



Reservoirs are a threat in emergencies areas and ways to increase the capacity of the population to reduce their consequences

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ABSTRACT

The article considers the fact that there is a high probability of emergency situations on the basis of comparing seismically active zones and analyzing population density maps with a map of regions where reservoirs are located in Uzbekistan, increasing the population's potential to reduce the consequences of the flood threat for the population living in areas around reservoirs and discussed issues of preliminary determination of the evacuation zone, determination of categories of displaced population, the number of tents, their placement, organization of a hygienic cycle in a tent city in order to maintain the life of the population.

Keywords:

Information, Water Reservoir, Dam, HPP, Electricity, Warning, Population, Hazards, Emergencies, Evacuation, Route, Practical Training.

It is known that one of the main tasks of the strategy to achieve the goals of the "Sendai Disaster Risk Reduction Program 2015-2030" in the Republic of Uzbekistan is to create and develop a system that provides life support to the population affected by emergencies.

Attention is being paid to the further development of water infrastructure in the country. The large dams and reservoirs created in the country are very important for the country's economy. With their help, seasonal and long-term regulation of river flow will be implemented in the interests of irrigation, hydropower and water supply. *Defective parts or structures that are built on the basis of human intellect and practical labor, or which are caused by an external force or a natural disaster, which causes a disturbance in the balance of work.*

Many reservoirs in the country pose a great potential threat, the probability of accidents increases, and these accidents have the following consequences:

- Damage and destruction of water structures and their short-term or long-term suspension of their functions;
- damage to people and destruction of structures (up to 100 km in mountainous areas) as a result of the wave generated by the destruction of hydraulic structures with a height of 2 m to 12 m and a speed of 3 to 25 km / h;
- catastrophic flooding of large areas with a water layer of 0.5 to 10 m and more.

The natural aging of the dams, which were built 30-40 years ago in our country, requires careful monitoring of their technical condition and the implementation of

appropriate repairs. However, insufficient funding for these activities increases the risk of accidents at hydraulic structures and, consequently, increases the risk to human life, health, property and the environment. For areas located in the lower reaches of rivers, the destruction of any dam can have the most devastating consequences.

The Uzbekistan has a specialized legal system in the field of security. In other Central Asian countries, there are different rules and functional rules in this area. In addition, the

government has established a special procedure for notifying all countries in the region and the state of emergency notification of dams and other large hydraulic structures.

The problems described above are, in general, in emergencies, it is clear that reservoirs need to be addressed as a matter of urgency to increase the capacity of the population to mitigate threatening areas and their consequences. Therefore, the areas where there is a threat of large reservoirs in the country were studied (Figure 1).

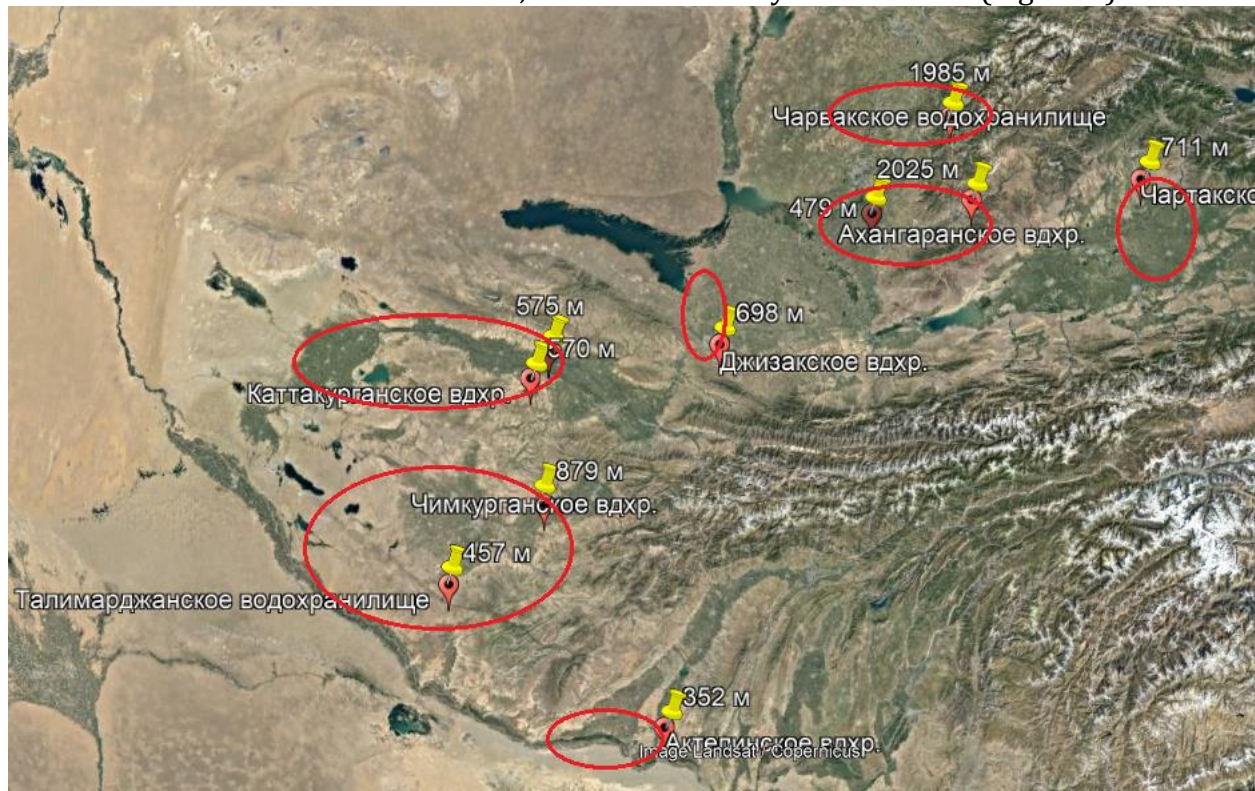


Fig. Reservoir endangered habitats

The results of the analysis show that the endangered areas of reservoirs are more than 40-50% of the country's population (Figure 2). A large part of the country's population lives and operates in these areas.

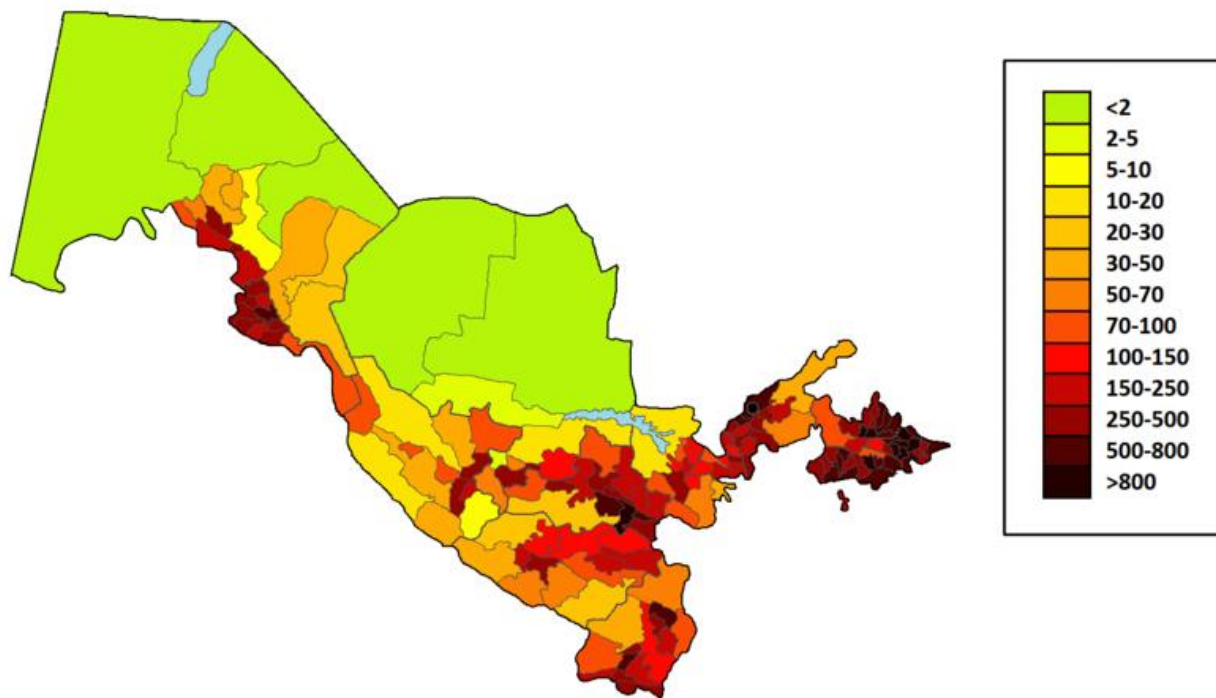


Figure 2. Population density map of Uzbekistan

If the areas where these reservoirs are located are considered to be seismically active areas of the country, the probability of emergencies will be even higher.

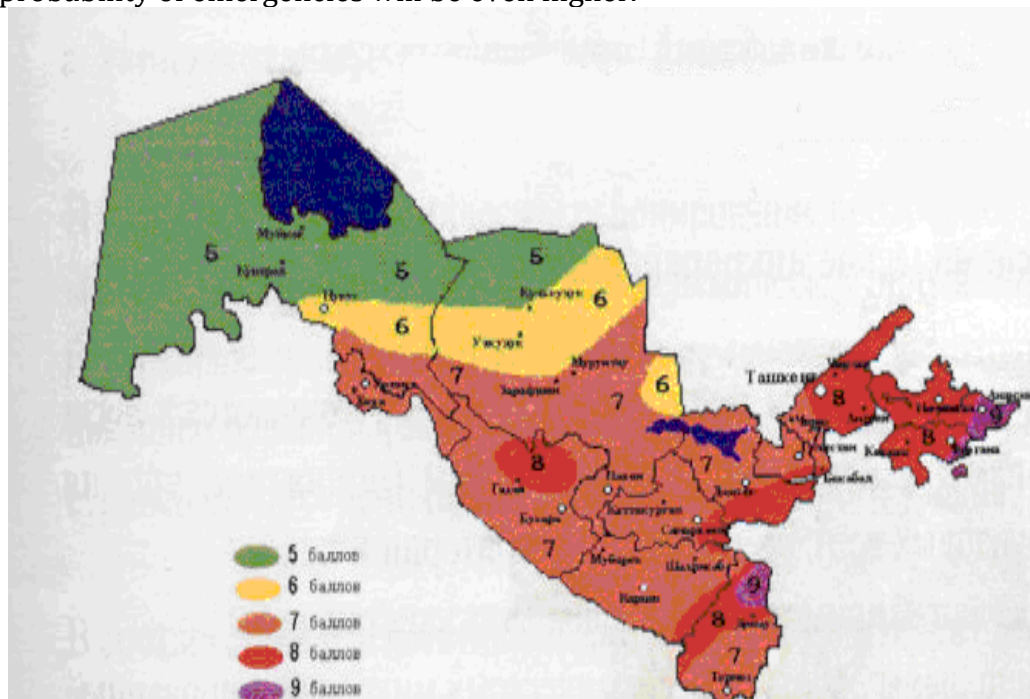


Figure 3. Map of seismic zoning of Uzbekistan

In emergencies, it is advisable to implement the following measures aimed at building the capacity of the population to reduce the threat of reservoirs on the basis of special programs. These are:

1. Creation of a system of timely notification of the population about

modern floods by means of modern warnings;

2. Installation of modern automatic water monitoring devices in reservoirs and dams and their connection with the district administration and emergency department;

3. Educate the population on how to act in this situation;
4. To compile a list of the population living around each warehouse, to organize evacuation gathering points and to inform the population;
5. Appointment of members of the district administration and local self-government commissions at evacuation assembly points;
6. Identify and make changes to the lists of members of the evacuation commission every 3 months, their means of communication;
7. To train the members of the evacuation commission on human life, health, and their work in the field of resettlement under the regional emergency management department and to improve their skills every six months;
8. Together with the staff of the district emergency department and the heads of the district defense department: - to

introduce a plan of evacuation of vehicles of the state, private enterprise and local population around the reservoir and renew it every three months;

9. Together with the head of the district administration and the regional department of emergency services, it is necessary to quickly identify safe areas for the resettled population, to separate and evacuate the lives of evacuees, to establish routes for the relocation of their property.

The members of the evacuation commission are trying to find a solution to the problems of human life, health, evacuation, establishment of evacuation points and tents, organization of hygienic facilities. The use of the following schemes in the formation of the evacuation point is considered effective (Figure 4.5).

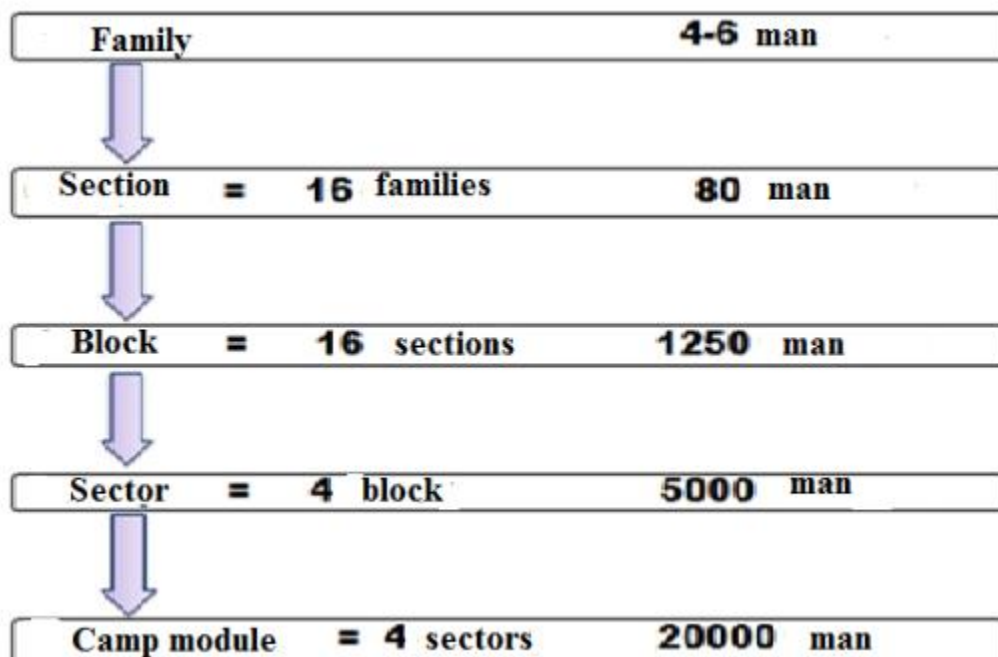


Figure 4. Empty planning (first arrival)

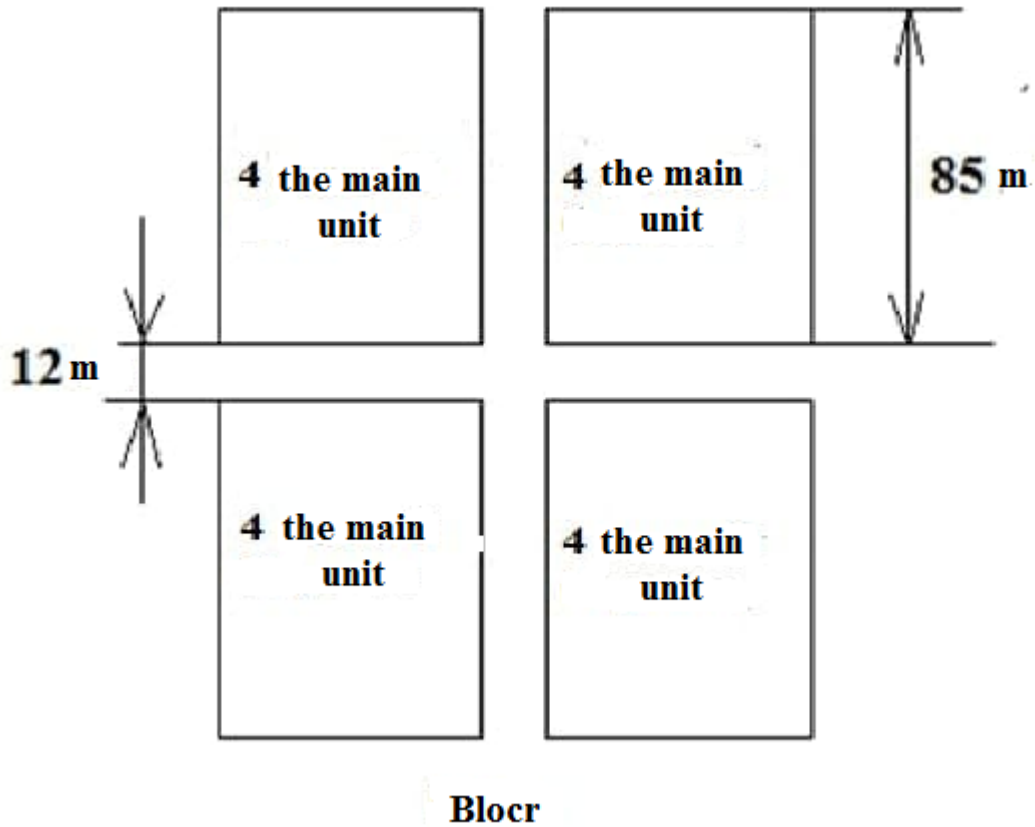


Figure 5. History of the placement of the tent block

The hygienic cycle system should include services that fully meet the requirements of water supply, water transportation, storage, cooking, toilets and personal hygiene (Figure 6).

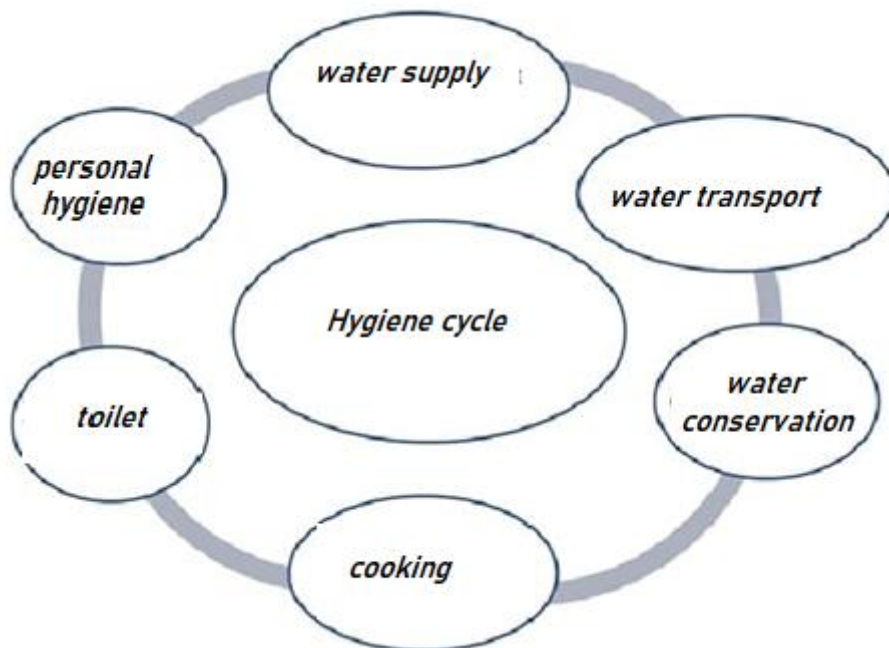


Figure 6. Hygienic cycle of the evacuation area

Only if these measures are taken on a regular basis, the population's capacity to reduce the impact of reservoir threats in emergencies will increase, and the chances of saving the lives of people living and working in the areas around the reservoirs will increase. Preliminary identification of evacuation areas, identification of evacuees, number of tents, their placement, organization of a hygienic cycle in the tent camp are important systems that ensure the vital activity of the population affected by emergencies.

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