

Analysis of the hydrophysical processes of the Aral Sea dessication on the basis of the historical data and numerical modelling

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The recent changes of the Aral sea level during the last 40 years present one of the most drastic example of a possible consequence of the man-induced environmental changes. The paper is devoted to the discussion of the historical hydrophysical and the meteorological data as well as to preliminary results of the modelling. The work is being fulfilled under the INTAS Grant "The rehabilitation of ecosystem and bioproductivity of part water body of the Aral Sea under condition of water scarcity" -REBASOWS. The quantitative aspects of the dessication are as follows: the Aral Sea has lost more than 60% of its area and approximately 80% of the volume. These processes is obvious from the satellite images. The salinity is growing up from 5.3 until 10.3 promille. The bioproductivity has also dramatically decreased. Although the rapid processes will slow down because of the diminished evaporation surface, there will still be a dramatic decrease in size.