Significant quantities of radioactive waste were buried by the Armed Forces of the Former Soviet Union between 1960 and 1990 across Ukraine that are now under the responsibility of Ukrainian Ministry of Defence or State Border Guard Service (SBGS).

Preliminary assessments have indicated that this waste contains Cobalt ($^{60}$Co), Cesium ($^{137}$Cs), Strontium ($^{90}$Sr) and Plutonium ($^{239}$Pu) sources as well as radiation sources with fast neutron (possibly Pu-Be). Exact dimensions, nature and attributes of these sources and extent of contamination (if so) at the burial sites are unknown. Additionally, there is a proliferation risk with these sources.

Ukraine has requested support for the remediation of radioactive waste located in Vakulenchuk, a site under control of the SBGS of Ukraine, in a manner that protects human health and the environment now and in the future without imposing undue burdens on future generations. The NATO Trust Fund project supports Ukraine through a three work package project over a 12 month period. The NATO Trust fund project will manage the project in accordance with applicable national standards and regulations. Once the radioactive waste has been retrieved and extracted, conditioned and packed for transportation to Kyiv RADON, the project will support the site’s restoration to its original condition subsequent to cessation of operation in order to prevent further environmental degradation and destruction. As a cooperation theme and best practice, the project uses Allies and Partner Subject Matter Experts with competences in radioactive waste treatment.

The total cost of the project is estimated at EUR 950,000 of which a total of EUR 848,000 has already been contributed.
Package 1 – Radiation Survey and Site Investigation

A well-planned characterization of the site was undertaken during the Radiation Survey and Site Investigation (RSSI). Reliable and suitable data is obtained regarding the distribution and physical, chemical and nuclear properties of all radioactive contaminants to determine the extent of the contamination. This is done through a historical site investigation followed by a radiological and an environmental survey. Recommendations for the work of the following work packages of this NATO Trust Fund to be executed are provided by means of a Status Survey Report (SSR).

Package 2 – Pretreatment of Waste

The project supports the implementation of a Technical Solution (TS) proposed by the contractor coordinated with SBGS and approved by the State Nuclear Regulatory Inspectorate of Ukraine (SNRIU). The Trust Fund supports the retrieval and extraction, the conditioning, packaging and transport of the radioactive waste from the location to an authorized regional interim storage managed by the “Ukraine Regional Radon Specialized Plant” at Kyiv, known as the State Specialized Enterprise “Kyiv State Interregional Specialized Combine” (or Kyiv RADON).

Package 3 – Site Restoration

The project will ensure that the site shall be restored to its original condition subsequent to cessation of pretreatment of radioactive waste operations in order to prevent further environmental degradation.

For further information

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