

## THE ROLE OF RESOURCEFUL IRRIGATION NETWORKS IN INCREASING THE EFFICIENCY OF THE IRRIGATION SECTOR

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**Abstract:** This article describes in detail the current state of existing irrigation networks in the irrigated areas of Bukhara region and the causes of water wastage and ways to eliminate it.

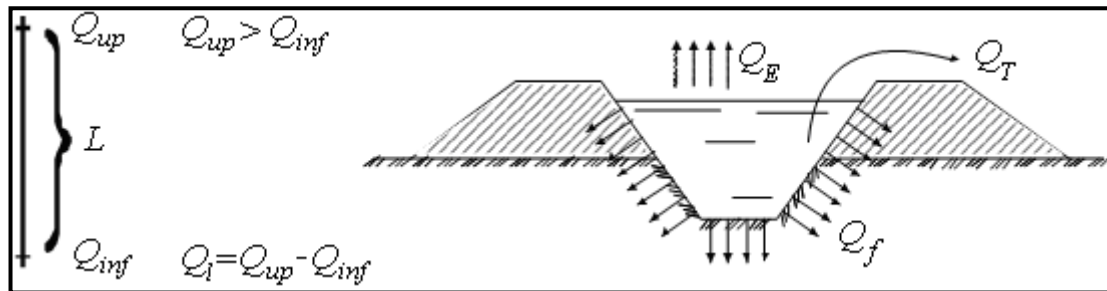
**Keywords:** irrigation, damp removal, gutter, waste, maintenance, leakage, evaporation, hydramodule, water consumption.

### **Introduction**

Over the past 4 years, great changes have taken place in all spheres in our country. Resolution of the President of the Republic of Uzbekistan Sh. Mirziyayev dated December 11, 2020 No PP-4919 "On measures to accelerate the introduction of water-saving technologies in agriculture" to a certain extent.

The main water resources of the republic flow from the borders of foreign countries. 180,000 km of irrigation canals serve 4.3 million hectares of irrigated land. It is known that irrigation networks are divided into permanent and temporary irrigation networks according to their function. Water from these networks is divided into 3 in terms of waste.

### The system of water wastage in the canal



$$Q_l = Q_f + Q_E + Q_T, \text{ m}^3/\text{s}$$

here:

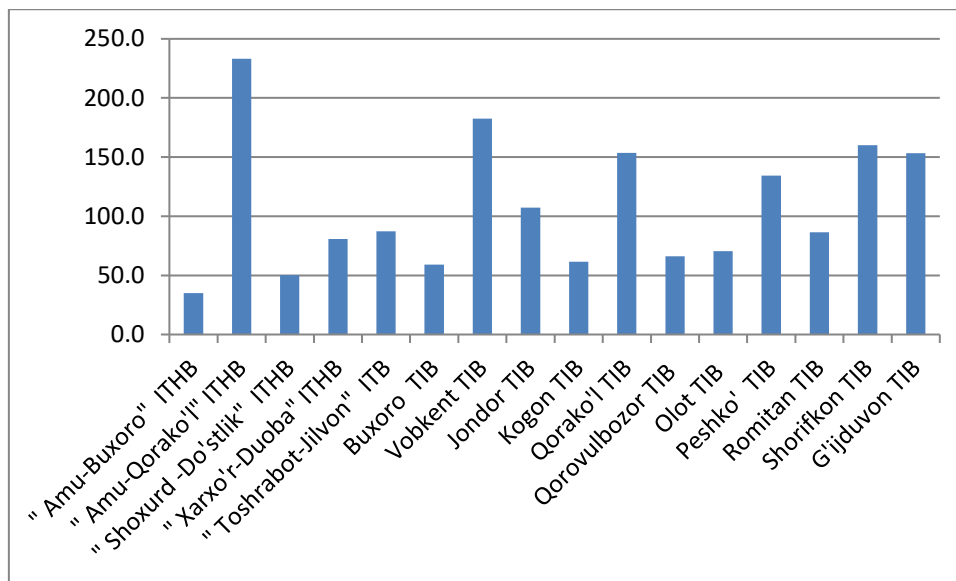
$Q_f$  - The amount of water lost to the bottom of the river (90-95%) is  $\text{m}^3/\text{s}$

$Q_E$  - the amount of water evaporated from the water surface into the air (2-4%)  $\text{m}^3/\text{s}$

$Q_T$  - the amount of water lost for technical reasons (2-4%)  $\text{m}^3/\text{s}$

Water wastage in irrigation networks is inextricably linked to the length of irrigation networks. The tendency of irrigated lands of Bukhara region to become saline leads to the constant supply of reclamation networks.

**Irrigation networks at the expense of water management organizations in Bukhara region, of November 1, 2020 (total canals)**



The total length of canals in Bukhara region is 1721.1 km, of which the length of canals is 981.6 km, concrete canals are 728.6 km, gutters are 10.8 km. In percentage terms, most irrigation networks are groundwater channels. In turn, this will lead to an increase in waste in the irrigation network.

### Conclusion

It should be noted that in the context of water scarcity, an important factor in the efficient use of water resources is to increase the efficiency of irrigation networks. This is one of the most important tasks facing farm and cluster leaders and all employees working in the field.

### References

1. Resolution of the President of the Republic of Uzbekistan dated December 11, 2020 No PP-4919 "On measures to accelerate the introduction of water-saving technologies in agriculture"
2. Technical report of Amu-Bukhara ITHB organization 2020.
3. Internet information.