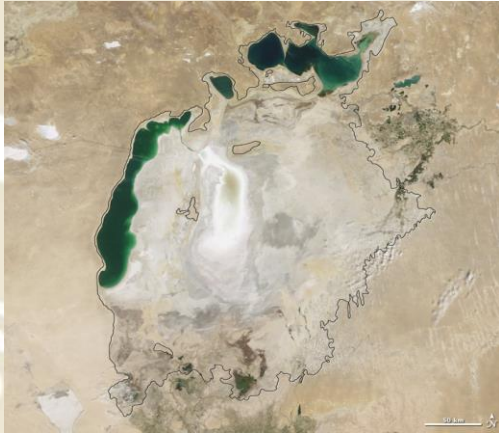




International conference on
Cooperation for Water, Energy, and Food Security in transboundary Basins under
changing climate
Ho Chi Minh City, Viet Nam, 2-3 April 2014



Climate Change Adaptation in a Transboundary Nexus Context of the Aral Sea Basin

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Five Central Asian countries are well standing parties of the United Nations Framework Convention on Climate Change



During 2008-2010 there were published Second National Communications, from which it is clear that the countries articulated their needs and priorities for climate change adaptation, but countries still have gaps and limitations for implementation proper actions.

Climate change evidence in Central Asia

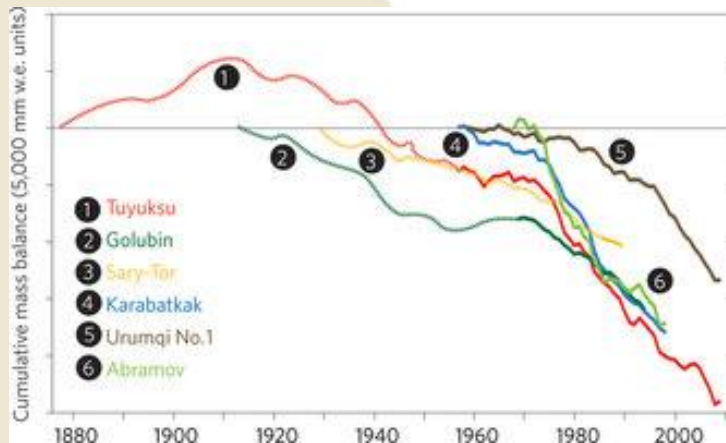


Climate change will impact the Central Asia region mainly through temperature effects on the snow and ice cover in the Tien Shan mountains.

The distribution of water flow within the year could change quite dramatically. This development will have important implications for the management of surface water storage in the region, and also for the design of international water sharing mechanism.

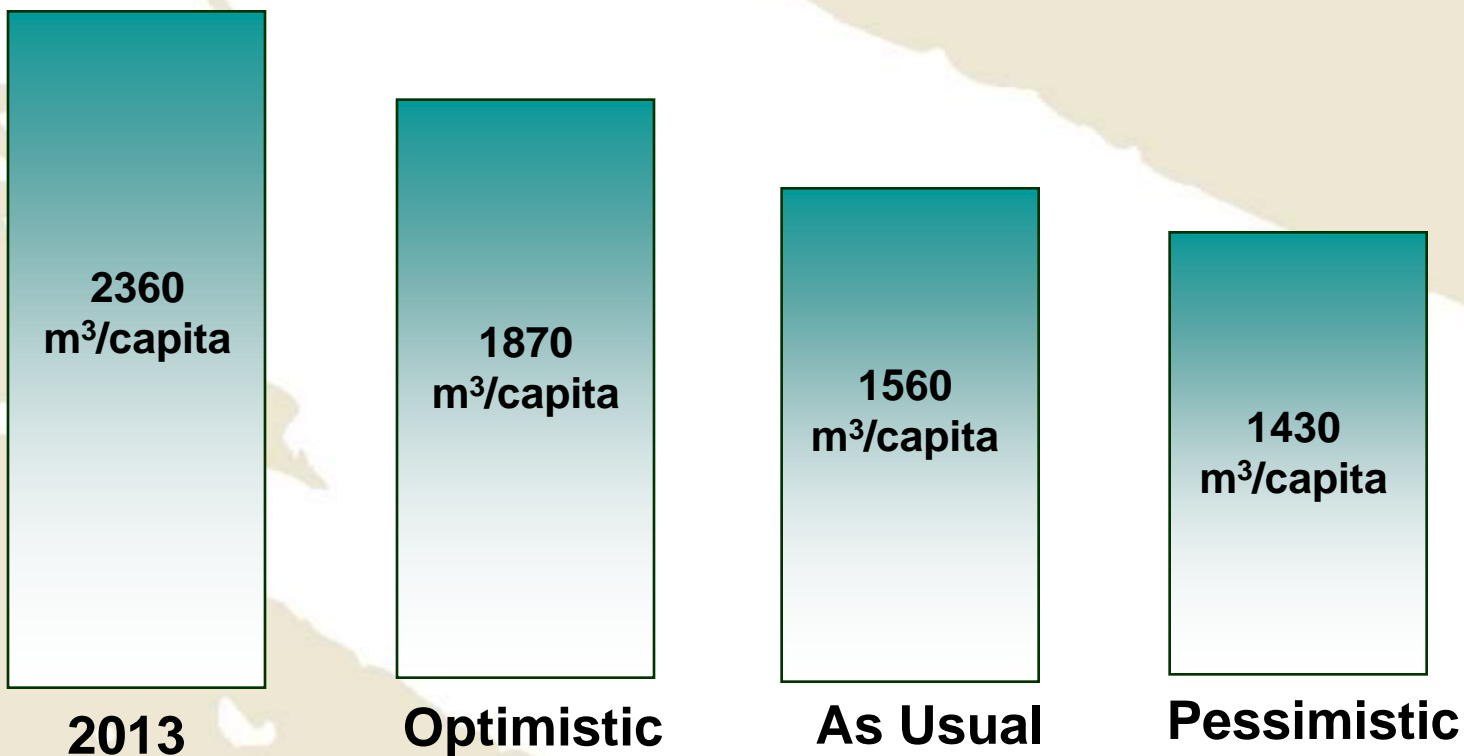
There is concern about aridization of Central Asia over the near term – that will create additional risks for irrigated agriculture.

← Net mass balances for selected glaciers in Central Asia



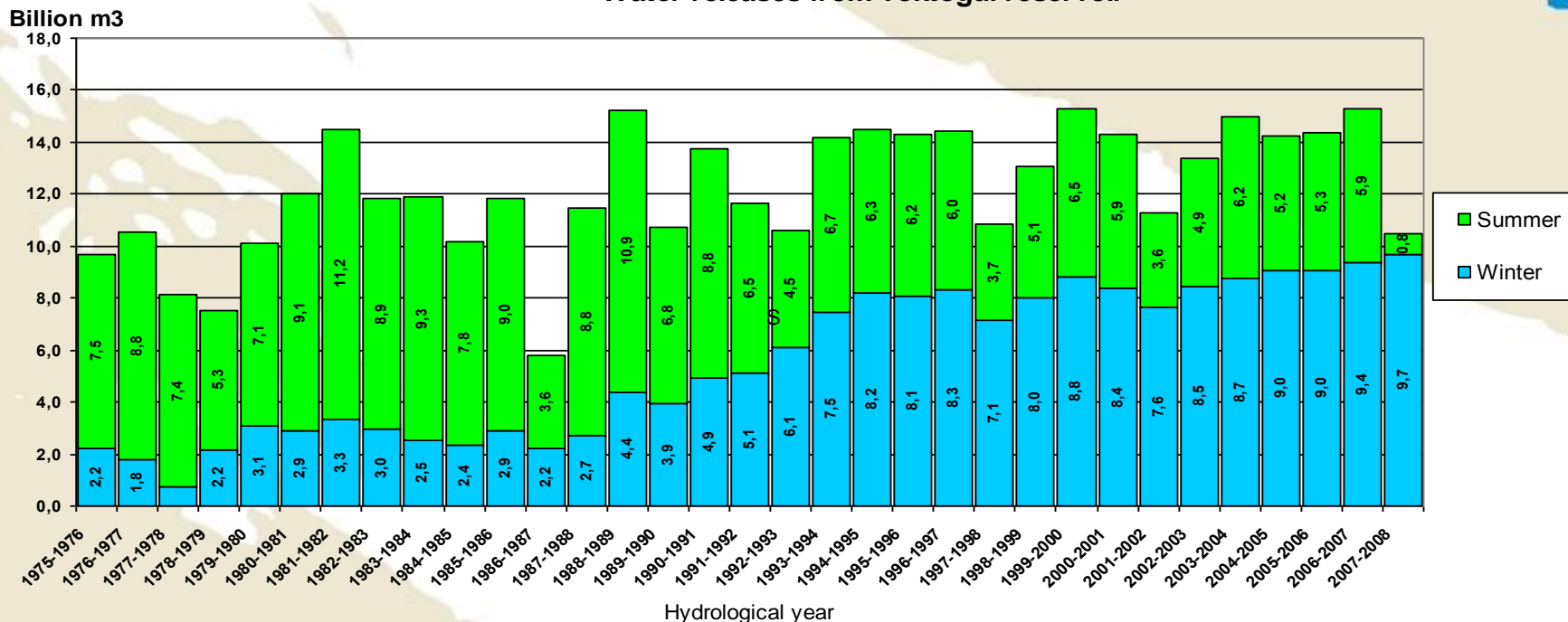
Climate change impacts on glaciers and runoff in Tien Shan (Central Asia). Annina Sorg, Tobias Bolch, Markus Stoffel, Olga Solomina & Martin Beniston. Nature Climate Change 2, 725–731 (2012)

Water Availability in the Aral Sea Basin: What can be expected in 2030?



Actually there is artificial water deficit due to energy regime of flow regulation along two main rivers

Water releases from Toktogul reservoir



Strengthening transboundary water cooperation in the Aral Sea basin

There is an initial cooperative framework on transboundary waters in the Aral Sea basin but this framework needs further improvement. What is needed now is the goodwill to encourage more collaborative efforts and accelerate the process of effective communication and dialogue towards lasting cooperation between countries and across communities. The cooperative spirit, in which Interstate Commission for Water Coordination was born in 1992, should be strengthened and supported, whereas unwise interventions that can cement divides should be avoided. It is also necessary to reach out to epistemic communities and bring together science and policy through capacity building initiatives and regional projects. Technical cooperation might demonstrate practical benefits of better water management and sow the seed of trust among riparian countries.

Global Water, Climate and Development Programme (WACDEP) 2013-2016

GWP is responding to the climate change challenge through this Programme which includes a portfolio of projects aiming to build climate resilience through better water management. The WACDEP programmes and projects are developed by GWP Regional Water Partnerships in collaboration with relevant governments and regional economic development communities.

The Program goal in Central Asia: Help countries to systemize their efforts on climate change adaptation using GWP CACENA framework, which promotes power of IWRM as a tool for climate-resilient development.



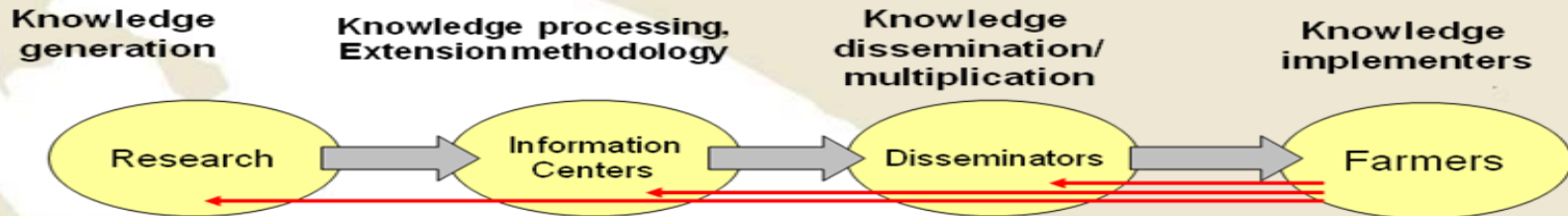
The key of the Program are Demonstration Projects

GWP CACENA accumulated knowledge on innovative and state of the art technologies and methods for irrigation water use to improve land and water productivity at the farm level, capacity building, training and extension materials. Using that basis the following measures will be implemented by GWP CACENA partners to demonstrate how to obtain a good profit at farm level in spite of climate negative impacts:

- The effective technological scheme of irrigation, taking into account the real characteristics of the selected field;
- Use irrigation water in accordance with the requirements of the crop considering the soil-reclamation conditions;
- Apply the recommended norms of mineral and organic fertilizers within the recommended time schedule;
- Use the control measures against diseases and pests effectively;
- Conduct all agronomic works on timely basis.

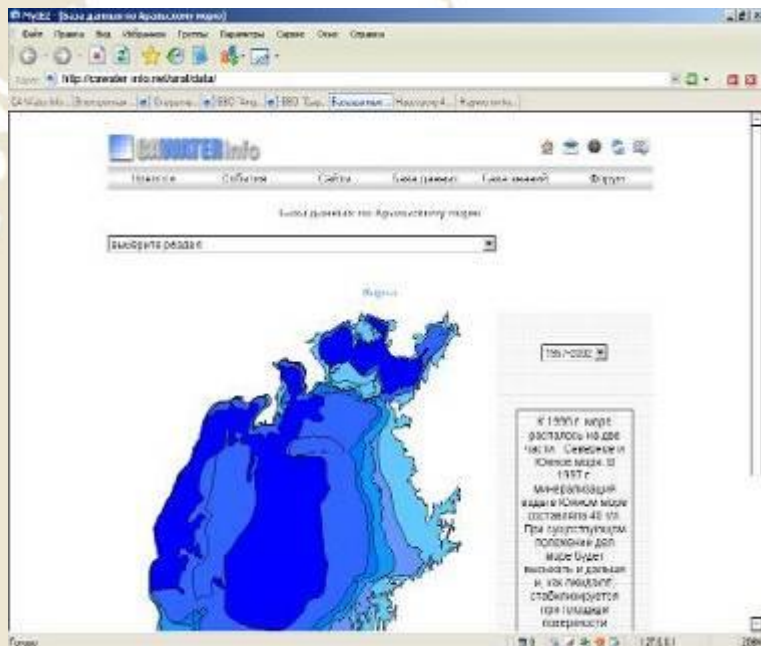
As a result of the advanced technologies applied by the project, the water supply to the farm demonstration plots will be reduced by 30-40%, and farmer will obtain the crops significantly higher than the average yield of neighboring farms.

Important component of the Program is Capacity Development



The training workshops for key stakeholders will be conducted to present outputs from demonstration projects. The key stakeholders are officials and water related specialists from national water authorities, research and design institutions in water sectors, water management organizations, water users and local authorities, higher education institutions (specialized in hydraulic engineering, agriculture, hydrology, etc.), organizations dealing with monitoring of water quantity and quality (meteorological, hydrometric, hydrogeological and land reclamation services), organizations under umbrella of environmental authorities, national authorities responsible for emergency situations in countries, non-governmental and private organizations, mass media (local newspapers and TVs – to aware public about activities and outputs).

Thank you for attention !



Additional info:
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www.cawater-info.net