

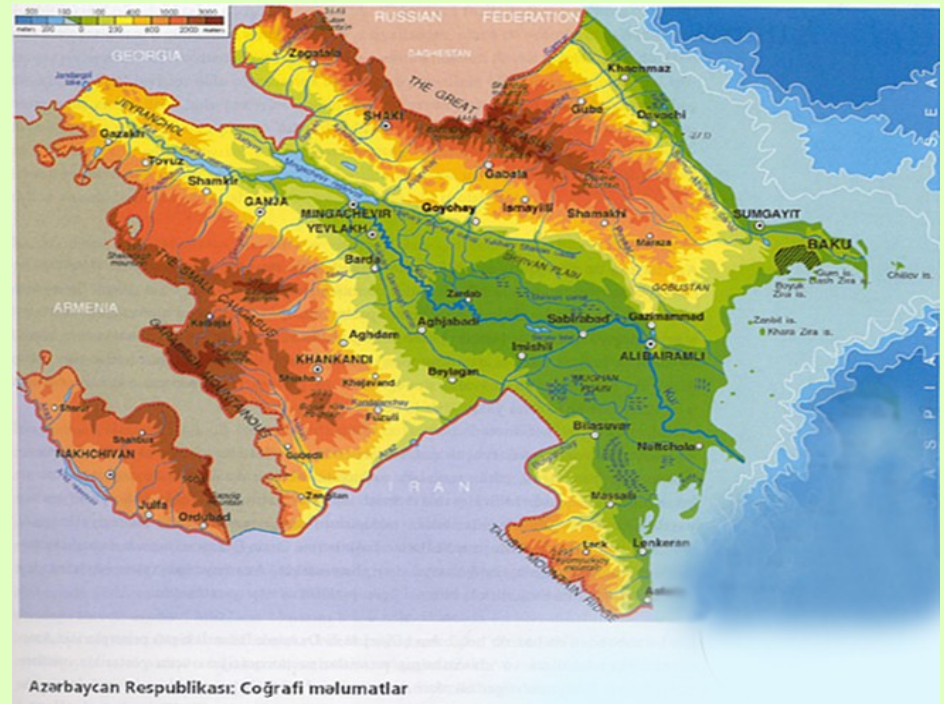
Problems of transboundary Water management in Azerbaijan

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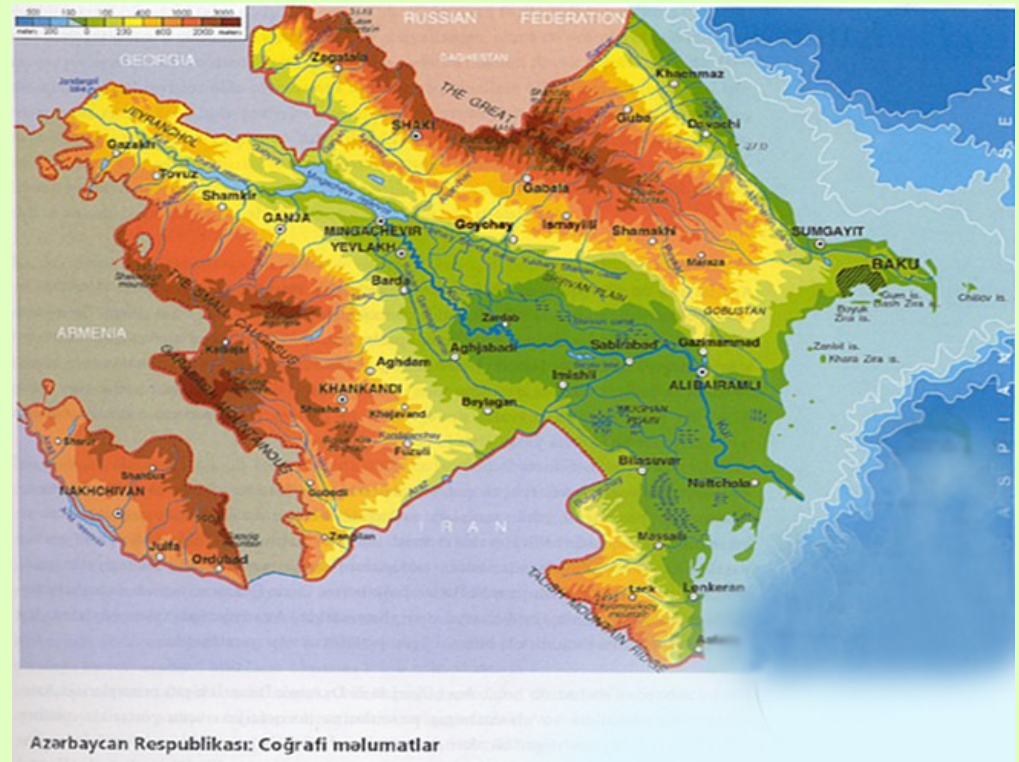
IV International Symposium
on Transboundary Water
Management

Thessaloniki, Greece , 15-18 October 2008



Republic of Azerbaijan

- Regained independency- 1991
- Population – 8.2 mln
- Territory- 86500 sq km
- Capital- Baku (2.5 mln)



KURA-ARAS RIVER BASIN, SOUTH CUCASUS

MAIN RIVERS



Scale 1:1,800,000

WATER RESOURCES OF AZERBAIJAN

- **Total - 30.9 Cub km**

- **Sources:**

- Glaciers and Snow

- Rivers

- Lakes

- Marshs

- Underground waters

Location of sources

- 20.6 Cub km – Abroad (67%) - *Turkey, Iran, Armenia, Georgia*
- 10.3 Cub km - *Azerbaijan (33%)*

KURA BASIN

- **Kura basin-is 64% SC**
- **100%-Armenia,**
- **52%- Georgia,**
- **80% -Azerbaijan**

***21- transboundary rivers**

***In Azerbaijan -15% water resources of South
Caucasus**

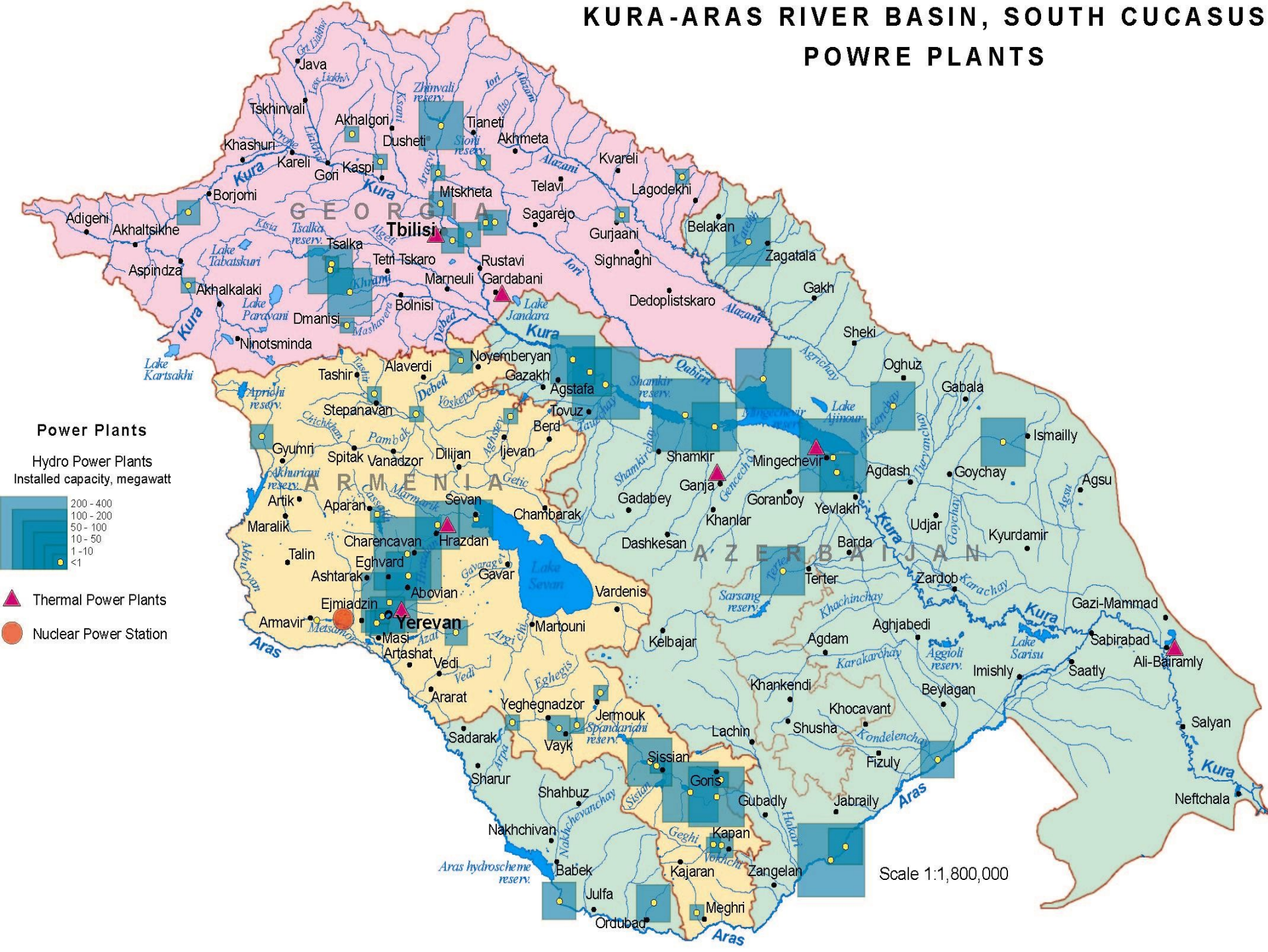


Water consumption

Total, annual - 10 cub km

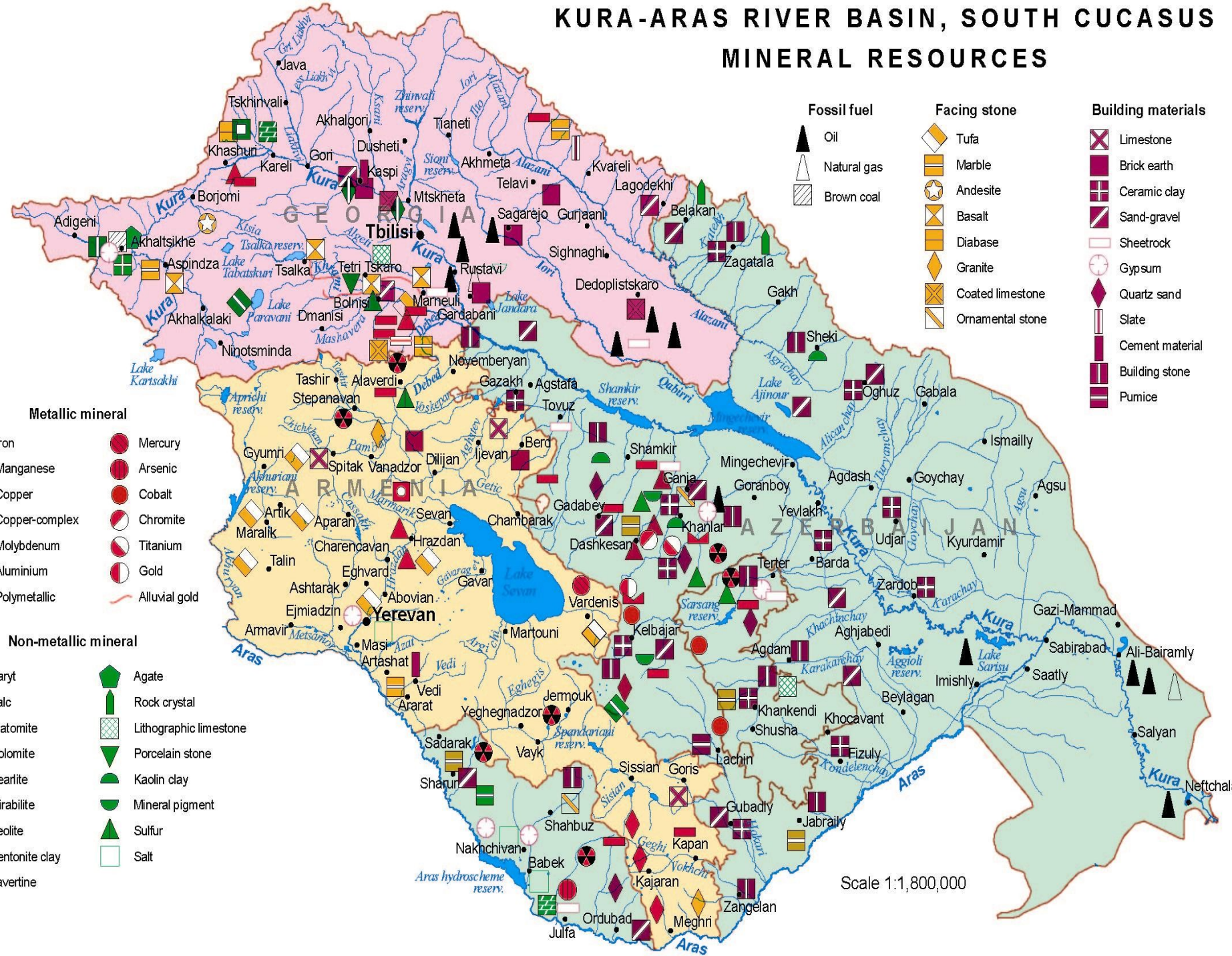
- ***Drinking and communal*** - 0.5 cub km
- ***Irrigation*** - 4.1 Cub km (85% agricultural products from irrigated lands)
- ***Hydroenergy*** - 5600 MW
- ***Fishing and poultry keeping/farming***
- ***Industry*** - 1.9 Cub m
- ***Sport and recreation*** - Mingechar Water reservoir

KURA-ARAS RIVER BASIN, SOUTH CUCASUS POWRE PLANTS



KURA-ARAS RIVER BASIN, SOUTH CUCASUS

MINERAL RESOURCES



- Fossil fuel**
- ▲ Oil
 - △ Natural gas
 - ▨ Brown coal

- Facing stone**
- ◇ Tufa
 - ▨ Marble
 - ⊛ Andesite
 - ⊠ Basalt
 - ▨ Diabase
 - ◇ Granite
 - ⊠ Coated limestone
 - ▨ Ornamental stone

- Building materials**
- ⊠ Limestone
 - ▨ Brick earth
 - ⊠ Ceramic clay
 - ▨ Sand-gravel
 - Sheetrock
 - ⊛ Gypsum
 - ◇ Quartz sand
 - ▨ Slate
 - ▨ Cement material
 - ▨ Building stone
 - ▨ Pumice

Metallic mineral

- ▲ Iron
- ▨ Manganese
- ▨ Copper
- ▨ Copper-complex
- ◇ Molybdenum
- ⊠ Aluminium
- ⊛ Polymetallic
- Mercury
- Arsenic
- Cobalt
- Chromite
- Titanium
- Gold
- Alluvial gold

Non-metallic mineral

- ▲ Baryt
- Talc
- ⊠ Diatomite
- ⊠ Dolomite
- ◇ Pearlite
- ◐ Mirabilite
- ◇ Zeolite
- ⊠ Bentonite clay
- ▨ travertine
- ▲ Agate
- ▲ Rock crystal
- ⊠ Lithographic limestone
- ▲ Porcelain stone
- ▲ Kaolin clay
- ▲ Mineral pigment
- ▲ Sulfur
- Salt

Scale 1:1,800,000

Caspian oil transportation and water resources



Quality of Water

Pollution

Pollutants	Concentration, mkg/l	
	<i>Standards</i>	<i>Factic</i>
As	50	0.7
Ag	50	0.56
Ca	10	42.45
Cd	1	0.33
Co	100	0.7
Cr	50	0.89
Cu	1000	10.85
Hg	0.5	0.6
Mg	50	13.64
Mn	100	13.56
Mo	250	2.87
Ni	100	1.65
Pb	30	0.7
Zn	5000	30.3

Quality of Water

Pollutants	Concentration,	
	<i>Standards</i>	<i>Factic</i>
PH	6-9	8.12
DO	1-15	12.22
SO₄²⁻	500 mg/l	79.6 mg/l
Cl⁻	350 mg/l	156.2mg/l
Na	200 mg/l	27.53 mg/l
K	0.05-500 mg/l	1.78 mg/l
Total P	0.04-0.40 mg/l	30.2 mg/l

Problems

- ❖ **More than 70 % of the population of Azerbaijan use transboundary waters for drinking and household needs,**
- ❖ **Among the countries of Southern Caucasus only Azerbaijan has signed the Convention on the protection and use of transboundary watercourses and international lakes (Helsinki Convention)**
and creation of effective regional cooperation is impossible because of insufficiency of capacity in systemic level,
- ❖ **Azerbaijan is a Party of Convention on Caspian biodiversity Protection , has obligations on Purity of Kura river, flowing to Caspian Sea**
- ❖ **After disintegration of Soviet Union the new states were formed in South Caucasus which have no the perfect legislation and institutional structure for rational management of water resources,**
- ❖ **In connection with economic difficulties of the transition period in the new countries of the former Soviet Union water cleaning constructions are in faulty condition and the majority of sewage flows into the transboundary rivers,**
- ❖ **The systemic capacity on water supply and canalization mismatches the requirements, with increase of a population, migration, demographic changes in the country**

National Legislation

- On the melioration and irrigation-05.06. 1996
- On the adoption of Water Codex-26.12. 1997
- On the hydrometeorology activity-17.04. 1998
- On the Water supply and waster waters -28.10.1999
- On the Environmental Security-08.06.1999
- On the Environmental Protection -27.03.2001
- On the water management of municipality -9.08.2001
- On Ecological education and Ecological awareness-25.09.2001
- On the reception of Ecological information-12.03.2002
- On the security of the hydro technical plants-21. 02. 2003

International Rules

- **European Neighbourhood Policy of the European Union -2006**
- **Water directives of EU**
- **Global water Partnership**
- **NIS – 42 Agreements on Water Management**

European Neighbourhood Policy

- ***Azerbaijan***
- •-Develop framework legislation and basic procedures and ensure planning for key environmental sectors, including in the national environmental action plan on water quality and continue the process of convergence with European requirements;
- • -Take steps to apply Integrated Water Resource Management, enhance prevention of pollution of trans-boundary water resources including through enhanced monitoring and the elaboration of an Action Plan;
- • -Ensure active participation in the Eastern European, Caucasus and Central Asia component of the EU Water Initiative;
- • -Identify possibilities with neighbouring countries for enhanced regional co-operation, in particular with regard to water issues;

European Neighbourhood Policy

- **Georgia**
- -Develop framework legislation and basic procedures and ensure planning for key environmental sectors, air quality, water quality, waste management, nature protection;
- -Implement existing national plans and programmes on water management;
- -Participate actively in the Danube – Black Sea Task Force and the Black Sea
- -Commission to implement a trans-boundary approach to water management; Ensure active participation in the Eastern European, Caucasus and Central Asia component of the EU Water Initiative;
- -Identify possibilities with neighbouring countries for enhanced regional co-operation, in particular with regard to water issues;

European Neighbourhood Policy

- ***Armenia***
- •-Develop legislation and basic procedures and ensure planning for key environmental sectors, including in particular as specified in the national environmental action plan on water quality;
- •-Further develop and implement existing national plans and programmes on integrated water resource management;
- • -Ensure active participation in the Eastern European, Caucasus and Central Asia component of the EU Water Initiative;
- •-Identify possibilities with neighbouring countries for enhanced regional co-operation, in particular with regard to water issues;

Conventions

<i>Conventions</i>	<i>Azerbaijan</i>	<i>Georgia</i>	<i>Armenia</i>
Convention on the Protection and Use of Transboundary Watercourses and International Lakes	2000		
Espoo Convention on Environmental Impact Assessment in a Transboundary Context	1999		1997
Convention on Transboundary Effects of Industrial Accidents			1997
Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters	2000	2000	2001

PROJECTS

- -Management of Water resources
- - Drinking water and canalization
- -Irrigation and drain,
- - Environmental policy,
- -Public awareness
- -Local initiatives

Donors

- ✓ Bank of International development and Restoration
- ✓ TESIS
- ✓ USAID
- ✓ UNDP/GEF;
- ✓ EBRD;
- ✓ Islamic DB;
- ✓ NATO;
- ✓ REC;
- ✓ International Found on Development of Agriculture
- ✓ Eurasian Foundation