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Interaction and Synergism Management of Water and Ecosystem in Aral Sea Basin

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KEYWORDS. — Aral See; Ecological Restoration; Water Management.

SUMMARY. — Since 1960, great changes have taken place in the Great Lakes region in Central Asia, especially, the area of Aral Sea has shrunk by 90%, causing the continuous ecological disasters in a continental scale. In order to understand the change processes, disaster causes and the feasible solution, this study combined the research work on the aspects of hydrology, ecology and meteorology and other disciplines. From 1990 to 2015, the cultivated land in Amy Darya basin decreased, while the Aral Sea decreased by 45%, the area of reservoir, wetland and groundwater level increased two-three times. It is clear that Aral Sea drying up in the last thirty years is problem of synergism management on water, ecosystem and social-economy. If the red salt dust source area of eight thousand-ten thousand square kilometers in the East is covered with water or vegetation or other materials (the status of the Aral Sea in 2005), the salt dust storm will be reduced by 70%.

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