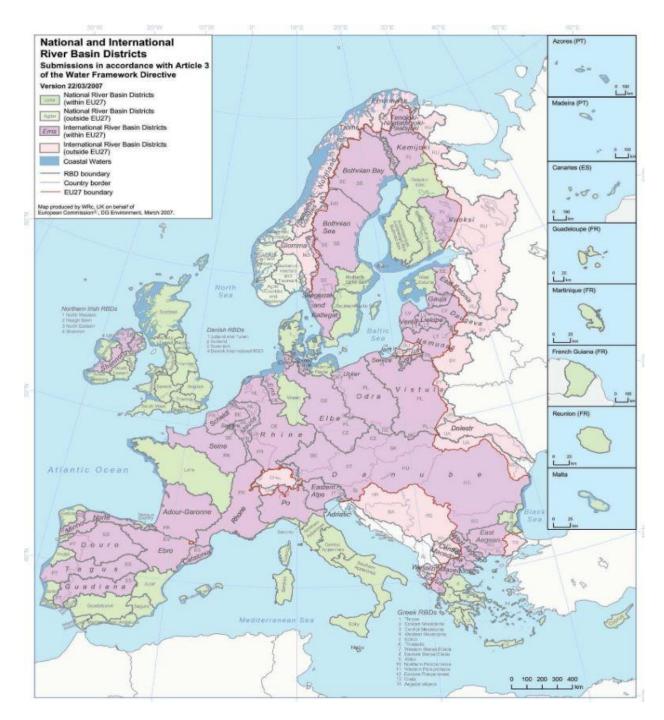


Figure 2: River Basin Districts in the EU (EEA, 2012-2022)

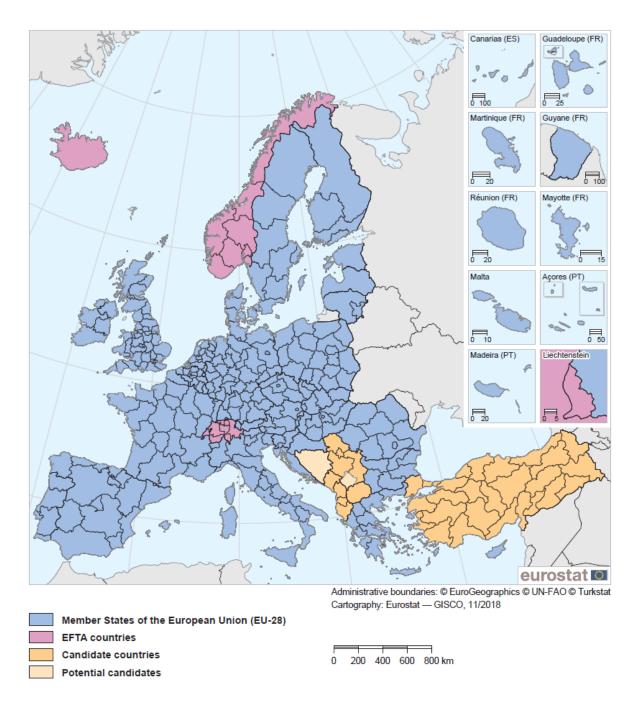


Figure 3: Main administrative boundaries in the EU (Eurostat, 2018)

3. Proposal of River Basin Districts delineation in Azerbaijan

A River Basin District has a hydrographic logic with a River Basin Organisation gathering the stakeholders to develop a River Basin Management Plan in order to improve water resources with balance between economic development and ecosystem needs.

Most of the country area is concerned by the Kura-Araz River Basin, which must be considered as a whole in accordance with the EU Water Framework Directive as well as with the Integrated Water Resources Management (IWRM) concept which considers River Basins as core management units.



Figure 4: Map of Kura-Araz River Basin (AVIM, 2022)

The small tributaries of the Caspian Sea can be gathered (see section 2.2. above) in two groups: Northern and Southern.

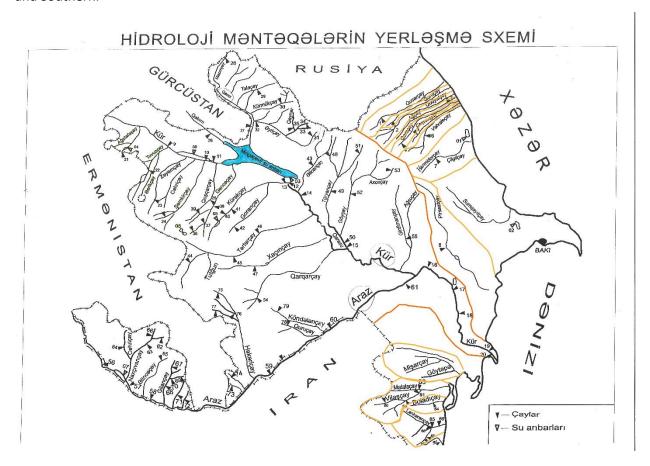


Figure 5: Hydrographic map of Azerbaijan (source: Unknown)

Therefore, it means that 3 River Basin Districts will be created: the Kura-Araz River Basin District; the Northern Coastal Streams River Basin District; and the Southern Coastal Streams River Basin District.

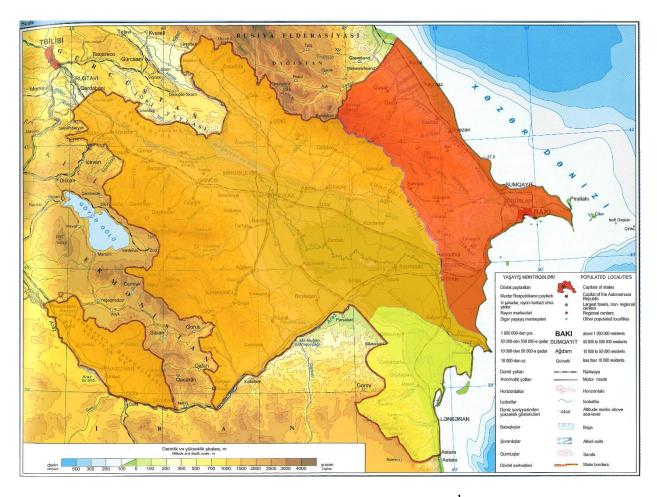


Figure 6: First attempt of River Basin Districts delineation in Azerbaijan 1

 $^{^{1}}$ The background maps (relief, administrative) are extracted from Ekologi Atlas of Azerbaijan, 2010

In order to facilitate the implementation and local management, the newly reorganised Economic Regions (President's Decree, 7 July 2021 "On the new division of economic regions in the Republic of Azerbaijan") could be considered, especially in flat areas.



Figure 7: Map of the 14 economic regions of Azerbaijan (Wikipedia)

The "Lankaran-Astara" economic region could constitute the Southern Coastal Streams District.

The "Shirvan-Salyan" economic region could be entirely included in the Kura-Araz River Basin.

The "Mountainous Shirvan" economic region is the only economic region which is part of two River Basin Districts.

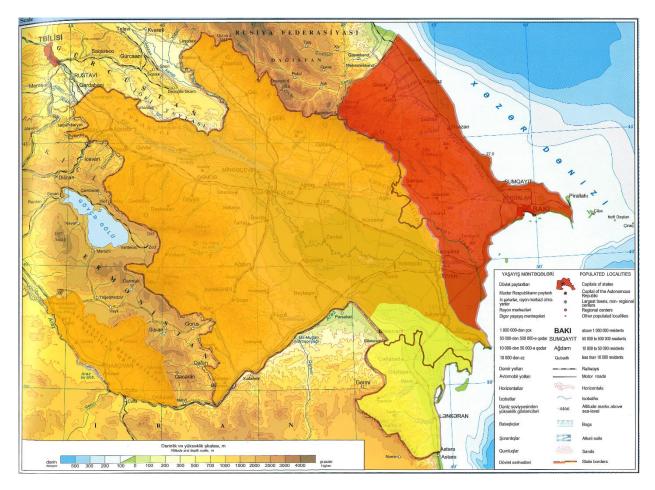


Figure 8: Adjustment of the boundaries of the River Basin Districts in accordance with the economic regions of Shirvan-Salyan and Lankaran-Astara

According with the detached and specific status of the Nakhchivan Autonomous Republic, it is proposed to create a Sub-Basin District for Upper Araz corresponding to the boundaries of the economic region of Nakhchivan.

Therefore, in the end, the proposal is to delineate three River Basin Districts:

- 1. The Kura-Araz River Basin District
 - The Lower Kura-Araz Sub-Basin
 - 1.2 The Upper Araz Sub-Basin
- 2. The Northern Coastal Streams River Basin District
- 3. The Southern Coastal Streams River Basin District

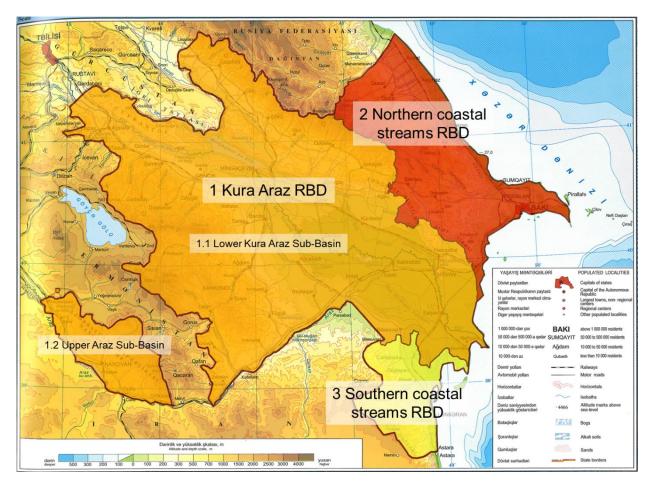


Figure 9: River Basin Districts proposal in Azerbaijan, 23 Feb. 2023, on relief map

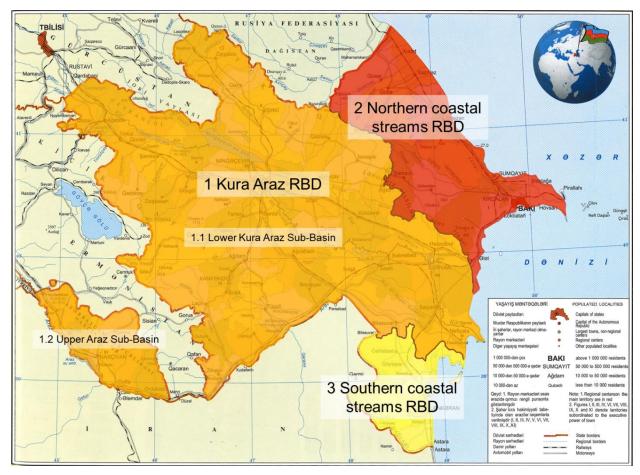


Figure 10: River Basin Districts proposal in Azerbaijan, 23 Feb. 2023, on administrative map

The table below lists the Economic Regions and Districts according to which River Basin Districts they belong to. Note that each District belongs to one sole River Basin District like all the economic regions except for the "Mountainous Shirvan" Economic Region concerned by 2 River Basin Districts.

Table 1: List of Economic Regions and River Basin Districts

Economic Region	River Basin District
1. Baku economic region (Baku city)	Northern Coastal Streams
2. Nakhchivan economic region (Nakhchivan city, Babek, Julfa, Kangarli, Ordubad, Sadarak, Shahbuz və Sharur districts)	Kura-Araz River Basin District (Upper Araz Sub-Basin)
3. Absheron – Khizi economic region (Sumgayit city, Absheron and Khizi districts)	Northern Coastal Streams
4. Mountainous Shirvan economic region (Aghsu and Ismayilli districts)	Kura-Araz River Basin District
4. Mountainous Shirvan economic region (Gobustan and Shamakhi districts)	Northern Coastal Streams
5. Ganja – Dashkasan economic region (Ganja and Naftalan cities, Dashkasan, Goranboy, Goygol, and Samukh districts)	Kura-Araz River Basin District
6. Karabakh economic region (Khankendi city, Aghjabadi, Aghdam, Barda, Fuzuli, Khojali, Khojavend, Shusha and Tartar districts)	Kura-Araz River Basin District
7. Gazakh – Tovuz economic region (Aghstafa, Gadabay, Gazakh, Shamkir and Tovuz districts)	Kura-Araz River Basin District
8. Guba – Khachmaz economic region (Khachmaz, Guba, Gusar, Siyazan, and Shabran districts)	Northern Coastal Streams
9. Lankaran – Astara economic region (Astara, Jalilabad, Lerik, Lankaran, Masalli, and Yardimli districts)	Southern Coastal Streams
10. Central Aran economic region (Mingechevir city, Aghdash, Goychay, Kurdemir, Ujar, Yevlakh and Zardab districts)	Kura-Araz River Basin District
1 Mil – Mughan economic region (Beylagan, Imishli, Saatli, and Sabirabad districts)	Kura-Araz River Basin District
12. Shaki – Zagatala economic region (Balaken, Gakh, Gabala, Oghuz, Shaki and Zagatala districts)	Kura-Araz River Basin District
13. Eastern Zangazur economic region (Jabrayil, Kalbajar, Gubadli, Lachin and Zangilan districts)	Kura-Araz River Basin District
14. Shirvan – Salyan economic region (Shirvan city, Bilesuvar, Hajigabul, Neftchala, and Salyan).	Kura-Araz River Basin District





www.eu4waterdata.eu











