

TECHNICAL REPORT

UNATSCR 1244 KOSOVO

SITE: 1 Mitrovica: re-opened lead-zinc mine (Stari Trg)

SITE: 2 Novoberde: re-opened lead-zinc mine Artana)

ENVIRONMENTAL/HUMAN HEALTH PROBLEM

Historic and ongoing mining activities from the Trepca group of mines have contributed to a landscape level of heavy metal and acid mine drainage pollution of the areas in proximity to the Stari Trg and Artana mines with lead in particular having a well documented impact on human health particularly in the vicinity of Mitrovica where the water, soil and food produced in the area have high levels of reported lead. The past and present mining activities are principally impacting on the residence through heavy metals being transported either through the air as dust from tailings or through the water through tailings heaps slumping in the rivers (or close proximity) and through direct drainage from the mines into the rivers.

INTERVENTION & WORKS

The physical interventions as envisaged within the Montec report for Stari Trg and Artana mines were reviewed by the NPC and UNDP Country office and were modified in some areas with the support of the CTA. The changes focused on interventions that would provide better immediate protection to the human population. Works proposed for Stari Trg was changed from the use of dust suppressants to stabilize the dry tailings benches with dust suppressants (i.e. barrier sprays or veneers) to stop heavy metals being blown onto Mitrovica to a vegetated earth cover preceded by reshaping of the dam crest to minimize erosional forces.

For Artana proposed works included procurement of chemical to process 20,000 tonnes of former tailings at the Kishnica processing plant to recover marketable metals; transportation of 80,000 tonnes of former tailings from the smaller stockpile (T1) to the Kishnica processing plant; construction of an access road from tailings stockpile 1 to tailings stockpile 2 to permit access of equipment and materials to conduct river protection works; and to conduct river protection works on the 1.4 million tonnes of tailings present on the second tailings stockpile (T2) which was slumped into the river causing heavy pollution.

CURRENT POSITION

The capping of the dam crest at Stari Trg, construction of River Protection works at the larger tailings stockpile at Artana and procurement of the processing chemicals were all completed within 2008. While tenders were successfully granted for the transport of 80,000 tonnes from the smaller stockpile (T1) at Artana there have been complications with the receival site and only 3000 to 4000 tonnes have so far been transported with some doubt that more than 20,000 tonnes can be received. This is still under negotiation and has been impacted by the fall of base metal prices to 1/3 rd of their recent values. This has undermined the reprocessing of tailings which had the potential to be a self sustaining and profitable process but which is now uneconomic at current metal prices.

Tenders were successfully granted for construction of the Access Road but this proved to be unnecessary as the equipment and materials needed to conduct River Protection Works were able to

be conducted through accessing the dry river bed during the river low flows in summer. Plans for a smaller scale access and maintenance road to the T2 stockpile are being prepared as are plans for further interventions to utilize the remaining funds for physical interventions. This would possibly look at technologies to address the acid mine drainage emanating from the underground mine and entering the river at Artana (adjacent to T1).

NEXT STEPS

Finalization of the tender and contracting for construction of the inspection and maintenance should be progressed within the first quarter of 2009. Concurrent to this selection of the further intervention activities will be subject to a meeting between project partners, UNDP Country Office, NPC and CTA in early 2009.

The next steps toward a community education program need to be considered based on existing **studies on lead risks and following a "living with lead" adopted in similar affected communities across the globe** to help the community adopt approaches to minimize the harmful effect of lead on their health.

Further environmental monitoring/modeling is required to demonstrate the positive impact to human and environmental health resulting from the physical works conducted to reduce heavy metals, acid drainage and dust from impacting on the area. While some monitoring has been conducted there is a need to conduct specific monitoring/modeling to show the reduction in load and concentration of dust and heavy metals on the environment.

Specific areas to monitor include further characterization of acid mine drainage, heavy metal types and concentrations within the waterways and characterization of the tailings dam materials, monitoring of dust deposition and heavy metal profiles in nearby villages.

CTA, technical PA will work closely with the NPC, UNDP Country Office and partners in further developing a monitoring program.