

Monitoring and Preparation of the Uranium Mining Legacies in Central Asia.

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Uranium mining and milling was an important and intensive industry in most of the Central Asian countries of the former Soviet Union. During the 1970s and 80s, more than 30% of the total uranium production of the USSR came from the Central Asian countries. The mining and milling technologies applied for uranium production were uniform, designed and developed by the same engineering unit attached to the Ministry of Medium Scale Machine Industry. Accordingly, the characteristics of the uranium mining legacies in Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan (as well as in Russian Federation, Ukraine and East European countries) are essentially identical. It has left a legacy of radioactive residues. Development of most of the uranium deposits in Uzbekistan, Tajikistan, Kyrgyzstan and partially in Kazakhstan was stopped after collapse of the former Soviet Union. All of these countries found themselves facing the problem of safe management and remediation of many sites affected by operation of uranium mining and milling facilities.

After these countries became independent, the issues of restructuring and decommissioning of the mines and other uranium facilities arose at the same time. Their common problem is also a lack of previous experience in safety assessment and remediation planning. National experience in development of environmental monitoring and analytical capacities of most laboratories which were in charge of monitoring programs at legacy sites and other areas of concern was also very limited.

Therefore the Member States expressed their interest in receiving advice and technical assistance towards building up capacity for key national laboratories and cleaning up the legacy of former uranium mining and milling activities, aiming to protect their population and environment. Following requests from several Central Asia Member States, IAEA offered the regional (TC RER9086) and number of national projects for improving cooperation between and within these countries. The form of project assistance included workshops, scientific visits to advanced projects in other countries and expert advice regarding improvements of the national legislation, provision/upgrading of sampling and analytical equipment, and training of the management and laboratory staff. IAEA experts also assisted the Member States in the following work areas: evaluation of the current status of the former Uranium facilities; in development of regulatory framework and environmental monitoring programs; assessing the radiological impact of residues at the former uranium mining and milling sites; and evaluating the remediation works already underway.