

Dauria Rivers: adaptation to climate change in transboundary headwaters of the Amur River Basin

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Transboundary wetlands of Dauria

RAMSAR SITES

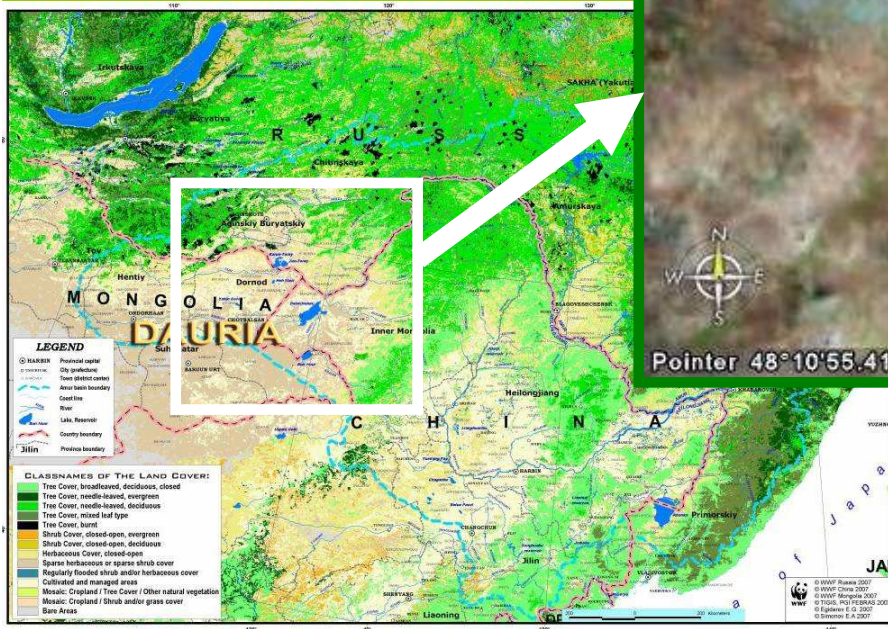
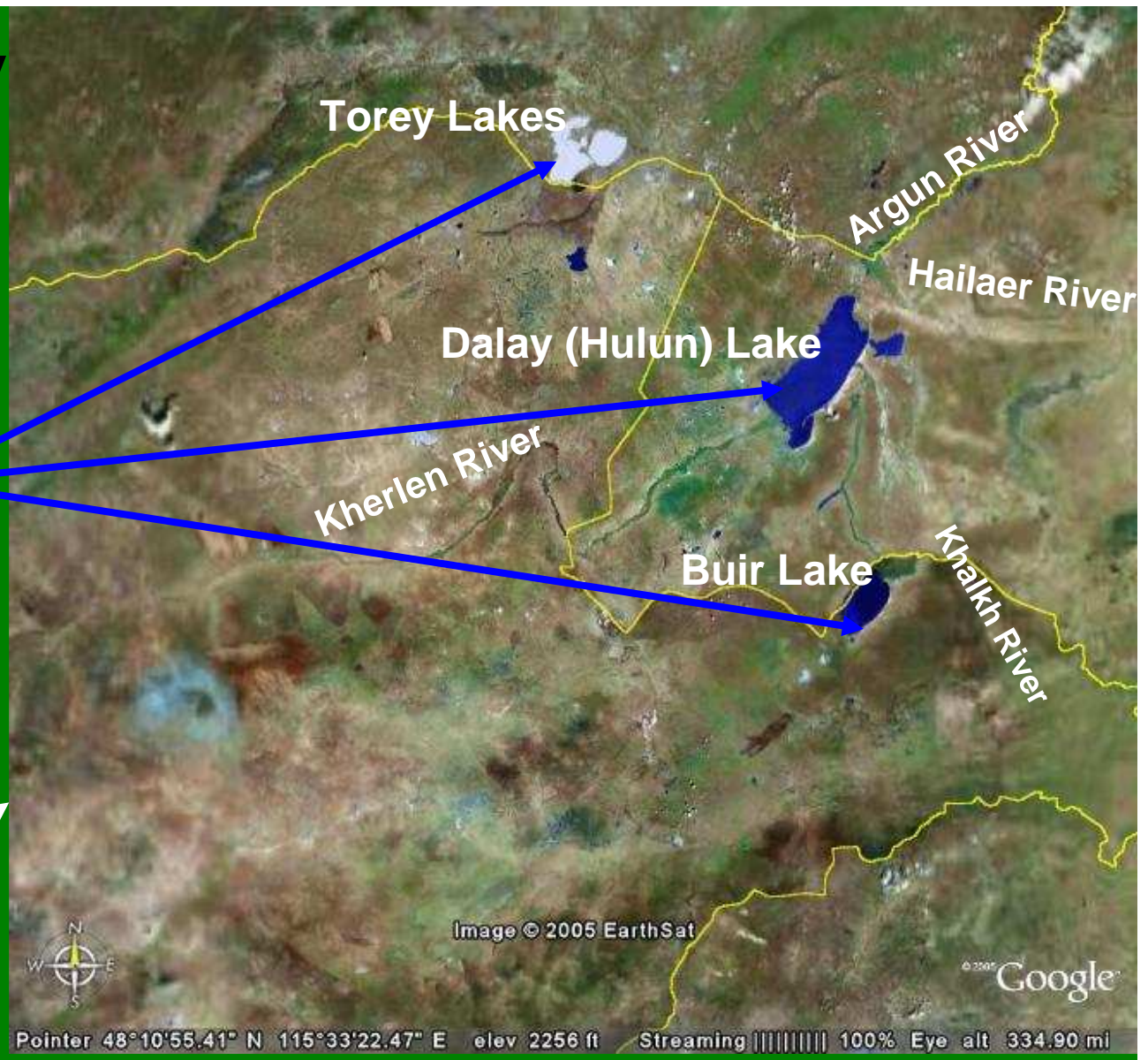


Image © 2005 EarthSat

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Pointer 48°10'55.41" N 115°33'22.47" E elev 2256 ft Streaming 100% Eye alt 334.90 mi

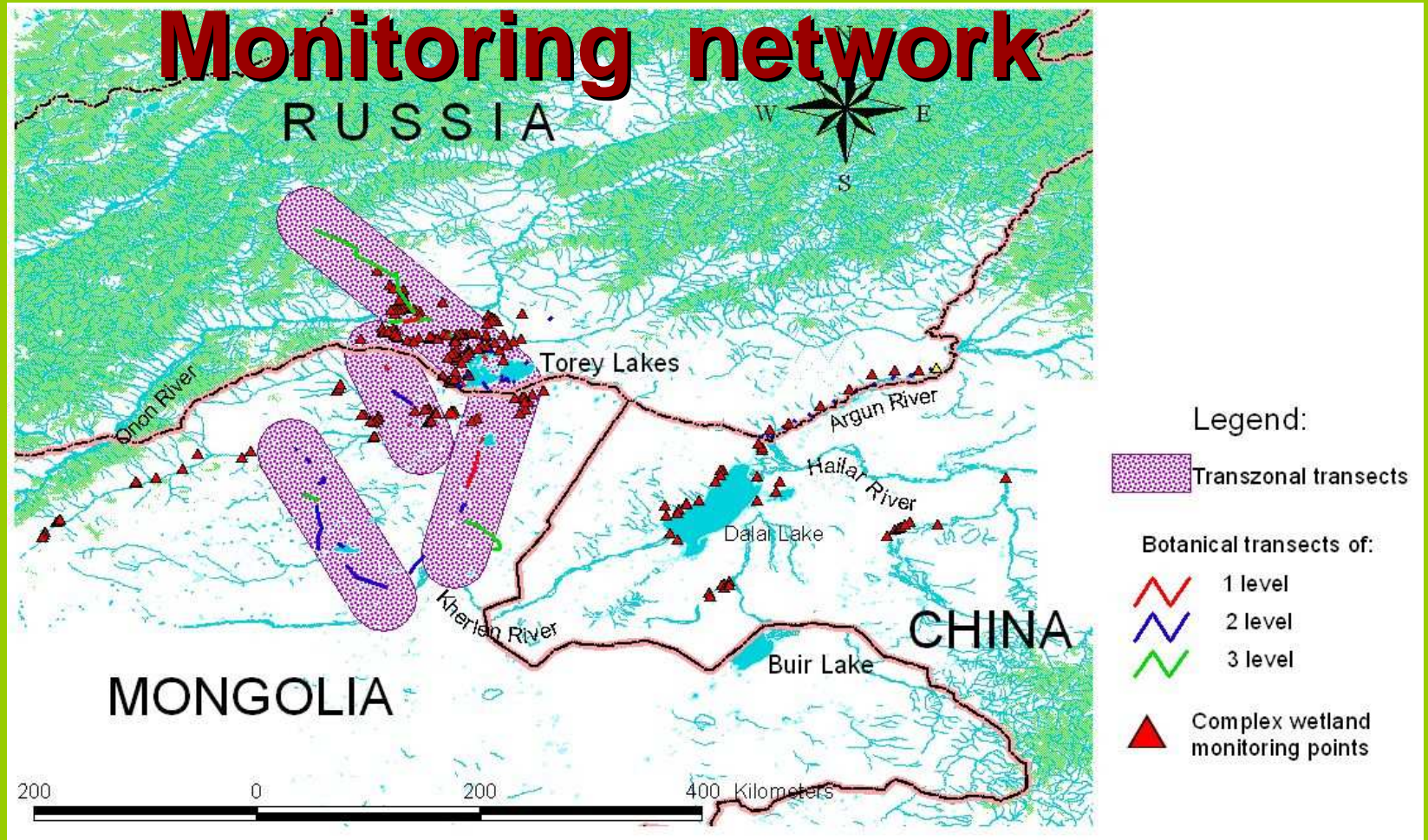
Main activities directions in 2011:

:

- ***Ecosystems monitoring network establishment and publishing results of scientific studies***
- ***Activities to assess and prevent anthropogenic threats***
- ***Public outreach***

The activities of the 2011 were supported by WWF Russia

Monitoring



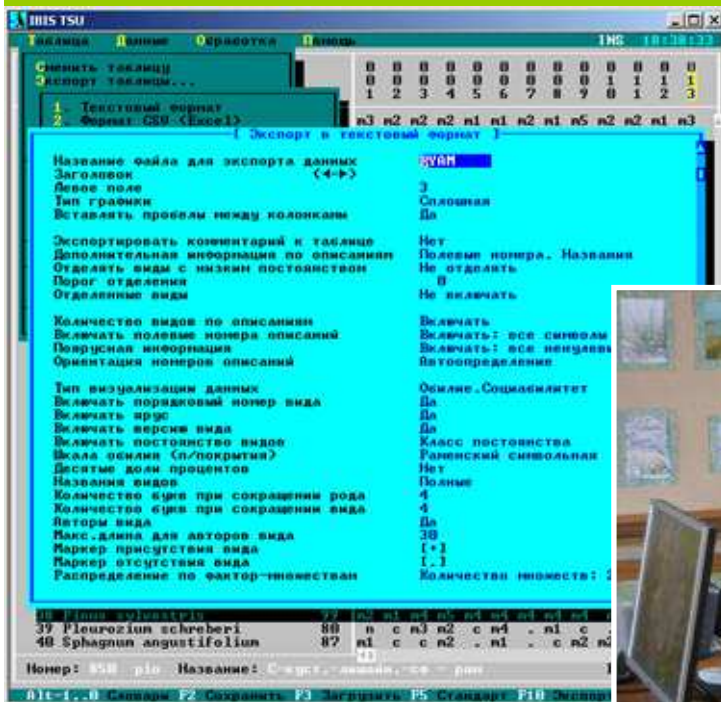
- *Monitoring network includes more than 200 wetland and steppe monitoring plots and transects.*
- *In collaboration with the Institute of Natural Resources, Ecology and Cryology of Russian Academy of Sciences hydrochemical and hydrobiological field studies at 11 lakes of the basins were carried out.*
- *An agreement with WWF Mongolia for complex monitoring (climate, hydrology, biota, human activities) of Uldz river basin as a model basin with natural flow was achieved.*

Improving of data collection & processing

Monitoring

1. Hydrometeorological data for the entire period of instrumental observation were obtained and are available for needs of the pilot project.

2. Training seminar at the Daursky reserve on environmental analysis of botanical data by means IBIS software



Summarizing research paper was published:

<i>Title</i>	<i>Content</i>	<i>Output</i>
<i>Influence of climate change on wildlife in the Daurian ecoregion</i>	<i>Results of long-term investigations of concordant climate and biota changes</i>	<i>V.E.Kirilyuk, V.A. Obyazov, T.E. Tkachuk, O.K. Kirilyuk Influence of climate change on wildlife in the Daurian ecoregion // Eurasian Steppes -- - Ecological Problems and Livelihoods in a Changing World" edited by Marinus J.A. Werger & Marja A. Van Staaldouinen. Published by Springer, (Dordrecht, Berlin, Tokyo, Boston, London) – 400-470 p.</i>

Main conclusions:

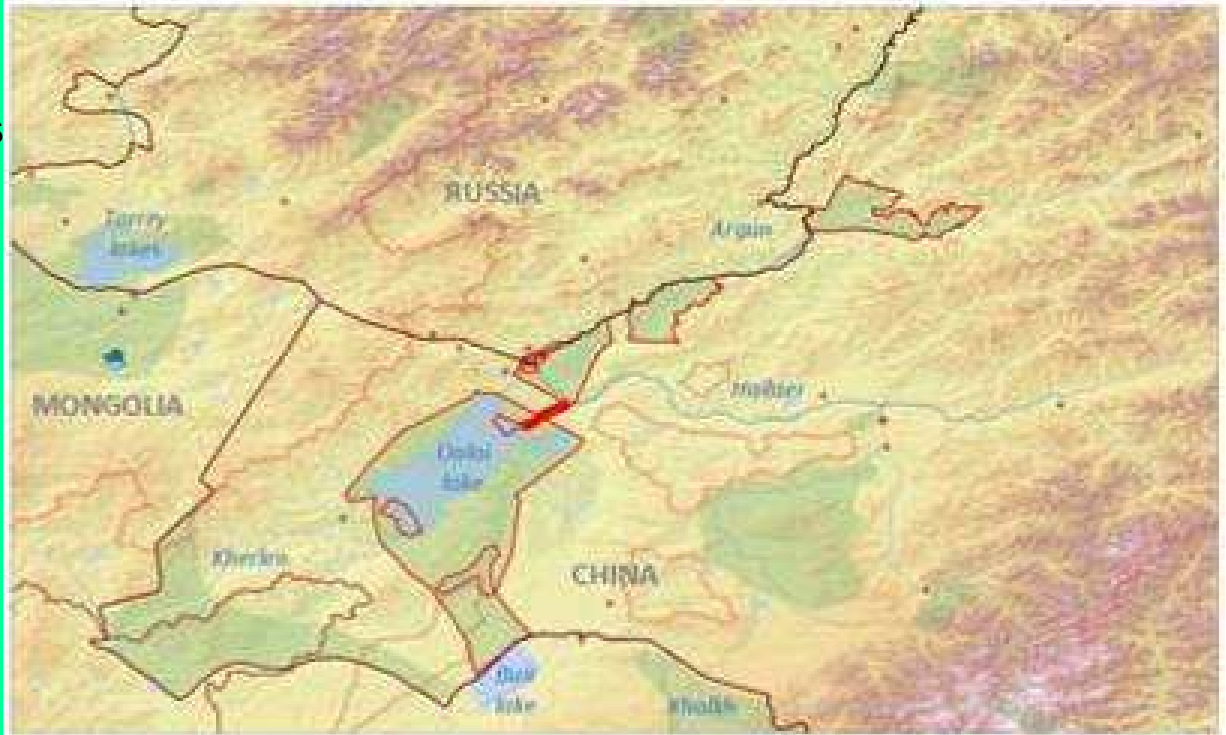
- Cyclicity of climate humidity is the general long-term driver of ecosystem life in vast territory of Dauria;***
- Biota (vegetation and animals) is adapted to climate cycles;***
- Dry stage of climate cycle is the critical period for surviving of many species in the region;***
- The key role in surviving of many species (incl. globally endangered) play refuges at rivers valleys and near big lakes***

Official **International inspection** of the Hailaer River – Dalai Lake Water Transfer Canal 13-15 July, 2011

Threats assess & prevent

Under leadership of vice-head of the Russian Federal Water Resources Agency of (Russia) V.A.Nikanorov (<http://voda.mnr.gov.ru>) first ever inspection to Hailaer_River - Dalai_Lake Water Transfer Canal was carried out on 13-15 July, 2011.

Protected areas in China that could be affected by the water diversion



This is the first case of such water-infrastructure related international inspection between Russia and China. The inspection has shown that the China water authority **is ready** to take measures to limit water-transfer volume but is **not ready** to tolerate international control and to monitoring ecological consequences of the water-transfer. The canal is large enough to redirect most of Hailaer River flow, therefore it remains the main concern when assessing potential impacts on transboundary Argun River and Dalai Lake Ramsar Wetland.

Analysis of policy of water withdrawal plans from Halhingol (Halahahe) river in China and Mongolia

Threats assess & prevent

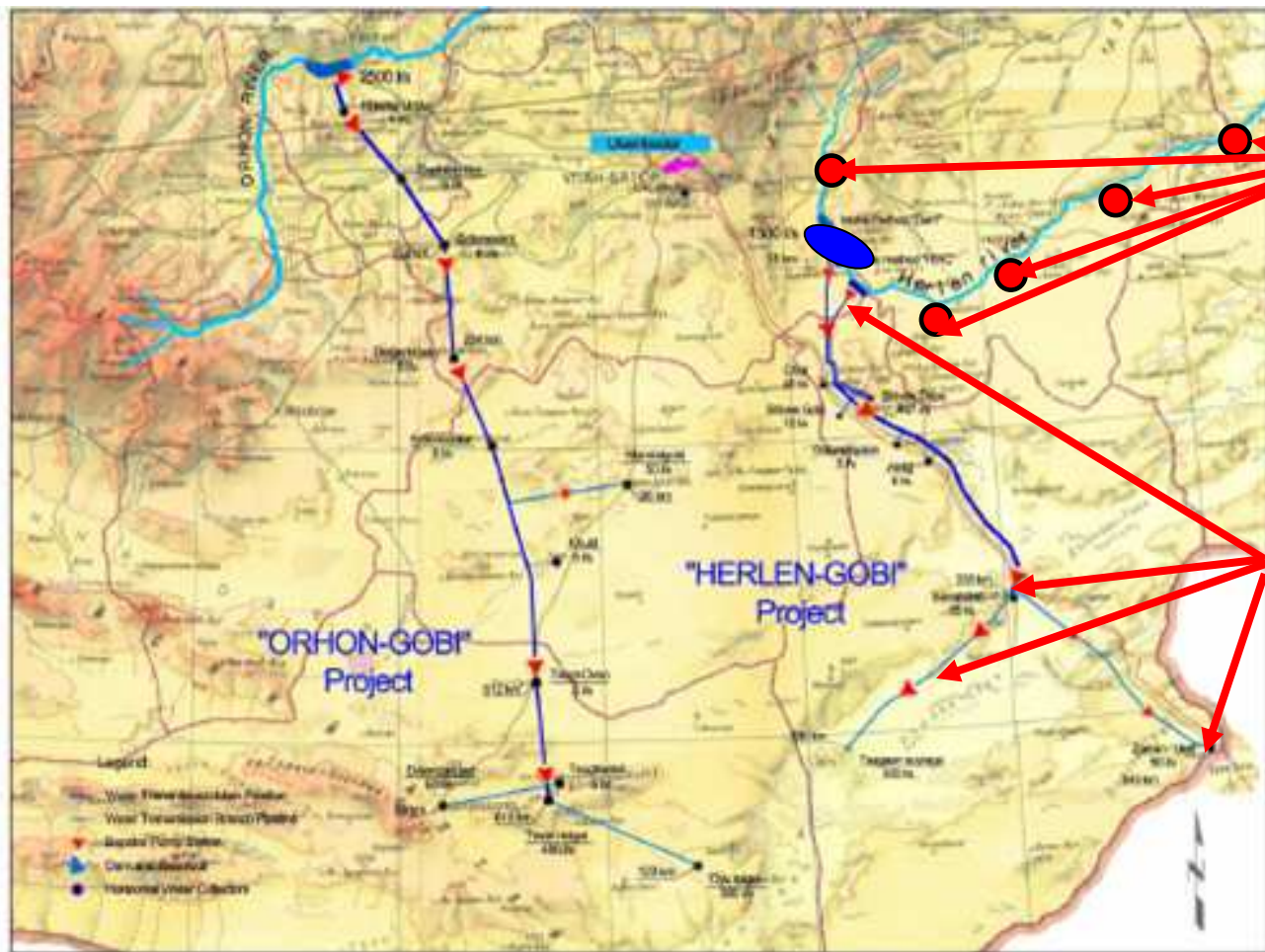
Name and place	Water intake, cub.km/year	Function	Conditions and stage
Water transfer to Xilingol mines	>0,1	Water supply for termal power plant and industries	Expert examination in 2010
Canal between transboundary Halaha river and Wuershun river	Unknown, similar to Hailaer-Dalai Canal	Increase water flow to Dalai Lake at the expense of transboundary Buir Lake	China side proposal in 2009-2010
Korean-Mongolian irrigation project in Halh soum	Unknown, but planned agricultural area exceeds 100 000 ha. Water withdrawal should be significant	Food production base (likely for exports)	Korean proposal, planning phase 2008-2011

Main concern – possible damage to the Ramsar site: transboundary Buir lake and Halkhingol River Delta. Cumulative impact assessment needed

Examination of Water management plans at Kherlen River basin (Mongolia)

“Prestige” Group & Mongolian National Water Programme Support Center (WATER CENTER) have developed complex of small and big projects of water transfer from Kherlen river

Threats assess & prevent



Small dams projects with water reservoir area 10 to 50 sq.km for irrigation

Kherlen-Gobi water transfer project with large water reservoir with area 40 to 60 sq.km and volume of 0.7 cubic kilometers for mining, irrigation, municipal use and exports

Kherlen-Gobi project

Main hazards:

- Effect on water flow and solid materials transportation;
- Difficulties for migration of aquatic biota;
- Change of valley natural complexes and biota (incl. actual and projected Nature Protected Areas)

Hazards management

Kherlen River
upstream of proposed dam
location "Togos-Ovoo"



Gun-Galut Nature Reserve



Habitat of rare birds: White Crane, White-naped Crane, Hooded Crane, Red Falcon, Black Vulture and Swan Goose, Whooper Swan, Black Stork, Great White Egret, Bar-Headed Goose...

(<http://www.argalipark.com/>)



Area of expedition

Probable alternatives:

- sustainable exploitation of local underground waters;
- pumping water from alluvial deposits without dam building

Preparations to environmental impact assessment have begun

Monitoring of mining influence on ecosystems in Onon and Uldz river basins

started in 2011



Uldz River (middle stream)



Gold mining at Uldz River

Uldz river small endorheic transboundary basin (approx 15 000 sq.km) hosts 2 Ramsar sites and Biosphere Reserves and is critically important for monitoring of climatic fluctuations. There are up to 40 mining licences and up to 70 mineral exploration licenses issued for this small area in Mongolia.

In cooperation with UMMRL and Onon-Ulz Movement the project started inventory environmental impacts of mining on river and lake ecosystems.

Public outreach

SAVE DAURIA RIVERS!

Rivers without Boundaries

Home Crisis in Dauria Documents Appeals Maps Photo Our Dauria Links About Us Русский Chinese

Crisis on Dauria Rivers **Deadly Impacts** Daurian Treasure

Water Infrastructure Monsterplan

A canal is being built to divert water from the Hailaer/Argun River to China's Dala Lake, which is in danger of drying up due to the... The diverted water will flow into the lake and will also supply the needs of Manzhouli City—a major border crossing hub—and be used for irrigation and agricultural needs. This canal is designed to divert 30%, or approximately 1 km³, of the river's already dwindling flow per year. The project also calls for the construction of several multi-purpose water reservoirs upstream from the canal on Hailaer River tributaries that could divert up to 1.4 km³ more water. The total water siphoned from the Hailaer/Argun River under this scenario would be a combined 70% of the river's annual flow, though the river's average flow at the Russia/China border is only 3.5 km³ per year! This would mean the end of crucial flood peaks throughout the Daurian steppe and utter devastation for the wildlife and human communities further downstream that depend on this water resource. [Read more on Monsterplan](#)



NEWS

The Fifth International Siberian Rivers Conference will take place in April 2010

OPINION

YABLOKO's leader speaks on Argun in Cairo
On December 7, 2009, YABLOKO's leader Sergei Mitrokhin opened international conference

DAURIA TREASURES



NEWSWIRE

The Fifth International Siberian Rivers Conference will take place in April 2010
Good science used to mislead policy probably, without intention
Khalikin-Gol—lessons for the future from conflict of the past
High cost of correcting mistakes of the past
YABLOKO's leader speaks on Argun in Cairo

SECTIONS

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OUR ARCHIVE

СПАСЁМ АРГУНЬ!

Экологический кризис на границе России и Китая

Главная Хроника Документ Обращения Фото Карты Ссылки О сайте English Chinese

Кризис Воды Краткое введение

Аргунь может исчезнуть!

В китайской провинции Гуйчжоу по плану создаст огромные водохранилища, которые будут переправлять воду в бассейн Аргунь. Результатом станет катастрофическое опустынивание участка Аргунь-Кийик. Планируется также увеличение вылова рыбы, увеличение потока загрязняющих веществ, ухудшение экологического состояния и нарушение условий жизни для местного населения. Подлежит Аргунь и озеро Далай — озеро победившего экологического кризиса — будет полностью утрачено. Любопытна мысль...



НОВОСТИ

Хищники на окраине территории экологического кризиса в бассейне Аргунь
Амурские Бородавочники воюют с увеличением численности волков в районе озера Далай. Волки не только являются хищниками, но и являются переносчиками опасных заболеваний.

Проект канала в бассейне Аргунь вызовет экологический кризис
В upstream-интервенционной операции в бассейне Аргунь свои экологические последствия имеет и канал. Местные общественные организации требуют отменить проект.

Министры озвучили заблуждения в области экологии
Министры финансов России обещали выпустить облигации для охраны окружающей среды.

МНЕНИЕ ЭКСПЕРТА
Олег Герасимов: "Идеология экологического кризиса является не только неэкологичной, но и неэкологично-экономической. Мы не можем получить выгоды от этой операции, потому что затраты на нее превысят до 300 миллионов", — заявил О. Герасимов на научно-практической конференции "Экология Сибири: Заблуждения". Строительство в Китае канала по переправке воды из трансграничной реки Аргунь в озеро Далай является...

ОБРАЩЕНИЕ
Конференция "Экология Сибири" состоится в Иркутске
Учредительская конференция "Экология Сибири" состоится 15-16 апреля 2010 года

АРХИВ НОВОСТЕЙ
Июль-август 2009
Сентябрь 2009
Октябрь 2009
Ноябрь 2009
Декабрь 2009
Январь 2010
Февраль 2010
Март 2010
Апрель 2010
Май 2010
Июнь 2010
Июль 2010
Август 2010
Сентябрь 2010
Октябрь 2010
Ноябрь 2010
Декабрь 2010

- Information website DAURIARIVERS.ORG proceeds successfully and provides interested audience with wide spectrum of information on situation at our transboundary watersheds.
- Chinese Project partners have employed a special staff for the Argun River Project.
- Weekly monitoring of information concerning to Argun and Amur basins and production of Chinese media digest issue was established by our Chinese partners.

ПОЛНАЯ ИНФОРМАЦИЯ:
WWW.ARGUNCRISIS.RU
MORE ON
WWW.DAURIARIVERS.ORG

Future planned activities:

- *Summarizing report on the 1st stage of the pilot project on the ecological problems of Dauria rivers basins (in English)*
- *Elaborating program of complex monitoring of ecosystems in the Uldz River basin and co-operation with UNDP project on climate adaptation starting in Mongolia.*
- *First analysis of the accumulated data from the created monitoring network .*
- *Issue of the newsletter devoted to regional ecosystem monitoring and climate adaptation*
- *Search for partners*
- *Fundraising*

Plans for continuation of the project beyond 2012

- **Continuing monitoring of ecosystems** as a basis for elaborating recommendations on adaptations of human activities to climate and landscape dynamics and as the means of controlling developing situation.
- Annual issue of the **newsletter on monitoring results** (in Russian)
- **Expanding of international participation** in the ecosystem monitoring in the transboundary basins.
- Working out **recommendations on climate adaptation** of human activities in Dauria transboundary basins.
- Continuing work on **establishment of Nature Protected area at the boundary segment of Argun river** as the key mechanism of harmonizing environmental situation in the basin
- **Fundraising**
- Developing trilateral **world heritage site “Dauria Steppes”**

Challenges and lessons learnt:

- *The most serious obstacles are **misunderstanding** and **lack of environmental thinking** among Chinese authorities.*
- *High risk of **uncoordinated activities** of Russian authorities and environmental organizations*
- *Failure of understanding between local communities on what limitations and advantages the establishment of Nature Protected Area provides with*
- ***Popularization of the project** is the best way to better understanding by local people and authorities*
- *The project **primary management** must be thought-out and detailed as well as possible*

Thank you for your attention!

