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Superficial drain from takirs of Ustyurt plateau as a source for storage of drinking water

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One of the characteristic elements of natural landscape of deserts is TAKIRS. Takirs are described as open, deprived the maximum vegetation, strongly leveled flat surfaces combined in the top part by densely connected clay materials. Takirs of Ustyurt are formed at combination of some factors. The main following from them: arid conditions of the climate; the certain orientation of the geological processes, preparing a cover from poorly nontight breeds; deep bedding of underground waters, excluding secondary desalination of soil; small surfaces inclination and obligatory stoppage of superficial waters; absence of the maximum vegetation and presence of the lowest communities of blue-green seaweed and lichens.

Average of takirs area (1-3 km²) are dated for karstic forms on wings of positive structures, 3-5 km² and more than 5 km² develop on the bottoms of karstic valleys.

The characteristic of takir reservoirs of the Karakalpak Ustyurt on the area, km²

In total 1736,42, the number of takirs 5861

The general physic-geographical conditions of a plateau is the distribution of deposits on seasons of year (including flow making), binding of them to the periods described in rather low temperatures of air and small boiling process, strong humidity of the top layer of takir adjournment and presence of communities of lowering losses, - all this promotes the formation of non permanent superficial drain on takirs, natural reservoirs of stony desert Ustyurt.

The only one way for saving the fresh water is storage it in the karst

For this we need to remove the densely connected clay materials.

By this way we can storage more than 3 millions tons of fresh water annually and then this water can be used for drinking.

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