

**Analysis of the documents and the report on the environmental impact assessment of
Teghut copper-molybdenum mine**

Seyran Minasyan

Teghut copper-molybdenum mine is located in Tumanyan region of Lori marz, 29 km southwest of Alaverdi city. The settlements nearby the mine are the villages of Teghut (4 km away) and Shnogh (6 km away). The mine is located in the village of Teghut. "Manes and Vallex" CJSC (now called "Armenian Copper Program" or "ACP" CJSC) was provided with the exploitation license of the mine for 25 years in competitive basis in February 2001, after which "ACP" CJSC has launched the implementation of the necessary works for the exploitation of the mine. The works of exploration were conducted until 2014, as a result of which (144 drill holes with a total length of 27.027 m) substantial and necessary information on the reserves was obtained. The production process of the mining complex started in December 2014.

The impact assessment of Teghut Mine Enrichment Plant on the surrounding environment was conducted by the order of "ACP" CJSC in 2015 and EIA project was prepared which was submitted to the RA MNP expertise. "The environmental impact assessment center" SNCO of the RA MNP gave the positive opinion of No BP-31 on the EIA project on April 3, 2006.

The RA MNP gave the positive experimental conclusion of No BP-31 on the working draft of the exploitation of Teghut mine (See working projects for the construction of the Teghut Mine Enrichment Plant (9 volumes) "mining metallurgy Institute" CJSC, 2005-06) on November 7, 2006.

In total, 8 experimental requirements were presented in the experimental conclusions, among which the followings are important: the strict justification of the preservation of the surrounding environment; ensuring the justification, sufficiency and effectiveness of the measures aimed at reducing the impact on the surrounding environment (Air, water, soil, noise, etc.)

Later, it was announced by "ACP" CJSC that it would adopt the international best practices in mining industry. Based on the announced approaches, the company has made environmental assessment of its activities in accordance with the guidelines OP 4.01 of the

World Bank on Environmental Assessment. At the same time, the company announced that they accept and are led in compliance with the "Criteria on Environmental and social sustainability, 01.01.2012" of the International Finance Corporation (Hereinafter IFC). With the involvement of international experts and consultants, "ACP" CJSC prepared and presented a number of documents (see appendix 2) in compliance with the 8 criteria of the IFC (see appendix 1).

The documents, in total, amount to 1300 pages, and are prepared in compliance with international standards and guidelines in terms of formality. However, a number of evaluations and calculations are untrue, in particular, the assessment of impact on water ecosystem of Shnogh River. For example, in the section of 3.4 impact on the water basin (see page 29) of the environmental management plan, it is simply presented:

“The normative quality of the water in the controlled area of the river is maintained even not taking into consideration conservativeness of the components. Since the calculated concentrations of pollutants in treated waste water are lower than the permissible concentrations, the calculated outflows of the pollutants are within the limits of the maximum permissible emissions (MPE). Thus, while the treated waste water flows into the river of Shnogh, the normative quality of the waters of the river is not violated.” (Teghut mine is limited by Shnogh River on the north-east which flows into the Debed 5km north-west of Teghut mine).

However, the hydrochemical and hydrobiological changes in the values of quality indicators of the waters of Shnogh River during the period of 2009-2015 indicate that the preparatory work of the exploitation of Teghut mine and the initial phase of exploitation already have essential negative impact on the water ecosystem of Shnogh River (see http://aarhus.am/?page_id=11310). According to the data of the specified research, the quality of river water is steadily deteriorating along with the expansion of mining activities, during 2009-2015. The annual concentrations and in accordance with hydrological seasons, the average concentrations of the elements of Mn, Ni, Cu, Zn, As, Se, Mo, Pb, and sulfate anion have grown in the waters in comparison with 2009. There is a reduction in the penetration and the values of hydrogen index of the waters of the river in the area of estuary,

while there is an increase in the electrical conductivity and the values of concentrations of suspended particulates. There has occurred dramatic fall in water biodiversity (benthic flora and fauna) in the area of estuary. *According to the approaches of EU WFD, Shnogh River is already classified among the risk bodies of water.* The set of indicators conditioning the fall in water quality of river basin and the comparison of indicators of the headwaters zone and estuary of the River show that the fall in the quality of water ecosystem of the river is reasoned by the preparation of exploiting Teghut mine and its operation. Moreover, the pressure of Teghut mine on the ecosystem and quality of waters of the river has an extensive, multicomponent character.

The main conclusion. *The existence of the documentation prepared in accordance with international guidelines and the statements of being guided by international advanced, best practice do not provide any guarantee in terms of responsible mining activities and the implementation of targeted measures and environmental plans for protecting the surrounding environment from pollution. In practice, the adoption of international standards has formal nature, the EIA and other documents presented have no connection with the actual condition of the surrounding environment, while the environment is going to be polluted as in the case of other mining enterprises in the RA territory.*

Appendix 1.

1. Performance Standard 1: Assessment and Management of Environmental and Social Risks and Impacts
2. Performance Standard 2: Labor and Working Conditions
3. Performance Standard 3: Resource Efficiency and Pollution Prevention
4. Performance Standard 4: Community Health, Safety, and Security
5. Performance Standard 5: Land Acquisition and Involuntary Resettlement
6. Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources
7. Performance Standard 7: Indigenous Peoples
8. Performance Standard 8: Cultural Heritage

Appendix 2.

1. Environmental management plan for the construction of Teghut Mine Enrichment Plant and the exploitation of copper-molybdenum mine, 2015.
2. Plan on stakeholder engagement for the construction of Teghut Mine Enrichment Plant and the exploitation of copper-molybdenum mine, 2015.
3. Teghout Waste Management Plan 2014.
4. Teghout Water Management Plan 2014.
5. Teghout Acid Generation Assessment, 2014.
6. Teghout Environmental and Social action Plan, Implementation Plan, 2012.
7. Teghout Integrated Management System Implementation Plan, 2013.
8. Teghout Mine Closure Plan, 2014.
9. Monitoring Plan for the Teghout Copper-Molibdenum Mine, 2012.

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