

## **The German-Uzbek Khorezm project – a sustainable approach to agricultural and ecological innovation in Central Asia**

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Khorezm, a district of Uzbekistan, is a model case for irrigated agriculture in the Aral Sea Basin - a showcase for the “Aral Sea Syndrome” that allows studying the complex human-nature relations in the context of strong government control during economic transformation from a planned to a market-driven economy after the collapse of the Soviet Union. Agricultural production and rural livelihood in Khorezm, located in the Aral Sea Basin, rely entirely on irrigation. However, the previous “water plenitude” which since ancient times had maintained a high agricultural productivity and rich cultural life in the middle of the Kyzylkum desert, is threatened now by increasing water unavailability due to climate change. This is exacerbated by the inefficient use of land and water resources, the often inappropriate institutional settings and policy frameworks, and underdeveloped agro-processing and service sectors which cannot provide the necessary support to farmers. These key issues, which threaten the economic and ecological sustainability of the entire region became the main objective of the interdisciplinary German-Uzbek project initiated by the Center for Development Research (ZEF) of Bonn University in Germany. The aim is to develop, in close collaboration with their partners UNESCO, ICARDA, the State University of Urgench and other national key organizations, science-based concepts and tools for the restructuring of land use and agricultural production. These concepts are being developed in a long-term research and capacity-building project in a way that allows for (i) more efficient and sustainable use of land and water resources, and (ii) for developing recommendations for shifts in policies and institutions to enable economic viability and environmental sustainability of the region. As Khorezm is representative for the irrigated lowlands in the Aral Sea Basin, innovative concepts and technologies developed in the project will have the potential for up-scaling to other similar environments.