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Problems in Using Water Resources in Our Republic and Ways to Eliminate Them

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Abstract: *Due to the arid zone of the country, water resources are unevenly distributed. Therefore, our country does not have enough water resources and requires rational use of water. Therefore, efficient use of water solves many problems. To do this, we need to use water-saving methods, find ways to use waste and wastewater efficiently.*

Keywords: *Arable land, water conservation, wastewater, water saving methods, problems, rivers, drip irrigation, water cost.*

Despite the fact that water resources are limited in our republic, little attention is paid to its conservation, as a result, most of the water is wasted. Almost all consumers constantly try to get more water than the norm. This leads to an increase in the level of underground water in cultivated fields and re-salinization of the land. In turn, a large amount of water is used to wash off the salt, and as a result, the amount of return water generated in the irrigated lands is also increasing. It can be seen that there are great opportunities to save water in irrigation. This can be achieved, first of all, by concreting the bottom of the canals, increasing the efficiency of irrigation networks by using channels (trays), and using advanced methods of irrigation.

One of the main reserves to protect water resources from depletion is efficient use of return water for irrigation. In the republic, these waters mainly consist of water returned from agricultural fields, industrial enterprises, and household-utility sectors. During 1956-1980, the volume of return water discharged into natural depressions was 77.1 km3.

In the following years, the water of rivers, lakes, and reservoirs deteriorated sharply as a result of the addition of industrial and urban waste water, as well as return water from agricultural fields. This process is currently accelerating and becoming dangerous due to the following reasons.

1. The water demand of the city's economy and industry, especially its chemical and metallurgical industries, is increasing, and wastewater, which is a source of natural water pollution, is also increasing.
2. Discharge of wastewater into rivers and lakes was considered as a type of use of natural water resources. Rivers, in particular, have been recognized as unique natural structures in the disposal of polluted wastewater. In most cases, industrial facilities are put into operation before the construction of artificial water treatment facilities is completed.
3. The current capabilities of artificial wastewater treatment are overestimated.
4. Some experts and scientists are using the incorrect point of view of "the permissible level of pollution of natural waters". Nowadays, it has become known to everyone that the view that "this direction will limit water pollution" is not justified.
5. It is the discharge of water from cultivated fields to natural water sources.

6. Organization of irrigation without using water-saving methods.

Nowadays, one of the most urgent issues in our Republic is water quality protection. Many scientists consider the main way to solve this problem is to treat sewage and waste water. But this way is very complicated and expensive. Secondly, even the most advanced artificial water treatment facilities do not allow for complete water purification. 80-90 percent water treatment is considered sufficiently improved. In this case, 10-20 percent of persistent pollutants remain in the water.

This main issue includes a number of measures. They are aimed at reducing the discharge of wastewater into rivers, lakes, and reservoirs as much as possible, and in some cases, completely stopping it. This is the only way to fundamentally solve the problem, to avoid mixing clean water with waste water. In this way, it is possible to improve the quality of natural waters and increase their quantity, because the entire river water will be clean and suitable for consumption, and the volume of clean water will increase several times.

Elimination of problems in the use of water resources. According to most scientists, the following measures should be taken into account in order to eliminate the problems in the use of water resources:

1. Urban wastewater can be used to irrigate agricultural, mainly fodder fields, but, of course, from the point of view of hygiene, crops for direct consumption are not grown in such fields. The most important thing is that these waters do not harm the soil. Such experiments were conducted in Russia and other foreign countries and positive results were obtained;
2. It is necessary to transfer industrial enterprises to circulating water supply. In this case, the enterprise cleans the water as needed and reuses it. For this purpose, the enterprise takes water at the level of demand, and the part that is completely consumed in the production of products (10-15 percent of the total amount of water) is constantly replenished from the water source. The advantage of this system is that, firstly, it prevents the discharge of wastewater into the rivers, and secondly, the enterprise has to clean the water it has polluted. In this case, the enterprise itself tries to prevent excessive pollution, as a result, an economic factor that encourages water conservation is created;
3. Contaminated waters of some chemical enterprises, if it is not possible to clean them and reuse them, should be collected in separate basins and evaporated naturally or artificially;
4. It is necessary to organize water supply networks in cities in two directions, the first for the drinking, household and food industries, and the second for other industries. This arrangement allows you to save fresh water;
5. It is necessary to fight to reduce the rate of water use as much as possible in large industrial enterprises in cities (mainly chemical, metallurgical). This is one of the measures to maintain the quantity and at the same time the quality of clean water;
6. In the period of low water in the rivers, it is necessary to achieve a certain increase in their water. For this, it is necessary to use the existing water reservoirs in an entrepreneurial way and to apply agromelioration methods;
7. It is necessary to efficiently use the return water produced as a result of irrigation of cultivated fields. It is necessary to prevent them from draining into natural depressions and wasting them as much as possible.
8. It is possible to prevent water wastage by using plastic pipes produced by Shortan gas-chemical complex built in Kashkadarya region for irrigation purposes.
9. Organization of drip irrigation in our republic. The main part of the water resources used in our country (over 90 percent) is used for irrigation purposes. The rest of it is used in industry and for household and communal purposes. It is known that all three of the above areas require more water every year, and because of this, the water problem in our country is becoming more and more acute. In such conditions, the main task is to use water sparingly, to prevent its inefficient

loss, to make effective use of waste and waste water, and most importantly, to protect water sources from pollution and excessive mineralization.

Fulfillment of the above-mentioned tasks leads not only to prevention of water shortage, but also to perfect use of water resources, prevention of pollution of water sources, development of additional land from saved water resources, prevention of secondary salinization.

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