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Lake Urmia disaster- a classical example of the Chemical Time Bomb phenomenon

Esad Prohić (1), Laila Prohić (2), and Hana Fajković (1)

(1) Department of Geology, Faculty of Science , University of Zagreb, Zagreb, Croatia (eprohic@geol.pmf.hr; hanaf@geol.pmf.hr), (2) Department of Biology, Faculty of Science, University of Qeensland, Australia (laila.darvill@gmail.com)

The last years, even decades, decline of the Lake Urmia, in the West Azerbijan province of I.R. Iran, has been the main environmental concern not only for Iran but also for neighbouring countries, and, as a world heritatage, also the part of international environmental problem. The environmental scientists, planers, politicians, decision-makers of all kinds, has been faced also with challenge of the lake revival.
Lake Urmia si a very complex ecosystem spreading far more then the lake itself. Together with the lake water body, other surrounding environmental compartments, such as, air, soil (sediments) and groundwater, are also affected with the change happening in the lake. The environmental parameters to be studied, whenever some environmental change happens to occur, are physical and physicochemical, chemical and biological parameters, respectively.
By reviewing the literature dealing with the Lake Urmia case, one can find studies of mostly physical and topographic parameters (area of the lake) together with some physicochemical parameters such as salinity, water temperature, oxygene content. The special attention has also been given to the lost of the life in the lake, both fauna and flora, where the main attention has been given to the dissapearrances of special brackish shrimp Artemia urmiana.
For our opinion, ar least not the same attention has been given to the chemical changes specially of chemistry of the neighbouring soils which, not so long ago, were fertile agricultural soils.
Due to the capacity of soils and sediments to store and immobilize toxic chemicals in so-called "chemical sinks," direct effects of pollution may not be directly manifested. This positive function of soils and sediments does not guarantee, however, that the chemicals are safely stored forever. Factors influencing the storage capacity of soils and sediments or the bioavailability of the stored chemical can change and indirectly cause sudden and often unexpected mobilization of chemicals in the environment. In our case such a change could be salinity change as one of the environmental factor which can be a “trigger” for CTB.
In our paper we are going to present the basics of the “Chemical Time Bomb” (CTB) phenomenon by reviewing the literature and to try to look to the Lake Urmia case through the CTB concept. Is the Lake Urmia with its surroundings environmental compartments today candidate for what has been called Chemical Time Bomb?
We would like to go even one step ahead the classical CTB concept and try to speculate about the possible changes in the biosphere in the same way of approach as for the CTB, something which, even, we could call Biological Time Bomb.
Few already existed proposals for lake remedy will be critically discussed, as well.