Water management strategy in the Aral Sea Basin: from principal provisions of 1997 till today and moving forward to the future

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In years 1993-1996 the author was moderating on behalf of The World Bank the project "Principal Provisions of the Water Management Strategy in the Aral Sea Basin (1997) implemented by water specialists from the five Aral Sea Basin contries: Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan. Since 1989 he was a member of the Aral Sea Working Group of UNEP and in 1997 consultant to the EU TACIS WARMAP I project "Water Resources Management and Agricultural Program".

The paper is divided into two parts. First part is concerned with the transboundary, social, economic, institutional and environmental dimensions of water resources management in the Ara Sea Basin of today and its comparison with the assumptions made in the strategic documents drafed in years 1993-1996, shortly after the declaration of independence by the Central Asian countries. The principal question to be answered is to what extent the current water management situation in the Basin is in line with the objectives of the early strategic documents? Without any doubt several objectives were met, however, some of them for various reasons proved to be not attainable. Before we move forward and formulate new plans or strategies we should try to understand better our strengths and weaknesses, both controllable and those which by definition are uncontrollable by water management as a tool not only to change the system, but as a tool to learn about the system. It is concerned with the need to learn and the cost of ignorance, while traditional management is focused on the need to preserve and the cost of knowledge.

The second part of the paper is concerned with the future, trying to answer the question to what extent the basin and its population are on the sustainable path. Sorting through possible futures for water management in the basin we have to be concerned about how our actions today will affect "the ability of future generation to meet their own needs" (WCED, 1987). As written recently by some of the most respectable local experts (Dukhovny and Sokolov, 2008), under current social and economic trends, the Aral Sea region will have no more than approximately 1500 m³ of water per capita per year available by 2030, in comparison to the 2700 m³ at the present time. Because of this as well as the environmental reasons, they alarm that the region undergoes gradual degradation. But at the same time they underline, that "if measures are taken timely, the situation is by no means hopeless". The point is however, that not all the measures proposed are in hands of water managers alone. Many of them are of typical "out of the water box" nature, above all because of the international character of the basin. Although the challenges are not easy to overcome, sound cooperation is a *sine qua non* condition for further human and material development of the basin countries.

References:

Dukhovny, V. and V.I. Sokolov (2008). *Integrated Water Resources Management in the Aral Sea Basin*. Scientific-Information Center of the ICWC, Tashkent

IFAS/The World Bank (1997). *Principal Provisions of the Water Management Strategy in the Aral Sea Basin.* Project Report, Tashkent. 214 p.

WCED(1987). Our common future ("TheBrundtland report"). Oxford Univrsity Press, Oxford, U.K.