



## INDUSTRIAL WASTE MANAGEMENT AND CLEAN-UP PROJECT

Citizens of Montenegro deserve to live in a pollution-free environment. Clean air, water and land are essential for human and economic development.

While the industry of the Yugoslav era did contribute to Montenegro's economic development, it also polluted the environment creating risks to public health and resource sustainability.

The Government of Montenegro recognized these risks and requested assistance from the World Bank. That was the beginning of the Industrial Waste Management and Cleanup Project.

This project will safely remove or contain industrial waste from three locations and transform them into areas safe for environment and public health. Through this, Montenegro will put in place measures to ensure that industrial waste is properly managed that similar risks are avoided in the future.

*Value: **44.7 million EUR***

*Implemented by:*

*Nature and Environment Protection Agency  
& Ministry of Sustainable Development and  
Tourism*

*September 2014 - June 2020*



### SHIPYARD BIJELA

The Shipyard Bijela is located in the Boka Kotorska bay, one of the most beautiful parts of Montenegro. Once the biggest ship repairing yard in the Southern Adriatic, it declared bankruptcy and stopped operating in 2015. Removal of old paint and hull coatings was one of the shipyard's core services, thus, blasting grit used for removal of old paint, containing heavy metal, is considered hazardous.

#### WHAT THE PROJECT DOES

The project will help with the collection of waste materials and their transport to adequate treatment facilities abroad. Other works include disposal of the non-hazardous waste at an appropriate location within the country, immobilization of non-hazardous waste on-site and backfilling the excavated areas.

#### RESULTS

As of now, 35,000 tons of hazardous waste has been exported, and the remaining 75,000 tons will be disposed by June 2020. The derelict areas have been cleared, and soil remediation works on site have started. Once the project finishes the old shipyard will not only cease to be a risk to the environment, it will also be available for new investments.



### MINE TAILINGS DISPOSAL FACILITY GRADAC

Mine Tailings Disposal Facility Gradac in Pljevlja originates from the activities of the lead and zinc mine Šuplja Stijena. The facility, located on the right bank of the Čehotina River, contains almost 4 million tons of toxic material. The deposited sandy residues can contaminate air and water when there are strong winds and heavy rains.

#### WHAT THE PROJECT DOES

The project will prevent release of any hazardous material into the environment by safe enclosure of the contaminated material. Additionally, the construction of drainage channels will minimize the risks of inflowing snowmelt and rainwater.

#### RESULTS

The remediation will start in October 2019. Once the works are completed, by June 2020, the site will turn into an area safe for people, animals and the environment. Thanks to its re-vegetation, the current landscape will be significantly improved.



### COAL ASH FACILITY MALJEVAC

The Maljevac Dam in Pljevlja is used for disposing of ash and slag produced within the nearby Thermal-Power Plant, operated by the state-owned EPCG company. The main environmental risks of the dam arise from the contamination of surface water and groundwater as well as air pollution during strong winds.

#### WHAT THE PROJECT DOES

Some parts of the facility will be closed while the EPCG will invest construction of new capacities at the same site. People potentially affected by the project through land acquisition and resettlement will be compensated fairly and transparently.

#### RESULTS

The preparatory works started in August 2019, and are expected to finish by the project closing date. The risk of water contamination and air pollution will be minimized, ash dispersion by wind will be stopped, and damaged eco-system will be restored.

### KAP PODGORICA

The World Bank is providing technical knowledge to authorities of Montenegro for the remediation of red mud basins and solid waste disposal site at KAP Podgorica. It is expected that the technical documentation will be completed by the end of June 2020.

