INTERNATIONAL CONFERENCE ON "EUROPE-ASIA TRANSBOUNDARY WATER COOPERATION

Mining in Mongolia and possible transboundary impacts of water transfers from Orkhon and Herlen Rivers

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CMENGO/OT Watch

OT Water Issues

Oyu Tolgoi	–	copper/gold/silver mega-mine
Status	-	construction phase
Production		-officially to commence in 2012-2013
Project Life	-	30-60 years
Location	–	Gobi Desert, Mongolia
Issue	–	Sustainability of water resources for life of the project
Key source	-	870 l/sec from Gunii Hooloi - enough for 100,000 tpd production only
Pure water	-	no water processing, bottle water for cooking for 13,000 workforce

WHERE WILL THE WATER COME FROM?

Oyu Tolgoi – largest copper/gold deposit mined

Tavan Tolgoi – largest coking coal mine

TSAGAAN SUVRAGA – large copper deposit

COMMON FEATURE – Lack of water resources

COMMON FEATURE- Investment interest by EBRD/IFC &private banks

SOLUTION - ORKHON-GOBI & HERLEN-GOBI water supply projects

TRANSBOUNDARY RIVER BASINS

ORHON-GOBI PROJECT

Orhon-Gobi project: 70 m high 300 m long concrete dam

800 000 000m³ capacity water reservoir

919 km long water pipeline

Purpose: Tavan Tolgoi mines

Oyu Tolgoi mine

8 Rural settlements

Briefing on the project concludes:

"*Positive impact on Orhon, Selenge River basins and the Lake Baikal, protected under the World Heritage programme….*".

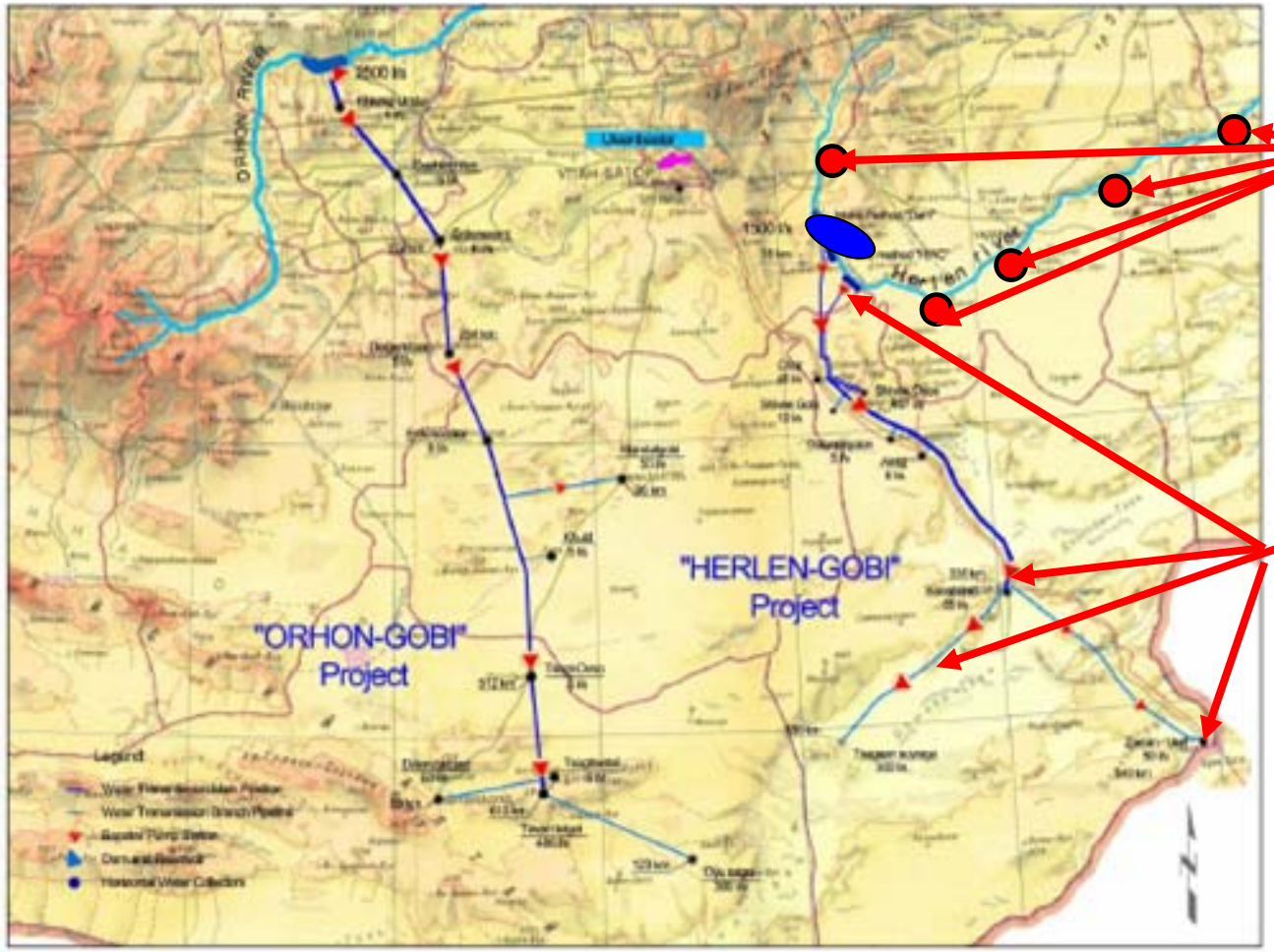
TEFS, EIA, SIA documents not available to confirm above conclusion

HERLEN-GOBI PROJECT

Water User	Volume	Comments	Mine Project Financing
Tavan Tolgoi	486.2	Coal mine & thermal	EBRD
Oyu Tolgoi	360.0	Gold & copper mine	EBRD/IFC
Tsagaan	302.4	Gold & copper mine	EBRD
Shivee Ovoo	285.4	Coal-fired thermal PP at coal mine	
Other users	555	Choir, Sainshand settlements, agriculture,	
TOTAL	1989.0		

HERLEN-GOBI WATER TRANSFER PROJECT (2011)

“Prestige” Group & Mongolian National Water Programme Support Center (WATER CENTER) have developed a range of projects for water reservoirs and water transfers from the Herlen River



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, processing, irrigation, municipal use and exports

HERLEN-GOBI WATER TRANSFER PROJECT: Alternative water supply methods not publicized by "Mongolian Water Center"

Use of local aquifers and water-efficient technologies. Proper groundwater management advocated by the WB

Groundwater intake facilities (16 catchment wells) along Herlen River **Recommended by CTII -Japanese consultancy**

Groundwater intake facilities **+ Water impounment for floodwaters in floodplain not affecting main river channel**

Strategic Environmental Assessment of Alternative water supply methods is absolutely necessary!!!

HERLEN-GOBI: ENVIRONMENTAL AND SOCIAL IMPACTS

1. “BECAUSE THERE IS NO RELIABLE DATA AVAILABLE IMPLEMENT IN A STEP-BY-STEP WAY TO ALLOW MONITORING OF IMPACT IN DOWN-STREAM AREAS”. ***NOTE THAT NO BASELINE ASSESSMENT IS PROPOSED*. THEREFORE ENVIRONMENTAL FLOW REQUIREMENTS (AND LIMITS OF ALLOWABLE WITHDRAWAL –NOT DEFINED)**

2. “PIPELINES, IMPOUNDMENT FACILITIES AND WATER TANKS ARE BURIED BELOW TO AVOID FREEZING WILL BE BURIED AT 2-3 m TO AVOID FREEZING, NO ENVIRONMENTAL AND SOCIAL IMPACT IS EXPECTED.. “*NOTE THAT ENVIORNMENTAL AND SOCIAL IMPACT OF CONSTRUCTION IS NOT MENTIONED.*

DAM WILL BLOCK MIGRATION OF FISH AND OTHER AQUATIC BIOTA IN THE LONGEST RIVER OF MONGOLIA

4. THE PROPOSED LOCATION OF THE DAM IS SELECTED IN THE MOST VULNERABLE AREA FOR THE RIVER AND BIODIVERSITY, WHICH IS NOT MENTIONED AS A POSSIBLE ENVIRONMENTAL AND IMPACT.

5. RESERVOIR WILL ADVERSELY AFFECT FLOW DYNAMICS (FLOODING, ETC) AND DISRUPT SEDIMENT FLOW DOWSTREAM OF THE DAM

HERLEN-GOBI: ENVIRONMENTAL AND SOCIAL IMPACT

6. Used water should be treated appropriately by industrial end-users such as mining companies and relevant industries based on their operational requirements. Accordingly these issues are not affected to the Project.

No mention of water treatment facilities for human settlements and

- *other users is mentioned.*

7. Although land acquisition and property compensation will be necessary, no serious issue is expected because the
Project is planned to pass open space where pasture land exist partially.

COMPARE: 75 km long Gunii Hooloi water pipeline already affected lives of hundreds of households in the most sparsely populated Gobi region.

The proposed Herlen-Gobi pipeline is 740 km running through more densely populated pasture and agricultural land. Same stands for Orhon-Gobi pipeline.

TRANSBOUNDARY IMPACTS

HERLEN RIVER EMPTIES INTO DALAI LAKE RAMSAR SITE IN CHINA

Studies on Herlen-Gobi project admit ONLY necessity to comply with Clause 21.4 of Law on Water (2004) and Agreement between Mongolia and China on protection and utilization of international waters, e.g. obtain concurrence of China.

No mention of environmental impact on important and internationally protected river basin and cultural heritage zones

No mention of social and economic impact on down-stream Communities

No mention of the need to assess cumulative impact of the two projects

CONCLUSIONS & RECOMMENDATIONS

CONCLUSION: EXISTING STUDIES DO NOT FACTOR IN DAMAGES TO AND COST OF SOCIAL AND ENVIRONMENTAL IMPACT. DAM-CENTERED OPTION FAVORED BY OUR "WATER CENTER" IS LIKELY TO BEAR GREATEST IRREVERSIBLE IMPACTS

RECOMMENDATION: TO ENSURE THAT ALL RIGHTS AND INTERESTS ARE BALANCED:

•ESTABLISH ECOSYSTEM MONITORING NETWORK AND DEVELOP ENVIRONMENTAL FLOW NORMS FOR TRANSBOUNDARY KHERLEN RIVER

• CARRY OUT Strategic Environmental Assessment considering all alternatives

●REQUIRE TRANSBOUNDARY EIA AND SIA PROCESS INVOLVING ALL STAKEHOLDERS FROM IMPACT AREAS (INCLUDING THOSE IN CHINA)

●INCLUDE CIVIL SOCIETY AND NGO COMMUNITY IN THE EIA/SIA TEAMS

● ADOPT STANDARDS AND GUIDELINES FOR SUCH MULTILATERAL IMPACT ASSESSMENT PROCESS

THANK YOU FOR YOUR ATTENTION