

REPUBLIC OF ARMENIA

WATER SUPPLY AND WASTEWATER SYSTEMS LORI AND SHIRAK

Location

Lori and Shirak Provinces,
Northern Region

Client

Ministry of Finance and Economy
(MFE), Yerevan

Financing

German Financial Cooperation / KfW

Period

2002 - 2004

Value of Services

0.793 million US\$



Project Description

The project aims at rehabilitating the water supply and wastewater systems of the provincial capitals Gyumri and Vanadzor, including 52 connected towns and villages, with altogether 340,000 inhabitants. Both schemes are over-designed, damaged by earthquakes and suffer from the neglect of maintenance. Service levels are extremely poor because of high water losses, low system pressures and short service periods (2 hours supply per day). Continuous economic downfall, a declining population, low income levels and, hence, low collection efficiencies, aggravated by poor management practices, are the main reasons to blame for the present situation.

These problems will be addressed by reinstating a 24-hour water supply cum safe sewage disposal with gradually improving standards, in line with cost recovery and affordability considerations. Simultaneously, the two existing utilities will be reorganised and privatised as closed joint stock companies, based on a participatory reform concept developed and tested locally under KfW sponsorship.

Implementation of the project will be in stages, starting with priority measures to secure service levels and strengthen the two operators. This will be followed by short-term rehabilitation measures aimed to reduce water losses, increase service periods and improve sewer serviceability. The final stage of medium-term measures is intended to extend and consolidate the achievements, possibly also including sewage treatment.

Scope of Services

Preparatory studies:

- Sector analysis, institutional study, socio-economic survey, population and demand projections
- Appraisal of existing facilities, field investigations, mapping of network systems, definition of design criteria
- Problem analysis and hierarchy, formulation of objectives, project log frame
- Preliminary project concept and indicators for goal achievement

Masterplans, separate for the 4 schemes:

- Guidelines for rehabilitation and improvement works
- Technical layout and costing of project options, economic appraisal of options
- Preliminary tariff proposals, alternative cash flow projections
- Technical and operational concepts for project design and implementation

Feasibility studies, separate for the 4 schemes:

- Participatory project justification, including detailed log frame and risk analysis
- Technical pre-design, quantity and cost estimates
- Implementation concept, including milestones for important project activities
- Detailed quantity and cost estimates, refined dynamic cost calculations
- Cash flow projections for the utility, financial rate of return estimates
- Proposal for introduction of new (autonomous) operational structure