14.00: Panel 2: Dead Sea & Aral Sea: lessons learned

The history of the Dead Sea and its present state Prof. Dr. Steffen Mischke, *Institute of Earth and Environmental Science, University Potsdam*

From Aral Sea to Aralkum - Problems and solutions for a lost lake

Prof. Dr. Siegmar-W. Breckle, *University Bielefeld*

The death of Urmia and other salt lakes and wetlands in Iran

Prof. Dr. Hossein Akhani, *Department of Plant Sciences*, *School of Biology, University of Tehran, Iran* Chair: Saeed Khatibzadeh, *Resident Representative of CIRE*, *Embassy of the Islamic Republic of Iran*

15.30: Coffee break

16.00: Panel 3: The way ahead - a master plan for Lake Urmia

Ecosystem approach as a main strategy for Urmia Lake Basin

Dr. Massoud Bagherzadeh Karimi, *Deputy Director* General of Habitants & Protected Areas Bureau, Department of Environment of the Islamic Republic of Iran

A comprehensive analysis of a long-term strategic dynamic rehabilitation and preservation plan for Lake Urmia

Prof. Dr. Bahram Taheri, *Amirkabir University of Technology, Tehran, Iran*

Integrating German Iranian experience – Battle for water in Zayandeh River basin

Dr. Michael Kaltofen, *Head of Department Methodological Consulting, DHI-WASY GmbH, Dresden*

Chair: Prof. Dr. Tilman Rost, BC CARE and Department of Earth Science, FU Berlin

17.30: Closing Remarks

Rahim Meidani, Deputy Minister for Water and Waste Water, Ministry of Energy of the Islamic Republic of Iran

PD Dr. Lutz Mez. Coordinator BC CARE. FU Berlin

The present international conference will bring together national and international experts and practitioners from academic and state institutions, as well as NGOs to discuss these issues from different perspectives. The Lake Urmia Conference was organized on the initiative of Dr. Bijan Kushan (drkushan@yahoo.com).

Venue

Freie Universität Berlin Henry-Ford-Bau / Hörsaal B Garystr. 35, 14195 Berlin-Dahlem



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Berlin Centre for Caspian Region Studies





Lake Urmia Conference

Berlin, November 22, 2013



Lake Urmia, located in Northwestern Iran at an altitude of 1270.4 m above sea level, is one of the largest permanent hyper saline lakes in the world and resembles the Great Salt Lake in the USA in many respects of morphology, chemistry and sediments. The lake was declared a Wetland of International Importance by the Ramsar Convention in 1975 and designated as a UNESCO Biosphere Reserve in 1976. Due to the construction of one huge dike (highway) in 1980 through the middle of Lake Urmia, the lake is partially divided into two parts (connection pass between two parts is just one 1400m wide channel). Moreover, besides the previous dams built prior to the 1979 revolution, since 2000 more than 10 dams have been constructed on the Urmia catchment rivers.

More generally, the Urmia hyper saline lake has been shrinking for a long time, decreasing its depth significantly during recent years. The salinity of the lake has been rising during the last years, reaching more than 300 g/l in 2010 and large areas of the lake bed have been desiccated. Because of the recent decrease in lake water, there is a real danger to the future of the lake as a world-class natural resource.

Present intensive hydro-chemical, hydrological, hydrogeological, and geomorphologic studies indicate an ecologic-environmental disaster in and around the lake area. The hyper saline water condition leads to significant evaporation (100cm/year), which negatively impacts the eco-system and causes desertification. This is visible around the lake at several locations.

For several years now, Iran has tried to implement measures in order to stop further deterioration of the lake and its eco-system, but little success has been observed. Considering that only a well-founded technical, economic, natural science and social science approach can resolve this issue, the main aim of the conference is to favor and foster a fruitful discussion and an intellectual exchange among the participants. The conference seeks to work out a long-term rescue water management plan for the Lake and the biosphere around the lake area.

The main questions, which will be addressed at the Conference, are as follow:

- What is the current situation (environmental, economic, social, hydrological) of Lake Urmia?
- What measures have already been studied and implemented?
- What are the roles of the human factor and secondary - climatic in accelerating the drying process of the lake?
- What can be done to avoid further evaporation and henceforth a deterioration of the lake's ecosystem?
- Which lessons can be learned from the Aral Sea and the Dead Sea?
- Which alternative measures can be taken to stop the trend and to help the lake's environment to rescue itself? Is a master plan possible?
- Can a comprehensive approach based on urgent, medium term, and long-term goals be defined?

9.30: Opening remarks

Prof. Dr. Klaus Beck, Vice President of Freie Universität Berlin

HE Ali Reza Sheikh Attar, *Ambassador of the Islamic Republic of Iran*

Rahim Meidani, Deputy Minister for Water and Waste Water, Ministry of Energy of the Islamic Republic of Iran

Chair: PD Dr. Lutz Mez, Coordinator BC CARE, FU Berlin

10.00: Panel 1: Lake Urmia: an endangered ecosystem

An analysis of the various factors leading to decrease in water levels of Lake Urmia

Raana Koushki, *Ministry of Energy of the Islamic Republic of Iran*

Sciences, GSI, Tehran, Iran

Paleoenvironment, brine evolution and proposed action plan to achieve salvation of Lake Urmia Prof. Razyeh Lak, PhD, Research Institute for Earth

Contribution of remote sensing for natural hazards assessment in Iran

Dr. Mahdi Motagh & Dr. Sigrid Roessner, *Department* of Geodesy and Remote Sensing, Helmholtz Center Potsdam. GFZ

Chair: Prof. Reza Maknoon, PhD, Advisor to Department of Environment of the Islamic Republic of Iran, Amirkabir University of Technology, Tehran, Iran

11.30: Discussion (Q&A) How to tackle the Lake Urmia Problem?

Rahim Meidani, Deputy Minister for Water and Waste Water, Ministry of Energy of the Islamic Republic of Iran

Raana Koushki, *Ministry of Energy of the Islamic Republic of Iran*

Prof. Reza Maknoon, PhD, Advisor to Department of Environment of the Islamic Republic of Iran

Prof. Razyeh Lak, PhD, Research Institute for Earth Sciences, GSI, Tehran, Iran

Chair: PD Dr. Lutz Mez, Coordinator BC CARE, FU Berlin

12.30: Lunch