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INTRODUCTION TO THE PROJECT

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Yerevan
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ENPI Project: Trans-Boundary River Management for the Kura River basin Phase III – Armenia, Georgia, Azerbaijan

- ***Regional Project***
- ***Technical Assistance***
- ***Beneficiary Countries: Armenia, Georgia, Azerbaijan***
- ***Client: European Commission, Brussels***
- ***Consultant: Eptisa Servicios de Ingenieria S.L.***
- ***Duration: 12 months***
- ***Start: 30 January 2012***
- ***End: 29 January 2013***



Project Partners:

Armenia:

- ***Ministry of Nature Protection***
- ***Water Resources Management Agency***
- ***Environmental Impact Monitoring Centre***

Georgia:

- ***Ministry of Environmental Protection***
- ***National Environment Agency***
- ***Department for Environmental Pollution Monitoring***

Azerbaijan

- ***Ministry of Ecology and Natural Resources***
- ***National Environmental Monitoring Department***
- ***National Hydrometeorology Department***



Phase III builds on the results of Phase II

Long-term objective

- *to improve water quality in the Kura River basin through trans-boundary cooperation and implementation of the EU WFD methodology*

Specific objectives

- *to develop a common approach to water quality assessment in the Kura basin based on the EU Water Framework Directive*
- *to improve technical capacity of the project countries to help to amend policies and practices in accordance with EU WFD*



Project Components

Component 1:

- ***Development of a common approach to water quality assessment***

Component 2:

- ***Institutional technical assistance and training***

Component 3:

- ***Joint field survey to pilot the proposed common approach***

Component 4:

- ***Coordination with the relevant projects in the region***



Component 1: Common approach to water quality assessment

Task 1.1: completion March 2012

- *Technical Report - Review of the current systems for water quality assessment in Armenia, Georgia, Azerbaijan against WFD requirements*
- *draft discussed at the Inception Meeting 1 March*

Task 1.2: first draft June 2012, draft final November 2012

- *Draft Policy Document – Proposal for a common approach to water quality assessment in the Kura river basin*
- *document based on the EU WFD methodology*
- *Consultations with the Project Partners in the process – working meetings, workshops, Steering Committee meetings*

Azerbaijan WQ classification

$$\text{Pollution Index} = \frac{\sum_{i=1}^n C_i / MAC_i}{n}$$

n – number of measured parameters (usually 6)

DO, BOD, Phenols, Oil Products, Cu, Ammonia

Index	<0.3	0.3-1	1-2.5	2.5-4	4.0-6.0	6.0-10.0	10.0<
Category	Very clean	Clean	Lightly polluted	Polluted at medium level	Significantly polluted	Heavily polluted	Extremely high level of pollution (hazardously polluted)

Georgian WQ classification

C_i is compared to $MAC_{i \text{ sanitation}}$

when C_i exceeds $MAC_{i \text{ sanitation}}$

water is polluted

when C_i is below $MAC_{i \text{ sanitation}}$

water is not polluted

Armenian river classification

**5 quality classes
(HIGH, GOOD, MODERATE, POOR, BAD) are defined
based on the limit value for each quality class**

**Limit value is defined against
the natural background concentration ($C_{i \text{ background}}$)
for each parameter (i) measured, 104 in total**

The higher the limit value, the lower the quality class

**Quality class is determined by the parameter (i) with the highest
limit value**

ONE OUT – ALL OUT principle



Component 2: Institutional technical assistance and training

Purpose:

- *help the Project Countries to introduce in their monitoring programs the elements needed for water quality assessment based on the WFD methodology.*

THE MAIN PURPOSE OF WATER QUALITY ASSESSMENT is:

- *To help to present results in the River Basin Management Plan in instructive way to show where the problems are, or, in other words, which WATER BODIES ARE FAILING GOOD STATUS;*
- *To INFORM DESIGN of the PROGRAM OF MESURES– water bodies of different status class would require different measures to achieve good status;*
- *To help to inform about the EFFECT OF MEASURES.*



Component 2 (continued)

Task 2.1:

- ***Proposal for replacement of obsolete water quality monitoring and assessment documents governing with focus on approximation to WFD requirements***
- ***Will feed into Task 1.2***

Task 2.2:

- ***Step-by step Technical Guide: How to design WFD compliant monitoring program (understanding of data needs, land use, pollution sources, surface water ecology, relations between pollution loads and pollution impact, the fate of pollutants in surface waters)***
- ***Draft to be presented at the Steering Committee meeting week of 21 May 2012***



Component 2 (continued)

Task 2.3: June – September 2012

- *Practical (on-the job) training in QC/QA in the monitoring labs in Armenia, Georgia and Azerbaijan (monitoring cycle starting from preparation for sampling, sampling itself, sample processing, analysis, and data management)*

Task 2.4:

- *A concise Technical Guide: Water Quality Assessment under WFD (the purpose of classification, the definition of each status class, differences and thresholds between status classes, how stressors on surface water ecosystems impact the species composition and the ecosystem function, and how the magnitude of the stress is “translated” to the five WFD quality classes.)*
- *Draft to be presented at the Steering Committee meeting week of 21 May 2012*



Component 3: Field surveys to pilot the proposed common approach

*Tree rounds of field surveys in two pilot basins:
Debed/Khrami (AM/GE) and Alazani/Ganikh (GE/AZ)*

- *End April – Early June period (high flow, start of vegetation season)*
- *July – August period (low flow, mid vegetation season)*
- *October – November period (high flow, end of vegetation season)*
- *Selection of sampling sites*
- *Operational procedure and quality elements (monitoring parameters)*
- *Independent lab tests (March and October) for QC/QA purposes*
- *Independent parallel analysis for QC/QA purposes*
- *Field survey technical notes and final report*



Component 4: Coordination with the relevant projects in the region

- *UNDP/GEF project “Reducing Trans-boundary Degradation in the Kura- Aras Basin” started in June 2011*
- *EU Environmental Protection of International River Basins project started in February 2012*
- *EU Water Initiative activities in the project countries, EUWI represent the EU global approach to water resources management in the region*
- *Towards a Shared Environmental System (SEIS) in the ENPI Region.*



Regional Meetings and Field Surveys

- ***Inception Workshop/Steering Committee meeting: 1 March 2012***
- ***First Field Survey: end April – early June 2012***
- ***Technical Workshop/Steering Committee meeting: 23-24 May 2012***
- ***Technical Workshop: 28 June or 3 July 2012***
- ***Second Field Survey: July – August 2012***
- ***Third Field Survey: October – November 2012***
- ***Technical Workshop: 28 November 2012***
- ***Final Steering Committee Meeting: 23 January 2013***



ENPI Project: Trans-Boundary River Management for the Kura River basin Phase III – Armenia, Georgia, Azerbaijan

- Inception Report - **March 2012**
- Technical Report Review of the current systems for water quality assessment in Armenia, Georgia, Azerbaijan against WFD requirements - **March 2012**
- Proposal for replacement of obsolete water quality monitoring and assessment governing documents – **May 2012**
- Technical Guidelines: How to design WFD compliant monitoring program- **draft May 2012, final June 2012**
- Technical Guidelines: Water Quality Assessment under WFD- **draft May 2012, final June 2012**
- Practical QC/QA training in monitoring labs in Armenia, Georgia, Azerbaijan – **June –September 2012**
- Interim Project Progress Report – **end of June 2012**
- Field Surveys Report – **November 2012**
- Draft Policy Document: Proposal for a common approach to water quality assessment - **first draft June 2012, draft final November 2012**
- Project Completion (Final) Report – **end of January 2013**