Precipitation Amount
in the Amudarya and Syrdarya river basins
for October 2010 - March 2011 and the forecast of water discharges in the rivers of the Amudarya and Syrdarya river basins for vegetation period (April-September) 2011

Precipitation for October - February 2011 in the river basins of Vakhsh (Kyrgyzstan's territory) and Naryn amounted 80-95% of the mean annual precipitation, and in the river basins of Surkhandarya, Kashkadarya, Karadarya, Fergana Valley, Chirchik, Akhangaran - 60-80% of the mean annual precipitation (Table 1.).

The high air temperature in March 2011 (more by 2-3 degrees, and by 3-7 degrees in the third ten-days period of March) has provoked the intensive snow melting in the mountains that led to decrease of snow cover. At the end of March 2011 the snow storage measured at the snow-depth gages in the Vakhsh, Pyanj and Kashkadarya river basins amounted 0-40% of the long-term annual average, and in the Chirchik river basin at the height of 2000 m - 0-45%, and at the height above 2000m - 60-70% of the long-term annual average (Table 2).

At the end of March 2011 the snow cover depth measured by the aero remote-indicating depth gage in the river basins of Surkhandarya and Chirchik amounted 70-80% of the long-term annual average (Table 2).

The forecast of the water discharges for the vegetation period 2011 is done on the basis of analysis of hydrometeorological situation. The river water content for vegetation period 2011 is expected to be as follows: in the river basins of Vakhsh, Naryn, southern Fergana Valley - 80-95%; in the river basins of Surkhandarya, Zarafshan, northern Fergana Valley, Chirchik, Akhangaran - 70-80%; in the river basins of Kashkadarya, Karadarya – 50-70% of the long-term annual average water content (Table 3).

The mud-flow activity is expected to be in April-May 2011 in the Tashkentsky, Djizaksky, Navoiysky, Samarkandsky, Kashkadarinsky, Surkhandarinsky areas and in the Fergana Valley. Given the non-uniform spatial distribution of precipitation, the mud-flow activity will have a local level.

In June-July 2011 the mud-flow activity will be observed in the foothills of Namangansky, Fergansky, Tashkentsky, Djizaksky, Samarkandsky, Kashkadarinsky and Surkhandarinsky areas. The high mud stream can be observed in the south of the Fergana Valley under the higher air temperature. Also there can be danger caused by inrush of water from the high altitude rock-dammed lakes in the Tashkent area and in the north and south of the Fergana Valley in the Kyrgyzstan part what will be accompanied by the mud flows to the Namangan and Fergana areas.

Director General V.E.Chub

Table 1

Precipitation Amount in the Amudarya and Syrdarya river basins for 1 October 2010 – 31 March 2011

River Basin	Meteorological Station	Altitude above the sea level, m	Precipitation depth				
			mm			2010-2011, %	
			2010-2011	2009-2010	mean annual precipitation	Compared to 2010	Compared with mean annual precipitation
Vakhsh – « –	Sari Tash	3155	136	188	141	72	96
	Daroot Korgon	2470	158	382	166	41	95
Surkhandarya – « –	Boysun	1249	211	421	311	50	68
	Keng-Guzar	810	268	434	364	62	74
Kashkadarya – « – – « –	Minchukur	2117	368	577	473	64	78
	Kul’	2028	295	557	465	53	63
	Akrabad	1599	206	346	293	60	70
Naryn	Teo Ashuu	3225	236	357	301	66	78
– « –	Susamyr	2087	70	145	124	48	56
– « –	Naryn	2040	130	158	83	82	157
– « –	At Bashi	2025	80	127	81	63	99
– « –	It Agar	2011	217	274	238	79	91
Karadarya	Ak Terek	1748	395	691	548	57	72
– « –	Gulcha	1542	313	493	229	63	137
– « –	Salamalik	1282	451	779	461	58	98
– « –	Donguz Too	1268	344	542	477	63	72
– « –	Tossoy	1239	365	671	464	54	79
Tributaries of the Syrdarya river in the Fergana Valley	Kichik Oloy	2360	46	108	99	43	46
	Shakhimardan	1728	149	228	169	65	88
	Padsha-Ata	1534	263	305	317	86	83
	Sarikanda	1201	108	211	150	51	72
	Kasansay	889	107	148	177	72	60
Chirchik	Oigaing	2151	361	439	460	82	78
– « –	Chatkal	1937	256	427	276	60	93
– « –	Chimyon	1670	409	677	596	60	69
– « –	Maidantal	1464	421	732	530	58	79
– « –	Pskem	1256	421	753	570	56	74
– « –	Charvak res.	970	184	320	549	58	34
Akhangaran – « – – « –	Kamchik	2145	250	477	453	52	55
	Dukant	2001	454	666	620	68	73
	Angren	942	322	471	396	68	81

Table 2

Snow Storage in the Amudarya and Syrdarya river basins at the end of March 2011

River Basin	Snow survey location	Altitude above the sea level, m	Snow amount				
						2011, %	
			2011	2010	Mean annual snow cover depth	Compared with 2010	Compared with Mean annual snow cover depths
I. Snow cover depth according to the snow surveys (mm)							
Vakhsh	MS Sary Tash	3155	0	120	114	0	0
Pyanj – « –	Gunt river basin *) Vanch river basin *)	2700-3960 1970-2430	40 98	- -	110 230	- -	36 43
Kashkadarya – « – – « –	Uradarya river basin MS Minchukur MS Kul’	2070-2630 2117 2028	89 0 24	100 0 0	273 142 110	89 0 0	33 0 22
Chirchik – « – – « – – « – – « –	AS Oigaing Pskem river basin – « – MS Maidantal MS Pskem	2151 1760-2640 1250-1760 1464 1256	282 211 79 68 0	466 319 143 91 0	381 316 166 156 146	61 66 55 75 0	74 67 48 44 0
II. Snow cover depth measured by the aero remote-indicating depth gage (sm)							
Chirchik	Oigaing river basin	2160-3300	123	245	168	50	73
Surkhandarya – « –	Sangardak river basin Tupolang river basin	2200-3010 2020-3010	92 95	94 135	117 139	98 70	79 68
III. Snow cover depth at the meteorological stations (cm)							
Vakhsh	MS Sary Tash	3155	0	50	45	0	0
Kashkadarya – « –	MS Minchukur MS Kul’	2117 2028	0 10	0 0	40 30	0 0	0 33
Chirchik – « – – « –	AS Oigaing MS Maidantal MS Pskem	2151 1464 1256	82 18 0	111 21 0	112 40 37	74 86 0	73 45 0
Akhangaran – « –	AS Kamchik ELMOS Dukant	2145 2001	0 15	3 18	47 45	0 83	0 33

*) in 2010 the measurements were not conducted

Table 3

FORECAST
of water discharges in the rivers of the Amudarya and Syrdarya river basins for vegetation period (April-September) 2011

River - Point	Expected values		In the previous year, m3/sec	For the long-term period, m3/sec		
	m3/sec	mln m3		average	min	max
I. Amudarya river basin						
Vakhsh – Nurek res., upstream (TojikHYDROMET)	700-900	11070-14230	1050	1000	694	1200
Vakhsh – Nurek res., upstream (UzHYDROMET)	780-980	12330-15490	1050	1000	694	1200
Tupalang-Tupalang res., upstream	70-90	1110-1420	111	103	54.7	160
Sangardak-Keng-Guzar	17-23	270-360	26.4	26.3	9.58	57.4
Akdarya-Gissarak res., upstream	13-17	210-270	28.4	19.3	7.47	38.4
Yakkabogdarya-Tatar	5-9	79-140	11.6	10.6	3.61	22.3
Kichikuradarya+Uradarya – Pachkamar res., upstream	3-7	47-110	8.94	7.71	1.12	21.1
Zarafshan-Magiendarya, downstream	170-210	2690-3320	275	238	170	369
II. Syrdarya river basin						
Naryn – Toktogul res., upstream (Kyrgyzhydromet)	490-670	7750-10590	999	605	368	999
Karadarya-Andijan res., upstream	70-130	1110-2060	406	193	61.4	406
Karadarya-Andijan res., channel inflow to Uchtepa	100-140	1580-2210	264	163	97.9	264
Syrdarya-Uchkurgan and Uchtepa Kairakkum res., channel inflow	170-210	2690-3320	256	212	70.3	305
Syrdarya-Kairakkum res. Chardara res., channel inflow	140-200	2210-3160	324	200	46.8	696
Padsha-Ata – Tostu, confluence	6.2-8.2	98-130	10.8	9.10	5.20	14.7
Gavasay - Gava	5.7-9.7	90-150	17.0	10.2	3.66	27.4
Chadak – Juloisay, confluence	2-7	32-110	9.36	6.26	2.27	18.9
Isfairamsay - Uchkurgan	25-31	400-490	37.9	31.6	19.3	55.5
Sokh - Sarykanda	63-73	1000-1150	98.3	73.0	45.0	104
Sanzar - Kyrk	1.2-2.2	19-35	5.07	2.61	0.70	6.21
Akhangaran – Ertosh, confluence	20-30	320-470	43.9	35.1	14.1	85.8
Chirchik – Charvak res., upstream	220-300	3480-4740	471	328	194	655
Chirchik – 4 rivers total	250-330	3950-5220	522	365	214	721
Chirchik – Charvak res., channel inflow	65-85	1030-1340	113	93.3	29.5	138
Naryn – Syrdarya res. cascade, total channel inflow		16420-21780	2060	1310	784	2340