**Precipitation Amount**
**in the Amudarya and Syrdarya river basins**
**for October 2010 - February 2011 and the preliminary 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), Naryn, Karadarya, Fergana Valley amounted 70-100% of the mean annual precipitation, and in the river basins of Kashkadarya, Chirchik, Akhangaran - 60-90 of the mean annual precipitation (Table 1.). During the period from October till mid of November 2010 precipitation in the runoff formation zones have fallen out in the form of rain and didn't contribute to the snow accumulation in the mountains.

At the end of February 2011 the snow storage measured at the snow-depth gages in the Chirchik river basin amounted 65-95%, and in the Vakhsh, Kashkadarya and Karadarya river basins - 85-110% of the long-term annual average (Table 2).

During February 2011 precipitation have fallen out mainly in the form of snow. Precipitation for February 2011 in the river basins of Surkhandarya and Chirchik amounted 160-200% of the mean annual precipitation, and in the river basins of Naryn, Karadarya, Fergana Valley - 140-190% and of Kashkadarya, Akhangaran - 130-180% and of Vakhsh (Kyrgyzstan's territory) - 120-150% of the mean annual precipitation.

**The preliminary 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, Surkhandarya, Kashkadarya, Zarafshan, Naryn, southern Fergana Valley, Chirchik, Akhangaran - 70-90%; and Karadarya, northern Fergana Valley - 60-70% of the long-term annual average water content (Table 3).**

Accumulation of precipitation in February 2011 has led to increase of predicted water discharges in the Kashkadarya and Akhangaran river basins on 20-25%, and in the rest of rivers situated in the Syrdarya and Amudarya river basins on 5-10% compared with previous forecast.

The mud-flow activity is expected to be more strong in March-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 – 28 February 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 2009-2010 | Compared with mean annual precipitation |
| Vakhsh – « – | Sari Tash | 3155 | 118 | 151 | 109 | 78 | 108 |
| | Daroot Korgon | 2470 | 120 | 272 | 125 | 44 | 96 |
| Surkhandarya – « – | Boysun | 1249 | 173 | 322 | 214 | 54 | 81 |
| | Keng-Guzar | 810 | 205 | 348 | 257 | 59 | 80 |
| Kashkadarya – « – – « – | Minchukur | 2117 | 294 | 526 | 340 | 56 | 86 |
| | Kul’ | 2028 | 221 | 492 | 353 | 45 | 63 |
| | Akrabad | 1599 | 161 | 287 | 203 | 56 | 79 |
| Naryn | Teo Ashuu | 3225 | 185 | 267 | 242 | 69 | 76 |
| – « – | Susamyr | 2087 | 64 | 81 | 99 | 79 | 65 |
| – « – | Naryn | 2040 | 90 | 110 | 62 | 82 | 145 |
| – « – | At Bashi | 2025 | 62 | 89 | 59 | 70 | 105 |
| – « – | It Agar | 2011 | 146 | 210 | 191 | 70 | 76 |
| Karadarya | Ak Terek | 1748 | 30 | 497 | 426 | 62 | 73 |
| – « – | Gulcha | 1542 | 243 | 380 | 173 | 64 | 140 |
| – « – | Salamalik | 1282 | 368 | 536 | 345 | 69 | 107 |
| – « – | Donguz Too | 1268 | 268 | 394 | 361 | 68 | 74 |
| – « – | Tossoy | 1239 | 289 | 472 | 352 | 61 | 82 |
| Tributaries of the Syrdarya river in the Fergana Valley | Kichik Oloy | 2360 | 37 | 83 | 76 | 45 | 49 |
| | Kyrgyz-Ata | 1763 | 131 | 246 | 135 | 53 | 97 |
| | Shakhimardan | 1728 | 102 | 180 | 126 | 57 | 81 |
| | Padsha-Ata | 1534 | 179 | 223 | 229 | 80 | 78 |
| | Sarikanda | 1201 | 77 | 175 | 111 | 44 | 69 |
| | Kasansay | 889 | 73 | 115 | 128 | 63 | 57 |
| Chirchik | Oigaing | 2151 | 292 | 347 | 378 | 84 | 77 |
| – « – | Chatkal | 1937 | 205 | 304 | 216 | 67 | 95 |
| – « – | Chimyon | 1670 | 315 | 569 | 469 | 55 | 67 |
| – « – | Maidantal | 1464 | 346 | 553 | 427 | 63 | 81 |
| – « – | Pskem | 1256 | 354 | 595 | 464 | 59 | 76 |
| – « – | Charvak res. | 970 | 154 | 262 | 428 | 59 | 36 |
| Akhangaran – « – – « – | Kamchik | 2145 | 209 | 389 | 362 | 54 | 58 |
| | Dukant | 2001 | 370 | 562 | 488 | 66 | 76 |
| | Angren | 942 | 266 | 423 | 306 | 63 | 87 |

Table 2

## Snow Storage in the Amudarya and Syrdarya river basins at the end of February 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 | 86 | 152 | 101 | 57 | 85 |
| Kashkadarya | Uradarya river basin | 2070-2630 | 312 | 373 | 303 | 84 | 103 |
| – « – | MS Minchukur | 2117 | 264 | 273 | 209 | 97 | 126 |
| – « – | MS Kul’ | 2028 | 139 | 262 | 164 | 53 | 85 |
| Karadarya | MS Ak Terek | 1748 | 187 | 205 | 178 | 91 | 105 |
| Chirchik | AS Oigaing | 2151 | 212 | 476 | 326 | 45 | 65 |
| – « – | Pskem river basin | 1760-2640 | 310 | 423 | 323 | 73 | 96 |
| – « – | – « – | 1250-1760 | 250 | 445 | 267 | 56 | 94 |
| – « – | MS Maidantal | 1464 | 226 | 374 | 233 | 60 | 97 |
| – « – | MS Pskem | 1256 | 195 | 242 | 212 | 81 | 92 |
| | **II. Snow cover depth at the meteorological stations (cm)** | | | | | | |
| Vakhsh | MS Sary Tash | 3155 | 39 | 66 | 44 | 59 | 89 |
| Kashkadarya | MS Minchukur | 2117 | 91 | 88 | 72 | 103 | 126 |
| – « – | MS Kul’ | 2028 | 63 | 82 | 61 | 77 | 103 |
| Karadarya | MS Ak Terek | 1748 | 85 | 66 | 67 | 129 | 127 |
| Chirchik | AS Oigaing | 2151 | 106 | 170 | 117 | 62 | 91 |
| – « – | AS Chimyon | 1637 | 83 | 70 | 77 | 119 | 108 |
| – « – | MS Maidantal | 1464 | 87 | 110 | 79 | 79 | 110 |
| – « – | MS Pskem | 1256 | 75 | 78 | 70 | 96 | 107 |
| Akhangaran | AS Kamchik | 2145 | 79 | 117 | 81 | 68 | 98 |
| – « – | ELMOS Dukant | 2001 | 109 | 123 | 92 | 89 | 118 |

Table 3

**Preliminary 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 (UzHYDROMET) | 850-950 | 13440-15020 | 1050 | 1000 | 694 | 1200 |
| Tupalang-Tupalang res., upstream | 80-91 | 1260-1440 | 111 | 103 | 54.7 | 160 |
| Sangardak-Keng-Guzar | 21-23 | 330-360 | 26.4 | 26.3 | 9.58 | 57.4 |
| Akdarya-Gissarak res., upstream | 15-17 | 240-270 | 28.4 | 19.3 | 7.47 | 38.4 |
| Yakkabogdarya-Tatar | 7-8 | 110-130 | 11.6 | 10.6 | 3.61 | 22.3 |
| Kichikuradarya+Uradarya – Pachkamar res., upstream | 5-7 | 79-110 | 8.94 | 7.71 | 1.12 | 21.1 |
| Zarafshan-Magiendarya, downstream | 188-212 | 2970-3350 | 275 | 238 | 170 | 369 |
| II. Syrdarya river basin | | | | | | |
| Naryn – Toktogul res., upstream (Kyrgyzhydromet) | 480-540 | 7590-8540 | 998 | 605 | 368 | 998 |
| Karadarya-Andijan res., upstream | 100-120 | 1580-1900 | 406 | 193 | 61.4 | 406 |
| Karadarya-Andijan res., channel inflow | 90-130 | 1420-2060 | 264 | 163 | 97.9 | 264 |
| Syrdarya-Uchkurgan and Uchtepa Kairakkum res., channel inflow | 180-220 | 2850-3480 | 256 | 212 | 70.3 | 305 |
| Syrdarya-Kairakkum res. Chardara res., channel inflow | 130-230 | 2060-3640 | 324 | 200 | 46.8 | 696 |
| Padsha-Ata – Tostu, confluence | 6-8 | 95-130 | 10.8 | 9.10 | 5.20 | 14.7 |
| Gavasay - Gava | 7-8 | 110-130 | 17 | 10.2 | 3.66 | 27.4 |
| Chadak – Juloisay, confluence | 4-5 | 63-79 | 9.36 | 6.26 | 2.27 | 18.9 |
| Isfairamsay - Uchkurgan | 28-32 | 440-510 | 37.9 | 31.6 | 19.3 | 55.5 |
| Sokh - Sarykanda | 66-74 | 1040-1170 | 98.3 | 73.0 | 45.0 | 104 |
| Sanzar - Kyrk | 1-2 | 16-32 | 5.07 | 2.61 | 0.70 | 6.21 |
| Akhangaran – Ertosh, confluence | 25-29 | 400-460 | 43.9 | 35.1 | 14.1 | 85.8 |
| Chirchik – Charvak res., upstream | 253-285 | 4000-4510 | 471 | 328 | 194 | 655 |
| Chirchik - Charvak res., channel inflow | 240-350 | 3800-5530 | 522 | 365 | 214 | 721 |
| Chirchik – Charvak res., channel inflow | 65-95 | 1030-1500 | 113 | 93.3 | 29.5 | 138 |
| Naryn – Syrdarya res. cascade, total channel inflow | | 15030-21200 | 2060 | 1310 | 784 | 2340 |