Achieving Sustainable Integrated Water Resources Management in Mongolia: The Role of River Basin Organizations

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MONGOLIA AND ITS WATER RESOURCES SYSTEM

Mongolia is the 19th largest country and the second-largest landlocked country in the world.2 With a land area of 1.56 million square kilometers and a population of 3.2 million in 2018,3 Mongolia has a population density of around two persons per square kilometer, making it the most sparsely populated fully sovereign country in the world. The country comprises 21 administrative divisions called aimags (provinces), and each aimag is composed of smaller units known as soums (districts).

Up until 1990, the centrally led government attended to water management in Mongolia based on 5-year state planning. As a result of the democratic revolution in the early 1990s, this centrally led approach was largely abandoned under the assumption that markets could take care of the water management tasks. However, this did not happen, and many water systems collapsed or are in poor condition. It took some time before the government realized this and took action to reinstate water management in the country as a government task.4


KEY POINTS

• Addressing Mongolia’s water security challenges requires a strong institutional system at national and regional levels. At the regional level, river basin organizations (RBOs) have the key responsibility of implementing effective interventions based on integrated water resources management (IWRM).

• RBOs are primarily tasked with preparing and implementing river basin management plans, protecting water resources, promoting habitat conservation, and ensuring effective water use. However, restricted autonomy, limited financial resources, and lack of professional capacities are major constraints to the functioning of RBOs.

• Significant communication gap between the line ministries, local governments, and the RBOs also poses an important challenge as RBOs have to deal with several aimags (provincial) governments within their river basin.

• The next step in the development of a decentralized IWRM is to push the RBOs into becoming drivers of sustainable IWRM.
At present, the water system is in a state of change as Mongolia’s socioeconomic structure transforms from a weak rural economy to a fast-developing mixed economy characterized by rapid growths in urbanization, industrialization, and mining. Since 2004, the Government of Mongolia took several actions to reinstate the institutional system on water resources management. In 2005, the Water Authority was established and the first principles of river basin management were laid down in a Water Law, including the introduction of a water use fee. In 2010, Parliament adopted a new National Water Program (the 2010 Parliament Resolution No. 24) and decided that it will be implemented in two stages: an intensive development phase 1 (2010–2015) and a stable development phase 2 (2016–2021). Among the strategic goals of the water program were strengthening water resources management, regulating and promoting the effective use of water resources, and improving the legal environment for the management of water resources and water bodies. In 2012, the Water Law was revised to better regulate water use and exploration. The revision clearly stipulates the categorization of water resources, the tasks for rational water management, and the procedure for the issuance of water use permits. Subsidiary legislations were also adopted to define river basins and to provide guidance on the development of river basin management plans and the establishment of river basin authorities (RBAs) and river basin councils (RBCs) as the country’s key institutional system for water resources management. The law also specifies that the Ministry of Environment and Green Development—now Ministry of Environment and Tourism (MET)—is the main central government organization responsible for water resources management.

Mongolia faces considerable challenges to achieve water security by meeting the demands of socioeconomic development while ensuring the environmental integrity of its water systems. This includes, in particular, the urban center of Ulaanbaatar and the provision of water to mining activities in the Gobi Desert, but also in other regions where actions are needed. The capital and largest city, Ulaanbaatar, is home to approximately 47% of the total population, which makes Mongolia a highly urbanized country (74%). The water supply of Ulaanbaatar depends on upstream groundwater sources of the Tuul River Basin (Map 1). This relatively small basin alone supports about 50% of the country’s population. For achieving long-term sustainability and security of water resources, a strong and integrated institutional system is needed for the country. These institutions are needed to implement integrated water resources management (IWRM), including the development of water resources plans and the enforcement of regulations; and to facilitate the operations of government-owned water investments, among others.

Establishing the River Basin Organizations

Increasing water security requires efficient water institutions at both national and regional levels. Since water crosses administrative borders, cooperation is needed between regional administrations. The preferred management unit for water is a river basin. Hence, an important element of a strong and integrated institutional system is the establishment of river basin organizations (RBOs) for the identified 29 river basins (Map 2), based on international best practice. RBOs work in parallel with each other and have the key responsibility to implement effective interventions at regional level, thereby paving the way for the decentralization of water management and facilitating the involvement of citizens in water management.

RBOs are relatively young organizations in Mongolia since the country was divided into 29 river basins only in 2010 by the Order of the Minister of Environment and Tourism. There are currently 21 operational RBOs, the first of which was established on the Tuul River Basin in 2012. Each RBO consists of an operational group of 5–12 water professionals (that make up the RBA) along with the representatives from government, stakeholders, and water users (that make up the RBC). These newly established RBOs will need time to become fully operational and effective.

The main function of the RBOs is to implement effective water management based on IWRM, with two fundamental tasks: preparing river basin management plans for each river basin, and supporting the implementation of these plans. The RBOs are responsible for protecting the water resources, ensuring effective water use, and promoting habitat conservation. The RBAs coordinate water-related activities in their basin at national, regional, and intersector levels; while the RBCs promote local water governance through a transparent and participatory approach.

The RBC is a nongovernment organization composed of 31–45 members, equally representing the following three sectors: (i) public administration and parliaments, (ii) nongovernment organizations and local communities, and (iii) water users from the industry and agriculture sectors. In 2018, MET approved amendments to the RBC guideline to extend existing RBCs to a river basin multistakeholder platform. Recently, 24 river basin multistakeholder platforms were established all over the country.

Under the Country Water Security Assessment technical assistance project of the Asian Development Bank (ADB) and the Government of Mongolia, the performance of the 21 operational RBOs has been assessed through benchmarking. Specifically, the RBOs’ functioning of their mandates was evaluated against 14 key performance indicators, which were rated from 0 (worst) to 4 (best). The figure on page 5 shows the present scores and the targets the RBAs have set for themselves in 2020. The benchmarking methodology of the Network of Asian River Basin

Organizations has been used for that purpose. The assessment was designed to include both the RBA and RBC, and evaluate their collective operations. Benchmarking is basically a self-assessment process undertaken by the RBA managers in close collaboration with RBC representatives, as they know best the current state of their organization and the adequacy of their resources. An important finding of the assessment was that a substantial gap in communication exists between the RBOs, the line ministries, and the local governments (aimags and soums). Partly related to this is the conclusion that the establishment and operationalization of the RBCs are strongly lagging behind the RBAs. The RBAs are quite small (less than 10 staff) and have difficulties showing the added value of their work to the aimags and soums in terms of specialized advice. This is again due to the limited budget that is made available for the RBOs. Finally, investment and policy decision-making involve many agencies; yet, the RBOs sit outside the main nucleus of such decision-making process.

6 The benchmarking process involved representatives of each RBO ranging from four to six participants, but all from the RBAs and none from the RBCs.
The average overall benchmarking score was 1.8 (out of 4.0). This indicates that the 21 RBOs have established basic water resources management capacities. The next step is to push the RBOs to become proactive drivers of sustainable water resources management (i.e., beyond their present monitoring and supporting roles) and to demonstrate their added value to the aimags, soums, and the central government. For this, core weaknesses need to be overcome such as insufficient funds; weak connections between the aimag and soum governments, and with water sector agencies; lack of professional capacities and scientific support; and sluggish progress in setting up RBCs.

**STRENGTHENING THE INSTITUTIONAL SETTING**

The RBOs are key institutions for the implementation of IWRM in Mongolia. The RBAs should work closely together with the aimags and soums, where most of the actual decision-making and implementation on water management measures take place. At its current level (i.e., fourth in the MET structure), the RBAs have restricted autonomy as majority of management decisions go through several levels of MET. Moreover, issues concerning intersector decisions are referred to and handled by the National Water Committee. The mix of decentralization at aimag level and the centralized position of the RBOs make decision-making
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CAPACITY BUILDING

In Mongolia, the concept of IWRM is relatively new, and the RBO-based approach to river basin planning and management is likewise very recent. Capacity building is required on how to implement IWRM, both from the side of the RBOs as well as the side of the aimag and soum governments.

A second constraint to the functioning of the RBOs is the lack of funds to carry out actual activities. The RBOs are financed by the water fees that users have to pay for withdrawing and discharging water. The present budget for the RBOs is only 35% of the water fees collected and is used mainly (80%) for salaries of the RBA staff. No budget is available for the RBCs, which makes it difficult to make these RBCs operational. Many RBOs have not been able to establish RBCs for this reason. To make the RBOs more proactive (e.g., by carrying out additional monitoring or surveys) and to make the RBCs operational, additional budget should be made available.

TECHNOLOGICAL AND SCIENTIFIC SUPPORT

Supporting permanent positions for specialist skills covering all areas in the RBAs is not efficient for RBOs because of their decentralized status. It is, therefore, essential for RBOs to have access to specialist skills, as and when needed. Such access was raised as a crucial issue during the benchmarking process. Special short-term training courses are able to address some knowledge and capacity requirements but are no proxy to professional expertise. Examples of high-level professional expertise are the determination of renewable groundwater and environmental flow requirements, transboundary river management, climate change, setting up of databases, and computer modeling.

Options for specialist support include establishing a central unit of water resources management specialists and improving access to specialist skills from the academe and the private sector. This specialist expertise will be available to the RBOs, but also to support the National Water Committee, sector agencies, and other MET staff. Framework contracts through a specialist organization (e.g., from a university) may be used to engage the services of...
recurrent specialists. The terms and scope of the services should be flexible and adaptable to the specific needs of clients, and pre-agreed rates should be clearly defined.

**ADB’S INVOLVEMENT**

ADB is supporting the Government of Mongolia in the field of water management by means of technical assistance, grants, and loan projects. In 2017, the technical assistance on Country

[Image: ADB Briefs No. 138: ADB’s Involvement]

Water Security Assessment in Mongolia was completed, whereby the present water situation was assessed in terms of the five key dimensions of water security (rural household, economic, urban, environmental, and resilience to water-related disasters); an institutional analysis was carried out; and a water sector investment program was proposed (footnote 5). A new technical assistance, Implementing Innovative Approaches for Improved Water Governance, is ongoing to strengthen Mongolia’s water governance and address the institutional issues mentioned in this policy brief.7

**CONCLUSION AND RECOMMENDATIONS**

Mongolia has embarked on a promising road to implement IWRM by establishing RBOs for their 29 river basins. A good start has been made, but next steps are needed to have the RBOs accepted by other government agencies and the public as institutes that have added value as drivers for sustainable water management. These next steps include

- harmonizing policies and regulations to clarify the roles of the different organizations involved in water resources, in particular the role of the RBOs;
- strengthening the RBAs in terms of staff, budget, and specialized knowledge support; and
- improving the communication and interaction between the RBAs, the line ministries, and the local administration units as well as local communities.

[Image: ADB Briefs No. 138: Conclusion and Recommendations]


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