

**NATO SECURITY SCIENCE FORUM  
ON ENVIRONMENTAL SECURITY**

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**NATO Project in cooperation with OSCE**

**South Caucasus-Transboundary Water Issues**

**12 March 2008**

**NATO Headquarters Brussels**

# SOUTH CAUCASUS R. KURA-ARAKS BASIN



Area 180000 sq. km

3 neighboring states:  
Azerbaijan (86.6),  
Georgia (69.6),  
Armenia (29.8  
thousand sq.km)

Total population 16  
million people.

80% of the region's  
freshwater resources.

70% of industrial and  
agricultural potential

# Major factors influencing water deficiency in the region

- unbalanced and irrational water use system
- intense water pollution by municipal, industry- and agriculture- induce runoffs
- steady inclination to an increase in water resource demands.

# Main problems in using water resources in transboundary contexts:

- the lack of official relations between Armenia and Azerbaijan,
- predomination of state-territorial interests over the basin principle of water resources management,
- the lack of legal foundation needed for joint water resources use,
- the lack of a coordinated water resources quality and quantity monitoring system.

# South Caucasus River Monitoring

(2002-2008)

Armenia / Azerbaijan / Georgia /  
USA / Belgium / Norway

**NATO** SFP 977991 / **OSCE**



# *South Caucasus River Monitoring*

Armenia Center for Ecological-Noosphere Studies NAS

Azerbaijan Physical Environmental Research Center NAS

Georgia Tbilisi State University

United States Institute for water and watersheds, Oregon State  
University

Norway Department of Chemistry, Norwegian University of  
Science and Technology

Belgium Micro-Trace Analysis Centre, University of Antwerp

# **The main goal of the project:**

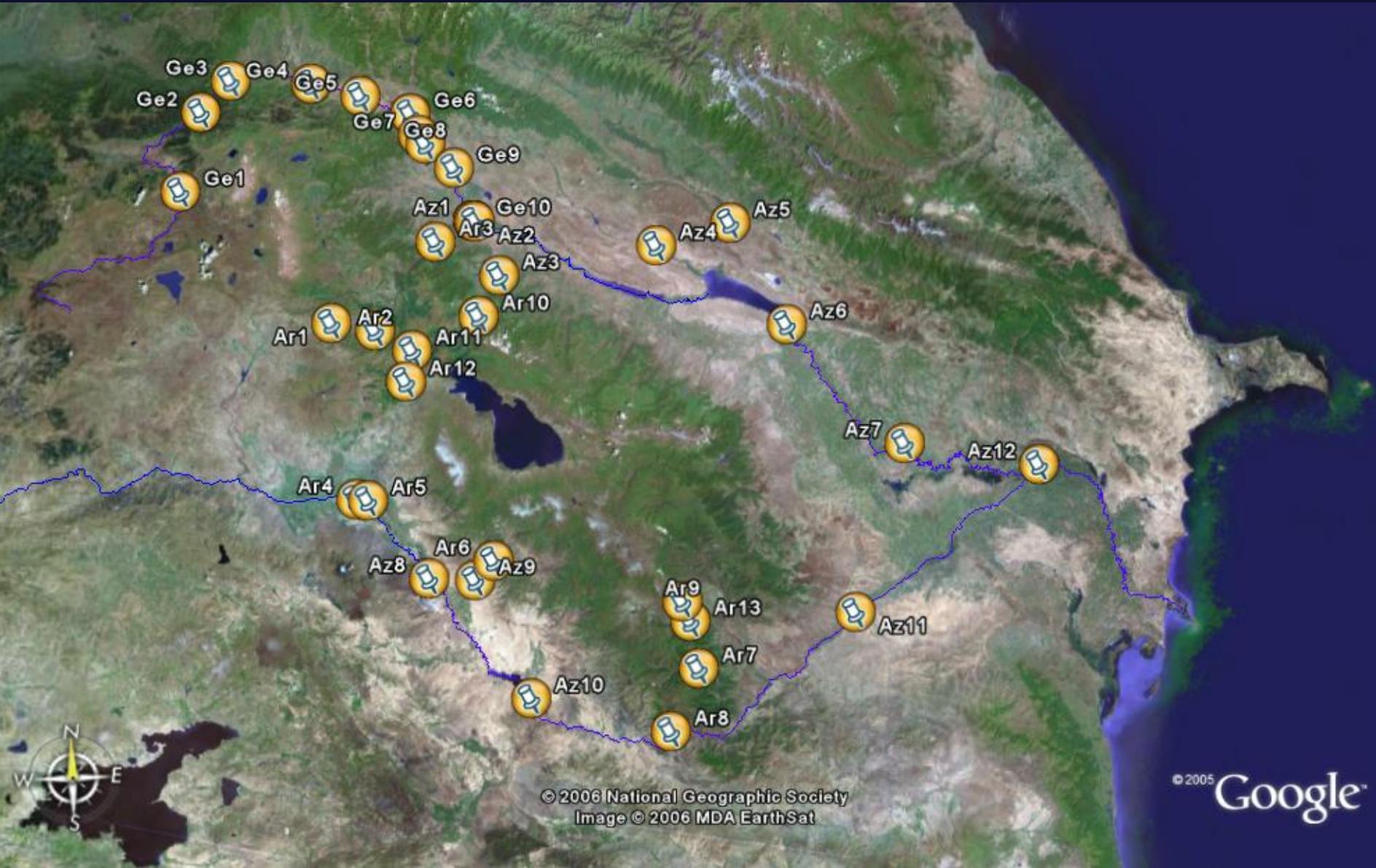
to establish a coordinated water resources quantity and quality monitoring system.

# ***THE PROJECT OBJECTIVES***

- river discharge and water quality monitoring and data collection, using standardized sampling and lab techniques
- implementing the quality control program (QAPrP)
- database sharing and managing via the internet
- sharing GIS and dynamic simulation models via internet
- application of data and social/technical relationships to transboundary watershed management

# 35 SAMPLING POINTS IN 3 COUNTRIES

[www.kura-araks\\_natosfp.org](http://www.kura-araks_natosfp.org)



# Project Timeline & Milestones



# BENEFITS GAINED BY THE PROJECT EXECUTORS

- The research organizations from the three South Caucasian republics got up-to-date precise analytical devices, and presently have the best equipped labs in the region,
- The young researcher from the three countries were trained for up-to-date water analysis methods in leading European research centers,
- The labs of the three countries put into practice technologies of quality assurance and quality control of analyses following ISO requirements,
- The researchers were given an opportunity to take missions for participation in different scientific meetings to present the obtained research outcomes,
- The project end-users and other interested organizations regularly got data on water quality obtained as a result of independent research monitoring.

# ACHIEVEMENTS

- In the conflict region a project was initiated that has successfully been performed for 6 years already. Collaboration of the researchers from the three countries in the frame of the project serves as a real basis for the improvement of the level of confidence,
- Collaboration between NATO and OSCE has greatly contributed to successful execution of the project.
  - NATO assured scientific project expertise, due to which the studies meet international standards. Through NATO funds equipment was procured, and young specialists were trained; current expenses for field and lab works are also covered through NATO funds.
  - OSCE kept direct and permanent contacts with the project executors due to its local missions and gave a political support to the project which was very important from positions of local state administrative bodies. OSCE allocated funds for salaries and field allowances to the project executors.

# ACHIEVEMENTS

- For the first time after the former USSR disintegration, compatible data on a region scale were obtained on the quality of Rivers Kura-Araks basin waters easily accessible to all interested organizations,
- First ever systemized data were obtained on the contents of heavy metals, radionuclides, persistent organic pollutants (POPs) for Rivers Kura-Araks waters,
- Established regional infrastructure of research organizations from Baku, Yerevan and Tbilisi which cooperated in sustainable way during 6 years.
- A scientific basis was created to assure transition to watershed management of water resources and establishment of a regional early warning system.

**PARTNER ORGANIZATIONS SUGGEST A  
NEW PROJECT:**

**MODELING POLLUTANT FATE AND  
TRANSPORT IN THE SURFACE WATERS OF  
THE KURA-ARAKS WATERSHED**

*DURATION- 3 YEARS*

*APPROXIMATE COST-930,000 EUR*

# THE RIVERS DO NOT RECOGNIZE INTERNATIONAL BOUNDARIES



*Thank you for attention!*