

# Executive Summary: Targeted Analysis on Water Resources Management Issues in Mongolia

In 2014, the 2030 Water Resources Group undertook a targeted analysis of Mongolia's water challenges as well as opportunities to subsequently raise awareness, mobilize, and engage "new actors" from the private sector and civil society for sustainable water activities. The project objective was to provide the basis for supporting the Government of Mongolia in initiating and catalyzing reforms designed to ensure sustainable water resources management, and thus enable long-term economic development. Find the full report at [www.2030wrg.org](http://www.2030wrg.org).

Besides building a knowledge base on the key challenges, underlying issues and opportunities Mongolia currently faces with respect to its water management, the emphasis was on involving and incorporating opinions from key stakeholders through face-to-face interviews and focus group discussions. More than 50 stakeholders were consulted from the private and the public sectors, as well as from civil society.

## Assessing the Scale and Urgency of Mongolia's Water Resources Challenge

On a national scale, Mongolia does not have sufficient water by volume and quality to support its population and its economic development. On a local scale, however, serious water challenges which can threaten the country's economic and social development can be found in the urban and economic hub of Ulaanbaatar and in the mining hub of the Southern Gobi region.

Alarming, modelling Ulaanbaatar's future water demand shows that in all scenarios, the water demand will exceed the current water supply capacity before the year 2021. In the high water demand scenario, Ulaanbaatar's demand will even exceed the maximum available resources within seven years (Figure 1). Existing water resources are vulnerable to pollution. The water supply and wastewater infrastructure is in need of a major overhaul in order to meet the current demand and protect the environment. The wastewater treatment plants, in particular, are operating beyond the design capacity in terms of quantity and quality of effluents.

With the mining industry rapidly developing as the backbone of the Mongolian economy, large new mines are being explored or have recently become operational in the Southern Gobi region. Water demand projections show that expected water demand could exceed available resources in the high water demand scenario before 2030. However, in all scenarios high water risks can be expected at the local level, including quantity and quality, as increased water demand from mining and industrial activities puts a strain on locally limited water resources. Future effects of extensive groundwater extractions are yet to be understood. Competing, future water demands hold strong potential for conflicts between mining companies, herders and local communities dependent on groundwater resources.

## Identifying the Challenges which Hinder Sustainable Water Management

To understand the underlying causes hindering sustainable water management and to identify options to address them, this report analyzes the key challenges and interests of key stakeholders in relation to water resources. These stakeholders were grouped into four categories: 1) public sector, 2) non-governmental organizations (NGOs)/international organizations/international donor agencies, 3) private sector (focus mining), and 4) private sector (focus industry in Ulaanbaatar).

Stakeholder consultations led to the identification of the key challenges including: lack of coordination, weak or unenforced regulations, stakeholder engagement, and infrastructure deficits, as well as other technical and financial challenges. It became apparent that all stakeholder groups face problems due to unclear institutional responsibilities and a lack of coordination between institutional bodies (intra-governmental as well as cross-sectoral), weakly enforced laws and regulations and a lack of capacity in the water-related areas. In addition, integrated planning and sound decision making are undermined by the lack of (publicly) available data and sound knowledge on water resources management.

In a nutshell, the private sector in Ulaanbaatar mainly faces challenges caused by the lack of implementation and enforcement of laws and regulations, and the resultant uncertainties thereof, rather than from concrete challenges related to water resources (quantity or quality). On the other hand, the private sector in the Southern Gobi region (mining) faces challenges predominantly related to the potential lack of water resources and competing demands, while regulatory challenges pose additional hindrances.

## Role of the Private Sector: Sustainable Water Management as a Business Case

Given Mongolia's water challenges, companies will potentially face significant risks which can affect their business at the core. Turning sustainable water management into an integral part of their core business strategy will not only lead to mitigating risks, but will also have the potential to maximize the company's profit.

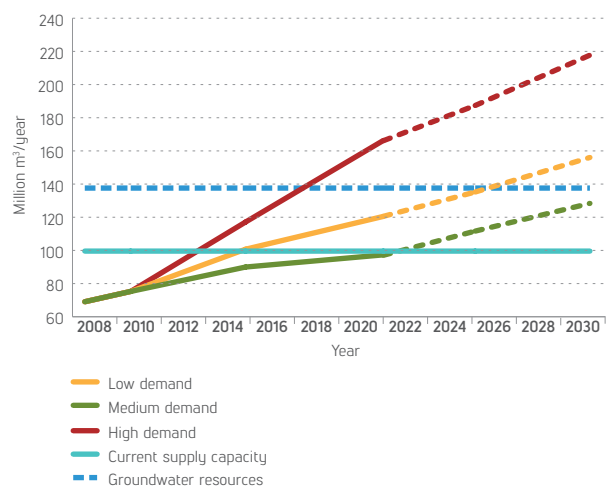
Future risks and opportunities are categorized into physical water risks, regulatory water risks and reputational water risks. With a widening water supply demand gap and increased regulation as a response to the gap, these risks are likely to increase exponentially and cumulate in future. Reputational risks increase along with an increasing water supply demand gap and increased regulation, calling for action now.

Activities furthering sustainable water resource management have been identified as business cases, i.e., leading to profitable returns, during the stakeholder consultations. However, while the potential for additional profitable activities is vast, constraints were identified which hindered their implementation. The disabling factors can be summarized by a lack of (financial) incentives, absence of legal frameworks, lack of specific standards and regulations, an uncertain political planning horizon, low degree of public awareness around (future) water challenges and insufficient stakeholder cooperation. Addressing these disabling factors can serve as quick wins towards sustainable water management by mobilizing the support of the private sector.

## Recommendations for the Way Forward

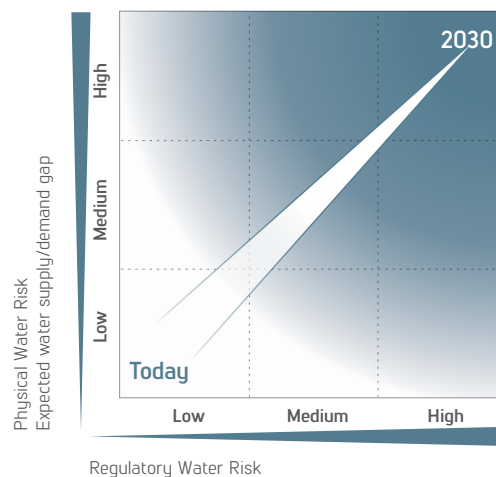
To work towards addressing Mongolia's water challenges, it is key to address the underlying causes, rather than just the symptoms. Recommendations on the key focus areas and future work streams are presented in this report. These include improving the data basis and scientific understanding of water resources in Mongolia, undertaking a hydro-economic analysis to identify a range of cost-effective, practical solutions and priorities, leveraging the potential of water economics in order to design incentives for sustainable water resource management, working towards organizational and institutional clarity of responsibilities and strengthening capacities at all levels of the government and, finally, to support setting up a multi-stakeholder platform with priority work streams for inclusive decision making and efficient knowledge transfers. Addressing these focus areas will provide a solid basis for and enable sustainable water resources management, with which Mongolia can achieve its social and economic growth aspirations.

Figure 1: Water Supply and Demand Gap in Ulaanbaatar



Source: Tuul Water Basin Integrated Water Management Plan, New Ulaanbaatar City Master Plan, PwC/Deltares calculations

Figure 2: Increasing Physical and Regulatory Water Risks Require Action Before 2030



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