

---

# HAILAER-ARGUN RIVER WATER-DIVERSION PROJECT

---

2007 MARCH FOR RAMSAR SECRETARIAT

**We are writing to call your attention to the construction of a water diversion project underway in the critical Daurian wetland area, and to request your immediate action to, at the very least, delay this project until an adequate environmental impact assessment is conducted and the results discussed internationally. The proposed water diversion threatens the transboundary Argun River Midflow wetlands and the Dalai Lake ecosystem. The project may cause significant damage to biodiversity throughout the Daurian Steppe Global 200 Ecoregion. We must stress the need for urgent action, as work on this project is likely to begin in the spring of 2007, perhaps sooner, if strong intervention measures are not taken.**

## **Water transfer project proposal:**

The proposal is to divert water from the Hailaer River to Dalai Lake (see the attached map of Dauria Global 200 ecoregion). Ordinarily, the water of the Hailaer River flows from east to west before turning north-east about 20 km north of Dalai Lake. At this point, the Hailaer River becomes the Eerguna (Chinese name) or Argun (Russian name) River and forms the Chinese-Russian border in this area for 900 kilometers. The proposed canal would divert an annual volume of approximately 1 cubic km of water to Dalai Lake per year. Actual flow capacity of the canal is 70-90 cubic meters per second, while average flow of Argun-Hailaer River at the construction point is 117 meters per second, therefore the canal potentially might divert a much greater volume than stated.

Over the last five to six years, Dalai Lake has held a reduced volume of water due largely to low rainfall, which resulted in lowering water level, lake area and overall volume. The reasoning given for the diversion of water to the lake is to protect this environment from the assumed negative impacts of these low rainfall years. In particular it is expected to arrest further salinization, reduce eutrophication, prevent dessication of adjacent grasslands, etc. The proponents also expect that higher water levels will help replenish diminishing fish stocks in Dalai Lake, provide water for 40 000 livestock and 2000 hectares of irrigated hayfields. An associated project will use Dalai Lake water to supply the municipal needs of Manzhouli City – the major crossing at the Russian-China border. We believe that there are also other projected uses of water not quoted in press, for example by other settlements, or this project may be attractive to mining interests who use the water of Dalai Lake in their operations .

## **Potential Impacts:**

The most obvious potential impacts are on the downstream habitat of the Hailaer-Eerguna River system. The Eerguna (Argun) River is a relatively fragile branch of the Amur-Heilong River catchment with a total annual flow of between 1.5 cubic km in low rainfall years and 6 cubic km in high rainfall years (only in 2004 flow was about 3.0 cubic km). Similar to Dalai Lake it has had reduced annual inflow of 1.5-1.7 cubic kilometers since 2001. The river does not have any significant tributaries for at least 200 kilometers from the point it comes to the border to the mouth of Gen River at Heishantou-Priargunsk border crossing. It does not take great imagination to see that the removal of 1 cubic km of water from this system per year is likely to have significant downstream impacts.

Surveys of the waterways, floodplains, marshes and oxbows of the Eerguna valley have found the area is a globally important stop-over site of many migratory waterbird species and is part of the Daurian bottle-neck site of the continental branch of the global East Asian-Australasian Flyway. About 1-2 million birds gather there every spring and autumn. It is also an important area for rare bird species, supporting 19 IUCN Red List bird species. Internationally significant populations of Swan Goose, Red-crowned Crane, Great Bustard, Red-necked Stint, Broad-billed Sandpiper, Bean Goose, Tundra Swan, Gadwall and Northern Pintail have been recorded in the area. Most work done in the Eerguna Midflow has been led by Dr. Oleg Goroshko on the Russian side of the border. According to him, the whole Eerguna-midflow wetland cluster meets Ramsar criteria: 1a,1c,2a,2c,3a,3c (Goroshko 2006) and criteria for international IBA: a4(i), a4(ii), a4(iii), a4(iv). It is listed as IBA#57 in the latest IBAs of Asia list, in the Russian section.

We believe that the proposed action is extremely likely to decrease the quality of the wetlands along the Eerguna River to the point that they no longer provide viable habitat for large populations of waterbirds and numerous other species that rely on wetland habitat. As you understand, diversion in low-flow period will result in drastically reduced flow downstream, leading to lowering of water tables, reduced water retention and dessication of floodplain wetlands, disappearance of many shallow water habitats, drastic change in sedimentation and channel formation patterns. Proposed diversion of up to 30% of annual average flow may also leave the downstream stretch without sufficient flow during the high rainfall period in summer, the river will not break its banks to inundate the floodplains and marshes and the bulk of the wetlands will simply dry out.

The management of Dalai Lake National Nature Reserve has raised the issue of downstream impacts on the small Erka Wetland Nature Reserve immediately downstream from the project with the appropriate Hulunbeier Prefecture authorities and Environmental Protection Agency and has been told that impacts are not very significant and they will deal with this problem by monitoring impacts once the canal has been built. Clearly, this is an unsatisfactory response. Other available documents contain clear reference that the impact on adjacent Erka wetland should be offset by artificial inundation with water from the same

canal. This is definitely not an option for all other wetlands of Argun (Eerguna) Midflow further downstream.

The other possible set of impacts relates to potential impacts from altering the natural high volume-low volume cycle of Dalai Lake. It has been shown that the Dauria area experiences 30-year climatic cycles of high rainfall-low rainfall years. At the moment, we are in a low rainfall period that is not expected to end until 2010 at which time the water levels of Dalai Lake will rise again. The point is that, while the proponents of the project are advocating the environmental merits of the project for the lake, the truth is that we do not know how this artificial stabilization of lake water levels and loss of the wet-dry cycle will affect the ecology of Dalai Lake. However, we do know that this lake is not dissimilar with all other brackish lakes of Dauria, which periodically dry out naturally. The regional biota is adapted to such a natural cycle. This was studied on similar large Torey lakes in Daurian Biosphere Reserve, Russia, and on smaller lakes of the steppes, and at least for fish there is an evidence of higher productivity of such "pulsating" water bodies, if compared with spring-fed lakes with stable water level in the same region. A precautionary approach should be taken, particularly given the acknowledged importance of Dalai Lake as a National Nature Reserve, component Reserve of the Dauria International Protected Area, Ramsar site, UNESCO Man and Biosphere Reserve, International IBA and Important Shorebird Site of Wetland International's Shorebird Site Network, North East Asian Crane Network Site.

Another grave concern is that the Hailaer waters are highly polluted by all major settlements and industries of Hulunbeier prefecture to a point that has necessitated the formation of a special international Russian-Chinese commission in 2003. Favorable influence of such water on the Dalai Lake ecosystem, fisheries, etc. is highly unlikely, and quick deterioration of hydrobiological system due to massive influx of new pollutants and pathogens is very probable.

The other point to make here is that the wetlands of the Dauria eco-region are, as far as the birds and other migratory fauna are concerned, all part of an interconnected system. If the habitat provided by Dalai Lake is non-optimal for fauna during low rainfall periods, the birds and mammals will find an alternative suitable site within the impressive wetland complex of Dauria (encompassing China's Eastern Inner Mongolia, Russian Chita Province, and Eastern Mongolia), that has experienced greater rainfall or that provides more stable habitat during low rainfall periods. Later, when rainfall and lake water levels have increased, the fauna will return to Dalai Lake. Interference with the flow of water will alter this flow and movement of fauna and affect the ecology of Dauria, which is a Global 200 ecoregion, in unknown ways. Therefore, the complex ecological interplay between the various wetland areas within the Dauria ecoregion, which currently supports the impressive populations of wetland species seen in the area, contradicts any argument suggesting that the proposed water diversion will provide a required conservation outcome.

### **Other important points:**

- Assessment and approvals:
  1. The project has already received approval from the Hulunbeier Prefecture Government.
  2. Environmental Impact Assessment (EIA) was undertaken in 2005- 2006, but so far its result has not been formally discussed and disclosed to China's domestic conservation experts, let alone international commissions on Eerguna River and the trilateral Dauria International Protected Area. However some reports in the press and internet make us believe that a heavily biased EIA report was used in their preparation.
  3. The National Government has not yet given its final approval but has shown signs that it is leaning towards supporting the proposal. As of January 1 2007, the project most likely only awaits approval of the State Planning and Reform Commission (Jiwei) and might require clearance of the State Council due to Dalai lake's National Nature reserve status.
  
- Downstream impacts on Protected Areas:
  1. The Eerguna Wetland Provincial Nature Reserve, on the confluence of the Gen and Eerguna Rivers will be profoundly impacted by the proposed water diversion.
  2. Diversion will have even greater impact on Erka municipal nature reserve and Huliyetu district-level wetland nature reserve, lying in Erguna Midflow between the project site and Gen River mouth.
  
- Water Quality and Equality of Access to Resources: The project will reduce water available for human use, fisheries and pollution dilution further downstream, which will negatively affect the well-being of the already economically depressed districts of Xinbaerhu, Chenbaerhu and Erguna in China and Krasnokamensk and Priargunsk in Russia. Eerguna River is the only sizable source of water all the way to the Gen River mouth, and presently without any project there are already issues of water resources deterioration affecting local people.
  
- The proposed project will be damaging to China-Russia relations and bi-lateral co-operation on conservation matters, particularly since:
  1. There is an existing agreement between Inner Mongolia and Russia to protect the waters, biodiversity and landscapes of Eerguna River, and

2. Russia is in the final planning stages for the development of a Nature Reserve along the Argun River between Abagaitui and Heishantou.
- The proposed project also has negative implications for wider regional nature-conservation and resource-use processes:
    1. So far, research staff of the trilateral Mongolian-Chinese-Russian Dauria International Protected Area (DIPA) has no official information on the project, and this important trilateral mechanism of monitoring and protecting biodiversity in the Daurian Global 200 ecoregion has not been used to analyze possible consequences and ways to avoid them. If the project is implemented it will decrease the chances of DIPA reserve network expansion into the Erguna Midflow, which had been discussed as a very likely development.
    2. Plans to form a trilateral international biosphere reserve also are likely to be reevaluated if such a project is implemented, as are plans for the first tri-lateral World Heritage Site nomination in the Dauria region. The same issues relate to the projected establishment of a bilateral Ramsar site (and trilateral Ramsar complex), since the Erguna(Argun) Midflow definitely meets Ramsar criteria and three adjacent areas in DIPA are already Ramsar sites.
    3. The project presents a classic example of introducing inappropriate engineering solutions to deal with natural water scarcity, instead of adopting sustainable land-use strategy adapted to regional ecological conditions. If implemented it will trigger similar efforts to divert Kherlen and other rivers in Mongolia and will fully preclude the three countries from establishing a coordinated, equitable and ecologically-sound water use regime in the Amur River headwaters.
    4. Since important migratory routes are affected, negative consequences for various species populations are possible in many remote areas (even in Australia).

Domestic and international environmental organizations and experts should address State Environmental Protection Agency of China (SEPA) with request to disclose results of EIA and postpone implementation of water transfer project until comprehensive evaluation of its ecological impacts on:

- Argun/Eerguna River aquatic ecosystem;
- Argun/Eerguna River midflow wetland hydrology and ecology;
- Populations of globally endangered species and important migratory bird habitat in Daurian ecoregion;
- Dalai lake freshwater biology and role of long-term draught cycles in sustaining its ecosystem

- Impact of polluted Hailaer River waters on downstream ecosystems, including Argun/Eerguna River midflow and Dalai lake.

**Information about the project in the Internet (texts are in Chinese):**

<http://www.weforum.com.cn/model/works/w053.htm>

[http://www.sepa.gov.cn/info/gw/huanhan/200604/t20060421\\_78179.htm](http://www.sepa.gov.cn/info/gw/huanhan/200604/t20060421_78179.htm)

[http://www.nmgnews.com.cn/hm/article/20050419/50522\\_1.html](http://www.nmgnews.com.cn/hm/article/20050419/50522_1.html)

[http://corp.dnc.cn/com/sohozyh/ns\\_detail.php?id=6551&nowmenuid=9165&cpath=&catid=0](http://corp.dnc.cn/com/sohozyh/ns_detail.php?id=6551&nowmenuid=9165&cpath=&catid=0)

<http://www.mzlnews.com.cn>

**For additional information please contact**

Daniel Hanisch  
Wetland Conservation Officer/Australian Youth Ambassador for Development  
Eerguna Forestry Bureau/AusAid  
Eerguna City, Inner Mongolia  
CHINA  
[danielrhanisch@hotmail.com](mailto:danielrhanisch@hotmail.com)

Oleg Goroshko  
Vice-director for Science of Daursky Biosphere Reserve, Russia.  
Member of working group of Dauria international protected area (DIPA)  
[oleggoroshko@mail.ru](mailto:oleggoroshko@mail.ru)

Eugene Simonov  
Haerbin North-East Forestry University. Ph.D.candidate.  
Amur-Heilong Programme consultant. WWF  
Tel 86-13936260032  
[esimonovster@gmail.com](mailto:esimonovster@gmail.com)