

Conceptual framework to ensure water security in Ukraine

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The scarcity of available freshwater resources and their uneven spatial distribution over the world as well as an increase of water consumption, water pollution, climate change are gradually transformed into a global problem of drinking water shortage and the threat of regional water conflicts.

That is why starting from the beginning of the XXI century a concept of "water security" has been coming into widespread acceptance and is a cornerstone of the modern vision of the future of our planet. So achieving an appropriate level of water security is not only an ultimate objective of the water policies of a growing number of countries, but also one of the main goals in sustainable development of the mankind.

The state of water resources and water supply for population and industries of Ukraine remains a major threat to the national security. This severity arises from the fact that Ukraine is one of the least sustainable countries in Europe in respect of own water resources having the intensity of local runoff in dry years per capita only 0.6 thousand m³, and including the transit flow - 1.2 thousand m³.

Under the conditions of Ukraine the problem of water shortage and water quality is very acute as the national economic complex is highly water consumptive.

It is also far from perfect the utilization state of the existing irrigation and drainage systems. In fact from the existing 2.17 million hectares of irrigated land only 470 thou are actually irrigated and bilateral control is performed only within 158 thou from available 3.2 million hectares of drained land. That resulted in the disability of reclaimed land to act as a security reserve in food and resources' provision of the state in the years of adverse weather conditions. As a result of global climate change there is also the constant deterioration of the ecological state of river basins along with a simultaneous increase in frequency and amplitude of river flow as well as the risks of devastating flood manifestations. A range of water and environmental problems and threats in Ukraine is also generated by the large-scale measures to regulate the river flow, causing the degradation of river ecosystems, deterioration of water quality and qualitative and quantitative state of bioresources as well as flooding of large areas.

The above stated list of water problems and threats indicates the need to develop and implement an effective state water policy as a fundamental condition for the sustainable development of Ukraine in the XXI century.

In light of this, we propose to define the achievement of acceptable level of water security as a strategic goal of the national water policy. The state of national water security is proposed to consider by assessing its progress in different sectors.

The basic principles of a new water policy of Ukraine are expected to consolidate in the "Water Strategy of Ukraine up to 2030". Integrated water management based on a basin approach should be a main tool of the challenges implementation to achieve the water security.