



# Strengthening the Mastering of Natural Resources in the Republic of Tajikistan

**Development Cooperation between the Geological Survey  
of Finland and the Main Department of Geology under the  
Government of the Republic of Tajikistan**

**Project funded by the Ministry for Foreign Affairs of Finland**



Kristian Lindqvist, GTK

**PROJECT PERIOD:** 2014 – 2017  
**TARGET COUNTRY:** Republic of Tajikistan  
**BUDGET:** € 1.6 million  
**FINANCING:** Ministry for Foreign Affairs of Finland  
**EXECUTING INSTITUTIONS:** Geological Survey of Finland (GTK) and Main Department of Geology under the Government of the Republic of Tajikistan (GUG)

## Beneficiaries and stakeholders

The “Strengthening the Mastering of Natural Resources” Project strengthens GUG’s capacity to carry out its national mandate and serve the public at large, government agencies and private companies. Further, GUG will be assisted in establishing new working procedures in the areas of geoinformation management, data delivery and marketing.

Younger staff members will especially benefit from the project through improved expertise and familiarity with current practices. Women will have opportunities to take career paths previously unavailable to them and participate in decision-making processes.



## Project context

Tajikistan possesses valuable mineral deposits such as gold, silver and antimony that provide an excellent basis for development and diversification of its national economy. Deposits developed in transparent and environmentally sustainable ways should provide Tajik society with a wide range of benefits, including better living standards, strong institutions and integration with the global economy.

Gaining these benefits requires efficient information management and modern data dissemination, together with active monitoring of the environment.

As part of efforts to advance geoscience capabilities in Tajikistan, the “Strengthening the Mastering of Natural Resources in the Republic of Tajikistan” Project (2014–2017) focuses on hydrogeological and geophysical capacity building, geohazard identification, geosector transparency, international marketing, interagency communication, community outreach and mentoring of young experts.

GTK’s partner in Tajikistan is the Main Department of Geology under the Government of the Republic of Tajikistan (GUG), the governmental agency charged with managing the national geosector.

# Objectives

## 1. Hydrogeological capacity building

Improved understanding of Tajikistan's hydrogeological regime has high priority. Tasks include digitization of old well maps and systematization of available water analyses. A new round of selected well sampling and comparison of sample analyses will be performed at GUG's national laboratory and in Finland to calibrate analytical results and ensure the quality of conducted analyses.

Multiple sites will be selected for pilot studies to demonstrate current techniques in characterization of drinking water supplies, as well as determination of groundwater recharge rates, groundwater composition and risk of contamination.

## 2. Geophysics capacity building

The project themes include upgrading data collection and processing, and environmental studies using geophysical methods. The project will provide training modules covering digital data collection in the field, data processing, basic data interpretation skills (with advanced training in select cases), and integration of diverse datasets.

Familiarization with modern methods and instrumentation will be augmented with select equipment procurement. The environmental studies will also involve modules on use of existing information, additional field measurements, satellite data, and geophysical data processing, with emphasis on detecting contaminant leakage and spread.



Jukka Multala, GTK



Kristian Lindqvist, GTK

## 3. Geohazard identification

Tajikistan has faced major natural disasters in recent years from torrential rains, rapid spring melts, and loss of glaciers and snowpack in its mountains. Landslides and mudslides, in particular, can to some extent be anticipated and the economic consequences and damage to infrastructure mitigated – not to mention loss of life and public health issues. Work focuses on acquisition and interpretation of geoinformation gathered in the field and through remote sensing (satellite data). Special emphasis will be given to delivery of data to end-users such as other governmental agencies and ministries in clear, usable formats.

## 4. Geosector transparency

The project seeks to foster public-private cooperation through a shared vision of economic policy among all stakeholder groups to promote long-term economic stability and market certainty. At the top level, decision-makers need to share an equal access to geoinformation and have an understanding of the available opportunities for ad-

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**The Extractive Industries Transparency Initiative sets standards for transparency and accountability in extractive industries.**  
<http://eiti.org>

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ded value. In the market arena, companies bidding for mineral extraction rights should be able to compete on a level playing field with clear rules on taxation, extraction fees, bonding and repatriation of profits. Tajikistan's commitment to the Extractive Industries Transparency Initiative is a major step towards such reform.



Helena Saarinen, GTK

## 5. International marketing

Investors globally have had little opportunity to hear about Tajikistan's mineral sector from the Tajik side. The project will assist in preparation of a "road show", as well as online and physical marketing materials for senior and junior mining ventures interested in gold, silver, and other metals. Tajikistan is at the very early stages of raising its profile at international conferences and specialist seminars.

## 6. Interagency communication and community outreach

Former Soviet states inherited administrative structures based on vertical information silos, so interagency information-sharing still seems a novel idea. With increased access to digital information, government agencies can gain large benefits at marginal cost. Geodata, in particular, is valuable in land use planning, energy de-

terminations, emergency response strategies and GIS mapping.

Modern geological agencies also have stepped up their outreach to schools, local governments and the general public. Tajikistan honours "The Day of Geology" once a year to raise awareness about the country's geological endowments, providing an excellent basis for development.

The "Strengthening the Mastering of Natural Resources" Project is part of a close cooperation among donor-funded projects in the region, as well as Foreign Ministry-funded projects headed by the Finnish Meteorological Institute (FMI) and the Finnish Environment Institute (SYKE), and itself demonstrates the value of multi-agency cooperation.

## 7. Mentoring young experts

The project emphasizes on-the-job training and twinning processes that assure acquired skills and knowledge remain in Tajikistan so that the next generation of geoscience talent is ready to take up the reins. Seminars and training modules will be used to introduce new working methods. Implementation will emphasize best practices in software licensing, GIS applications, data interoperability and the latest techniques in data collection.



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