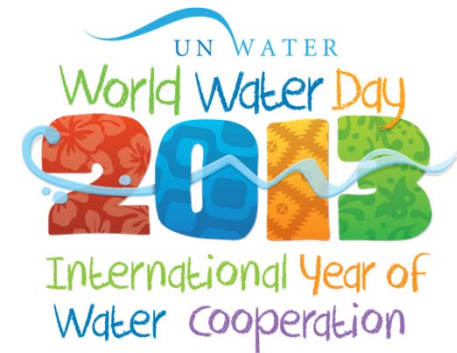


Islamic Republic of Afghanistan Republic of Tajikistan



Hydrology and Environment Cooperation in the Upper Amu Darya River Basin



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Brief introduction to countries



Country areas:

- Afghanistan 652 000 km²
- Tajikistan 143 000 km²

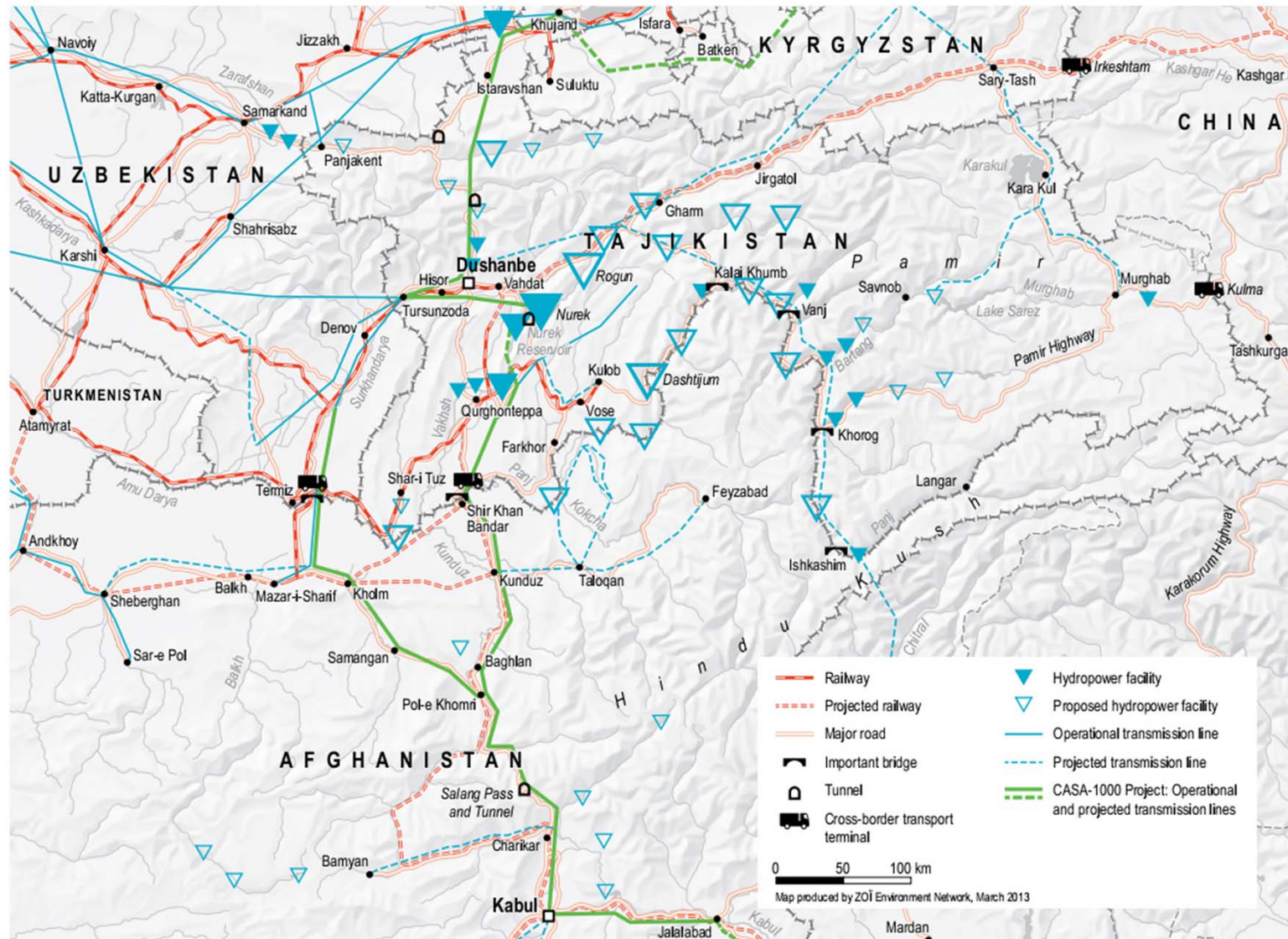
Upper Amu basin geography:

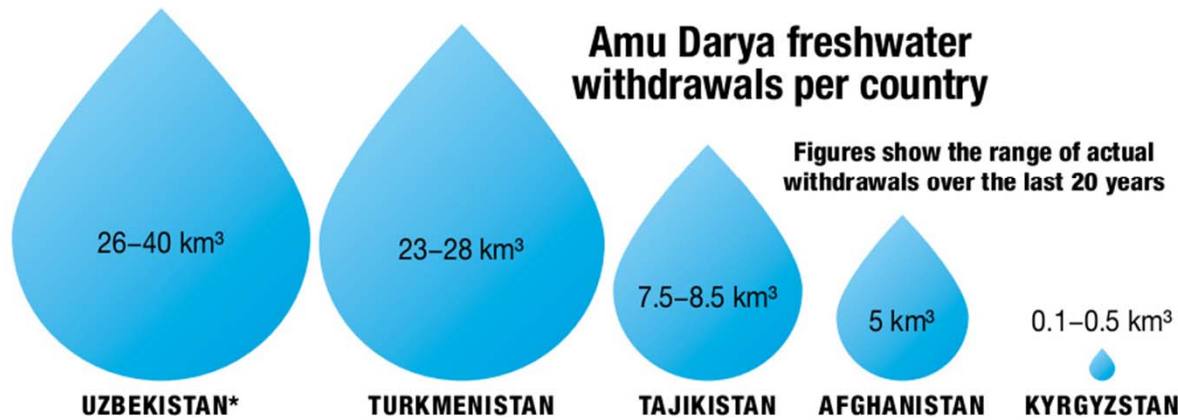
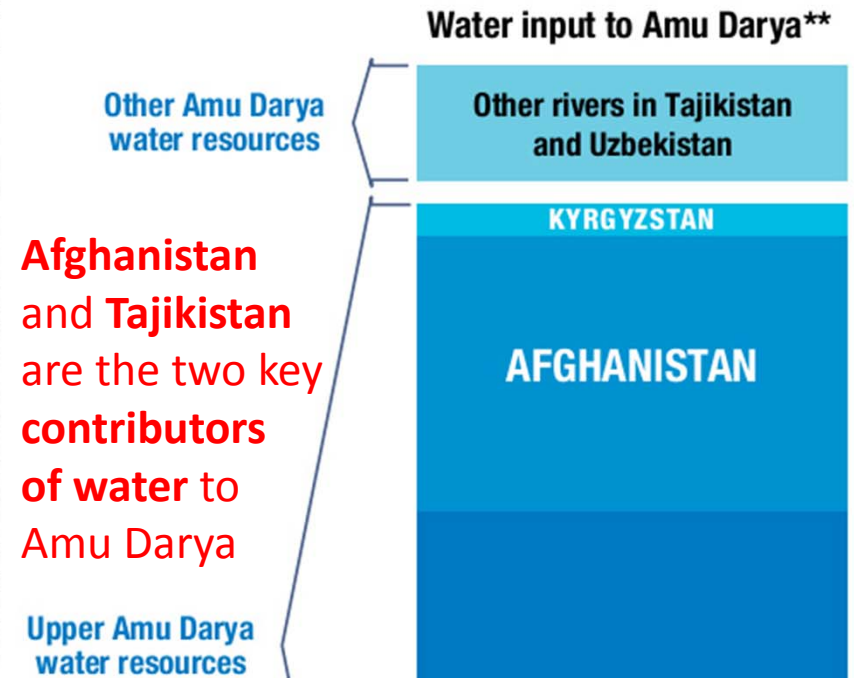
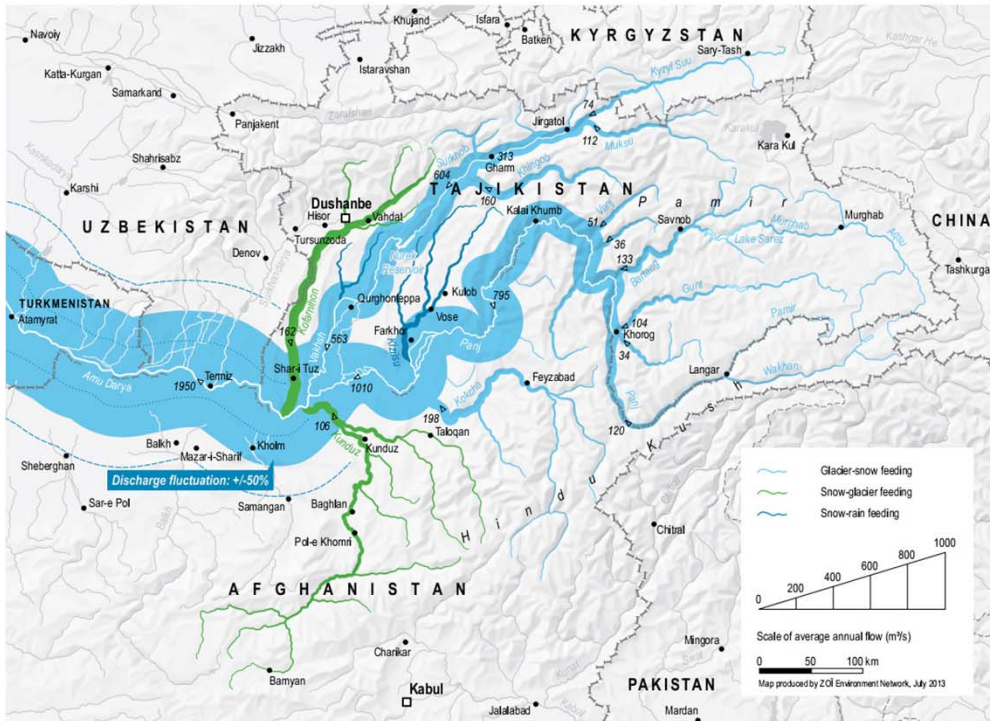
- Highest mountains: 7.5 km
- Average elevation of Vakhsh and Panj river basins: 3.5 km
- Glacier cover: over 7 000 km²
- Longest glacier: over 70 km

Socio-economic features:

- Large share of rural dwellers and reliance on agriculture
- History of conflict (civil wars in Afghanistan and Tajikistan)
- Poverty and energy shortages
- Good prospects for mining, hydropower, infrastructure
- Five new bridges on Panj-Amu

Growing economic importance of the Upper Amu Darya: international roads, friendship bridges, trade and energy





*Including sub-basins of Zarafshan and Kashkadarya

Source: CAWater Info (→ www.cawater-info.net)

** Excluding sub-basins of Zarafshan, Kashkadarya, Murgab and Tejen (Hari Rud)

Challenges in the Upper Amu Darya river basin:



- Both countries suffered civil war impacts on people, economy and environment
- Hydrological monitoring was suspended in Afghanistan from 1980 to 2007
- Hydrometeorological observations in Tajikistan dramatically declined since 1991, while proper hydrological monitoring on the Panj-Amu river was simply impossible due to persistent insecurity on the border and lack of appropriate agreements
- Environment in the Upper Amu Darya basin greatly suffered from growing pressures and mismanagement, especially in the times of civil war: many forests destroyed, arable lands and pastures overused and degraded. In addition climate change and extreme weather (droughts, snowfall, very cold and very hot weather) negatively affected the Upper Amu Darya river basin.
- Afghanistan was not involved both in the Soviet and the post-Soviet interstate water processes in the Aral Sea basin in Central Asia

Hydrology and environment cooperation in the Upper Amu Darya river basin:



- **Between 2005 and 2010** both countries exchanged visits of experts and senior officials to discuss emerging priorities of cooperation: energy, trade, border control, environment and hydrological monitoring
- In addition, Afghan and Tajik delegations met on numerous international meetings to advance multilateral and bilateral cooperation. In 2008, **ENVSEC** (Environment and Security) Initiative with key partners such as UNEP, UNDP, OSCE, UNECE helped to engage Afghanistan to the Amu Darya basin regional assessment and discussions
- Joint work under **UN SPECA** and **UNECE Water Convention** contributed to the process
- By **October 2010**, **intergovernmental agreement** on water cooperation was drafted and signed by the Governments of both countries. Main subjects of the agreement is cooperation on Panj/Amu river, especially on hydrological monitoring, disaster preparedness and risk reduction, environmental protection

Practical work on hydrology and environment cooperation in the Upper Amu Darya:



- In **2012-2013 in Kabul and Dushanbe** countries held bilateral cooperation meetings facilitated by UNECE, discussed and agreed on initial cooperation activities. Initial support came from the Russian Federation, while OSCE has recently stepped in as well
- In addition to meetings, scope of cooperation included **field visits and exchange of experience and good practices** between experts and institutions, building a network of **professional contacts, training of Afghan and Tajik students, work on communication and decision support tools** (one result of this effort is AFG-TJK Cooperation Atlas)
- Countries have established a **Technical Task Force (TTF)** which will soon deal with hydrology and environment priorities identified during the meetings
- Considering that international waters is a sensitive issue in the region, Ministries of Foreign Affairs from both countries are closely involved in cooperation process
- Most recent joint work has been conducted during Dushanbe Int. Water Conference

Differences

- **Afghanistan** has relatively well developed national institutional water coordination, modern water sector strategy and domestic legislation, and advanced river basin management approach, with several operational river basin commissions. Strong community institutions and traditions dealing with water and decentralized approach. Ministry of Energy and Water is mainly in charge of water activities, incl. hydrology.
- **Tajikistan** has inherited from the Soviet era quite centralized and administrative-based water management approach: now the country is introducing water reforms and river basin management system/strategy. Hydromet service is under Committee on Environment.
- Environment in **northern Afghanistan** has suffered dramatically from civil war impacts, deforestation, land erosion, and floods. Very limited nature protection area coverage.
- **Tajikistan** is experiencing environmental impacts on mountain ecosystems from climate change, some deforestation and land erosion. Waste management is another issue. But protected area coverage is very large/extensive and agrobiodiversity is well preserved. There is a good progress in practical planning for adaptation to climate change (PPCR).
- Hydrologic network in **northern Afghanistan** is developing rapidly based on very modern automatic methods. However, difficult access to border areas, missing historical data for calibration, and lack of data exchange with Tajikistan greatly impede progress in water monitoring, assessment and forecasting as well as flood/drought risk reduction.
- **Tajikistan** often relies on manual methods and equipment in hydrological monitoring, but currently modernizes several hydrometric stations in Panj/Amu river basin. Glaciers and lakes (including Sarez Lake early warning system) are well researched / monitored.

Similarities

- **Afghanistan and Tajikistan** have centuries of common history, language, cultural ties and the Amu Darya river is not only political border, but also connecting line of friendship, brotherhood and economic relations. The Pamirs and Hindu Kush Mountains in both countries are the water towers of the Amu Darya. Embassies are present in both countries with representations in remote provinces. Diplomatic relations are well established.
- Environment in **northern Afghanistan and Tajikistan** has many common ecosystems, species, challenges and solutions. Both countries have lowest greenhouse gas emissions and are interested in development of renewable energy. Sustainable subsistence-based agriculture, reforestation and river protection are important priorities for both countries.
- Hydrology cooperation between **Afghanistan and Tajikistan** is the first important step in developing broader water cooperation: both countries need to study and understand better the state and trends in the common water resources of Panj-Amu basin and how these resources could be used in the future development of their economy and societies without jeopardizing the interests of the downstream communities and states.
- In both countries ongoing projects on disaster risk reduction, climate change adaptation, irrigation, hydrological monitoring may benefit from **synergies and cross-border collaboration**
- Cooperation under **UNECE** is highly praised by both countries and should be continued.

Next steps in cooperation (planned for 2013-2014):

General activities:

Compile a list of each country's ongoing and planned projects and activities that have cross-border benefits or increase the scope for efficient collaboration on hydrological and environmental matters

Facilitate procedures for members and observers of the Task Force (border access, visas)



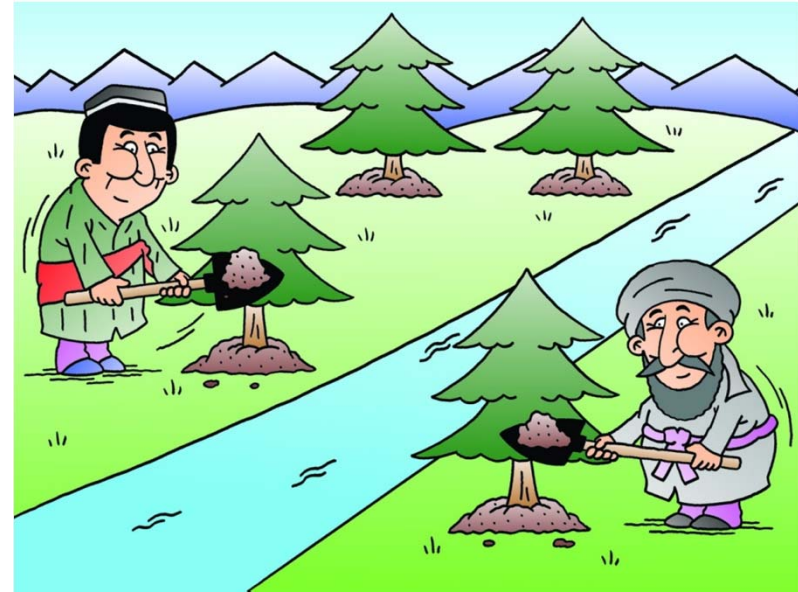


Hydrology activities:

- Compile fact sheets listing hydrological and data transfer equipment, locations and status of hydrological stations, and the needs and plans for modernization (focus on Panj River)
- Establish points of contact, and draft procedures and agreements on the sharing and exchange of hydrological data: routine, historical and data for floods and forecasts
- Facilitate installation of the new automated hydrological station on Sherhan-Bandar bridge, Panj River; pilot data exchange; catalyse support for the new hydrological station at Ayvaj
- Establish snow cover monitoring, especially in the range of elevations of 2 000-4 500 m, using common approaches; collect and exchange data
- Conduct joint glacier survey and assessment; collect and exchange data

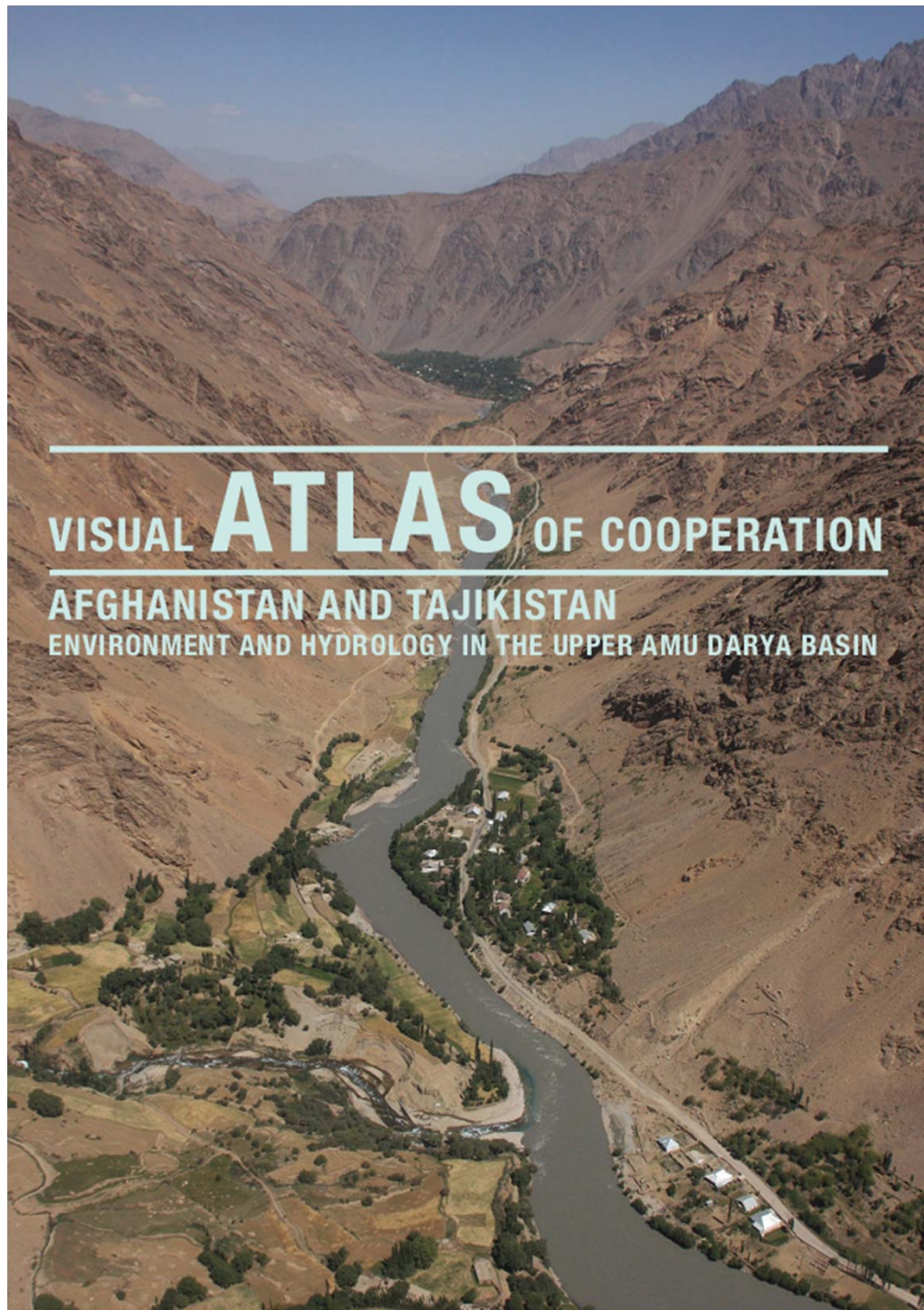
Environment activities:

- Establish experience and data exchange on national communications and activities on climate change mitigation, adaptation and resilience
- Establish experience and data exchange for agrometeorological services, and conduct joint work on early warning and mitigation of extreme climate-related events such as locust infestations, droughts and floods
- Conduct joint work on conservation and monitoring of globally significant biodiversity in near-border protected areas, wetlands, migratory species habitats and ecological corridors
- Map genetic resources and important ecosystem services in the Upper Amu Darya basin
- Facilitate afforestation and reforestation programmes and sustainable land management, including documentation of good practices and their replication
- Conduct joint survey and assessment of environmental quality and the state of the environment in the Panj/Amu basin, common environmental indicators and priorities
- Provide capacity-building and training on environmental reporting and shared environment information systems in the Amu Darya basin countries and provinces
- Work jointly on raising awareness, success stories and good practices; training for students



Afghanistan and Tajikistan highly welcome experience exchange and collaboration with other international river basins

Afghan-Tajik hydrology and environment collaboration activities are only starting and they need to be strengthened by adequate donor inputs and cross-border coordination, dedicated support to the initial steps and facilitation by the international organizations



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Contributes to the **UN International Year of Water Cooperation 2013** and **AFG-TJK environment and hydrology cooperation process**

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با تشکر از شما! Merci! Спасибо!

This presentation has been prepared in cooperation with Zoi Environment Network

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