



HYDROLOGICAL ASPECTS OF WATER RESOURCES MANAGEMENT

Shakhnoza Akbarova

University of Economics, Pedagogy and Engineering
Intern Teacher of the Department of General Methodology

Abstract

Total water resources available in the basin area balance of natural inflow and outflow of water flows and being returned to nature by humans consists of anthropogenic components of the flow. These organizers of the water balance are so different that it is difficult to count them, but they exist and they affect their related environments.

Keywords: groundwater, increased erosion, water turbidity, reduction of water flow below water intake points; deterioration of water quality in the river; formation of return waters;- increase in the flow of ground water and its quality change; change of soil quality;

From a theoretical and practical point of view, it is known that the field of water management all specialists of all types of water resources – substances hydrographic based on the law of movement and balance it is good that it depends on the hydrological cycles within the basins they know But all of them do it in their activities they do not take into account. Water resources within hydrographic basins formed, moved, returned and reused. This all processes are interrelated. Each hydrographic basin has its main river bed, its tributaries reaching the river and not reaching it, dynamic reserves of underground water and formed has return water resources.

Total water resources available in the basin area balance of natural inflow and outflow of water flows and being returned to nature by humans consists of anthropogenic components of the flow. These organizers of the water balance are so different that it is difficult to count them, but they exist and they affect their related environments. We will try to systematize them:

Change, result, consequence:

- Increase of forests in the catchment area (or decrease)
- Decrease (increase) of groundwater level
- Changes in the distribution of water volume and flow throughout the year;
- Increase (or decrease) of erosion;

Farming in the zone of formation of water resources, that's it including the increase in the scale of irrigated agriculture;

- Increase in land productivity;



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- Increase in water turbidity;
- Increased flow of water to the lower horizons and located below the rise of the underground water level in the lands;
- Surface water for irrigation and other purposes increased intake;
- Reduction of water flow below water intake points;
- Deterioration of water quality in the river;
- Formation of return waters;
- Increase in the flow of ground water and its quality change;
- Change of soil quality;

However, management and use of water resources from the condition of hydro-ecological stability when making a decision on if specific criteria are developed and followed, all of the changes and effects listed above can be regulated to a certain extent. In this:

- Between the river and the catchment area that saturates it water and salt exchange should be minimized;
- Water and salt exchange between the aeration zone and groundwater should tend to zero;
- The amount of total water resources taken from the river, their to the requirements of nature (river delta, wetlands, etc.) it should not exceed the harmless limit.

Natural and anthropogenic uncertainty parameters of basins considerable complexity in hydrographic management causing Three of hydrographic uncertainty in practice type available:

- Natural flow variability;
- Insufficient knowledge, inaccuracies in information or errors made due to their lack;
- Lack of models and errors in them quantity;
- Underdevelopment of the measurement system, errors in them, incorrect forms used in approximation, etc.;
- Acceptance on the management of the river or its basin other of the river or basin in the decisions made to changes in its departments, including surface or underground water uncertainties leading to changes.

The level of information supply in the region in the last period even at national scales it has declined slightly. Even in large rivers the number of hydrometeorological stations also decreased. Water quality there is very little information about it. Information exchange not only between countries, but also within countries not enough. These are all uncertainties in management causing an increase. As a result, 2000 in the region the ability to determine drought (low water) in advance and some of the Syrdarya and Amudarya basins great damage was done in the regions.



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