Bulletin of TUIT: Management and Communication Technologies

Volume 4 *2021-birinchi son* Article 2

2-18-2021

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Toshtemir Khojakulov
"Bulletin of TUIT: Management and Communication Technologies", temur.avlod@mail.ru

Rashid Oteniyazov
oteniyazov.rashid@mail.ru

Fazliddin Kholmuminov
fxolmominov@gmail.com

BRANCHED WATER RESOURCES MANAGEMENT MODELS

Khojakulov Toshtemir Abdihafizovich[1], Oteniyazov Rashid Idrisovich[2], Kholmuminov Fazliddin[3]

[1]Senior lecturer of "Information technologies" department, Faculty of Computer Engineering, Tashkent University of Information Technology named after Muhammad Al-Khorezmi Phone: +99897 535 -52 – 76, E-mail: www. temur.avlod@mail.ru

[2]Nukus branch of Tashkent University of information technologies named after Muhammad al-Khwarizmi, E-mail:oteniyazov.rashid@mail.ru, Nukus, Karakalpakstan, Uzbekistan

[3]Master student department of Information technologies, Tashkent University of information technologies named after Muhammad al-Khwarizmi, E-mail:fxolmominov@gmail.com, Toshkent, Uzbekistan

Abstract

This paper describes the distribution of water resources in Uzbekistan, the elimination of water problems. Aral Sea water resources and water resources distribution models have been introduced in the country.

Keywords: *water resources, Aral problem, water basins, territorial water resources distribution, model.*

1. Introduction

Water resources of the Aral Sea basin consist of natural, surface and underground water resources and reclaimed water. All water resources belong to the Syrdarya and Amudarya basins. Independent water reservoirs (that is, out of reach of the Amu Darya River). Kashkadarya, Zarafshan, Murgob, Tedjan rivers. Average annual Amudarya and Syrdarya river water intake is 115.6 km^3, including the Amudarya river - 78.5 km^3 and Syrdarya - 37.1 km^3. The average annual amount of water in these rivers varies widely. Water Resources of the Aral Sea Basin.

Table 1.

Aral Sea Basin	**Shrub water supply at different percentages, km3 / y.**			
	Intermediate	**75% ed**	**90% ed**	**95% ed**
Amudarya river basin, including Murgab and Tedjin rivers	79,5	68,5	60,0	56,5
Syrdarya basin	37,2	31,2	26,8	24,6
Basins of the rivers that do not reach water basins, including the Chu river	5,8	5,2	4,8	4,5
Other small rivers, streams	4,4	3,8	3,4	3,1
Total by volume	**126,9**	**108,7**	**95,0**	**88,7**

Water resources of the Republic of Uzbekistan, their territories distribution and location

2. The main part

The water resources of the Republic of Uzbekistan are mainly groundwater and groundwater, their quantitative indicators are given in the table below.

Domestic water resources of the Republic of Uzbekistan. Table 2.

№	The name of the water course	Intermediate		Percentage of collateral									
		River water	Water Volume	10%		50%		75%		85%		95%	
		Consumption	Wмл.м^3	Q	W	Q	W	Q	W	Q	W	Q	W
1	**Surkhandarya Basin**	130,3	4108	177,2	5589	126,4	3987	104,2	3288	91,5	3000	78,2	2466
		33,0	1041	41,6	1311	32,7	1031	28,1	886	26,1	823	23,4	738
		97,3	3069	135,6	4278	93,7	2956	76,1	2402	69,0	2177	54,8	1728
2	**Including:**	7,24	0228	10,6	333	7,1	224	5,45	172	4,71	148	4,57	144
3	**Tajikistan**	188,1	5910	228,6	7201	186,7	5865	166,6	5232	156	4911	142,4	4474
		164	5150	191,0	6015	164	5150	150	4728	142	4470	132	4147
		24,1	0760	37,6	1186	22,7	715	16,6	524	14	441	10,4	327
4	**Uzbekistan**	50,9	1606	72	2270	49,3	1554	39,6	1248	35,2	1110	28,5	899
		179,5	5563	225,8	8067	172,8	5449	137,8	4346	122,9	3876	98,3	3098
5	**Sherobod, River, Basin**	45	1419	65,5	2067	43,2	1364	33,7	1064	29,8	932	23,0	727
6	**Zarafat, Zarafshan, River Basin**	143	4511	185	5825	140	4420	121	3809	107	3380	93,1	295 2
7	**Including:**	11,7	0368	15,9	502	11,6	367	9,0	284	7,99	252	6,94	219
8	**Tajikistan**	54,1	1706	76,9	2427	52,2	1644	41,7	1316	36,5	1151	29,5	931
9	**Uzbekistan**	253,8	8004	34,33	10821	247	7795	205,4	6473	181, 3	5715	152,5	482 9
	Kashkadarya river basin	**433,3**	**13667**	**599,1**	**18888**	**419,8**	**13244**	**343,2**	**1081 9**	**304,2**	**9591**	**250,8**	**7927**

Forecasted Resources and Operational Resources of the Aral Sea Basin and Uzbekistan's Groundwater, km3 / y (data of the GIDROINGEO Institute

Table 3.

№	Academic departments (provinces)	Forecasted sources of groundwater					Groundwater that has been exploited and exploited by the operational reserve		Full use of groundwater exploitation
		Everyone	Including various mineralization g / l						
			1,0 up to	1-3	3-5	5 greater than	At GKZ	In TKZ	
1	**Aral Sea Basin**	61,59	22,73	7,97	3,57	27,72	10,32	-	8,78
2	**This sentence. In Uzbekistan**	19,06	13,53	2,21	1,95	1,37	6,57	-	4,92
3	**Surkhandarya Province**	0,99	0,73	0,23	-	0,03	-	0,18	0,13
4	**Kashkadarya region**	0,46	0,32	0,14	-	-	-	0,22	0,17
5	**Samarkand region**	2,14	2,08	0,06	-	-	-	0,50	0,33
6	**Bukhara Region**	0,66	0,001	0,26	0,34	0,06	-	0,32	0,13
7	**Khorezm Region**	0,82	-	-	0,82	-	-	0,12	0,12
8	**Karakalpakstan Republic**	2,95	-	0,88	0,79	1,28	-	0,14	0,07
9	**The Amudarya river basin**	8,02	3,13	1,57	1,95	1,37	-	1,48	0,95
10	**Andijan region**	1,40	1,40	-	-	-	-	0,54	0,15
11	**Namangan Province**	3,71	3,71	-	-	-	-	1,08	0,86
12	**Ferghana Province**	1,72	1,72	-	-	-	-	1,86	1,65
13	**Tashkent region**	2,65	2,32	0,33	-	-	-	1,25	1,09
14	**Syrdarya and Jizzakh Province**	1,56	1,27	0,29	-	-	-	0,36	0,22
15	**The Syrdarya basin**	11,04	10,4	0,64	-	-	-	5,09	0,15

3. Results. We have come to the conclusion that the development and formation of the watercourses of our planet, its types and resources, its resources, their distribution and distribution are as follows:

1. The freshwater reserves are very limited in freshwater reserves, about 2% of total water resources, 94% of which are coated with glaciers and glaciers in mountain ranges.

Freshwater Resources Planets and scrapbooks are distributed and distributed throughout the territory, ie, in areas where densely populated and well-developed rural networks are well developed, fresh water resources are poorly distributed, with poorer populations and smaller populations, with fresh water resources large quantities. The above conclusions have led to the emergence of water problems in the present-day world and in particular areas.

The role of water in the ecosystem and human life

Water is an integral part of the ecological system, actively participating in large (geological) and small (biotic) circulation movements in nature. In the ecosystem, water loss and its vital importance are vital and the existence of biosphere in the biosphere evolutionary development.

As water is a major geomorphologic factor, the water is involved in the change of the surface of the earth, which is to wash down the rocky rocks in a certain place, and then carry them to the bottom of the water reservoir. As a result, there is a leveling of the heights formed on the ground by the forces of internal forces.

Water is the most important mineral that an organism needs to survive, and all the processes in the body take place in the aquatic environment. The famous French writer Antuan de Sent - Ekzyuper describes the importance of water in organic life as follows:

"Water, you have nothing to wear, no ranch, so it's hard to describe you, and you do not know what you're up to, and we're looking forward to seeing you do not need it for life because you're in the world. great and wealthy. " The use of water in everyday life differs greatly from other natural resources. Because, in other people's society, there is another source of resources that can overcome water. For example, if there are sand, oil, or gas, there are atomic, thermonuclear, solar or hydrogenated fuels. However, another source of water is still available to replenish water. This indicates that water is a very important natural resource. Water takes part in all geographical processes.

It actively participates in the substance and energy cycle on Earth. At photosynthesis process, 2.6 x 1011 tons of oxygen per year, 2.25 x 1011 tons of water is added.

The surface of the Earth's crust regulates the thermal regime in our planet. The waters in the oceans and seas safer to cool off when it is packed with 55% of the heat coming from the sun. Water vapors in the atmosphere are the solar radiation filtration.

Water also affects the climate on the Earth. It is possible to know the example of the seas. Oceans and seas divides the solar system in solar panels. The arrows make the climate softer, as it reduces the heat accumulated in the lowlands in the upper and the upper spaces. Golfstrim is a warm example of this.

Water is particularly important for the survival of organisms. The living organisms on the planet can not live without water because all the animals, plants, and humans have a certain amount of water in the cell tissues. The amount of water in the organism and body organisms varies from 50 to 98%. In the composition of water, water reaches 50%, 87-89% in milk, 85-90% in vegetables. Water is especially important for human organisms, because the human body is 70% water. The three-day tulip makes up 97% of the body's water. Therefore, the person can survive for a month without food, but can live for several days without water. In fact, the water must always be present in the human body at a certain point, and if 12% of the body's body is lost, it will eventually die.

Furthermore, water is also a thermoregulatory function for the body. Therefore, everybody consumes about 2.4 to

4 liters (at low temperature) 6 to 6.5 liters per day (when the temperature in the open air is 40 degrees Celsius), depending on the temperature of the air. Most of the ingredients in the human body are included in the ingredient, which is a part of the body. It has been determined that there are 40 chemical elements in the human body (Mendeleev's periodic chemical system); ie, relatively large numbers of O2, S, N, N, respectively. 80% of mineral salts with Sa, Mg, Na, K, R and other elements in the body of the human body are included with the water. In the living body, these elements are mainly found in the body. Water plays an important role in complex processes of metabolism in the human body. Water plays an important role in the development, functional and physiological functions of living organisms. All vital processes in the body take place in organic and inorganic substances in aqueous solution.

4. Conclusion

Due to the water solubility, the deposit and lymph can serve as the ideal environment for complex chemical processes in the body.

The ability of the organism to maintain uniform temperature is achieved by the body's three physical properties:

a) The fact that water has a great potential to absorb warmth;

b) high yields of water. Because of this property water is easily dissolved from the deep parts of the body.

c) water is constantly exposed from the surface of the body and skin; The heat absorbed by large quantities during the steam process is of great importance for the physical heat transfer.

Due to water, vital mineral salts in the body are present in the solution. The presence of water in the presence of different substances and the site of the site between the other bottles will occur. The amount of water in the organs and organs of the organisms is almost constant: 83.3% in cerebral cerebral cortex, 80% in cervical tissue, 82.0% in cervical tissue, 72.0% on the skin, 22.0% in skeleton, and toothpaste - 0.2%. It was not possible to provide a waterless body with food, ie, it was a proven provider of new elements. At the same time, water is a substance that absorbs the body or separates the organs separated from the body. Water is also a must for personal hygiene. Everyone uses 150-200 liters of water a day for the average personal hygiene and household utility.

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[1]Department of Information technologies, Tashkent University of information technologies named after Muhammad al-Khwarizmi,
mehr_toj@mail.ru,

Toshkent, Uzbekistan
[2]Nukus branch of Tashkent University of information technologies named after Muhammad al-Khwarizmi,
oteniyazov.rashid@mail.ru,
Nukus, Karakalpakstan, Uzbekistan
[3]Master student department of Information technologies, Tashkent University of information technologies named after Muhammad al-Khwarizmi,
fxolmominov@gmail.com,
Toshkent, Uzbekistan