



The Second Assessment of Transboundary Rivers, Lakes and Groundwaters: Central Asia

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Process

- Letters to ministers in August 2010
- Workshop on transboundary water management in Central Asia in Almaty, Kazakhstan 13-15 October 2010
- Draft assessments prepared based on the information provided (datasheets & presentations in Almaty) & sent for comments
- Some challenges with making drafts available in Russian for country review
- Comments received from IR Iran, Kazakhstan (GW only), Kyrgyzstan (just received, not yet incorporated), Mongolia

Particularities

- Information on land use/land cover and population hardly available at all – taken from GlobCover and LandScan products for the graphs
- Recent quantitative data commonly lacking
- Discharge information complemented from GRDC
- Assessment of transboundary aquifers by UNESCO and IGRAC in 2009 built on

General gaps

- No input from the following countries: China, Turkmenistan and Uzbekistan
- Information on management response and about the future outlook very limited
- In most cases information concerning the institutional and legal side of water management very scarce

Ramsar Sites included

- Gomishan Lagoon
- Daurian wetlands
- Xingkai Lake National Nature Reserve – Lake Khanka
- Tobol-Ishim forest-steppe
- Aydar-Arnasay Lakes System
- Ili Delta, Balkhash Lake

Syr Darya

- Main issues/pressures: irrigation the biggest water use little water getting to
- Koksarai dam a recent development – winter flooding probably no longer a concern?
- Some of the aquifers already in the 1st Assessment (more information could be added)
- Basin area to be completed (UZ missing)
- Withdrawals information incomplete: UZ missing, TJ (order of magnitude error?)

Syr Darya tributaries

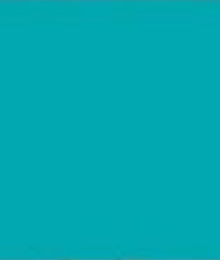
- Naryn, Kara Darya, Chirchik & Chatkal
- Issues/pressures: upstream landslides, deforestation; agriculture/irrigation & pollution mainly downstream; general - flow regulation, degradation of monitoring networks (flow, glaciers)
- Uranium mine tailings (Kara Darya)
- Importance of industry in Chirchik sub-basin needs clarification
- Chatkal: wastewaters, a real trend with flooding?

Amu Darya

- Withdrawal information from AF missing
- Amu Darya & small rivers of the region most vulnerable to climate change (UZ)
- Reduced flow (withdrawal for agriculture) and poor water quality
- Hydropower developed upstream (Sangtuda 1 & 2 dams)
- Any impact from oil/ gas production in Uzbekistan (Bukhara-Qarshi) and in Turkmenistan? Industries?
- Future trends? Impact of collecting drainage waters the Golden Century Lake in Turkmenistan?

Amu Darya tributaries

- Surkhan Darya, Kafirnigan, Pyanj, Vakhsh
- Information on UZ part missing
- Vakhsh: Quaternary aquifer without name & information about the Kyrgyz part
- Hydropower development on the Vakhsh (Sangtuda 1 commissioned, 2 being built in 2011)
- Other pressures/issues: Insufficient wastewater treatment,
- erosion (Surkhan Darya); agriculture, industry, dumping of waste, GW pollution (Kafirnigan); mining, industry (Alu, fertilizer), dumping of chemicals
- quantity and quality status of the river, pressure factors and predicted future trends?



Amu Darya tributaries: Pyanj

- Tributaries the Gunt, Jasnulem, Vanj and Kyzylsu of the Pyanj not transboundary?
- Issues: severe flooding because of the limited regulation (AF vulnerable), lack of hydrometeorological data a constraint (AF), waste disposal
- Status? Response measure? Future?

Aral Sea

- The clearest example of the negative impacts on human health and ecosystems of overabstraction, land degradation and desertification
- Extensive variation in the water situation between years
- Partial improvement in the N. Aral Sea thanks to the Kok-Aral project. No other serious efforts to save what is left of the Aral Sea
- 3rd Aral Sea Basin Programme prepared

Murgab, Tejen/Harirud

- Information on Turkmenistan missing; little on AF
- Issues: agriculture, low-efficiency irrigation, flooding, water scarcity, urbanization, groundwater abstraction, high sediment load
- increasing trend in organic pollution continues on Murgab?
- Dosti Dam (IR-TM) a joint effort to meet agric. Water demand

Yenisey/Selenga

- Name(s) needed for transboundary aquifer(s) – distinct aquifers based the geology
- Status, trends?
- Pressures/issues (MN): flooding, mining (gold), industries, hydromorphological change, urban wastewater, thermal power station
- Pressures in the Russian part?

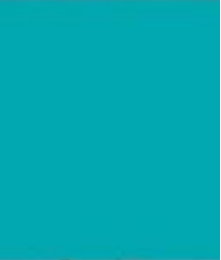
Chu-Talas

- Update needed from Kyrgyzstan's side on responsibilities of organizations in water management
- Pressures/issues: Chu - wastewater discharges, flow regulation (construction Kara-Burinsky dam in 2007 most recent development), rising groundwater tables; Talas - wastewaters, livestock, mining, irrigated agriculture
- Decreased hydrological monitoring a concern
- Information on the future? Management measures?



Ili

- Information concerning the CN part missing
- New basin surface area dramatically different from the first Assessment; correct?
- Issues: agriculture, mining & ore processing affect water quality
- The current status of data exchange? The significance of the new KZ-CN agreement for it?
- Trends in water withdrawal? Has the water demand in the Ili basin in KZ decreased?
- Some figures require checking





Ob and tributaries Tobol & Ishim

- Pressures/issues: oil & gas exploitation, industrial & mining pollution, urban wastewaters, hydraulic infrastructure; fertilizer pollution has decreased but still a problem?
- North-Kazakhstan transboundary aquifer extends to area of both Ishim and Tobol sub-basins – In which assessment should it be (now in Tobol)?
- Some checks of length, area, monitoring station location, water resource figures etc needed



The Ob basin: Ishim

- Descriptive pressure information needed on the **Ishim** (only wastewater treatment mentioned as an issue); Any information available on treatment of municipal wastewaters in Astana and of industrial wastewaters (chemical, petroleum refining) in Petropavlovsk?

The Ob Basin: Irtysh

Irtysh: industry & withdrawal for agriculture in CN. Impact of metal processing industry in KZ has reduced (description)? Increasing conflict between hydropower production and shipment (limited water availability & retaining water in Shul'binsk Reservoir). Wastewater discharges decreasing. Does the tendency of water quality improvement continue?

Amur & tributaries Argun & Ussuri

- No information on CN part
- MN's share likely bigger than was reflected e.g. 1st Assessment – MN is checking
- Issues: Chemical production & industrial accidents has affected the water quality negatively; water transfers, mining, urban wastewater discharge
- RU predicts substantial increase in withdrawal.
- Further water quality deterioration still expected?
- Management response? No update to RU measures since the 1st Assessment

Ural

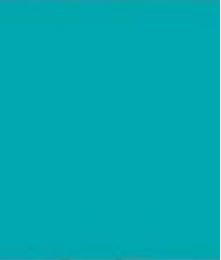
- Issues/pressures: industrial discharges/pollution, municipal wastewaters, flooding & runoff mobilizes pollution
- KZ predicts significant increase in withdrawal

Bolshoy & Malyi Uzen

- Pressures: Irrigated agriculture (main), water scarcity, wastewater discharges, polluted runoff, sediments & river bank erosion
- No withdrawal information from KZ
- Stable condition
- Substantial increase in withdrawal predicted by RU in B. Uzen, stable in M. Uzen? - different tendency?
- Wastewater treatment plants built in RU

Tumen, Sujfun

- No information on CN or KP
- Pressures: industrial & municipal wastewaters, mining, bank erosion (Tumen); flooding (Sujfun)



To be fixed

- Fill the gaps in possible; if too incomplete, convert to text
- Figures: none proposed by the countries so far; some satellite images from Ramsar
- Ensuring links between sub-regional summary & individual assessments
- Information on the organization of water resources management needs review and complementing
- Some land use/land cover tables remain – to be removed (covered by graphs)

Schedule for finalizing the assessment

Final comments to the secretariat
by 20 May 2011

Condensing/shortening by the secretariat,
linguistic editing, in June layout, to print
18 July

