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## Water, Salt, Cotton and Soums: Shedding New Light on the Aral Sea Problem

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### Abstract

The Aral Sea, once the fourth largest lake in the world, has lost ninety percent of its water volume, due to continuous withdrawal of river water for irrigation from its two main tributaries. This is due to the extensive irrigation systems build up during the Soviet era for cotton production. Today, the region is characterised by water wastage, soil salinisation, and economic inefficiency. However, providing solutions for the “Aral Sea Syndrome” (WB-GU) is not easy. Quick assessments are likely to get it wrong. To improve the efficiency and sustainability of water and land use as well as the living conditions of the population in the region, an integrated approach is needed which simultaneously addresses the ecological sustainability of the agricultural production system, its economic efficiency, and the political and institutional arrangements required to make improved systems work. The Centre for Development Research (ZEF) of the University of Bonn has, in close consultation with its national and international partners, designed an interdisciplinary, application oriented research program. The aim is to provide appropriate regional development concepts for sustainable, efficient resource use. The 10-year programme started in 2001 with a philosophy of a long-term participatory commitment and a strong human capacity building component. Particularly the training of young Uzbek academics in their role of future decision-makers in the region has a high priority. The research programme is carried out in the district of Khorezm in Uzbekistan, a model region where solutions for the Aral Sea Basin are being tested.

At present, the first phase, that of data assessment, has been finished. A closer look at the data from agronomic, ecological, economic and legal-institutional research reveals that a careful problem identification and description is needed before sound strategies for remediation can be devised. Several of the widely held basic assumptions about the problem complex in the region are wrong. The presentation gives insight into some of the findings and how they contribute to develop a better, more sustainable, stakeholder-driven approach to improve land and water management in the Aral Sea Basin.

**Keywords:** Central Asia, desertification, irrigated agriculture, land use and cover change