2030 WRG MONGOLIA ENGAGEMENT

Key Lessons Learned on Multi–Stakeholder Governance

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ABBREVIATIONS

2030 WRG	2030 Water Resources Group
ACT	Analysis, Convening, Transformation
ETP	Environmental Targeted Program
GDP	Gross Domestic Product
IFC	International Finance Corporation
IWRM	Integrated Water Resources Management
MCC	Millennium Challenge Corporation
MEGD	Ministry of Environment and Green Development
MET	Ministry of Environment and Tourism
MSP	Multi-stakeholder Platform
MSP resilience dashboard	KORUMO multi-stakeholder platform resilience dashboard
NWC	National Water Committee
RBA	River Basin Authorities
RBC	River Basin Council
WEF	World Economic Forum

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AUTHOR DETAILS

Dr Karen Engel is a KORUMO associate. Karen is an experienced facilitator (face-to-face, virtual and digital), researcher, and project lead. Primary area of interest is (community) resilience in the face of change. This includes changes brought on gradually such as slow onset effects of climate change. Central to her work are multi-stakeholder processes, but also sudden and/ or unforeseen ones triggered by (natural) hazards. A significant part of her work involves enabling multi-stakeholder processes in the water sector through training, knowledge capture and sharing, and facilitation.

Dr Mo Salomon founded KORUMO to support leaders to organize for impact and transformative change. They offer leadership coaching, multi-stakeholder facilitation, and system interventions for development corporations, research institutes, alliances, and social movements. Mo's career has been on the interface of people and technology for sustainable development, with a passion for gender justice.

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DISCLAIMER

Foreword

Water is intrinsic to Mongolia's socio-economic development and 'priceless 'in light of its economic and cultural significance. While Mongolia is a developing country with sufficient water resources at an aggregate level, locally a myriad of challenges threatens the economic development of the country. Against this backdrop, we launched the partnership with the 2030 Water Resources Group in 2013 to support sustainable water resources management in the country.

In the past nine years, the 2030 WRG Mongolia program has reshaped the landscape of water management in the country. It has achieved several notable results, including a revised Water Pollution Fee Law, which incentivizes large businesses to treat wastewater on-site and promotes the reuse of wastewater, impacting over 60 billion liters of water which was earlier discharged untreated into the Tuul river.

The 2030 WRG in Mongolia has also helped develop national standards for treated wastewater reuse, and pollution estimates and fee guidelines for discharging inadequately treated mining water. It advanced large-scale projects for wastewater reuse in the urban and mining sectors to reduce the pressure on limited freshwater resources. In addition, the 2030 WRG has supported a move towards disruptive technologies in Mongolia through a digital groundwater dashboard, incorporating machine learning and artificial intelligence, and remote sensing-based water accounting. Moreover, the Multi-Stakeholder Platforms (MSPs) established by the 2030 WRG at the national and river basin level continue to operate efficiently for water resources planning and implementation.

I'm pleased to note that the Government of Mongolia's positive experience of working with 2030 WRG is mirrored in this independent assessment of its Mongolia program. I hope the lessons emerging from 2030 WRG's Mongolia program can inform the design and operation of multi-stakeholder platforms globally and serve as a template for improved water management and governance in other countries.

I thank 2030 WRG for their relentless support to Mongolia over the past few years. The Government of Mongolia hopes to carry forward the legacy left behind by the 2030 WRG to accelerate sustainable water resources management in the country.

Erkhembayar Battulga
Chair of 2030 WRG's Multi-Stakeholder Platform Steering Board, Mongolia
State Secretary, Ministry of Environment and Tourism

Executive Summary

This report captures the lessons learned from 2030 Water Resources Group's (2030 WRG) Mongolia Multi-Stakeholder Platform (MSP) to strengthen 2030 WRG's ongoing and future multi-stakeholder programmes, marking the exit of the 2030 WRG as the facilitator and secretariat of the Mongolia MSP. To do this, relevant documentation was reviewed, and key partners were interviewed, including members of the 2030 WRG team. The focus was both on the overall program (approach, milestones and achievements, theory-in-use) and 2030 WRG's functioning as the multi-stakeholder platform facilitator.

Setting the Scene

Mongolia faces important water resources challenges. High reliance on groundwater due to rainfall variability, in combination with its increasing consumption by industries and mounting pollution are putting pressure on limited groundwater resources. A high-demand scenario under a technical assessment conducted by 2030 WRG sketches a reality that by 2030, 43% of the total water demand in the capital city of Ulaanbaatar, and by 2040, 34% of the water demand in the mining sector, will not be met by existing supplies. This strain on Mongolia's water resources is intensified by climate change, leading to an annual mean air temperature increase of 2.25°C, which is triple the global average.

2030 Mongolia Engagement: A Brief Overview

To address the water resources challenges, important reforms to the legal and policy environment of water resources management have been ongoing for decades. Translating these reforms into practice proved difficult, though. This moved Tsakhiagiin Elbegdorj, then President of the People's Republic of Mongolia, to ask 2030 WRG in 2011 to support Mongolia in improving its water resources management through an MSP approach. In 2013, the 2030 WRG Mongolia partnership was officially launched.

2030 WRG engagements follow a three-step process of engagement known as Analysis-Convening-Transformation (ACT). Accordingly, 2030 WRG kickstarted its Mongolia engagement with a targeted analysis of the country's water challenges and opportunities. This was followed by convening a multi-stakeholder platform Steering Board comprising public and private sector and civil society decision-makers. The analytics identified three workstreams:

WORKSTREAM 1 — Water demand reduction and supply augmentation

WORKSTREAM 2 — Water valuation and incentives for sustainable water management

WORKSTREAM 3 — Strengthening water governance with multi-stakeholder partnership

Figure 1. 2030 WRG Mongolia partnership workstreams overview

While 2030 WRG facilitated the processes, local partners were always in the lead. The engagement that followed supported the Mongolian Government to strengthen water resources governance and management at a national level and at the river basin level. Central to this was 1) generating analytics to focus and ground multi-stakeholder processes and dialogues, 2) improving the policy framework, including supporting policy instruments, for more effective implementation, 3) incentivizing and stimulating more sustainable water resources management practices, and 4) strengthening water resources governance and management at the river basin level. Key activities were analyzed, multi-stakeholder consultations conducted, joint appraisals of international best practices undertaken, lessons identified, and capacity building undertaken. The following key achievements can be celebrated:

1. Outputs contributing to improved water resources policy framework, including supporting policy instruments:

- Revised and improved methodology for water ecological-economic valuation
- National Standards for Treated Wastewater Reuse (MNS6734: 2018)
- Revised and improved water pollution fee law, including uptake of polluter pays principle and a simpler methodology to estimate pollution levels in domestic and industrial wastewater
- Assessment and recommendations for improving urban water tariff system
- New national Integrated Water Resources Management (IWRM) strategy and plan, aligned with the new national development policy program, Vision 2050, and the Environmental Targeted Program (ETP)

2. Outputs contributing to improved water resources management: incentivizing and stimulating better water resources management

- Voluntary Code of Practice for mine water management signed by 11 mining companies
- Golden Drop award
- Demo project at the Teachers' Development Institute in Ulaanbaatar to show feasibility and added value of reusing treated wastewater and providing a replicable approach
- Wastewater reuse projects in Ulaanbaatar resulting from 2030 WRG's technical hydro-economic analysis on Ulaanbaatar city, which mobilized close to $100 million from the Millennium Challenge Corporation
- Groundwater portal and dashboard

3. Output contributing to improved water resources governance and management at the river basin level

- Improved River Basin Council (RBC) guidelines
- Improved capacity and knowledge dissemination at the stakeholder level to ensure adequate performance of the RBC

Multi-stakeholder Platform Resilience Appraisal

To appraise 2030 WRG's performance as facilitating unit, the KORUMO multi-stakeholder platform resilience dashboard (MSP resilience dashboard) was used. It has five indicators to evaluate performance: visioning, facilitation, adaptability, governance, and financial sustainability. KORUMO scored 2030 WRG's performance based on their review. 2030 WRG scored well, especially in terms of facilitation, governance, and financial sustainability. They were fully in service of the MSPs and principles such as transparency, ownership and inclusion guided the entire process. This was time-consuming and labor intensive, but it was also fundamental to the achievements of the program. In terms of visioning, 2030 WRG also performed well. Their performance could have been improved, however, by adding an adaptive theory-of-change to the design of the ACT approach.

Lessons Unearthed

LESSON 1

Safeguard shared vision by guiding multi-stakeholder interventions with explicit, coherent, and consistent visioning. The programme reveals a coherent and consistent theory-in-use. To safeguard unity and effectiveness of multi-stakeholder processes an explicit theory-of-change is beneficial.

LESSON 2

Effective facilitation of an MSP implies working in service of the MSP. Having a neutral broker can stimulate a successful MSP, especially in tense situations where trust between partners is lacking and stakeholders are not yet aligned in terms of the interests they pursue. Neutrality should be complemented with competence. In particular, the ability to thoroughly understand the context and its inherent complexities, but also the different stakeholders' needs and interests. Regarding stakeholders, 2030 WRG learned that engaging the right stakeholders, in a balanced way from the start is an important ingredient for success. It might be time-consuming and labor intensive but is key to an effective MSP. Lastly, adhering to guiding principles like transparency, continuous engagement, inclusiveness, and the maintenance of high-quality will cultivate ownership, accountability, and respect. This is key to effectively facilitating an MSP.

LESSON 3

Be concrete and 'finish what you start'. By focusing on concrete outputs and anchoring such outputs for durability, stakeholders remain motivated, and the sustainability of the MSP is more likely. If an output involves planning, involve the stakeholders who need to execute the plan. This will ensure higher impact. Accompany concrete outputs with a 'finish what you start' attitude. Having milestones to celebrate intensify stakeholders' drive. In line with this, it is also worthwhile investing in an exit strategy of the external facilitator into the MSP design. It should be an integral part of the plan. This aligns expectations and can ensure a suitable exit at an opportune moment.

LESSON 4

Use analytics effectively and prioritize knowledge exchange. Analytics can be used to ground complex dialogues and processes. They can demystify challenges and provide a focus on solutions. To realize this, stakeholders must understand the analytics involved and this often implies targeted engagement with specific stakeholders to guide them through relevant data and documentation.

In addition to using data, knowledge exchange should be a priority of any multi-stakeholder process. Knowledge exchange can drive progress by, for instance, avoiding MSPs from reinventing the wheel. It can also, however, drive replication and upscaling. Knowledge exchange is relevant at both international and local levels. In case of international lessons and best practices, it is relevant to include experts who can help translate and adapt foreign solutions to local realities effectively.

LESSON 5

Embrace serendipitous opportunism by being sensitive and responsive to contextual opportunities when envisioning an MSP. Sometimes various elements, such as willingness and resources, come together to produce fruitful opportunities. Being sensitive and responsive to such situations can provide a notable impetus for progress.

Conclusion

Considering the water resources challenges that Mongolia faces, improving the country's water resources management is critical. In 2013, 2030 WRG and the Mongolian government launched the 2030 WRG Mongolian partnership to support efforts to improve water resources management in Mongolia. From 2013 to 2022, 2030 WRG led the MSP to implement more sustainable practices throughout the extractive sector, enabled a legal and policy environment that is more conducive to sustainable water resources management, and increased capacity where actual implementation of more sustainable management practices are relevant, i.e., at the river basin level.

Successful ingredients of the 2030 WRG approach included:

- Commitment to the MSPs and their partners
- Competent and knowledgeable interventions for impact on the ground
- Inclusive and qualitative engagements to align stakeholders and drive the sustainability of initiatives

This, together with the importance given to transparency, cultivated important levels of respect and ownership as well as mutual accountability. In addition, 2030 WRG facilitated the MSPs to anchor outputs in both legal and policy frameworks and human capacity. This is powerful, as it will increase the probability of the MSP's impact enduring. Partners are positive about the advances made and feel that they could not have attained these reforms and changes as competently and timely without the facilitation of 2030 WRG.

As 2030 WRG withdraws, it will be up to the local partners to reflect and see how they will move forward. The knowledge and competence are in Mongolia. Ultimately, it is up to the partners to take this forward. Facilitating multi-stakeholder processes to address complex issues, such as water resources management, however, is not straightforward and this is where this report and in particular the lessons included intend to contribute.

Introduction

This report marks the exit of the 2030 Water Resources Group (2030 WRG) as the facilitating unit of the Mongolia multi-stakeholder Platform (MSP), as intended at its inception close to a decade ago. The program has reached a level of maturity, with many milestones achieved, best practices developed, and lessons learned along the way. Achievements recorded by 2030 WRG, partners' experiences with the Mongolia Engagement Program and 2030 WRG's facilitating role are reviewed and appraised here. Central to this report is the ambition to learn and unearth valuable lessons that can support and strengthen future 2030 WRG programmes.

In 2011, Tsakhiagiin Elbegdorj, then President of the People's Republic of Mongolia, requested 2030 WRG to support the country in improving its water management. This led to the official launch of the 2030 WRG Mongolia partnership in 2013. A Memorandum of Understanding was signed with the Mongolian Ministry of Environment, Green Development and Tourism (today the Ministry of Environment and Tourism, MET) to collaborate towards the development of sustainable water resources management in the country through multi-stakeholder partnerships. To develop concrete pathways of change, key issues were identified through hydro-economic and tailored sector analyses combined with the development of national and sub-national multi-stakeholder engagement processes.

After over 10 years of engagement in Mongolia, 2030 WRG will implement its exit strategy, as agreed at inception. This is a good time to reflect and document lessons that can be learned and could enrich other multi-stakeholder programmes. A document review in combination with interviews with key partners and 2030 WRG team members has shed light on 2030 WRG's experience in Mongolia. This review made a depiction of 2030 WRG's experience in Mongolia possible as well as a swift appraisal of their performance as the multi-stakeholder platform facilitator. For the appraisal KORUMO's multi-stakeholder platform resilience dashboard (MSP resilience dashboard) was used. The MSP resilience dashboard made apparent that 2030 WRG interventions have been positive and have resulted in outputs that are valued by the stakeholders involved. Time will tell however whether the intended long-term impact of their interventions will be realized.

This report is structured as follows. First, the context of 2030 WRG's activities in Mongolia is presented. This gives an idea of the environment they operated in and the issues and challenges they were working with. Second, the report provides a brief overview of the overall 2030 WRG Mongolia engagement. This includes an overview of the theory-in-use (the theory that can be discerned when reviewing 2030 WRG's endeavors), in particular key activities, outputs, and outcomes. After the review, the appraisal is discussed and the lessons that were identified elaborated upon.

Box 1. 2030 Water Resources Group overview

2030 WATER RESOURCES GROUP

2030 Water Resources Group (2030 WRG) facilitates collective action among government, the private sector and civil society to improve water resources management for sustainable development. 2030 WRG was informally established in 2008 at the World Economic Forum's (WEF) annual meeting. It remained an informal collaboration among WEF, the International Finance Corporation (IFC), several multilateral and bilateral agencies (incl. the Inter-American Development Bank, Swiss Development Cooperation Agency, Swedish International Development Agency, and the United States Agency for International Development), private sector companies (incl. Nestle, PepsiCo Inc., SABMiller Plc., The Coca-Cola Company) and other organizations (World Wildlife Fund for Nature, Global Green Growth Institute) until 2011. Between 2012 and 2017, 2030 WRG formalized its structure. It moved from WEF to being hosted by the IFC and started to develop its MSP model across Asia, Latin America and Africa. Today 2030 WRG is hosted by the World Bank.

Setting the Scene

Mongolia is a landlocked country in northeast Asia that covers an area of over 1.5 million square kilometers. It is scarcely populated with just over 3.2 million people (2030 Water Resources Group 2020c). The economy is largely based on agriculture and mining, but mining dominates the economy: mining accounts for 80% of exports and contributes to a quarter of gross domestic product (GDP) (World Bank 2021). Due to Mongolia's unique geographical location in the arid and semi-arid region, it has a harsh climate with an annual average air temperature of 0.7 °C: the annual average air temperature in the warmest regions of the Gobi and south Altai deserts is 8.5 °C, while it is –7.8 °C in the coldest region of the Darkhad depression.

In terms of water resources, Mongolia faces important challenges. Mongolia's total water resources cover approximately 564.8 cubic kilometers: 98.1% is surface water, including glaciers, and 1.9% comes from groundwater resources (2030 WRG, 2020). Because of significant rainfall variability, there is a high reliance on groundwater: groundwater reserves are the source of roughly 90% of Mongolia's water consumption. This leads to rapid depletion of groundwater reserves. Depletion is exacerbated by increasing water consumption, due to rapid urbanization and growing economic activity, and mounting pollution by the extractive and manufacturing industries. Climate change intensifies Mongolia's strain on water resources: the annual mean air temperature has increased by 2.5 °C from 1940–2015, which is triple the global average; humid areas experience heavier rainfall than usual; and the ice cover is shrinking. Water scarcity is particularly relevant for Ulaanbaatar. Ulaanbaatar is the capital city and home to approximately half of the population. According to 2030 WRG's analysis, a high-demand scenario of water use indicates that by 2030, 43% of the total water demand may not be met by existing supplies. In addition to water scarcity, the performance of Mongolian urban wastewater infrastructure requires attention. It contributes to significant morbidity and the widespread occurrence of waterborne diseases, especially in rural areas and the ger(tent) settlements.

To address these water resources issues, institutional reform to improve water resources management has been ongoing for the past decades. This has led to important reforms, such as the creation of the National Water Committee (NWC) in 2000 and the 2004 Water Law. The latter was revised in 2012. The Water Law has been central to innovations in the country. Important innovations have been the establishment of a national water authority and River Basin Councils (RBCs) as well as the introduction of Integrated Water Resources Management (IWRM) as a framework for hydrological planning and implementation. Despite the intention to reform, translating reformed policy into practice has been complicated.

Box 2. Integrated water resources management

INTEGRATED WATER RESOURCES MANAGEMENT

The concept of IWRM supports planning and more coordinated usage of water resources. IWRM made a shift possible from a primarily supply-oriented and engineering-based approach to a more demand-oriented multi-sectoral approach. Key principles guiding water resources management in Mongolia today are: participation, recognition of the economic value of water, sustainability, and subsidiarity (delegating decision to the lowest practical level).

Figure 2. 2030 WRG Mongolia engagement theory-in-use (elaborated by KORUMO)

THEORY-IN-USE

ACTIVITIES

- **Hydroeconomic analysis** in Gobi Mining area.
- **Hydroeconomic analysis** in Ulaanbaatar.
- **Multi-stakeholder engagement** – support to IFC's mining roundtable.
- **Multi-stakeholder engagement** for national standards for reusing treated wastewater, including seminars, meetings, workshops, etc.
- **Demo-project** at Teachers' Development Institute in Ulaanbaatar.
- **Multi-stakeholder engagement** – Review, identification of international best practices and lessons learned, consultations, workshops, recommendations for an improved water pollution fee law.
- **Multi-stakeholder engagement** – Review, identification of international best practices and lessons learned, consultations, recommendations for an improved methodology to determine the ecological and economic value of water resources by the government.
- **Review, identification of international best practices and lessons learned, recommendations**
- **Multi-stakeholder engagement** – consultations, design and development of RBMSPs, identification of challenges and opportunities, workshops.
- **Capacity building** – Tailored training and coaching RBMSPs.
- **Multi-stakeholder engagement** – data collection, consultations, conversion of current groundwater monitoring network to a dashboard and portal in line with stakeholder needs.
- **Review, stakeholder analysis, identification of international best practices and lessons learned, multi-stakeholder engagement, development new IWRM plan** – Review of current water policy.

OUTPUT

- Long-term planning and roadmap development for reducing the water demand-supply gap in UB and Gobi.
- Voluntary code of practice for water management in the mining industry signed by 11 mining companies in south Gobi.
- National Standard for reusing treated wastewater for different uses.
- Wastewater reuse project of the MCC second compact.
- Increased awareness that wastewater can be reused.
- Access to a replicable model to drainage and reuse to save water resources and reduce water demand.
- A revised and improved water pollution fee law that supports better monitoring of effluent, provides economic incentives for industry to treat and reuse treated wastewater before discharging to central sewerage network, and identifies a simpler methodology for estimating pollution levels in wastewater. The law consolidates the polluter pays principles into the legal framework.
- Improved water ecological-economic valuation methodology to support the implementation of the water-use fees and compensation fees that the Water Law allows.
- Review of urban water tariff and recommendations for improvement based on social equity, financial sustainability, and resource conservation.
- Guidelines for the establishment of River Basin Multi-Stakeholder Platforms (RBMSPs).
- Establishment of 10 new RBMSPs and reform of 14 existing RBMSPs; Increased capacity of RBMSPs.
- Digital Water Platform – A groundwater monitoring dashboard facilitates informed water resources management.
- New national IWRM strategy and plan, aligned with the new national development policy program and the Environmental Targeted Program.

SPHERE OF CONTROL

OUTCOMES

In Ulaanbaatar and Gobi:

- Improved water resources governance: improved policy and policy instruments.
- Improved water resources management.
- Reduced water demand-supply gap.
- Improved water resources governance and management at river basin level.
- 61.2 million cubic meters of reduced wastewater discharge, $100 million in financing for wastewater projects.

IMPACT

Sustainable economic development

SPHERE OF INFLUENCE

SPHERE OF INTEREST

2030 WRG MONGOLIA ENGAGEMENT:

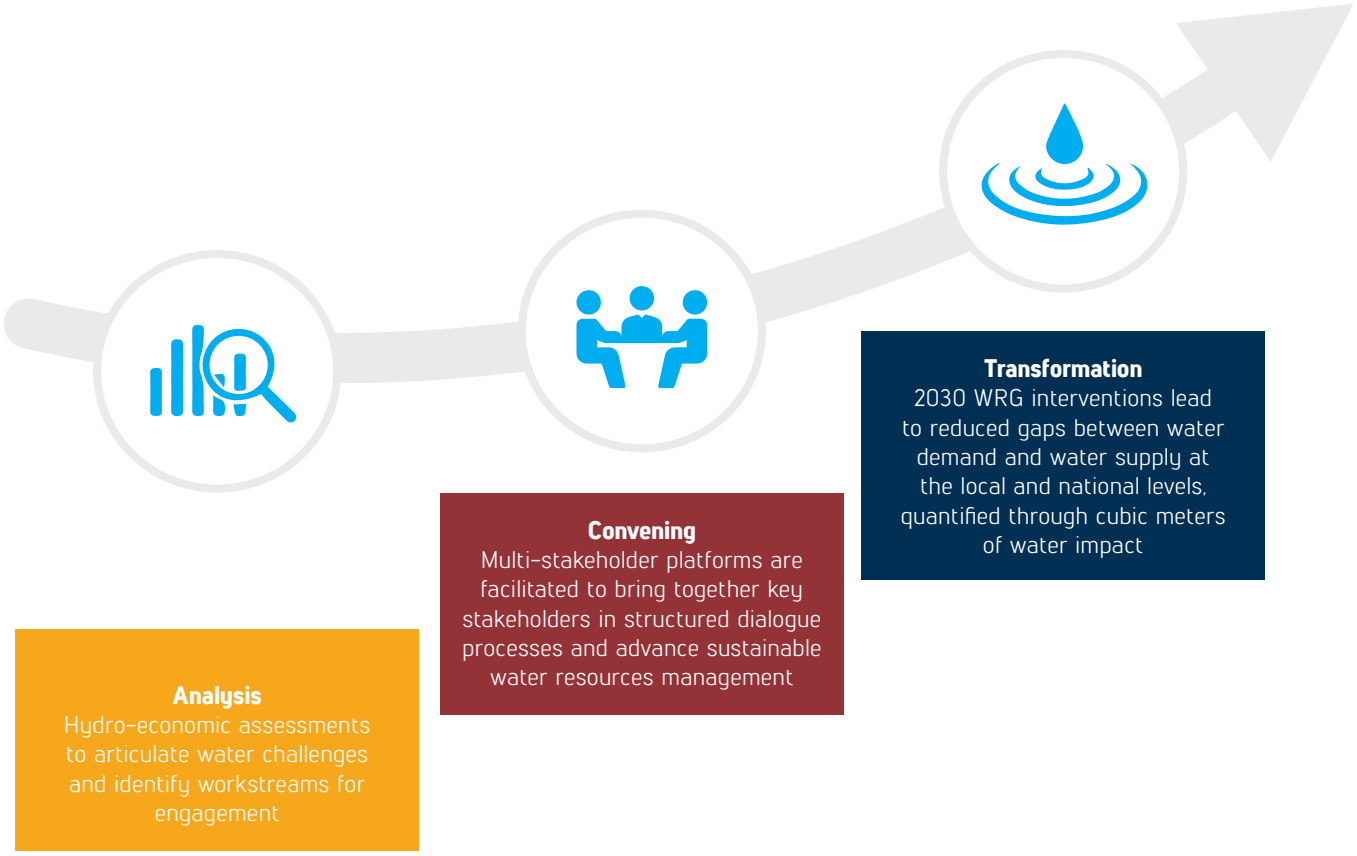
A Brief Overview

Approach

2030 WRG's mission is to support countries to close the gap between water demand and supply by 2030. To do this, they facilitate country-level collaboration designed to bring together diverse groups with a common interest in the sustainable management of water resources. In 2011, the Mongolian president asked 2030 WRG to support their country to improve water resources management. To formalize the partnership a Memorandum of Understanding (MoU) was signed in 2013.

2030 WRG's engagements always follow a three-step process of engagement known as Analysis-Convening-Transformation (ACT). Accordingly, the 2030 WRG's engagement in Mongolia kickstarted with a targeted analysis of Mongolia's water challenges and opportunities conducted by a team of experts from PwC and Deltares. The findings of this report provided the necessary input to design multi-stakeholder processes that could support the Mongolian government to initiate and catalyze relevant reforms to ensure sustainable water resources management, and as such, long-term economic development. It furthermore allowed for sensitization and engagement of relevant stakeholders.

Figure 3. 2030 WRG Analysis Convening Transformation approach (ACT approach)



Thereafter, 2030 WRG convened a multi-stakeholder platform Steering Board comprising public, private sector, and civil society decision makers. The first meeting was held in 2014. Based on the recommendations of the targeted analysis report, the Steering Board created three workstreams to guide 2030 WRG's engagements in Mongolia:

Figure 4. 2030 WRG Mongolia partnership workstreams overview

These workstreams comprised multi-stakeholder processes designed to attain concrete outputs. To ensure impact, an additional focus was built in. Engagement would be limited to two geographic areas in Mongolia, namely South Gobi and Ulaanbaatar which are two important socio-economic hubs and water-scarce areas. Since 2014, representatives from government, industry, and civil society (including academia) have come together under the guidance of the 2030 WRG Mongolia Steering Board to drive multi-stakeholder action. Figure 2 depicts the Mongolia Engagement Program's "theory-in-use", a theory of change that underpins practice. It provides a clear overview of the overall design and actual activities that have led to the realization of outputs and desired outcomes.

Box 3. Espoused theories vs theories-in-use

Argyris and Schön (1974) point out that actions are rarely happenstance. Behaviour is guided by theories of actions people hold and these are seldom made explicit. They do, however, shine through activities. They used 'espoused theories' to refer to the worldviews that people believe guide their actions and 'theory-in-use' to theories that are actualized through action.

Achievements

The engagement that followed supported the Mongolian Government to strengthen water resources governance and management at a national level and at the river basin level. Central to this was improving policy and related instruments for more effective implementation. Key activities included analyses of challenges and opportunities relevant to the Mongolian water sector, multi-stakeholder consultations, joint appraisals of international best practices and lessons learned, and recommendations for the design of concrete programs and policy reforms. It is important to note that in 2013, 2030 WRG was just starting to think more structurally and methodically about MSPs globally. They had guiding principles, but these were not strengthened yet by practical experience at the country level.

Box 4. Water resources governance vs water resources management

Water resources governance and water resources management

Water resources *governance* is different from water resources *management* in that it refers to "the different actors and networks that help formulate and implement environmental policy and/or policy instruments" while water resources management encompasses the "activities of analysing and monitoring, developing and implementing measures to keep the state of a resource within desirable bounds" (Pahl-Wostl 2009).

1. Water resources governance: improved policy and related instruments

Box 5. Outputs contributing to improved water resources policy and policy instruments

Outputs contributing to improved water resources policy and related instruments:

- Revised and improved water ecological-economic valuation methodology.
- National Standards for Treated Wastewater Reuse (MNS6734: 2018).
- Revised and improved water pollution fee law, including uptake of polluter pays principle in law and a simpler methodology to estimate pollution levels in domestic and industrial wastewater.
- Assessment and recommendations for improving urban water tariff system.
- Recommendations for new national water policy enabling improved water governance and management and aligned with the new national development policy program, Vision 2050.

To improve the implementation of Mongolia's Water Law, in particular the water-use fees and compensation fees, 2030 WRG started a multi-stakeholder process to revise and improve the existing water ecological-economic valuation methodology in 2015. The process included stakeholder consultations and the identification of relevant international best practices. This led to a revised methodology that was approved in 2020 and is still in force. The methodology is relatively simple. It encourages efficient water use across sectors, recognizes customary rights and environmental values, underlines the importance of water as an input for different economic activities, appreciates the spatial and temporal differences in the value of water, and has increased transparency for water users, which will ultimately make the system more robust.

Between 2017 and 2018, 2030 WRG facilitated a multi-stakeholder process that led to the development and official adoption of National Standards for reusing treated wastewater for different uses in Mongolia: *National Standards for Treated Wastewater Reuse* (MNS6734: 2018). Inspired by international best practices, the guiding principle behind the standards is ensuring cost-effectiveness through fit-for-purpose treatment of wastewater: the treatment level for reuse of wastewater depends on the end use.

In 2012, Mongolia adopted the Water Pollution Fee Law to reduce the volume of wastewater and level of pollution in effluent sent to the central wastewater treatment plant. Successful implementation, however, remained challenging. 2030 WRG supported the Government of Mongolia to *revise and improve the Water Pollution Fee Law to ensure effective implementation* in 2017. They did this by incorporating best practices from Hong Kong, Singapore, India, and Belgium and examples suited to Mongolia's context. Central to this was highlighting simple and implementable water pollution fee models that incorporate economic incentives for water users to promote pollution reduction and the use of a simpler methodology to estimate the pollution level in domestic and industrial wastewater. The result was the ratification of the Water Pollution Fee Law that supports better monitoring of effluent, provides economic incentives for industry to treat and reuse treated wastewater before discharging to the central sewerage network, and incorporates a simpler methodology for estimating pollution levels in wastewater. In addition, the law is founded on the-polluter-pays-principle and as such encourages more efficient water use. The fee is expected to reduce the discharge of inadequately treated effluent into the Tuul River by over 61.2 million cubic meters each year. It has

already catalyzed innovation in on-site wastewater treatment systems across eight industrial sectors.

To ensure fiscal sustainability of water utilities and agencies, improve service delivery and promote efficient and sustainable water use, 2030 WRG was asked to *assess the Urban Water Tariff and share recommendations for improvement*. In addition to assessing the existing water tariff structures, 2030 WRG reviewed those in cities with comparable contexts (Cape Town, South Africa, and Brasilia, Brazil). This review revealed that an affordable water tariff can make it possible for utilities to successfully meet the established revenue required (covering operational expenditure, asset depreciation, and capital charges). Suggested improvements could make it possible for water supply organizations to fully recover depreciation and operational and maintenance costs, while ensuring a simple and appropriate approach based on social equity, financial sustainability and resource conservation.

An additional area of focus for 2030 WRG was in the area of integrated water resources management. The implementation period of the 2013 Integrated Water Management Plan (IWM plan) of Mongolia was 2014–2021 (MEGD 2013). As a result, a new IWMP needed to be developed. Since the Water Authority had only just been reinstated in 2020, the Water Authority asked 2030 WRG to assist them with this task. For 2030 WRG, this was a concrete opportunity to use the knowledge, experience and expertise they had acquired over the years to strengthen the water resources governance framework in Mongolia. To ensure a qualitative but also a feasible plan, 2030 WRG worked closely with the Water Authority; the agency that would have to ensure the plan's implementation. The development process included a critical appraisal of the former IWRM plan and its implementation, a review of international best practices and lessons, as a policy coherence review. The latter is key as water issues involve multiple governmental departments and agencies. This means that policy should be mutually reinforcing and synergies should be created to achieve agreed objectives. The first draft of the plan was shared for consultation with a great number of stakeholders. The result was a new plan: an IWRM plan. The development of the IWRM plan was innovative because of its participatory nature, but also because of its close cooperation with the implementing agency: the Water Authority. This was incorporated in the design to ensure the plan would be viable and implemented. In addition, instead of a focus on water supply, this plan prioritizes water resources protection and adaptation to climate change impact.

2. Improved water resource management: incentivizing and stimulating better water resources management

Box 6. Outputs contributing to improved water resources management

Outputs contributing to improved water resources management by stimulating, incentivizing, demonstrating, and enabling access to relevant tools:

- Voluntary Code of Practice for mine water management signed by 11 mining companies.
- Golden Drop award.
- Demo project at the Teachers' Development Institute in Ulaanbaatar to show feasibility and added value of reusing treated wastewater and providing a replicable approach.
- Wastewater reuse project of the MCC second compact.
- Groundwater portal and dashboard.

To stimulate improved water resources management practices within the mining sector, 2030 WRG collaborated with IFC in 2016 on the Voluntary Code of Practice for mine water management. This was complemented with training sessions on groundwater and sustainable surface water management for government, private sector and communities. Furthermore, through 2030 WRG's MSP it was possible to implement the key pillars of the Code.

Stakeholder dialogues and an assessment of potential incentives and regulatory reform in Mongolia's mining sector identified the need for more non-financial incentives such as awards to recognize corporate good practices and encourage water stewardship. This led to 2030 WRG facilitating the establishment of the Golden Drop—a prestigious award to recognize leading industry partners for their water stewardship efforts.

To complement the national standards for treated wastewater and increase the adoption of more efficient water-use practices like treated wastewater reuse, 2030 WRG facilitated a demo project at the Teachers' Development Institute in Ulaanbaatar in 2021. This project showed that reusing treated wastewater is possible and can lead to saving freshwater resources and reducing water demand. It also provided a replicable approach to drainage and reuse.

Aside from improving water resources governance, the national standards for treated wastewater and 2030 WRG's technical hydro-economic analysis on reuse solutions for Ulaanbaatar prompted the wastewater reuse project of the MCC second

compact. For this project, an investment of approximately US$100 million was allocated through necessary legal documents to develop infrastructure that will enable the reuse of wastewater for power plants and as such improve water resources management.

The mining sector's groundwater consumption is significant and is likely to increase. As a result, adequate water resources management will require continuous understanding of water availability, especially in the southern Gobi region. This led to 2030 WRG initiating the development of the groundwater portal and dashboard that provides a predictive analytical tool for groundwater availability using disruptive technology.

3. Improved water resources governance and management at river basin level

Box 7. Outputs contributing to improved water resources governance and management at the river basin level

Outputs contributing to improved water resources governance and management at the river basin level:

- Improved RBC guidelines.
- Improved capacity and knowledge at the stakeholder level to ensure. River Basin Council adequate performance.

Central to the 2012 Water Law is strengthening water resources management and protection at the river basin level through River Basin Authorities (RBAs) and RBCs. RBAs are governmental entities charged with protecting the water resources at the basin level through integrated water resources management. They are supervised by the River Basin Management of MET and monitored by RBCs, which are multi-stakeholder organizations set up like non-governmental organizations. The idea is to engage relevant stakeholders for the protection and effective use and restoration of local water resources. Since the establishment of these structures, its functioning has been hampered by limited coordination, cooperation, capacity and knowledge. This led to 2030 WRG analyzing the situation, including the system's shortcomings and identifying ways to address these. Through stakeholder processes, the following issues were identified: RBC guidelines' lack of clarity on establishment, composition, financing and operation of RBCs. To address this, 2030 WRG facilitated multi-stakeholder processes including extensive and inclusive workshops and consultations and a revision of international best practices and lessons learned to review the guidelines. In addition, 2030 WRG cooperated with MET to establish new RBCs and reform existing ones. The RBCs were real river basin MSPs. To ensure improved performance, 2030 WRG supported capacity building and coaching on river basin governance for a range of stakeholders.

These river basin outputs are key to 2030 WRG's engagement. According to 2030 WRG, these MSPs will be sustainable and will continue to operate in the future: "this is where the real action will be [as] stakeholders will take the lead (Khemka 2022)."

Multi-stakeholder Platform Resilience Appraisal

The KORUMO multi-stakeholder platform resilience dashboard (MSP resilience dashboard) has five indicators to appraise performance of multi-stakeholder process facilitation:

Visioning (V): To what extent is the Theory of Change defined and executed by MSP partners?

Facilitation multi-stakeholder engagement (F): To what extent does the facilitation unit work in service of the MSP partners?

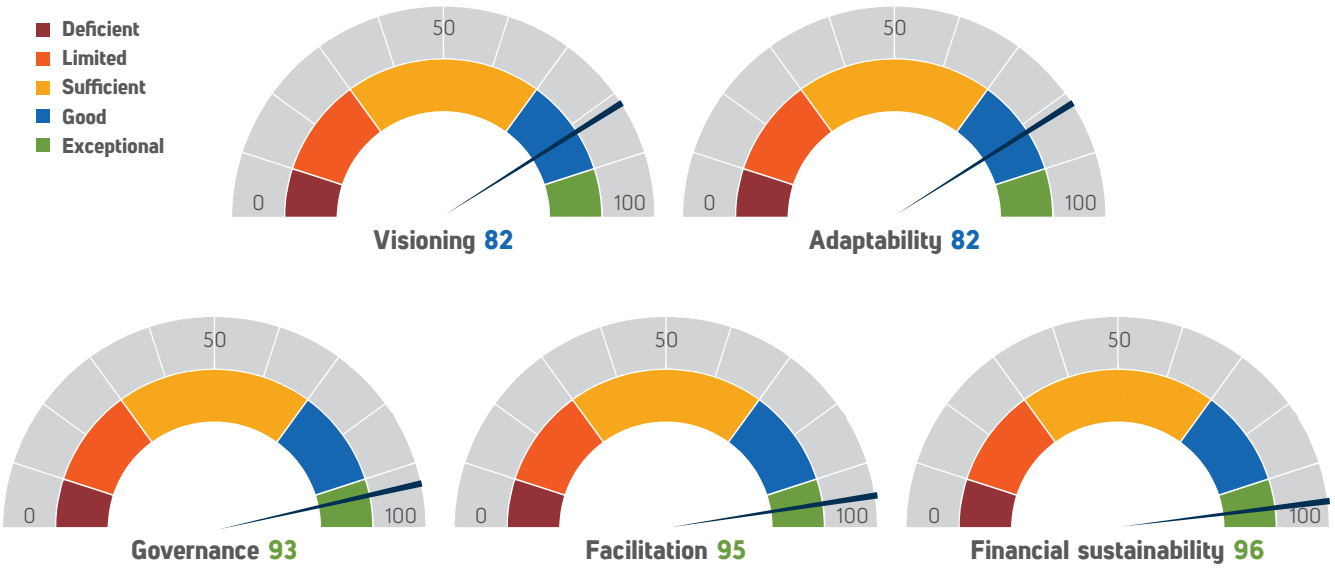
Adaptability: managing complexity and critical junctures (A): To what extent do partners draw on their diversity to pursue a common agenda, manage consensus and conflict, and act as a collective to develop solutions to complex problems.

Governance: planning, implementation, capacity development, adaptability and learning (G): To what extent are MSP initiatives co-designed as inclusive, reflexive, and adaptive action learning processes.

Financial sustainability of MSP and participants (S): To what extent has the facilitation unit or MSP host been appointed by the members to manage and account for funds raised by the MSP?

MSP performance for each of these indicators can be deficient (score between 0 and 10), limited (score between 10 and 30), sufficient (score between 30 and 70), good (score between 70 and 90, or exceptional (score between 90 and 100). Using this methodology it was possible to appraise 2030 WRG's performance on each indicator, as well as its overall performance. KORUMO scored the performance based on their review. Because of time constraints, the appraisal is a quick scan based on a review of key documents and interviews of 8 stakeholders. Findings were insightful and relevant lessons have been identified.

Figure 5. MSP resilience dashboard presenting results per indicator of 2030 WRG performance of multi-stakeholder process facilitation



The first indicator is *visioning*. 2030 WRG scores highly when it comes to this indicator. The appraisal made apparent that their theory-in-use is consistent and coherent and in line with their explicit objectives (see figure 2 for a depiction of the theory-in-use). More importantly, MSP participants were actively involved in the production and reproduction of the theory-in-use of the MSP. This is very positive since active engagement in the vision is key to the long-term success of the MSP.

In addition to framing 2030 WRG's approach, the ACT model enables a strategic and tactical use of data. The analyses, in particular the level of technical expertise, legitimacy and independence they represent, forge and support important conversations among stakeholders. MSP dialogues, grounded by analytics, enabled 2030 WRG to identify opportunities for action. Complementing their ACT approach with an explicit and adaptive theory-of-change could be a next step. A theory-of-change helps to stay focused, be conscious of pathways of change and can facilitate adaptability and learning.

In terms of *facilitation* of multi-stakeholder engagement, 2030 WRG scores even better. The appraisal identified that the 2030 WRG team performed competently and effectively. They worked in service of the MSP. Together with MSP members, they sought opportunities and ways to enable partners to move forward and take advantage of these opportunities. In addition, effort went into safeguarding ownership. They did this by ensuring transparency, even though the level of transparency they delivered was time consuming and labor intensive. In addition to increasing ownership, the level of transparency the team attained through documentation and its dissemination to the MSP but also beyond, cultivated respect and ensured mutual accountability. More importantly, however, participants felt their voices were heard and taken seriously. Through the MSP, their needs were being addressed.

Central to 2030 WRG's approach to facilitating the MSP was inclusiveness. This was accomplished by actively engaging stakeholders, but also by leveling the playing field in terms of knowledge. The team made sure all partners had a proper understanding of the process and relevant information. Taking this approach made it possible for them to effectively address and resolve tensions. This takes us to *adaptability: managing complexities and critical junctures*. Their facilitation approach allowed them to be sensitive and responsive to changes, i.e. to prevalent and emerging complexities as well as to critical junctures. High levels of ownership and inclusion reveal that actors appreciate interdependence, seek mutual benefits and collaborate to find solutions. The role of 2030 WRG remained important here, though. Moving forward the adaptability should come from within the MSP. Actors should actively and consciously seek diversity to pursue a common agenda. This will involve managing tensions and acting as a collective to address relevant issues, without an important role for a facilitating partner.

In terms of *governance: planning, implementation, capacity development, adaptability and learning*, 2030 WRG scored highly as well. The appraisal revealed that their approach to planning and management was highly appreciated by the partners. Partners felt the necessary level of ownership and accountability, but they also felt they were being properly involved and heard throughout. Central to their performance

Box 8. Theory of change

THEORY OF CHANGE

A theory of change is a narrative that guides a programme's ambitions, choices, interventions and claims to success. It specifies the overall rationale of the process of change that is pursued and explains how and why change is expected to happen along specific pathways of change or impact pathways. Specific attention is given to risks, partners, and assumptions. The latter is important because making assumptions explicit and testing them against evidence of what has worked and what has not enables learning and adapting one's approach along the way and as such ensure that the programme is in fact contributing to envisioned change. In short, a theory of change helps to maintain a sound logic for achieving change.

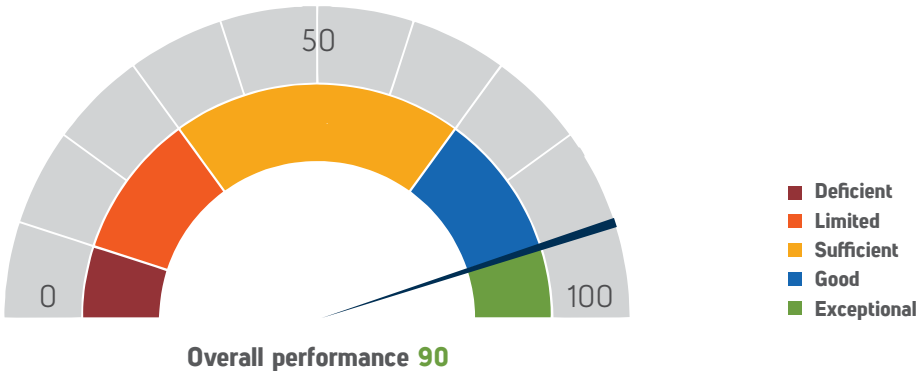
A theory of change helps to 1) develop and maintain a coherent vision, especially when dealing with multi-stakeholder transformation processes, 2) not reinvent the wheel and make sure that available knowledge is identified and used in the design of a programme, 3) to ensure systematic and thorough understanding of what should be done and what should not be done and why, and 4) to systematically integrate what is learned into what is being done.

were: clarity, organization, transparency, inclusivity, and accountability. In addition, the structure and organization of the MSP were clear from the start.

Lastly, in light of *financial sustainability* of the MSP and participants, 2030 WRG also has a good score. 2030 WRG facilitated processes rather than make them financially possible. Central to the programme was always co-ownership and co-financing. In fact, after the work 2030 WRG undertook with the River Basin MSPs, they find themselves more financially resilient. As more stakeholders were engaged, they acknowledged the importance and their willingness to contribute in-kind but also financially. In other words, 2030 WRG competently facilitated financially sustainable MSPs.

Taking the above into account, overall performance is very good.

Figure 6. MSP resilience dashboard presenting overall performance of 2030 WRG multi-stakeholder process facilitation



Lessons Unearthed

The review of documentation, in combination with the interviews, made it possible to appraise 2030 WRG's engagement in Mongolia to support the country's efforts to improve water resources governance and management and identify lessons that can be valuable not just to 2030 WRG and their activities worldwide, but to other facilitating units and MSP hosts as well.

LESSON 1

Lesson 1: Safeguard shared vision by guiding multi-stakeholder interventions with explicit, coherent and consistent visioning.

The Mongolia programme was supported by a coherent and consistent theory, but it was never made explicit. It only became apparent when putting together the theory-in-use. Specifying the rationale at the design stage through a theory-of-change has important benefits (see box 7). In multi-stakeholder transformation processes, for instance, it can help safeguard a joint vision and the necessary levels of learning and adaptive capacity to ensure that the chosen approach continues to contribute to desired change, even when course corrections are required.

LESSON 2

Lesson 2: Facilitation entails working in service of the MSP

Neutral brokers without an agenda positively affect the emergence and impact of MSPs | Multi-stakeholder approaches and public-private-civil society partnerships are key to making transformation possible in tense contexts where stakeholders pursue competing interests. In contexts where multi-stakeholder cooperation is additionally a novel practice, a third, neutral party with experience and knowledge about multi-stakeholder processes can be valuable to foster and cultivate effective MSPs. By facilitating networking and knowledge exchange, a neutral facilitator can broker trust between stakeholders and enable the conditions required from the start for working together and learning from each other. Partners revealed that 2030 WRG was able to competently and with great patience facilitate rich and productive dialogues.

"Without 2030 WRG it would've taken much longer. They are experienced and skilled at facilitating MSPs"

(Bulgan Tumen, Advisor to the National Security Council)

"2030 WRG accelerated trust and understanding [and as such] partnership between various stakeholders"

(Tsogtsaikhan Chultemsuren, Amalgan Power Plant)

"Make sure that at every step, you have the right actors, and you are not rushing the process"

(Rochi Khemka, 2030 WRG Mongolia Task Team Leader)

Engaging the right stakeholders from the beginning is time-consuming and labor intensive but also determinant for impact | A successful MSP required the involvement of all relevant stakeholders from the beginning. Engagement of stakeholders should be done in a balanced way. 2030 WRG, for instance, makes sure private sector, public sector, and civil society (including academia) are equally represented in terms of composition. To do this, an upfront stakeholder analysis is valuable to understand the landscape and stakeholders, including their interests, agendas and priorities, relevant to the MSP.

Analytics should be followed by active engagement. This can be secured by extensive outreach, interaction, and dialogue. This is especially the case when the MSP has to emerge from a generic level of distrust. The engagement of relevant stakeholders should be revisited continuously. Situations change and as such the relevance of stakeholders can as well. Stakeholder engagement should not be rushed, even though it is time consuming and labor intensive and there might be political urgency: "take the time it requires" (Khemka 2022). Doing this correctly will determine to a large extent the performance of the MSP and the eventual impact the MSP will generate.

"After every consultation, [2030 WRG] would show how our suggestions were taken up in reports or laws. They would even highlight the texts in which our suggestions were included. This showed us our voices were heard"

(Erdene Batzorig, Mongolian Environment Civil Society Organization)

"[Their quality was] their ability to listen to what we needed...They would listen to what we wanted to implement and the training we needed. They were really open [and would] not just implement their own agenda"

(Yalaltbayar Baatar, Galba Uush Doloodiin Goviin River Basin Authority)

The facilitation team works in service of the MSP | Important principles for 2030 WRG are transparency, continuous engagement and the maintenance of high-quality standards. The way the 2030 WRG team ensured transparency, through thorough and qualitative documentation of engagements, developments, and outputs, and the widespread dissemination thereof, allowed them to secure accountability, but also the cultivation of a good sense of ownership and appreciation throughout the MSP: "[t]hey were focused on the quality of the work and they had this principle of not ignoring anyone; engaging everyone"(Chultemsuren 2022). They documented every development and input and shared this with all relevant partners at every step of the process. By doing this, 2030 WRG and the MSP partners were able to keep each other in check, prevent dialogues from becoming 'talk shops', and appraise the MSP's progress. Even though continuous active engagement is time consuming and labor intensive, 2030 WRG is conscious that it would determine the MSP's success. This included targeted engagement to resolve tensions. Lastly, partners observed that the team's attention to quality throughout the process allowed for equally high-quality outputs.

"We have to give credit to the individual people who have been part of this initiative"

(Oyun Sanjaasuren, Green Climate Fund)

Cultivate respect and ownership through competence, quality and transparency | Facilitating MSP processes successfully requires a competent team of facilitators able to understand the context they are operating in, including the complexities of the issues to be addressed and an appreciation of divergent points of view involved. According to 2030 WRG MSP partners, the 2030 WRG team did not just have the analytical competence, but also the knowledge, experience, expertise and professional network necessary to secure respect, rapport, and as such fruitful cooperation with and between partners. The team included the right individuals to support technical assessments. This made the team highly effective.

LESSON 3

Lesson 3: Be concrete and 'finish what you start'

Focus on concrete output | The principle "finish what you start" moves like a red thread through the program and seems an important ingredient for success. One partner even mentioned that he had embraced this principle in his day-to-day work. 2030 WRG was aware that processes need to move towards concrete outputs. As a result, the programme can celebrate a significant list of valuable outputs that can contribute to the greater impact they wish to facilitate.

In Mongolia, 2030 WRG furthermore made sure that outputs are anchored and as such more sustainable. Their focus was, for instance, on enabling improved policy and supporting policy instruments. This resulted in policy outputs anchored in the country's policy and legal framework. Similarly, they chose interventions that would enable capacity development. This again ensured outputs are anchored. In this case, anchored in individuals. Embedding concrete outputs into the programme's design is valuable. Outputs can be important driving force for progress.

"People who need to execute the plan need to be involved in the planning"

(Bolor Dorjderem, 2030 WRG Mongolia Partnerships Coordinator)

Successful planning involves stakeholders who need to execute the plan | Planning should be followed by implementation. To ensure this is possible, the planning phase should include all stakeholders relevant for its implementation. Often this means adequately involving local actors in multi-stakeholder planning processes: "always complement high-level support with local championing. At the end of the day, it has to happen locally (Sanjaasuren 2022)".

"We feel that it is time for the stakeholders to take it forward and scale up"

(Rochi Khemka, 2030 WRG Mongolia Task Team Leader)

Incorporate an exit strategy of the external facilitator into the MSP design | As the 2030 WRG program unfolded in Mongolia, their exit was part of the design from the beginning. Not doing this would reduce their effectiveness. For instance, the river basin MSPs are in place and functioning. Financial sustainability has been secured and stakeholders see their interests being served by well-functioning multi-stakeholder RBCs. This will ensure their sustainability, even when 2030 WRG withdraws. Bringing closure into processes is important to avoid dependency and secure full ownership. Also, this is the only way to appraise whether an intervention has been effective and has brought about sustainable change. If the MSPs are not owned, carried and led by local stakeholders, they will not be viable.

Despite the exit having been agreed upon at inception, there was no explicit exit strategy. An exit strategy is a co-produced and co-owned plan that clarifies how engagements end or transforms over time. Sustainability is at its heart. It should be a 'living document' that is revisited regularly and evolves over time as contexts and circumstances change. Not everything can be anticipated. It is therefore the spirit and the general principles and mechanisms that should be agreed upon to allow all partners to stay on the same page as time progresses.

LESSON 4

Lesson 4: Use knowledge strategically and tactically

Ground processes in analytics | While stakeholders were ready to engage with 2030 WRG to move towards improved water resources governance and management, there were also tensions and conflicts in the country. As a respondent mentioned, there was a lot of finger pointing and blaming. Analytics helped to deal with this. It helped to demystify certain issues and increasingly focus on possible solutions; on what actually can be done. To do this, analytics should be accompanied by targeted engagement of partners. Analytics can be difficult to understand and engagement of partners with data should therefore be actively facilitated. 2030 WRG would, for instance, organize informal meetings to ensure that all partners could adequately understand and use available data.

Prioritize knowledge exchange and benefit from available (international) experiences | In addition to these analyses, partners underlined the value of reviewing international experiences: both good and bad practices, i.e. lessons learned. What has worked and what hasn't worked in similar situations and contexts. This prevents the MSP from having to reinvent the wheel, be aware of possible risks and as such secure timely progress. Adequately translating international lessons to another context should not be underestimated. Specific expertise is essential here. Partners underlined the importance of 2030 WRG here. Firstly, 2030 WRG values knowledge exchange. This made them attentive to international developments and seek out opportunities for innovation; opportunities to adapt available solutions for different contexts. Thirdly, 2030 WRG has a global reach which makes it possible for them to access relevant international experiences. Lastly, they involve the right experts. Specifically, experts with the capacity to understand and translate the international experiences and make them applicable to the Mongolian context.

An important lesson from this programme is the prioritization of knowledge exchange. This should not be limited to international knowledge exchange, but should in fact also include more local knowledge exchange mechanisms. As 2030 WRG withdraws, it will be up to the Mongolian MSPs, in particular the river basin MSPs, to replicate and upscale. This ambition will depend on their ability to exchange knowledge, particularly for partners to reach out and enable others in the country facing similar challenges to learn from their experiences and as such replicate and increasingly improve water resources governance and management throughout Mongolia.

LESSON
5

Lesson 5: Embrace serendipitous opportunism.

Be sensitive and responsive to contextual opportunities when envisioning the MSP | 2030 WRG engaged in Mongolia at an opportune moment. Industries were picking up and the economy was going strong. While this was positive, it was negatively affecting the available water resources. Both demand and pollution of water resources were increasing. The strain on water resources was furthermore intensified by climate change. The government was aware of the need to prioritize water resources management and important changes had been made to improve the policy environment. This included the acknowledgement that multi-stakeholder approaches were required. At the same time, the private sector realized that their future also depended on improved water resources management. Since communities cannot do without appropriate water resources, they were also organizing themselves to get their voices heard. In other words, relevant stakeholders were ready to engage and move forward jointly to understand and address the pressing water resources challenges. Understanding and taking advantage of such opportune moments is key to dealing with complex issues.

Conclusion

In light of the water resources challenges that Mongolia faces, improving the country's water resources management is critical. In 2013, 2030 WRG and the Mongolian government took advantage of the opportune moment, characterized by an enabling political arena, increasing awareness and prevailing willingness of relevant stakeholders, to launch the 2030 WRG Mongolian partnership. The engagement program aimed to contribute to improved water resources management in Mongolia and did so successfully.

The decade that 2030 WRG facilitated the MSPs celebrated key achievements for improved water resources management nationally and at the river basin level. Through their approach, 2030 WRG facilitated MSP partners towards more sustainable practices throughout the extractive sector, enabled a legal and policy environment that is conducive to sustainable water resources management, and increased capacity where actual implementation of more sustainable management practices is relevant, i.e. at the river basin level. In addition, they facilitated anchored outputs. The MSPs outputs are anchored in both legal and policy frameworks and human capacity, i.e. the partners. This is powerful, as it will increase the probability of the MSP's impact enduring. 2030 WRG's last contribution, for instance, was the co-development of the new National Integrated Water Resources Plan, including strategic objectives and concrete activities for the coming eight years. This provides a clear path forward to continue strengthening water resources management and move towards a sustainable future that includes economic development.

Successful ingredients of the 2030 WRG approach were a qualitative and transparent dedication to the MSPs and their partners, competent and knowledgeable interventions, and inclusive engagements. This cultivated important levels of respect and ownership and made mutual accountability possible. Partners are positive about the advances made and feel that they could not have attained these reforms and changes as competently and timely without the facilitation of 2030 WRG. As 2030 WRG withdraws, it will up to the local partners, to reflect and see how they will move forward. The knowledge and competence is in Mongolia. Ultimately, the partners need to take the lessons and move forward. Facilitating multi-stakeholder processes to address complex issues such as water resources management, however, is not straightforward. The review, appraisal and lessons included in this report should be seen as a tool of support for the partners as they move forward and take full control of the MSPs and the facilitation of any future MSP endeavors and multi-stakeholder processes.

Annexes

ANNEX 1 | 2030 WRG MONGOLIA PROGRAM TIMELINE

2008

Informal consortium | 2030 WRG formed an informal consortium including the International Finance Corporation (IFC) and several multinational corporations.

2012

Primary assessment on water resources management in Mongolia.

2013

MoU | Mongolia MSP launched with a Memorandum of Understanding (MoU).

2014

Targeted analysis | Analysis of scale and urgency of country's water challenges and areas of possible intervention.

2015

Pricing and water valuation methodology

2016

Hydroeconomic analysis | Gobi Mining area
Hydroeconomic analysis | Ulaanbaatar
Voluntary Code of Practice for mine water management | In collaboration with IFC, 2030 WRG collaborated on the Voluntary Code of Practice for mine water management. It was signed by 11 mining companies.

2017

MSP meetings | 'Review of River Basin Council'
MSP meetings | 'Development of National Standards for Treated Wastewater Reuse'
MSP meetings | Revision to water pollution fee law

2018

New River Basin Council Guidelines and **National Standards for Treated Wastewater Reuse** were **adopted.**

2019

Amendments | Amendments to the water pollution fee law
Assessment | Urban Water tariff assessment
Demo project | Reuse treated wastewater
Capacity building | Provincial laboratories for water pollution fee law
Capacity building | River Basin Administrations and environmental agencies on implementation of water pollution fee law

2020

Cabinet approval | Revised methodology for water valuation approved.

2021

Digital water platform | Digital portal and dashboard for groundwater datasets using disruptive technologies.

New national IWRM strategy and plan | 2030 WRG co-developed the new IWRM strategy and plan that is aligned with the new national development policy program and the Environmental Targeted Program.

ANNEX 2 | INFORMATION SOURCES

1. Documents, articles, and internet sources

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- World Bank. 'The Role of the State in Mongolia's Mining Sector. 2021, Washington, DC, USA (https://openknowledge.worldbank.org/handle/10986/37298).

ANNEX 2 | INFORMATION SOURCES

2. Key informant interview list

Below is a list of key informants who were interviewed virtually via Zoom for between 30 and 60 minutes. For a number of interviews, instant translation was used.

	Name	Organization	Date of Interview
1	Mr Tsogtsaikhan Chultemsuren	Amalgan Power Plant	May 12, 2022
2	Ms Erdene Batzorig	Mongolian Environment Civil Society Organization	May 12, 2022
3	Ms Rochi Khemka	2030 WRG Mongolia Task Team Leader	May 12, 2022 & June 9, 2022
4	Mr Myagmar Sharav	Government implementing agency 'Water Authority'	May 17, 2022
5	Ms Batjargal Danaa	MCS Coca Cola	May 19, 2022
6	Ms Oyun Sanjaasuren	Green Climate Fund	May 20, 2022
7	Mr Yalaltbayar Baatar	'Galba Uush Doloodiin Goviin' River Basin Authority	May 20, 2022
8	Ms Bulgan Tumen	Advisor to the National Security Council	May 20, 2022
9	Mr Erdenebulgan Luvsandorj	Ministry of Environment and Tourism (MET)	May 25, 2022
10	Ms Bolor Dorjderem	2030 WRG Mongolia Partnerships Coordinator	June 10, 2022