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THE STUDY OF EVAPORATION FROM THE WATER SURFACE FROM SOLAR ACTIVITY IN THE AMUDARYA RIVER BASIN AND FORECASTING THE CONSUMPTION OF THE AMUDARYA RIVER

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Abstract: It is known that cycles of natural processes have a certain impact on the vital activity of humanity. Many animals and plants will bore them in the structure of their fabrics. For example, annual growth rings in trees, annual increases of increments on Malyusov's sinks, traces of three-year periods of solar activity on the scales of some fish. If you look at the skeleton of carbonate algae who lived in past periods, you can trace a clear cyclicality of three to eleven years. The day is the simplest alternation of the day and night, forcing the pulsating the water flows, which in turn evaporate from the water surface. On the example of tables 1,2.5.

Keywords: natural processes, certain impact, the Aral Sea.

Evaporation from the water surface is the most difficultly considered component of the water balance of the surface runoff of any river basin and is essentially the only expenditure balance sheet. This provision relates to such large closed water bodies of Central Asia, like Issyk-Kul, Karakul, Chatyr-Cal, Arnasai, Sarykamysh Lake and Dengizkul and a number of others as a result of

which the accuracy of the preparation of their water balance is largely determined by the accuracy of calculating evaporation from the water surface. For example, the constituent water balance of the Aral Sea.

Table 1 Component Water Balance of the Aral Sea

Year	Coming, km^3			Consum-ption km^3	volume, km^3	Level, M.BS	Area thousand, km^2	% Reduced volume
			amount					
I960	62,9	8,7	71,6	63,8	1094,4	53,4	68,4	-
1970	44,6	8,7	53,3	60,0	944,0	51,4	59,0	13,7
1982	33,7	7,9	41,6	37,1	784,0	44,5	49,0	28,3
1984	7,9	3,0	11,0	48,9	736,0	42,7	46,0	32,7
1987	9,8	6,7	16,5	47,8	640,0	40,2	40,0	41,5
1990		5,9	8,2	43,5	570,0	36,5	34,0	47,9
TOTAL decrease in 1990 in %		32,1	88,5	31,8	47,9	31,6	50,2	

From Table 1, it can be seen that the only expenditure balance sheet is the volume of evaporation. Evaporation calculation is performed on the basis of actual observation series and all recommended calculation formulas are found empirical means, i.e. methods of mathematical processing of perennial rows of measurement.

Recommended in guidelines for the calculation of the evaporation of formula: from the water surface: from the surface of the soil and groundwater levels are designed in Saniiri and execution.

$$E = 0{,}14n\,(e_0 - e_{200})(1+ 0{,}72W_{200}) \quad (1)$$

$$E = 0{,}14n\,(e_0 - e_{200})(K_0+ 0{,}72W_{200})$$

$$E = 0{,}16n\,(e_0 - e_{200})(1+ 0{,}635W_{200}) \quad (2)$$

$$E = 0{,}19n\,(e_0 - e_{200})(1+ 0{,}51W_{200}) \quad (3)$$

$$E = (0{,}22H - 0{,}128)n(1+ 0{,}51W_{200}) \quad (4)$$

where n is the number of days in the month; E0 is the maximum elasticity of water vapor, calculated by water temperature; E200- absolute air humidity at an altitude of 200 cm; N - high-rise position above sea level; K0- coefficient depending on the difference in water and air temperature; W-wind speed. As we see, in the calculated formulas there is a temperature and a high-rise position of the evaporating surface of the water mirror. Since the temperature or thermal

regime of a given area mainly depends on the incoming energy on this surface, it becomes clear that all the above listed factors affecting the evaporation of water, depending only on the state of solar activity. We studied the effect of solar activity on climate-forming factors:

- Absolutely minimal temperature for July for a number of years M / art. Tashkent

- on the effect of absolute humidity of air (ribric pressure) m / art. Tashkent for his years.

$$R_w p = 0,83;\ P = 5,91909+0,08384W\pm0,518 \qquad (5)$$

where R is the coefficient, p - rift pressure; W number Wolf.

Studies show that evaporation from the water surface from the energy activity of the Sun is described by N-shaped functional dependence. For example, evaporation from the surface of the sushi basin of the Amudarya River. However, we are convincingly proved above, there are highly zonal climatic belts, i.e. Each river system and pools: p. Pyanj, r. Vakhsh, r. Kafirnigan, r. Surkhandarya, r. Cascadary, r. Zarafshan have geoclimatic provinciality.

At the same time, thermal regime in the area of formation of water resources of the Amudarya River with an increase in the altitude mark decreases a linear functional dependence, formula (6)

Table 2 Average Perennial Meaning of Climatic Indicators of River Systems Pan. Amudarya.

№	WEATHER STATION	Height, km	Temperatura ^{0}C	Precipita-tion, mm	Evaporation, mm
Pool river Pyanj					
1	Karakul	3,93	-3,8	70	-
2	Xaburabad	3,95	-1,2	-	-
3	Kalay-Xumb	1,28	13,5	480	512
4	Roxarv	1,80	9,9	-	422
5	Xovaling	1,44	10,8	875	510
6	Xumrali	1,74	12,1	-	327
7	Sanglok	2,24	7,1	686	336
8	Kangurt	0,88	14,3	710	602
9	Irxt	3,30	1,0	128	-
10	Murgab	3,50	-1,0	-	-
11	Lyaur	0,73	15,3	425	523
12	Kulyab	0,60	16,4	551	627
13	Iol	1,28	13,6	560	496
14	Parxar	0,45	15,7	286	723

№	WEATHER STATION	Height, km	Temperatura ^{0}C	Precipita-tion, mm	Evaporation, mm
15	Xorog	2,08	3,7	235	317
16	Djaushangoz	3,41	-2,0	137	-
17	Pyandj	0,38	336,0	232	668
Pool of the Vakhsh River					
18	Saritash	3,10	-3, 2	338	-
19	Darautkurgan	2,22	2, 4	276	-
20	Altinmazar	2,78	3,3	141	-
21	Garm	1,32	10,7	720	-
22	Sangvor	2,19	6,5	709	363
23	Tavidare	1,62	8,7	-	396
24	Gandjina	0,75	14,9	715	544
25	Kurgantube	0,43	15,7	268	740
Pool River Kafiringang					
26	Gushari	1,36	11,2	-	445
27	Dushanbe GMS	0,80	14,2	610	664
28	Fayzabad	1,22	12,8	865	496
29	Shaartuz	0,38	16,4	-	684
30	Ayvaj	0,32	17,2	-	577
Swimming pool of the River Surkhandarya					
31	Denov	0,52	15,7	343	664
32	Boysun	1,25	12,8	459	484
33	Shaxrinau	0,85	14,9	601	582
Pool of the river Kashkarya					
34	Mingchukur	2,12	7,8	645	302
35	Kuzar	0,52	16,2	300	502
36	Dehqonobod	0,84	14,5	-	508
37	Akrabat	1,60	11,1	430	420
Average		1,2903	11,9212	472,9503	515,3103

Table 3 Correlation coefficient and regression equation between climatic values from the height of the river estimation of the Amudarya River basin

Name of interconnection	Correlation coefficient	Parameters of the regression equation			
		A	B	h	y
between height and temperature	-0, 9624	18,9919	-5,4798	1,2903	11,9212
between height and precipitation	-0,3489	598,7245	-84,8815	1,4816	472,9583
between height and evaporation	-0,9068	730,6801	-189,3217	1,137	515,3103

The equation of linear functional dependence has the form:

By temperature:

$$t - 18,9919\text{-}5,4798\ h\ ,\ °C; \quad (6)$$

$$E=730,6801\text{-}189,3217\ t,\ мм \quad (7)$$

where T is the temperature ° C;

E- evaporation at the height of the meteorological station, mm;

H is the height of the meteorological station, km above sea level.

18,9919 and -5,4798 permanent parameters of the equation;

0,9624 - correlation coefficient, showing the height temperature decreases.

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