From March to August this year, an analysis of water and soil samples was carried out near the slag and ash disposal sites in Tuzla, Bosnia and Herzegovina (BiH) – Plane, Divkovići I, Divkovići II, Drežnik and Jezero I – as well as wastewater samples from the active ash disposal site Jezero II and samples from six water wells. In total, twenty-three water samples and two soil samples were analysed. This was the first drinking water analysis to be carried out since the ash and slag – byproducts of burning coal – started being dumped in this area of western Tuzla approximately fifty years ago. The heavy metal content in the byproducts of coal burning largely depends on the concentration of these chemical elements in the coal of origin, mined at Dubrave and Banovići. The report shows that the arsenic and cadmium content in the Dubrave lignite is almost twice as high as the upper limit of the global average concentration, and the nickel content in the Banovići's lignite is almost 6 times the limit.

People have seen their environment changing: their homes and lands have been slowly encircled by huge lakes filled with coal ash and slag. Their crops started drying up and their water has become undrinkable. 'Is this safe? Could all of this affect our health?' wonder the locals, while local environmental authorities reassure them that the pollution is within the legal limits. Then, along comes a report, like the one released by the Center for Ecology and Energy, which proves that the land and water are indeed contaminated with toxic substances such as cadmium, lead, nickel and chromium, and another fear creeps in: will those responsible take appropriate measures to stop this pollution and prevent it from damaging lives further?

Toxic wastewater and land polluted with heavy metals

The results showed that the wastewater at the active Jezero II ash landfill is alkaline toxic water containing amounts of cadmium, lead, nickel and chromium that exceed the prescribed limit values. This type of wastewater should not be discharged into surface water without treatment or come into contact with underground water.

Out of the six water wells tested during the analysed period, the water from only two of them can be considered completely safe to drink according to BiH standards. The soil on the closed waste disposal sites of Plane and Drežnik, which is currently used for agriculture, contains concentrations of nickel between 6 and 12 times above the prescribed limits, and concentrations of chromium and cadmium between 1.6 and 4 times higher. These heavy metals, even in small quantities, tend to bioaccumulate over time, eventually leading to chronic, degenerative changes on important organs: the liver, bones, spleen, brain, etc.

Remediation measures are not rocket science, they just need proper implementation

So far, the only remediation measure taken to prevent the harmful effects of pollution on the surroundings has been to cover the surface of the waste disposal site with a thin layer of soil. However, this is inadequate, since it does not prevent the dangerous impacts of heavy metals found in the waste. This is particularly true because the site has been informally repurposed for agriculture, and crops are now grown on top of it. As a result, the report recommends that agriculture for human and animal consumption must be stopped and full remediation and recultivation measures implemented in accordance with the Federation of Bosnia and Herzegovina's legislation. Those who have been driven to farm at such a polluted site need to be assisted to find alternative land.

One of the most urgent steps recommended in today's report is the adoption of a regulation that would prescribe compulsory measures to prevent further negative impacts of slag and ash disposal sites on the environment. In order to prevent or reduce contamination of underground water – mineral lining needs to be installed on the bottom and the sides of the ash and slag disposal site. There are numerous wells and drinking water springs in the vicinity of both the active and closed ash disposal sites, so an underground water quality monitoring system must be set up by the operator. This would help spur a timely reaction in case the spring or underground water quality worsens.

Tuzla 7 new unit is not part of the solution

Whatever the promoters of the new unit at the Tuzla coal power plant and its main financier, the China Eximbank, would like the local community to believe, increased coal capacity would not stop the real problem. Ash and slag will continue to be released as long as a coal-fired power plant operates here. The idea that its lifetime would span over several more decades and produce more toxic byproducts is simply inconceivable.

The environmental group Re:Common released a video that includes moving testimonies of local people living near the ash waste dump, as well as of the author of the report. It also shows how financial institutions, such as Italy's Intesa Sanpaolo Bank, alongside a subsidiary of Slovenia's NLB Banka (partly owned by the EBRD) and Russia's Sberbank worked hand in hand to back the Tuzla 7 project with loans of their own, totalling EUR 74 million.

What is most needed is a full remediation of the soil, water and air pollution and a complete turnaround from energy sector development which harms already vulnerable people. A shift

towards sustainable renewables and energy efficiency is long overdue and highly expected.
Source: bankwatch.org