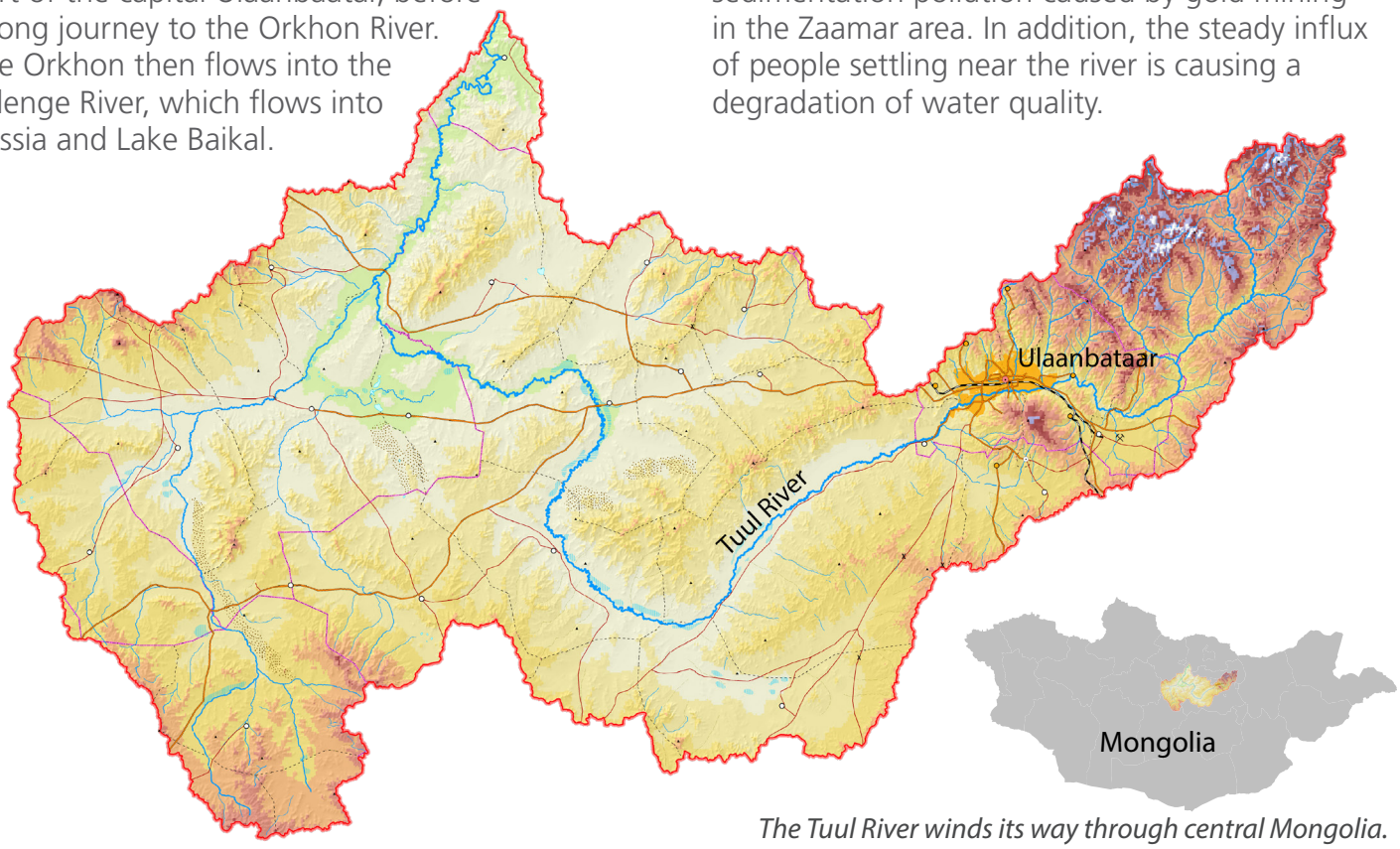
Tuul River Basin Report Card Stakeholder Workshop Summary

This newsletter summarizes outputs from an initial stakeholder workshop to develop a Tuul River basin report card led by the Tuul River Basin Authority. The workshop objectives were to: i) introduce the project and agree on expected outcomes; ii) begin the process of developing a report card; and iii) define the geographic scope of the report card, indicators, thresholds, data sources, and communication plan.

The Tuul River, in northern and central Mongolia, is 704 km long and drains an area 49,840 square km. The river originates in the Khan-Khentein-Nuruu Nature Reserve in the Khentii Mountains, flows through the southern part of the capital Ulaanbaatar, before a long journey to the Orkhon River. The Orkhon then flows into the Selenge River, which flows into Russia and Lake Baikal.

Report cards are assessment and communication products that compare ecological, social, and/or economic information against predefined goals or objectives. Similar to school report cards,river basin report cards provide performance-driven numeric grades or letters that reflect the status of a river basin on a regular basis. They effectively integrate and synthesize large, and often complex, information into simple scores that can be communicated to decision makers and the general public.

Currently the Tuul River is suffering from pollution, some caused by Ulaanbaatar's central sewage treatment facility, as well as heavy mineral and sedimentation pollution caused by gold mining in the Zaamar area. In addition, the steady influx of people settling near the river is causing a degradation of water quality.



The Tuul River winds its way through central Mongolia.

Developing the Tuul River Basin Report Card

Following three months of training, stakeholder mapping, and general preparations, the first Tuul River Basin Report Card Workshop took place 17-19 October 2017 in Ulaanbaatar, Mongolia. Dr. Purevdorj Surenkhorloo (WWF) and Dr. Dolgorsuren Garmaa (former Director of the Tuul River Basin Authority) were the two central facilitators, each taking a leading role in successfully bringing together a diverse group of more than 70 stakeholders and helping them to conceptualize the Tuul River Basin.

Day 1 began with introductions from Mr. Batbold D (Director of WWF-Mongolia), Mr. Myagmar Sh (Director for the Department of Land Management and Integrated Water Policy Coordination) and an excellent overview of the Tuul River Basin from Mrs.Tsogzolmaa Kh (Tuul River Basin Authority). Dr. Purevdorj and Dr. Dolgorsuren steered the group through several activities to identify what the group valued about the Tuul River basin, and what the group believed was threatening these values.

Day 2 was dominated by a range of exercises to select report card indicators that could measure the values and threats identified on Day 1. Indicators were grouped into six categories as shown on the following page.

Day 3 involved a presentation from Mrs. Selenge G, (WWF-Mongolia) on the proposed communication strategy, discussions on roles, responsibilities, and activities through to completion of the report card planned for March 2019. The workshop ended with a tour of the Tuul River Basin Authority and a field trip to the Tuul River highlighting some of its varied values and threats.

Clockwise from top left: Dr. Purevdorj speaking, presentation of breakout group results, Dr. Dolgorsuren speaking, tour of the Tuul River Basin Authority, stakeholder group activity selecting report card indicators (Photo credit: Simon Costanzo).

Proposed Indicators of Tuul River Basin Health

Report cards evaluate the health of river basins based on a set of science-based indicators and thresholds. River basin health has been generally defined to encompass the chemical, physical, and biological integrity of riverine systems. We broaden this definition to include the social and economic values that healthy river basins deliver to society as well as the health of the management and governance systems that provide an enabling environment for the maintenance or restoration of river health. A list of potential science-based indicators for the Tuul River was brainstormed during the October workshop.

List of proposed indicators identified during the workshop that will be investigated for suitability for inclusion in the report card.

Groundwater

- Number of dry springs
- Groundwater level
- Water utilization
- Total number of bacteria
- Nitrogen
- Heavy metals

Surface Water

- River flow
- % of surface water bodies that have dried up
- Water Quality Index
- Heavy metals

- Water use efficiency by sector
- Water-related economic contribution by sector to GDP

- Deaths/10,000 people
- % of population with access to sanitation
- % of population with access to drinking water/drinking water security

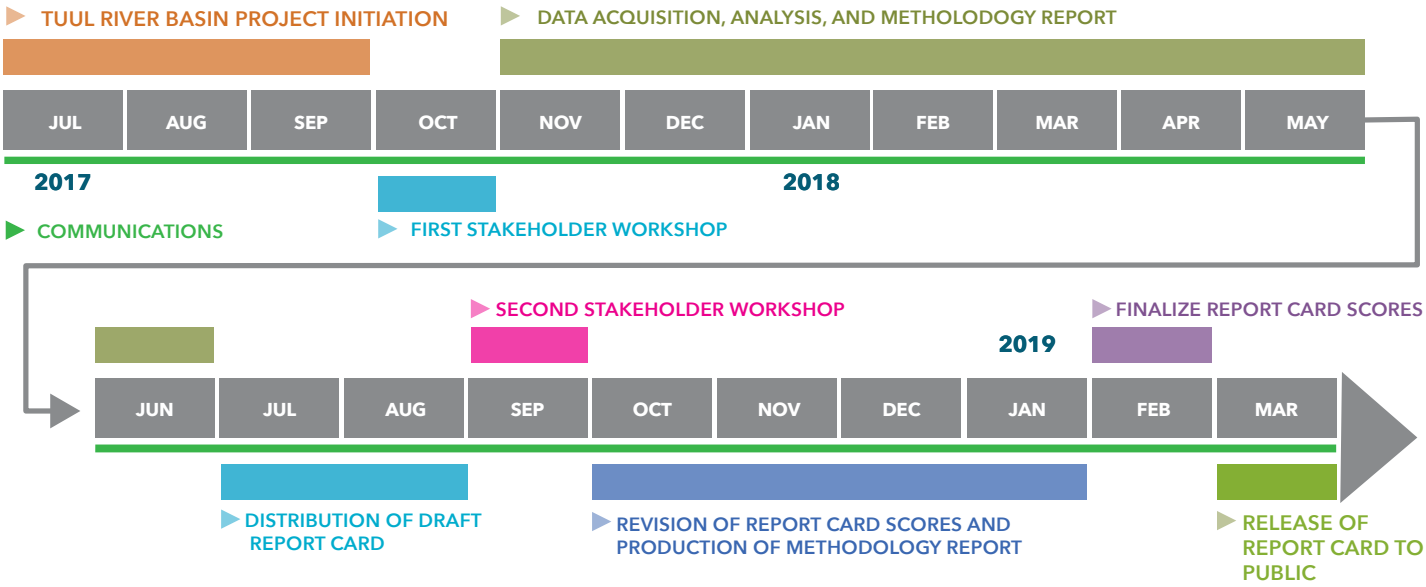
- % of people with traditional knowledge
- Number of archaeological sites preserved

- % of water fee allocated to water resource restoration
- % of activities completed in IWRM plan
- Number of Tuul RBC meetings/year
- Number of people/square kilometer
- Efficiency of wastewater treatment plant/process to remove pollutants
- Social service availability index (schools, hospitals, kindergartens/population)

- Frequency of disaster events (including flood, zud, earthquake events)
- Number of land licenses in 200 m River Protection Zone
- % of property under natural vegetation
- Number of livestock/ha
- Climate change indicator (temperature)
- % of land degraded by overgrazing
- Fish Richness
- Vegetation NDVI
- EPT Index
- % of mining lands restored

Next Steps and Project Timeline

It is estimated that development and production of the report card will take 18 months with a release planned for March 2019. Following the initial stakeholder workshop in October 2017, the next eight months entails collection and analysis of data for the identified indicators, and preparation of a draft report card for stakeholder review and discussion at a second workshop in September 2018. The report card grades, methodology, findings, and recommendations will be updated based on stakeholder feedback and distributed for final review and agreement, prior to release to the public on World Water Day on 22 March 2019.



Workshop participants

Participants from various government, private and non-governmental organizations converged on Ulaanbaatar for the three day report card workshop in mid-October 2017. Participants were identified by the Tuul River Basin Authority and WWF-Mongolia to represent key stakeholder groups that have interests in the Tuul River Basin, and help shape the report card development.

МОНГОЛ УЛСЫН ЗАСГИЙН ГАЗАР

WWF

University of Maryland
Center for Environmental Science
Integration and Application Network

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