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Russia in the World Water Management

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The comparison of Russia and the countries of the former USSR with other countries of the world on various natural and anthropogenic characteristics, including those for water sector, has become more popular in recent years.

At the same time, after the break-up of the Soviet Union there were significant changes in political, social and economic spheres on the territory of new formed countries, that influenced their water resources state. Such changes as well as other environmental changes may become even more significant in the future that predetermines the necessity of the profound study of the question, as all the conditions and changes still have not been fully explored. First of all, it concerns the economic crisis including water sector in the early 90's which has not been fully overcome until present time despite economic recovery in the last years of the twentieth century. Together with the changes in climatic conditions it caused perceptible changes in the river runoff on the territory of Russia, Ukraine and Belarus, countries which have much in common. As the result, peculiar conditions for the formation and usage of water resources on the territory of the former Soviet Union have been formed.

The laboratory of hydrology of the Institute of Geography of Russian Academy of Sciences analysed the situation with water resources in the countries of the former Soviet Union, and the position of Russia in the global water industry. The comparison of changes in various water consumption characteristics of the states was made; the evaluation of influence of changing economic activity on the river flow and quality of waters was analysed; comparison by the availability of water resources, anthropogenic influence, efficiency of water use, with world characteristics was made.

There were 19 countries selected, including the Post-Soviet states, which occupy 54% of land and form 56% of the world population. Among the compared parameters there were: availability of water resources, including surface and ground waters, for the territory and the population; precipitation; indicators of anthropogenic impact, such as population, water withdrawals, sewage waters, irrevocable consumption of water, data on flow regulation by reservoirs; the state of natural waters was estimated by comparison of the average long-term values of water resources with characteristics of anthropogenic impact, and economic efficiency of water use – by water and gross domestic product comparison.

The objective of this paper was to give a general idea of the position of Russia in the world water management in the period of time. Further work on this subject is aimed at clarifying the indicators of water resources, human impact on them and the effectiveness of their use. Particular attention will be paid to the assessment of the impact of economic activity in the catchment on rivers and reservoirs.

Such kind of assessment is necessary for achieving sustainable water supply in the near and distant future, raising living standards and preserving the environment.

References:

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