2030 Water Resources Group

HOSTED BY WORLD BANK GROUP Water

10 YEARS OF ACTION

2030

FROM DIALOGUE TO ACTION THE ROAD TO 2030

2030 WRG ANNUAL REPORT 2021

By 2030, global demand for fresh water will exceed supply by 40 percent. In many areas, water has already run out.

The 2030 Water Resources Group is a disruptive catalyst for change, leveraging the power of partnerships for transformative impact in the water sector.

By creating multi-stakeholder platforms at the country and state level, it is driving critical reforms and the adoption of improved practices, technologies, projects, and programs for tangible impact in water resources management.

This report tracks our activities and impacts between July 1, 2020, and June 30, 2021. It provides a record of our strategic approach and work at country and state levels.

CUMULATIVE HIGHLIGHTS IN NUMBERS

1,009 PARTNERS

- **334** PUBLIC
- **350** PRIVATE
- **325** CIVIL SOCIETY/OTHER

41 HYDRO-ECONOMIC REPORTS COMPLETED

95 PUBLICATIONS DEVELOPED

$968 MILLION CO-FINANCING FACILITATED

937 WORKSHOPS, TRAINING EVENTS, AND CONFERENCES HELD

$9.2 MILLION SECURED TO RUN MULTI-STAKEHOLDER PARTNERSHIPS

98 PROJECTS UNDER IMPLEMENTATION

REDUCED FRESHWATER ABSTRACTION BY **676.4** MILLION M^3 PER YEAR

REDUCED DISCHARGE OF UNTREATED WASTEWATER BY **296.5** MILLION M^3 PER YEAR

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MESSAGE FROM THE CO-CHAIRS

Paul Bulcke
Chairman of the Board
Nestlé, Co-Chair 2030 WRG
Governing Council

Juergen Voegele
Vice-President Sustainable
Development, World Bank
Co-Chair 2030 WRG Governing
Council

We are proud to celebrate the tenth 2030 WRG annual report—a milestone that reminds us of the many successful projects and collaborations over the last decade. But with less than 10 years to achieve the United Nations' Sustainable Development Goals (SDGs), more work still needs to be done, and we are running out of time to close the gap between global water demand and supply.

Today, the water crisis is more acute than ever as we face the triple challenge of climate change, COVID-19, and insufficient progress on the SDGs. The pandemic has brought the need for clean water into sharp focus: water is essential in preventing the spread of COVID-19 and facilitating the world's recovery. Clean water, sanitation, and hygiene are vital for curbing infectious diseases, yet access is still a major problem: 2 billion people—just over a quarter of the world population—do not have access to safe drinking water services, and 785 million people lack even a basic drinking water service. As we work to recover from the devastating effects of the virus, we need water and sanitation for health, education, job creation, and a sustainable environment.

At the same time, the effects of climate change continue to intensify. Droughts and floods are becoming more frequent and intense, glaciers are melting, forests are burning, groundwater is drying up, and cities and farms are running out of water. Climate change is expressed through the water cycle, making water an essential part of adaptation and mitigation measures. While there is no single solution to the climate crisis, improving the way we manage and invest in water is central to the climate transition—and our ability to achieve the SDGs.

Bringing people together to tackle complex challenges is at the heart of what 2030 WRG does, and the recent third-party evaluation validated this approach. The forward-looking assessment endorsed our multi-stakeholder approach and its relevance to global trends in the sustainable development landscape. The assessment highlighted 2030 WRG's distinct role in building collaborative capital across stakeholder groups and translating this capital into a shift in mindsets and practices in the water sector. It also identified several recommendations to strengthen and amplify our impact in the coming decade.

We have formed a working group of global partners to support implementing these recommendations. In particular, 2030 WRG will prioritize how we measure success and transformation in our global and country engagements; strengthen how we monitor and evaluate our impact; and ensure the long-term sustainability of existing country-level multi-stakeholder platforms (MSPs) while we explore new engagements in additional countries.

We are taking the 2030 WRG model to new places. We have been invited to work with governments to establish a national MSP in Rwanda and Pakistan, and we are set to establish a partnership at the city level in Cape Town, South Africa, through the Strategic Water Partners Network. Our membership is growing, too. We welcome Unilever and Credit Suisse as the newest members of our initiative, while retaining all our existing partners.

We look forward to expanding our global reach and attracting new and diverse partners in the future—this will be key to our ability to effectively respond to the triple crisis facing water and achieve our goals by 2030. We invite you to join us for the final sprint to the finish. With your help we can get there.

A DECADE OF CATALYZING ACTION FOR TRANSFORMATIVE CHANGE

IDEATION, PREPARATION, AND INCUBATION 2008-2012

- Creation of 2030 WRG at the World Economic Forum Annual Meetings in Davos, Switzerland. 2030 WRG is hosted by the Forum in Geneva.
- Charting our Water Future report
- First hydro-economic analysis in South Africa

DEMONSTRATION 2012-2018

- 2030 WRG transitions from the World Economic Forum in Geneva to the IFC in Washington, DC.
- Hungarian Govt and IUCN join 2030 WRG Governing Council as global partners
- First international south-south knowledge exchange between 2030 WRG countries in South Africa
- Second international south-south knowledge exchange between Peru and Mongolia on Water and Mining
- The first large-scale (and world's largest) community drip irrigation project at Ramthal in Karnataka, India
- The first Blue Certificates awarded by the National Water Authority in Peru to water responsible companies.
- First Blue Certificates awarded by the National Water Authority to water responsible companies
- The first public-private partnerships (PPPs) for wastewater treatment and reuse in the Ganga Basin in India
- The first Voluntary Code of Practice for sustainable mine water management in Mongolia
- The first PPP for industrial wastewater treatment in economic zones in Bangladesh
- The first automated water administration system for irrigation schemes in South Africa
- The first water accounting framework at the national level in India
- The first state-level policy on wastewater reuse in Karnataka

GETTING TO SCALE 2018-CURRENT

- 2030 WRG transitions from IFC to the World Bank Water Global Practice
- Government of Israel joins 2030 WRG Governing Council as global partners
- First Steering Board and GC Co-Chairs field visit to 2030 WRG country program: Peru
- Unilever and Credit Suisse join 2030 WRG Governing Council as global partners
- The first irrigation financing facility in Kenya
- First trading mechanism for wastewater reuse conceptualized using Wastewater Reuse Certificates
- First law on polluter pays principle enacted in Mongolia
- First city-based multi-stakeholder platform development in Cape Town
- Launching of the Social Pact for Water Initiative in Mexico
- First digital groundwater portal in Mongolia
- First standards for wastewater reuse in Mongolia
- First national-level Valuing Water initiative in Bangladesh
- First regulation for reuse of non-potable urban water in São Paulo

EXECUTIVE SUMMARY

This year's publication marks the tenth annual report of 2030 WRG. It also marks the end of another difficult fiscal period during which COVID-19 continued to have a devastating impact on the world. The link between health and water has never been clearer, and yet there is much to be done to ensure there is enough water and sanitation for all (Sustainable Development Goal 6). With less than a decade to 2030, it is time to move from dialogue to action.

Even before COVID-19 hit, progress on the SDGs was slow. According to a UN's recent SDG 6 progress report, 2 billion people do not have access to safely managed drinking water services, 3.6 billion people do not have access to safely managed sanitation services, and 2.3 billion people lack basic handwashing facilities at home. The UN also reported that 107 countries are currently not on track to have sustainably managed water resources by 2030.

As the world adjusts, adapts, and rebuilds in the wake of the pandemic, there is an opportunity to put the spotlight on water security. With the effects of climate change intensifying—clearly demonstrated in the increasing frequency of floods and droughts across the globe—managing water effectively should be at the heart of all our efforts to "build back better."

107 COUNTRIES ARE CURRENTLY NOT ON TRACK TO HAVE SUSTAINABLY MANAGED WATER RESOURCES BY 2030.

2 BILLION
PEOPLE DO NOT HAVE ACCESS TO SAFELY MANAGED DRINKING WATER SERVICES

3.6 BILLION
PEOPLE DO NOT HAVE ACCESS TO SAFELY MANAGED SANITATION SERVICES

2.3 BILLION
PEOPLE LACK BASIC HANDWASHING FACILITIES AT HOME

HIGHLIGHTS IN FY21

2030 WRG continued to promote collaborative action between government, companies, civil society, and communities on water challenges in FY21. Some of our highlights for the year are discussed below.

A review to evaluate and strengthen our impact

During the year, 2030 WRG commissioned a third-party evaluation to provide a critical and constructive review of its strategy and approach, and its relevance and effectiveness to deliver on the SDGs in a post-2020 world. The forward-looking assessment, undertaken by Hydroconseil, endorsed 2030 WRG's multi-stakeholder approach and its relevance to global trends in the sustainable development landscape. The assessment highlighted 2030 WRG's distinct role in building collaborative capital across stakeholder groups, and translating this capital into a shift in mindsets and practices in the water sector. It also identified several recommendations to strengthen and amplify the impact of 2030 WRG in the coming decade.

The third-party evaluation indicated that much of 2030 WRG's critical work in establishing multi-stakeholder platforms (MSPs) and ensuring their effective operation is not adequately captured in the existing monitoring framework. In response, a group of country representatives are working with an external consultant to develop a set of qualitative indicators that allow for a fuller reflection of our MSPs' work and contribution. This work is in its early stages, but monitoring has now begun and is reflected in some of the country narratives. This will ultimately provide a fuller assessment of 2030 WRG's work and impact in the future.

Global partnerships and engagements

Our work depends on both our country-level partnerships and our partnerships with companies and organizations at a global level. In FY21, 2030 WRG forged and strengthened several global partnerships:

- In FY21, **Unilever** joined the 2030 WRG Governing Council to support global and country programs.
- **Credit Suisse** joined 2030 WRG as a global partner, bringing a strong focus on financial innovation and finance facilitation for the water sector.
- The **government of Hungary** and IFC formally initiated the next phase of their partnership in March 2021, agreeing to work together on IFC's creating markets strategy and on its response to the COVID-19 pandemic. The expanded partnership included the renewal of Hungary's three-year commitment to the mission of 2030 WRG.

- In collaboration with the **Korea Green Growth Trust Fund (KGGTF)** and **Korea's Environmental Industry and Technology Institute (KEITI)**, 2030 WRG is advancing circular economy approaches in Ulaanbaatar, Mongolia. The partnership supports greener growth pathways for the city by treating melted ice overflow and untreated wastewater to support power generation, with close to $1 million in financing.
- **GIZ** and 2030 WRG, building on existing partnerships in the states of Uttar Pradesh and Maharashtra in India, are working together to address challenges in improving water-use efficiency and reuse. GIZ has agreed to support 2030 WRG with a multi-donor trust fund contribution of €1.2 million to build a private-sector-driven coalition to improve business and sustainability outcomes for the textile sector.
- The first meeting of the new **2030 WRG São Paulo Steering Committee** took place in December 2020.

€1.2 MILLION

MULTI-DONOR TRUST FUND CONTRIBUTION BY GIZ TO BUILD A PRIVATE-SECTOR COALITION TO IMPROVE BUSINESS AND SUSTAINABILIY WITHIN THE TEXTILE SECTOR.

- The **50L Home Coalition** is a public-private initiative, formed with the support of the World Economic Forum, the World Business Council for Sustainable Development, and 2030 WRG in October 2020. The coalition aims to help solve two of the world's most pressing challenges—water security and climate change—by reinventing sustainable home-living. Currently, average water use in developed countries can be as high as 500 liters per person. This initiative seeks to positively disrupt urban domestic water use and facilitate circular economy solutions, making 50 liters feel like 500 liters.

Fast-tracking initiatives for big impact

2030 WRG is initiating key country initiatives, known as "accelerator programs", for greater impact at country level. The programs are high-impact, fast-track engagements to address pressing water challenges. They involve collaboration across the World Bank Group, bringing together various World Bank global practices and IFC. Current accelerators include improving water quality in Bangladesh, transforming rice value chains in India, enhancing national water security in Peru, expanding farmer-led irrigation in Kenya, and conducting a hydro-economic analysis and developing an MSP in Cape Town, South Africa.

WE ESTABLISHED TWO NEW PARTNERSHIPS DURING THE YEAR. 2030 WRG HAS OFFICIALLY BEEN INVITED BY RWANDA AND PAKISTAN TO ESTABLISH MSPS.

Strengthening MSP partnerships

During FY21, 2030 WRG continued to foster new partnerships and strengthen existing relationships in support of its goal to reach 25 countries by 2030. We established two new partnerships during the year. 2030 WRG has officially been invited by Rwanda and Pakistan to establish MSPs.

Ethiopia, we are supporting a group of private sector companies to form an alliance in the beverage sector. The alliance aims to foster collective action to accelerate sustainable water resources management across the sector. It was launched shortly after the close of the reporting period, in August 2021.

Under the Karnataka MSP in India, the government of Karnataka has created a new workstream on watersheds. The workstream facilitates discussions for the World Bank Program on Rejuvenating Watersheds for Agricultural Resilience through Innovative Development (REWARD).

In Tanzania, the National Multi-stakeholder Forum (NMSF) on water resources has transformed from a government meeting and event to an MSP platform. And arrangements to incorporate the Kilimanjaro Water Stewardship Platform into the first of nine government-run basin management forums were formally concluded in FY21.

In collaboration with Vietnam's Ministry of Agriculture and Rural Development, 2030 WRG worked towards the launch of a new workstream on agriculture water productivity enhancement. It was launched shortly after the close of the reporting period, in July 2021.

See country-specific pages, starting on page 32, for more detail on the projects outlined here.

Our impact in key thematic areas

Transforming agricultural value chains

2030 WRG empowers farmers by improving their access to technical training and irrigation technology and connecting farmers to markets and financing. During FY21, our work to strengthen agricultural value chains included:

- Conducting two assessments in Kenya—an action research project to design financing models for farmers to invest in irrigation and overcome hurdles related to knowledge and access to finance, and a rapid diagnostic study to identify constraints and opportunities in catalyzing farmer-led small-scale irrigation.
- Making significant progress on improving water productivity in Maharashtra's irrigated (command) areas.
- Working with the Rwandan Ministry of Agriculture to assess the effectiveness of the small-scale irrigation technology subsidy program.

IN COLLABORATION WITH VIETNAM'S MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT, 2030 WRG WORKED TOWARDS THE LAUNCH OF A NEW WORKSTREAM ON AGRICULTURE WATER PRODUCTIVITY ENHANCEMENT, WHICH WAS LAUNCHED IN JULY 2021.

- Scaling up the Uttar Pradesh PRAGATI project—an inclusive water security, livelihoods security, and agriculture security project implemented on 8,000 hectares, impacting 10,000 families, with estimates of 80 billion liters of water conserved and ~$16 million of investment mobilized. The government of Madhya Pradesh has invited 2030 WRG and GIZ to replicate the model in Sehore district and provide technical support to scale the project across another 51 districts in the state.
- Achieving a significant milestone for the Karnataka Drip-to-Market Agricultural Corridor (DMAC) project with the addition of a pulse processing unit built with private investment. The DMAC Project Implementation Unit also established a nursery through a private investment—and finalized an innovative plan for an extended harvesting season to increase farmer profits and productivity.

Promoting circular economy solutions

One of 2030 WRG's key focus areas is supporting the move away from a "take, use, discharge" approach to water towards a circular water economy—one that reduces consumption, reuses and recycles water and wastewater, and adds value to the economy. A circular economy approach offers the opportunity to capture the full value of water while preparing cities for risks and water shocks.

Our work in this area during the reporting period included:

- Providing technical support to the Ethiopian Industrial Parks Development Corporation (IPDC) to enable the design of a tailormade cost recovery model for central effluent treatment plants.
- Launching a technical assistance support program for two water utilities in Kenya, and designing a risk-based surcharge mechanism for trade effluent management along with guidelines for its use.
- Supporting the São Paulo Metropolitan Region Wastewater Treatment Plant Optimization Program in Brazil, which aims to improve the performance of four wastewater treatment plants operated by the state-owned water and sanitation utility.
- Facilitating the development of cost-effective decentralized wastewater treatment systems in the Saharanpur district of Uttar Pradesh to treat wastewater flowing from drains into the Hindon River, a tributary of the Ganga River. 2030 WRG was also asked to replicate the model in other areas.
- Commissioning a study on the feasibility of wastewater reuse in two textile-specific industrial parks in Vietnam, the first of which has been completed. The team has also developed a compendium of international public-private partnership case studies for wastewater treatment and reuse, and a policy paper on public-private partnerships for urban wastewater.

ONE OF 2030 WRG'S KEY FOCUS AREAS IS SUPPORTING A CIRCULAR WATER ECONOMY—ONE THAT REDUCES CONSUMPTION, REUSES AND RECYCLES WATER AND WASTEWATER, AND ADDS VALUE TO THE ECONOMY.

- Supporting the South African Strategic Water Partners Network (SWPN) review to identify new partnership and impact areas. As a result, the SWPN is developing concept notes and identifying the right partnerships to implement new programs and projects. These initiatives include revitalizing the No-Drop program, which provides certificates of recognition to municipalities that prioritize water conservation and demand management.
- Conducting a review of 10 industrial areas in Karnataka, India, with a view to setting up common effluent treatment plants using public-private partnerships. This review took place following the government of Karnataka's approval of the Industrial Policy 2020–25, which provides for policies for industrial water security, in line with discussions at 2030 WRG MSP meetings.
- Supporting the development of an action plan to holistically address the issue of plastic pollution in the four rivers around Dhaka city in Bangladesh.

Building resilience

Given the slow progress made on the SDGs, the need to build resilience and prepare for future shocks is more important than ever. During the year, our work to strengthen resilience planning included:

- Establishing the draft outline of a study to create a knowledge base for initiating the Pakistan MSP.
- Developing innovative methodological guidelines and tools for integrating the raw water charges system to watershed planning, and technically supporting the decision-making processes conducted under the river basin committees (case study: Piracicaba, Capivari, and Jundiaí rivers basins – PCJ basins).
- Conceptualizing and implementing a water financing system for Mexico's water sector, in collaboration with other stakeholders, aimed at removing investment bottlenecks, increasing resource flows, and diversifying sources of financing for water. 2030 WRG has also worked with stakeholders to support the development of innovative policy instruments and legal mechanisms to increase the water allocation regime's resilience and flexibility in the face of mounting challenges.

- Supporting the hosting of a virtual training session in Peru focused on implementing projects under the Works for Taxes mechanism, an innovative approach to accelerating public infrastructure development through private investment. More than 380 private sector participants attended.
- Signing a letter of intent with GIZ under Kenya's Kilimanjaro Water Stewardship Program (KWSP) and ramping up cash co-financing and technical co-creation arrangements. Overall, participation by national level partners in KWSP improved despite the pandemic.

Disruptive technologies

Disruptive technologies are increasingly recognized among our MSPs as crucial tools for enabling real change in the water sector. During the year, we continued to prioritize innovation and cutting-edge technology to help solve water challenges, including:

- Facilitating the development of a data architecture to understand groundwater availability and support predictions of groundwater levels and data, laying the foundation for a digital water platform and dashboard in Mongolia.
- Launching an innovative alternative financing and disruptive technology engagement in Maharashtra. 2030 WRG has successfully set the stage for attracting innovative financing for the water sector through a results-based carbon financing mechanism for socio-agro forestry in Nandurbar district that also leverages disruptive technologies. The pilot envisages the use of drones, satellite technologies, IoT sensors, and analytics to create a platform for smallholder farmers to access valuable information and adopt sustainable practices.
- Running a Water Innovation Challenge Competition 2021 through the Bangladesh MSP's dedicated water innovation workstream. The competition launched in February 2021 and ran for four months. It aimed to crowd-source 4th industrial revolution technology-based solutions to measure water footprints in urban and industrial areas. More than 100 submissions were collected on solutions ranging from IoT smart-metering, machine learning, artificial intelligence, and Blockchain. The winning ideas will be announced in December 2021 and, with support from partner organizations, will go through prototype development, piloting and scale up.

AS THE ONLY PUBLIC-PRIVATE-CIVIL SOCIETY INITIATIVE OF ITS KIND IN THE WATER SECTOR, 2030 WRG CAN MAKE A SIGNIFICANT CONTRIBUTION TO DELIVERING THE SDG ON WATER IN THE COUNTRIES WHERE WE WORK, BUT ALSO TO OTHER SDGS THAT DEPEND ON WATER.

See country-specific pages, starting on page 32, for more detail on the projects outlined here..

Looking ahead: the road to 2030

As we reflect on the past decade, we are presented with an opportunity to learn from our successes and challenges as we rapidly approach the SDG target date of 2030.

The new decade brings with it a chance to reevaluate the way we work. The third-party assessment conducted in FY21 will play an important role in this as we put the recommendations in place and gain a better understanding of our impact as we work to accelerate action on the SDGs. As the only public-private-civil society initiative of its kind in the water sector, 2030 WRG can make a significant contribution to delivering the SDG on water in the countries where we work, but also to other SDGs that depend on water.

To ensure the greatest impact possible, 2030 WRG is ramping up its fundraising efforts to mobilize resources for MSPs and their workstreams. Our work relies on providing a neutral platform that enables relationships of trust to develop over many years. For these partnerships to grow and have real impact, MSPs need to be sustainable in the long term. 2030 WRG's hosting within the World Bank Group is a key differentiator that helps it catalyze funding from a range of sources, including the public and private sectors and multilateral agencies.

Our position within the World Bank Group also creates significant opportunities for collaboration and resource mobilization across the organization itself. 2030 WRG is committed to deepening its engagement with the World Bank Group over the next year, ensuring greater alignment in activities, strategies, and investments. An example of our increased collaboration with the World Bank Group is our high-impact accelerator programs (see page XX), in which various World Bank global practices and IFC teams are coming together with 2030 WRG to scale up action in strategic areas. These programs will be a central focus for 2030 WRG going forward as it works to deepen impact in key thematic areas and cement its position as a catalyst for credible and innovative water solutions in the decade to come.

OUR RESPONSE TO COVID-19

2030 WRG adapted its multi-stakeholder model to rapidly respond to evolving COVID-19 challenges in various countries. Each 2030 WRG country team demonstrated agility in responding to the COVID-19 pandemic. For example, 2030 WRG in Kenya kept up the momentum and dialogue in the country by holding virtual governing board meetings, one in October 2020 and a subsequent one planned in October 2021. In Tanzania, 2030 WRG's team remained resilient and focused despite the pandemic and a challenging external environment with a change in leadership at the Ministry of Water.

Uttar Pradesh COVID Economic Recovery Alliance

2030 WRG has partnered with the United Nations Development Program (UNDP) to set up the Uttar Pradesh COVID Economic Recovery Alliance (UP-CERA) in collaboration with the government of Uttar Pradesh. UP-CERA is facilitating collaboration among development agencies for livelihoods and economic recovery interventions across the state.

Working to prevent the spread of COVID-19 in Bangladesh

Unilever Bangladesh, with Bangladesh Red Crescent Society and 2030 WRG, collaborated to prevent the spread of COVID-19 at the Deputy Commissioner's offices in 64 districts. These offices are the focal government agencies that coordinate disaster response operations. Unilever Bangladesh pledged approximately $2.4 million to help the nation in its fight against COVID-19. The commitment included donating products, creating awareness, improving health infrastructure, and protecting people and livelihoods. Under this collaboration, water, sanitation, and hygiene (WASH) was improved by installing hand washing stations at the entrance of each Deputy Commissioner office, with added support for disinfection of office compounds, improved sanitation, and safe drinking water facility across 64 districts.

Using innovative finance in India's COVID recovery

2030 WRG co-authored a report on re-imagining traditional finance for India's COVID recovery, along with the UNDP SDG Finance Facility, the Impact Investors Council, and Nishith Desai Associates. The report looks at regulatory enablers to mainstream innovative finance and accelerate the flow of capital into key development sectors.

Global Hand Hygiene Accelerator

2030 WRG is partnering with the World Bank on the Global Hand Hygiene Accelerator, which includes support for private sector engagement on innovative solutions in Kenya and Bangladesh.

In Kenya, with support from the World Bank Water Expert Facility, 2030 WRG and the World Bank Water Global Practice are undertaking an analysis of possible public utilities—private vendor partnership investment models—to extend water supply for handwashing at home in the Nairobi metropolis area. 2030 WRG is also leveraging its urban water management workstream platform to bring together the key actors to define the scope of analysis and packaging of possible investment models for delivering water for handwashing.

In Bangladesh, in collaboration with Dhaka South City Corporation, Unilever, HSBC, and UNDP, 2030 WRG provided WASH support to 53,000 waste-pickers in Dhaka South City Corporation and 300 officials. The indirect benefit of the initiative has reached about 8 million residents currently living in Dhaka South City Corporation.

FY21 AT A GLANCE

JULY 2020

- **July 1, 2020** | Restarting Economies, Building Resilience
- **July 14, 2020** | Unilever joins 2030 WRG Governing Council
- **July 20, 2020** | Webinar on Collective Action as a First Step Toward Scaling Inclusive Farmer-Led Irrigation Development (FLID) Sustainably

AUGUST 2020

- **August 5, 2020** | Webinar on Wastewater Urban Reuse Regulations São Paulo & Minas Gerais

  A recent webinar on wastewater urban reuse regulations in São Paulo & Minas Gerais was organized by the Brazilian Association of Water, Sanitation, and Environmental Engineering. 2030 WRG was an active participant in the dialogue that led to these reforms in São Paulo. https://www.youtube.com/watch?app=desktop&v=uleuSHHq-yw

- **August 2020** | Stockholm World Water Week (at home) https://www.2030wrg.org/2030-wrg-at-2020-wwweek-at-home/
  - **August 24, 2020** | Official launch of the 50L Home Coalition
  - **August 24, 2020** | Building Resilience at All Levels – From Local to National*
  - **August 25, 2020** | Nature-based Solutions to Address Water Scarcity due to Climate Change*
  - **August 27, 2020** | Multi-Stakeholder Cooperation to Leverage the SDG6 in the Business Agenda*

  *These sessions were jointly organized with Brazil Global Compact.

SEPTEMBER 2020

- **September 21** | WEF Sustainable Development Impact Summit

  2030 WRG hosted an affiliate session at the summit. The webinar stressed the need to bust silos and make water a top priority of stakeholders. Country examples focused on reforms generated through MSPs in transforming value chains and building resilience. Mari Pangestu and Juergen Voegele were among the prominent speakers. https://youtu.be/C5ehEze4BDA

- **September 25** | Organization of American States Strategic Partnerships for a Common Water Agenda in the Americas: Experience from Brazil

OCTOBER 2020

- **October 7, 2020** | Webinar on Wastewater Network Management: Control of Losses, Inflows, and Unauthorized Access (Brazil)
- **October 27, 2020** | 3-part webinar series on Re-imagining Reuse of Treated Wastewater for agriculture in India. Part 1: Reuse and Applications of Treating Wastewater in Agriculture: Mapping the India Story and Insights from Israel

NOVEMBER 2020

- **November 2020** | South Africa Water Stewardship Event

  The 6th annual water stewardship event showed how strengthening water sector governance and stewardship practices can provide a pathway for a green, inclusive recovery from COVID-19 impacts. 200+ water sector representatives attended this virtual event hosted by the Strategic Water Partners Network (SWPN), National Business Initiative (NBI), and the Royal Danish Embassy, with support by GIZ's Natural Resources Stewardship Programme (NatuReS).

- **November 5, 2020** | Digital Technology Applications for Agricultural Water Productivity Improvements. https://www.2030wrg.org/webinar-on-digital-technology-applications-for-agricultural-water-productivity-improvements/

  2030 WRG launched a webinar mini-series on digital technology applications across the agricultural supply chain with an emphasis on linkages between water and agriculture.

- **November 13, 2020** | Organization of American States High-Level Dialogue on Water and Strategic Partnerships for Integration in Central America
- **November 23, 2020** | WEF Bold Actions for Food as a Force for Good
- **November 24, 2020** | Partnerships in Hand Hygiene: The Role of the Private Sector

DECEMBER 2020

- **December 3, 2020** | Tanzania National Multi Sectoral Forum on Water Resources Management

  A high-level hybrid in-person/virtual multi-stakeholder forum was held in Dar es Salaam, Tanzania. The forum focused on the importance of collective action and enhancing water security.

JANUARY 2021

- **January 12, 2021** | 3-part webinar series on Re-imagining Reuse of Treated Wastewater for agriculture in India. Part 2: Wastewater Treatment Systems and Technologies: Fit for purpose – Fit for India

FEBRUARY 2021

- **February 26, 2021** | Catch the Rain webinar series (India): Webinar 1 – Blending Community Ownership & Technology Innovation in Sustainable Water Conservation

MARCH 2021

- **March 10, 2021** | Catch the Rain: Webinar 2 – Sustainable Water Resource Management

APRIL 2021

- **April 22, 2021** | 3-part webinar series on Re-imagining Reuse of Treated Wastewater for agriculture in India. Part 3: Holistic Wastewater Management and Reuse: Integrating Planning Reforms and Innovative Financing

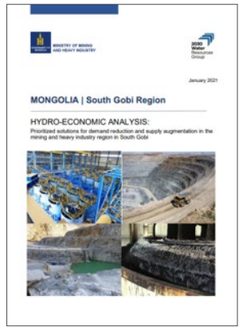
MAY 2021

- **May 2021** | World Bank Water Online Week (WOW!)
- **May 2021** | Credit Suisse joins 2030 WRG Governing Council
- **May 27, 2021** | Ethiopia Farmer-led Irrigation Multi-Stakeholder Dialogues: Value Chain Approaches to Small Scale Irrigation Development

JUNE 2021

- **June 15, 2021** | Catch the Rain: Webinar 3 – Making Every Drop Count and Water Use
- **June 16, 2021** | Water Tech Innovation Israel
- **June 28, 2021** | Credit Suisse Sustainability Week

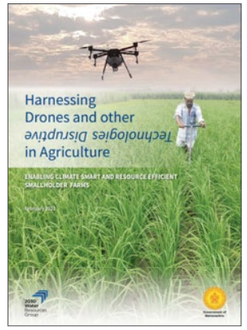
PUBLICATIONS AND MULTIMEDIA



Mongolia, South Gobi Region – *Hydro-Economic Analysis: Prioritized Solutions for Demand Reduction and Supply Augmentation in the Mining and HeAavy Industry Region in South Gobi* (January 2021)

Available at: https://www.2030wrg.org/wp-content/uploads/2021/02/2030-WRG-Mongolia-HEA-Mining-Report-Final-Jan-2021.pdf (English)

https://www.2030wrg.org/wp-content/uploads/2021/02/2030-WRG-Mongolia-HEA-Mining-Report-Mon-Jan-2021.pdf (Mongolian)



India, Maharashtra – *Harnessing Drones and other Disruptive Technologies: Enabling Climate-Smart and Resource-Efficient Smallholder Farms* (February 2021)

Available at: https://www.2030wrg.org/wp-content/uploads/2021/02/2030-WRG-DAT-White-Paper-Feb-21.pdf

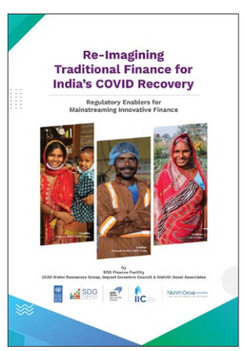
Mongolia – *Digital Water Platform: Development of a Groundwater Monitoring Portal using Disruptive Technology* (April 2021)

Available at: https://www.2030wrg.org/wp-content/uploads/2021/04/2030-WRG-Mongolia-Groundwater-Predictions-Report.pdf

India, Maharashtra – *Recommendations to Enhance the Impact of Sustainability Standards on Smallholder Cotton Farmers in Maharashtra* (February 2021)

Published in partnership with WWF-India, IKEA and Government of Maharashtra. Knowledge partner – Deloitte

Available at: https://www.2030wrg.org/wp-content/uploads/2021/02/maharastra_cotton_report.pdf



India – *Re-Imagining Traditional Finance for India's COVID Recovery* (May 2021, published in partnership with UNDP SDG Finance Facility, Impact Investors Council, and Nishith Desai Associates)

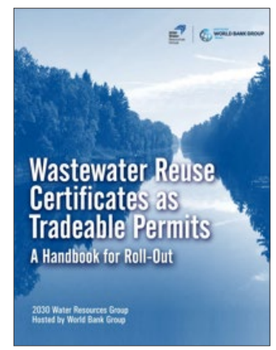
Available at: https://drive.google.com/file/d/1_NZjs9m9H_D7VF97xR1acRQ-NtVsLfCg/view

Bangladesh – *Position paper on Valuing Water in Bangladesh* (August 2020)

Available at: https://www.2030wrg.org/wp-content/uploads/2020/11/Position-Paper-on-Valuing-Water-in-Bangladesh.pdf

2030 WRG *2021 Communications Toolkit* and key messages brochure (March 2021)

Available at: https://www.2030wrg.org/communications-toolkit-2/



2030 WRG *Handbook on Wastewater Reuse Certificates* and digital tools

2030 WRG has developed a handbook on wastewater reuse certificates, an innovative market-based tradeable permit mechanism for wastewater reuse, outlining both regulatory and voluntary mechanisms for engagement. The handbook is accompanied by an app and a website.

Available at: https://www.2030wrg.org/wp-content/uploads/2021/10/Wastewater-Reuse-Certificates-Handbook-FINAL-FOR-WEB.pdf

2030 WRG digital tool for mapping textile sector water

In collaboration with global apparel brands and textile factories, 2030 WRG has developed a digital tool for mapping the textile sector's water footprint, leveraging machine learning algorithms, advanced statistical models, and IoT metering.

Mongolia – Water Pollution Fee Law video (May 2021)

Wastewater pollution is a big challenge in the Tuul River in Ulaanbaatar, Mongolia. To address this, 2030 WRG helped develop a revised Water Pollution Fee Law to practically implement the polluter pays principle. With the approval of the revised Water Pollution Fee Law, over 60 million cubic meters of wastewater is expected to be avoided from being released into the Tuul River.

Available at: https://www.youtube.com/watch?v=JrIyPWakBEU

ABOUT 2030 WRG

2030 WRG brings together partners from various sectors to work together identify, develop, and pilot solutions to water challenges. Our thematic work areas are:

- Transforming the value chain
- Promoting circular water economies
- Improving resilience planning.

It is through these areas of work that we focus on helping countries reduce their municipal water losses, improve agricultural water-use efficiency, and reduce and reuse industrial water. We support solutions that foster private sector action, use appropriate technology, improve public policy and build institutions for good water governance, and catalyze innovative financing in the water sector.

The importance of MSPs for water security

Bringing diverse stakeholders together for collective action

2030 WRG's success lies in its multi-stakeholder platform model. MSPs bring a range of partners together from various sectors to discuss, engage, and cooperate for better water management. The platforms put ownership in the hands of the stakeholders, with 2030 WRG acting as a support, rather than a leader in the process of finding solutions. This collective action that MSPs can facilitate is critical for achieving water security.

Collective action is an advanced form of societal organization, whereby a group can demand and provide collective goods – like water security – effectively and efficiently. No single agent can produce collective goods on their own. MSPs work because they accept and foster interdependencies between stakeholders, acknowledge their comparative advantages and legitimate interests, and advance coordination and cooperation throughout the policy process and project implementation.

So far, our MSPs have played different roles, performed unique functions, and have achieved a range of diverse impacts that ultimately create enabling conditions and opportunity structures for collective action. The platforms have:

- Enabled rapid knowledge-generation and sharing on multifaceted water challenges
- Fostered intellectual openness and inclusive public deliberation on complex problems
- Supported the recognition that different stakeholders may have different understandings of reality and valid interests
- Heard multiple voices in decision-making processes, rather than taking a top-down approach.

2030 WRG is developing a formal typology framework to support its own understanding of MSPs. It is already clear that these platforms differ in several ways, from how they originate (some are established by 2030 WRG, others existed loosely before 2030 WRG started to support them), to their focus areas (some have a broad scope, others have one theme they focus on), to their geographical scale (some MSPs are national, others are at state level), to the type of work they do (some platforms engage in diagnostic work, others focus on policy recommendations or developing pilot projects)..

The institutional evolution of the MSP

We are also working to understand the institutional evolution pathways of our MSPs. It is early to say, but it is clear that MSPs do go through some form of maturation process, which can be dynamic and not necessarily unidirectional. Common steps in this evolution include:

- Consolidation or formalization of roles, functions, and power. An MSP can become a formal agent, consolidating and expanding its functions to become a powerful actor.
- Adaptivity over time/resilience. In time an MSP can become adaptive and resilient – not only to water sector challenges, but also to changing and adverse political economy conditions.
- Growth in institutional capacity/professionalization. An MSP can establish a range of institutional arrangements to ensure high-quality analytics and inclusive public deliberation. They can also increase their capacity to resolve conflicts and build consensus.
- Financial self-sustenance and autonomy. Over time, an MSP may become self-sufficient through different financing mechanisms (member and donor contributions, budget allocations, project management fees). This autonomy can help maintain the platform's neutrality and impartiality.

ESTABLISHING AN MSP

Note: Phases are not always linear

WHERE WE WORK

HOSTED AT THE WORLD BANK
IN WASHINGTON, DC

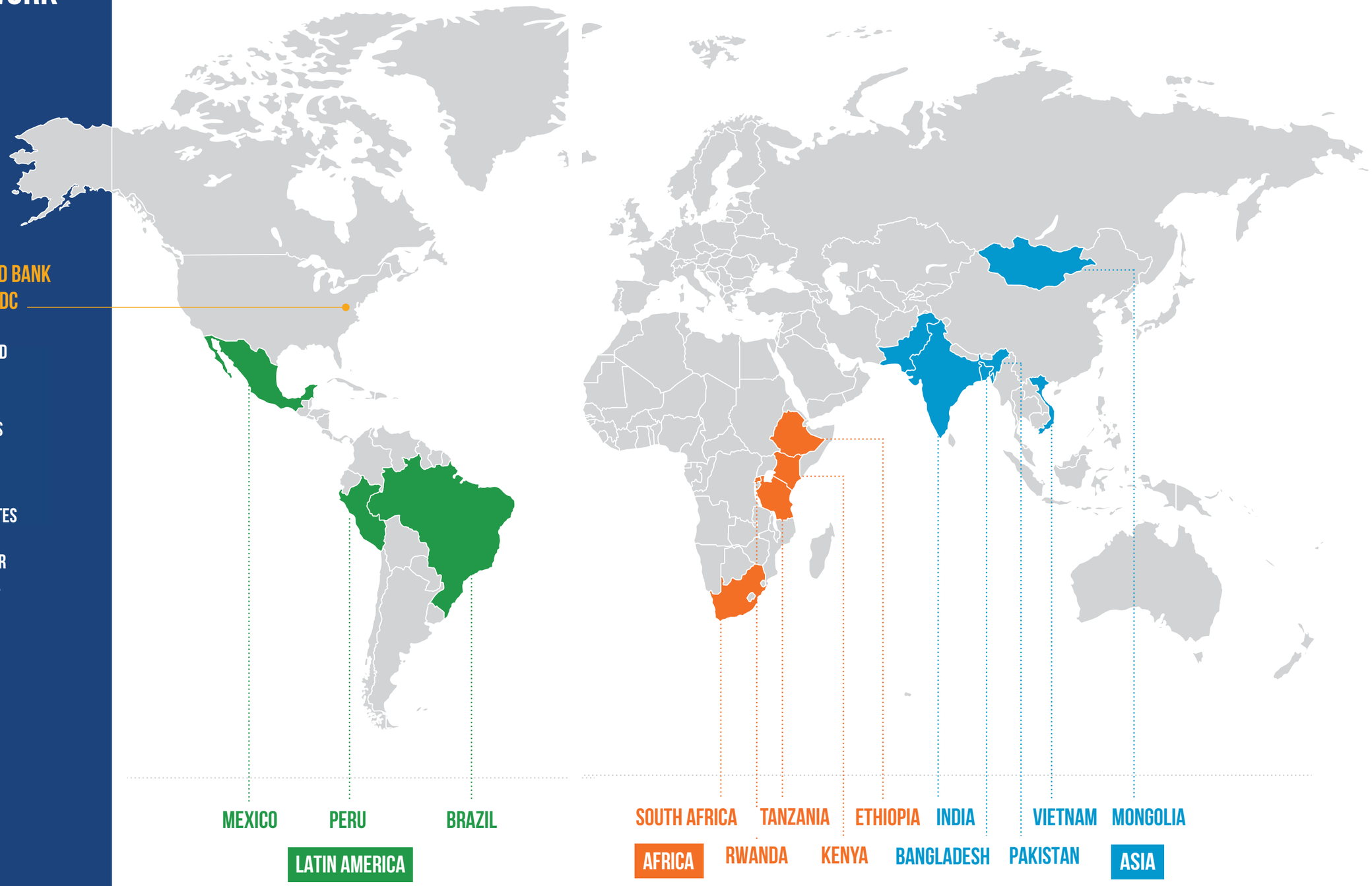
WE HAVE MOBILIZED

1009

PARTNERS ACROSS

14

COUNTRIES AND STATES
THROUGH OUR
MULTI-STAKEHODER
PLATFORM MODEL



GLOBAL PARTNERS

Our work would not be possible without the support of our global and country-level funders.

Multinational companies

Bilateral donors

Development banks

INGOs and IGOs

ABInBev · The Coca-Cola Company · Nestlé · PepsiCo · Credit Suisse · Unilever

Government of Hungary · State of Israel Ministry of Economy and Industry · Schweizerische Eidgenossenschaft / Confédération suisse / Confederazione Svizzera / Confederaziun svizra

IDB Inter-American Development Bank · WORLD BANK GROUP · THE WORLD BANK · IFC International Finance Corporation

brac · Global Green Growth Institute · Global Water Partnership · IUCN · World Economic Forum · UNDP

2030 Water Resources Group | HOSTED BY WORLD BANK GROUP Water

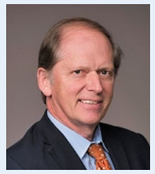
GLOBAL PARTNERS

2030 WRG GOVERNANCE, LEADERSHIP, AND STRUCTURES

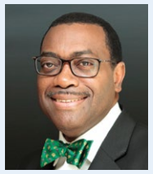
MEMBERS OF THE GOVERNING COUNCIL FY21

2030 WRG's governance structure comprises a Governing Council, Steering Board, and Secretariat. The Governing Council consists of senior executives of development partners, who guide the strategic direction of 2030 WRG. They also help to promote 2030 WRG and its activities within their extensive networks.

Paul Bulcke
Chairman, Board of Directors, Nestlé S.A./ Co-Chair, 2030 WRG Governing Council



Juergen Voegele
Vice President for Sustainable Development, World Bank/Co-Chair, 2030 WRG Governing Council

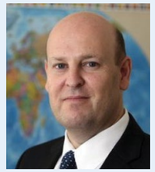


Akinwumi Adesina
President, African Development Bank (AfDB)

László Balogh
Deputy State Secretary of Financial Policy Affairs, Ministry for National Economy, Government of Hungary

Howard Bamsey
Chair, Global Water Partnership (GWP)

Carlos Brito
Chief Executive Officer, AB InBev



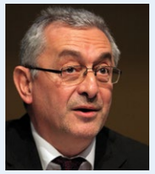
Ohad Cohen
Head of the Foreign Trade Administration, Ministry of Economy and Industry, Government of Israel

Ramon Laguarta
Chief Executive Officer & Chairman, Board of Directors, PepsiCo

Tony Milikin
Chief Sustainability and Procurement Officer, AB InBev

Luis Alberto Moreno
President, Inter-American Development Bank (IADB)

Muhammad Musa,
Executive Director, BRAC International

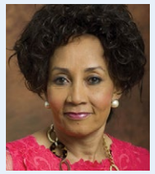


Bruno Oberle
Director-General, International Union for Conservation of Nature (IUCN)

James Quincey
President & Chief Executive Officer, The Coca-Cola Company

Frank Rijsberman
Director-General, Global Green Growth Institute (GGGI)

Manuel Sager
Ambassador & Director-General, Swiss Agency for Development and Cooperation (SDC)



Lindiwe Sisulu
Minister of Human Settlements, Water and Sanitation, Government of South Africa

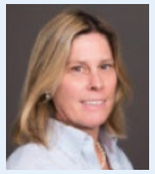
Achim Steiner
Administrator, United Nations Development Programme (UNDP)

Dominic Waughray
Managing Director, World Economic Forum

MEMBERS OF THE STEERING BOARD FY21

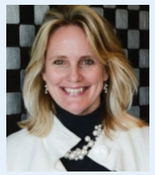
The Governing Council appoints the members of the Steering Board, which oversees the management of 2030 WRG. The Board reviews and submits a strategic plan and budget to the Governing Council each year. The Board also supervises the Secretariat; approves its plan, budget, and proposed country programs; supervises funding and resource development within countries; and comments on 2030 WRG's work program.

Dominic Waughray
Managing Director, World Economic Forum/Co-Chair, 2030 WRG Steering Board



Jennifer Sara
Senior Director, Water Global Practice, World Bank Group/ Co-Chair, 2030 WRG Steering Board

Zafrir Asaf
Director of the Emerging Markets and Development Finance Department, Ministry of Economy and Industry Government of Israel



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Andre Fourie
Global Director, Water Sustainability, AB InBev

Balazs Heincz
Deputy Head, Department for Water Diplomacy and the Danube Region Strategy, Government of Hungary

Alice Laidlaw
Global Head, Cities and Environment Infrastructure, International Finance Corporation (IFC)

Isabella Pagotto
Senior Advisor/ Program Manager, Global Program Water, Swiss Agency for Development and Cooperation, Federal Department of Foreign Affairs

Peter Repinski
Chief Operations Officer (COO) & Deputy Executive Secretary, GWP

Ulrike Sapiro
Senior Director, Water Stewardship and Agriculture, The Coca-Cola Company

Ghislaine Weder
Head, Economics and International Relations, Nestlé

COUNTRY AND SUBNATIONAL PROGRAMS

AREAS OF WORK

Water governance and sustainability | Greater Dhaka watershed restoration | Industrial water and wastewater | Agri-water | Water innovation

The Bangladesh Water Multistakeholder Partnership (BWMSP) is working with the public and private sector, civil society, and academia to transform the water sector in Bangladesh. The BWMSP is led by the Cabinet Secretary (the highest ranking official) and co-chaired by the Bangladesh Rural Advancement Committee (BRAC) and the International Chamber of Commerce, Bangladesh. 2030 WRG facilitates the process and provides secretariat support.

The BWMSP successfully catalyzed more than 10 initiatives and mobilized $636.42 million in the last year from public, private, and development partners. The impact of this work is expected to reduce freshwater abstraction by 26 million cubic meters and wastewater discharge by 13 million cubic meters annually. The MSP is working with the government to enhance the institutional capacity and align the policy frameworks to sustain these changes.

A key achievement in FY21 was facilitating the approval process for additional staffing for Bangladesh's Water Resources Planning Organization (WARPO). This is one outcome of a long-term institutional strengthening plan developed by the water governance and sustainability workstream, acting through a high-level task force.

The MSP endeavors to engage private sector in the water sector decision-making processes. This has brought multinational companies like Unilever, the Coca-Cola Company, Nestlé, and international textile brands towards a set of common goals.

Key highlights

Developing a national strategy for managed aquifer recharge

Groundwater is the main source of water for domestic use, irrigation, and industry in Bangladesh. Good groundwater flows are also needed to maintain the health of streams and dependent ecosystems in the dry season.

But excessive abstraction, pollution, and climate change are putting increasing stress on this precious resource. Groundwater is contaminated by arsenic in central Bangladesh and by salinity in the coastal regions, while industrial pollution is an emerging problem in other areas.

Managed aquifer recharge offers solutions, but there is a potential risk of polluting aquifers. Clear guidelines and regulations, overseen by competent agencies, are required.

To address this, a dedicated high-level committee will develop a strategy for managed aquifer recharge. A technical committee of experts worked to complete a scoping report in 2020. The draft strategy sets out the range of managed aquifer recharge technologies that may be applied in the different hydrogeological, ecological, and socioeconomic settings of Bangladesh. The strategy also aims to harmonize with existing policy and plans.

2030 WRG is now assisting the Bangladesh Water Development Board in preparing a project proposal for the multi-agency BDP-2100 project Managed Aquifer Recharge for Aquifer Storage. This project will be jointly implemented with the Dhaka Water Supply and Sewerage Authority, the Department of Public Health Engineering, Barind Multipurpose Development Authority, Bangladesh Agricultural Development, and other government agencies. 2030 WRG is working with trade associations to encourage the private sector to implement managed aquifer recharge technologies.

Encouraging ecosystem-based adaptive water management in Bangladesh's wetlands

Bangladesh, home to the largest delta in the world, needs to take special action to protect and manage its wetlands. The Haor basin in Sylhet, in the northeastern part of Bangladesh, is a poverty hotspot. It stretches over 2 million hectares and supports the livelihoods of 20 million people—providing paddies for rice and rich fishing grounds. This wetland supplies about 18 percent of the winter rice harvest and 20 percent of the freshwater fish consumed, but people there live in poverty, in part a result

of geographic remoteness and challenges in development service delivery. They encounter a range of ecosystem-related challenges, ranging from polluted water, to clogged waterways, to seasonal flooding, which makes access to paddies difficult and may destroy crops.

The water governance and sustainability workstream has been developing a program to encourage diversification of livelihoods along with adaptive water management strategies through an ecosystem restorative approach. 2030 WRG has partnered with BRAC, the Department of Bangladesh Haor and Wetlands Development, the Bangladesh Academy for Rural Development, and the International Union for Conservation of Nature to explore the scope for achieving these objectives. The scoping report, produced in November 2020, made recommendations for developing a set of projects focused on improving water connectivity and water storage facilities; restoring the Haor ecosystem and biodiversity; and promoting sustainable livelihoods through income-generating activities.

Also in November 2020, a technical committee was formed to prepare project proposals and identify appropriate partners and pilot cases for scaling up and mobilizing resources. The committee has recommended the development of detailed project proposals on water connectivity and value chain development in Hail and Hakaluki Haors.

A circular economy approach to reducing plastic pollution

There is growing concern about plastic pollution in Bangladesh and its impact on water resources: both micro and macro plastics damage the function of water bodies and harm aquatic life. In response, the BWMSP has established a Circular Economy and Riverine Plastic Pollution Management initiative, which has now established a vision and plan for a circular economy in plastics in Bangladesh.

To support this initiative, the BWMSP completed a rapid assessment of riverine plastic pollution in FY21. The study estimated and mapped the extent of pollution, its impact, production chain, raw materials, route of pollution, micro-plastic situation in surface water bodies, as well as suitable treatment technology, financial resources, national policy/regulatory gaps, and other issues.

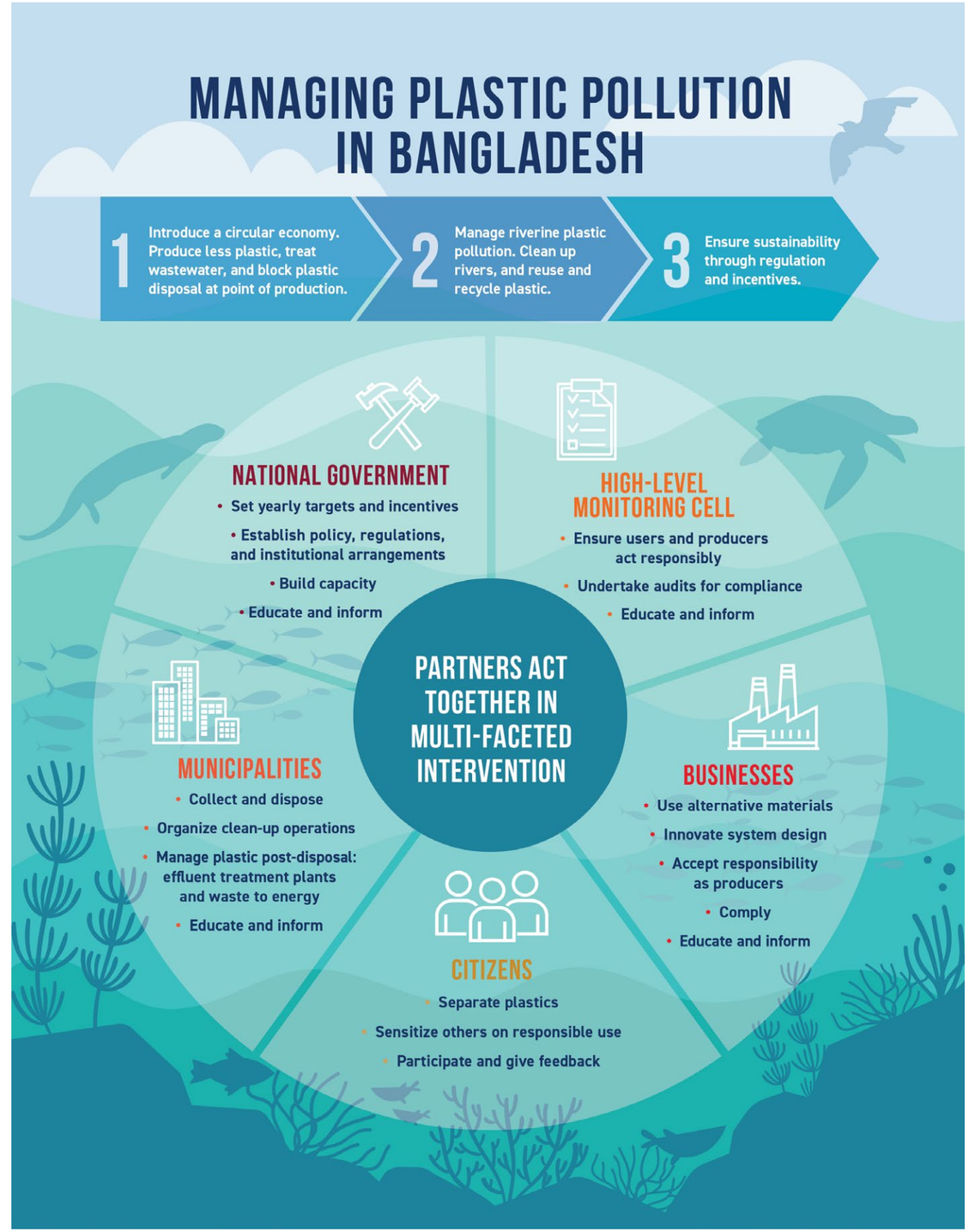
This initiative will work on plastic recycling and reuse, improvements in the plastic value chain, and better management of plastic pollution in rivers. It will also work to create an enabling environment, develop institutional arrangements, and make management tools available for establishing a circular economy in plastics in Bangladesh.

To stop the generation of plastic waste, the initiative will focus on creating incentives, exploring alternatives to plastic, raising awareness, and introducing regulatory measures. At the point of pollution, the project will support the cleanup of open water bodies, rivers, and canal beds, and the establishment of effluent treatment plants with the capacity to remove microplastics from industrial and municipal sources.

In FY22, the BWMSP will work with several ministries (Water Resources, Shipping, Industry, Environment, Forestry and Climate Change) as well as with the private sector and academia to develop an Extended Producer Responsibility Policy on plastic products and uses.

Shortly after the close of FY21, the 2030 WRG team in Bangladesh published a booklet covering its operations in the country from 2015 to 2020.

Click here to find out more about our work in Bangladesh.



IIN INDIA, 2030 WRG PARTICIPATES IN ACTIVITIES AT THE NATIONAL LEVEL, AS WELL AS SEVERAL SUBNATIONAL MSPS AT THE STATE LEVEL: IN KARNATAKA, MAHARASHTRA, AND UTTAR PRADESH. EACH OF THE STATE-LEVEL MSPS HAS A STEERING COMMITTEE UNDER THE LEADERSHIP OF THE STATE'S CHIEF SECRETARY—THE HIGHEST-RANKING CIVIL SERVANT. IN 2020, THE GOVERNMENT OF MADHYA PRADESH ISSUED 2030 WRG WITH A LETTER OF MANDATE FOR SUPPORT IN FACILITATING SUSTAINABLE WATER RESOURCE MANAGEMENT IN THE STATE.

INDIA

INDIA—KARNATAKA

AREAS OF WORK

Agricultural water efficiency

Industrial water management

Urban water

REWARD: Policy development, market outreach, private sector engagement for sustainable agriculture, and water-use efficiency

Karnataka's Chief Secretary leads the MSP Steering Board. There are four workstreams in this MSP. The REWARD workstream was established in FY21. It facilitates discussions for the World Bank Program on Rejuvenating Watersheds for Agricultural Resilience through Innovative Development (REWARD). It will run for five years, drawing on scientific inputs to promote water efficiencies across 100,000 hectares while developing value chains and market linkages for farmers in between three and five sub-watersheds. It represents a new partnership between the MSP, the World Bank, and 2030 WRG, with 2030 WRG providing support for market linkages, public-private partnerships and value chain development within the project.

In future, the MSP intends to focus on improving the resilience of plantations in the hilly areas of Karnataka through water conservation. This is particularly important given that the state's coffee industry provides 70 percent of India's coffee, and is one of the largest coffee-growing areas in the world. Another focus area will be building climate resilience in agriculture in coastal areas affected by rising sea levels.

Key highlights

Promoting irrigation for water-use efficiency—and building farmer profits

The 500,000-hectare Drip-to-Market Agro-Corridor (DMAC), including Ramthal in Karnataka, is a flagship program that brings public, private, and community efforts together to support farmers in their aim to become more productive and profitable. The project promotes the use of irrigation for water-use efficiency, which has led to the creation of replicable frameworks for market-driven solutions that promote sustainable agricultural practices.

Two significant investment milestones were achieved this financial year. Private investors built a dal mill (pulse processing unit), strengthening the market linkages to farmers needing to sell their produce. In addition, a private entrepreneur collaborated with the Amrutha Farmer Producer Organization, which led to the establishment of a nursery seed bed, the Amrutha Agro Nursery, in the Ramthal project area, allowing farmers to purchase a selected range of seedlings at nominal prices, and resulting in the production of additional horticulture crops for the Ramthal project.

Another critical achievement has been the introduction of a third harvesting season. The agricultural plan for the third season was carefully planned with the farmers. New, short-duration crops were grown, with Ramthal farmers receiving training from farmers from other districts. The DMAC market linkages allowed farmers to trade about 1,100 metric tons of produce across the three seasons. Direct trading helped farmers achieve higher prices by avoiding market commission and fees charged by middlemen.

And, in another first, DMAC used drones to apply plant protection in November 2020, when soggy soil—a result of heavy rains—made it difficult for farmers to reach their fields on foot. This exemplifies 2030 WRG's support for DMAC, which has helped bring cutting-edge technology developed by the private sector into a new context.

From policy to action for central effluent treatment plants

The Karnataka Industrial Policy for 2020 to 2025 was approved in August 2020 following extensive discussions at MSP meetings. It outlines the state's approach to industrial water security and has incentivized wastewater reuse, rainwater harvesting, and environmentally friendly and efficient manufacturing technologies. It will provide for financial support for water audits and private investments in sewage treatment plants, effluent treatment plants, and central effluent treatment plants. The industrial taskforce appointed a consultant to prioritize 10 industrial areas in Karnataka as a step towards developing the first central effluent treatment plants. The financial frameworks for the public-private partnerships are being prepared, and institutional work is under way to ensure that enabling structures are in place to support the investments.

INDIA—MADHYA PRADESH

2030 WRG has mobilized stakeholders in Madhya Pradesh and initiated several projects including providing assistance for implementation of the Agriculture Infrastructure Fund scheme; design and roll out of the NAVAAS *(Navachar Aur Anusandhan se Samriddhi)* initiative; and scaling up the PRAGATI Project.

Agriculture Infrastructure Fund scheme leverages investment for post-COVID recovery

2030 WRG has supported the government of Madhya Pradesh's Department of Cooperation by setting up a multi-stakeholder group for implementing the Agriculture Infrastructure Fund scheme. The scheme was launched by the central government as part of post-COVID-19 recovery efforts. The Agriculture Infrastructure Fund focuses on enabling access to finance and credit, supply-chain services, primary processing technologies, and market linkages for primary agriculture cooperative societies across the state. 2030 WRG mobilized the government, the private sector, civil society, academia, and agricultural research institutions to provide orientation and training while facilitating the development of project reports to leverage investments of $9 million..

Innovations to develop self-help technologies for small-scale farmers

The multi-stakeholder group supported the government of Madhya Pradesh to develop an innovations and research promotion program, NAVAAS. The initiative is designed to increase farmer incomes through the identification, incubation, and dissemination of self-help technologies for small and marginal farmers. A key feature of the program is the creation of a social venture capital fund that will leverage various schemes and ensure that necessary support is provided at a grassroots level.

$9M

IN INVESTMENTS

THE MULTI-STAKEHOLDER GROUP SUPPORTED THE GOVERNMENT OF MADHYA PRADESH TO DEVELOP AN INNOVATIONS AND RESEARCH PROMOTION PROGRAM, NAVAAS. THE INITIATIVE IS DESIGNED TO INCREASE FARMER INCOMES THROUGH THE IDENTIFICATION, INCUBATION, AND DISSEMINATION OF SELF-HELP TECHNOLOGIES FOR SMALL AND MARGINAL FARMERS.

INDIA—MAHARASHTRA

AREAS OF WORK

Water and livelihood security in rain-fed agriculture

Command area water productivity

Wastewater reuse and management

Industrial water security and efficiency

The Maharashtra MSP, formally launched in 2017, has a Steering Committee under the leadership of the State's Chief Secretary. The projects under the MSP's workstreams are managed by the 2030 WRG team, along with the government of Maharashtra and private sector MSP partners.

The MSP launched a new workstream on industrial water security and efficiency this past year. In the long term, building resilience by supporting investment in circular economies is a key strategic objective. Three new themes —alternative financing, disruptive technologies and carbon neutrality—became areas of cross-cutting focus for all four workstreams in FY21. The MSP aims to embed these themes through projects which leverage disruptive tech and innovative finance to achieve carbon neutrality.

For example:

- In FY21, 2030 WRG spearheaded the creation of the Consortium for Carbon Financing and Disruptive Agricultural Technologies (C-CFDAT) to build climate resilience in agricultural value chains.
- A taskforce under the workstream on water and livelihood security in rainfed areas in Maharashtra is working to build carbon neutrality and climate-resilient value chains in the sustainable cultivation of cotton.
- Another new taskforce on carbon neutral water utilities, formed in FY21, is working with large municipal corporations to develop a baseline for targeted carbon emission reduction. It aims to demonstrate what resource-efficient and carbon neutral urban water infrastructure could look like, through a prototype that takes an integrated approach to managing both water and energy resources, and sludge management.

Key highlights

Climate-smart farming combines alternative financing and disruptive technologies

Agriculture, industry, and municipalities—the areas that 2030 WRG focuses on—all need to become climate smart to build resilience for the future. Under the taskforce on climate resilience in agricultural value chains, 2030 WRG has collaborated with partners to demonstrate the use of carbon financing and disruptive technologies for use cases in socio agro-forestry, irrigation water management, sow-to-harvest cycle and agri-insurance claims. The pilot will use drones, satellite technologies, and IoT sensors to collect data around soil quality and plant health, for example. The data will be aggregated and analyzed on an integrated platform and used to provide support through advisory services to smallholder farmers in the Nandurbar, Nashik, and Hingoli districts in Maharashtra. The aim is to support farmers in their transition to low-carbon, resource-efficient, and agricultural practices that also save water.

The Nandurbar program identifies farmer groups who qualify for carbon financing and existing blended financing facilities by members of the taskforce. 2030 WRG has a

MAHARASHTRA

CARBON FINANCING PROGRAM FOR CLIMATE RESILIENCE USING DISRUPTIVE AGRI-TECH

Productive farming practices for reduced greenhouse gas emissions, water use efficiency, and increased production and product quality.

PRIVATE-PUBLIC-CIVIL SOCIETY PARTNERSHIP SUPPORTS FARMERS

The project is grounded by 2030 WRG and the government of Maharashtra

FARMERS ARE SUPPORTED THROUGHOUT THE PRODUCTION CYCLE, FROM SEED TO MARKET

DISRUPTIVE AGRI-TECHNOLOGIES ENABLE FARMER ADVISORIES

Data collected by:

- Satellite
- Drones
- Internet of Things sensors
- Smart phones

is analyzed and made available in a useful format through technical platforms

FARMERS RECEIVE LONG-TERM SUPPORT TAILORED FOR THEIR SPECIFIC CROPS, LAND, AND LOCAL CONDITIONS

EXISTING BLENDED FINANCE MECHANISM ENHANCES CREDIT LINKAGES

FARMERS HAVE ACCESS TO CREDIT TO BRIDGE THE GAP BEFORE HARVEST

RESULT-BASED CARBON FINANCING MECHANISM LINKS FARMERS TO CARBON FINANCING

- The pilot activity is in agro-forestry
- Carbon financing is results-based
- Data collected by drones is used for monitoring and verifying results

FARMERS ACCESS RESULTS-BASED CARBON FINANCING, AND ARE INCENTIVIZED TO ADOPT SUSTAINABLE PRACTICES

track record of building strong partnerships and here the consortium includes carbon finance project developers, agri-tech companies, financial organizations, non-banking finance companies, academic institutions, not-for-profits, NGOs, and the government of Maharashtra.

Building holistic water management practices and productivity in command areas

The MPSs workstream in the command/irrigated areas aims to build holistic water management practices, for example, build holistic water management practices through integrated off-farm initiatives, on-farm water efficiency and market linkages. A total of 320,000 hectares are under public-private-civil partnership contracts with ITC, Yuvamitra, DSC, and BlueEarth and other private ag-tech partners. Some of the outcomes of these improved agricultural practices include water-use efficiency in over 20,000 hectares of land, and 152 million cubic meters of significant water saved.

Participatory water management and involvement of water user associations is a key element of the projects undertaken through the public-private-civil society partnerships facilitated by the MSP.

During FY21, a Project Implementation Unit under the Government of Maharashtra's Water Resources Department became operational to oversee and manage these public-private-civil partnership projects. Stakeholders include Government departments, the private sector, civil society, and academic institutions. 2030 WRG brings thought leadership to this process, along with a focus on building strong partnerships.

2030 WRG also forged a knowledge partnership among the Australia India Water Centre, Western Sydney University, and the Water Resources Department to develop and demonstrate a Canal Digital Agrifood Ecosystem that will apply the benefits of digital technologies across various aspects of agricultural value chains to selected canalized stretches in the command areas.

Pilot projects to strengthen climate resilience in agri-value chains are being developed at the village level, water user associations level and watershed level. Additionally, through the MSP's cross cutting focus on water accounting, partners are also working on digital tools and dashboards that provide data to enable effective planning and evidence-based decision-making at various levels within the government, private sector and civil society, to support farmers in efficient use of water to improve agricultural productivity.

An important result of 2030 WRG's work is that local farmers in water user associations have become an essential part of the partnerships. During FY21, 2030 WRG has also been working with the Government of Maharashtra to identify agencies to further strengthen and build capacity of water user associations.

INDIA– UTTAR PRADESH

AREAS OF WORK

- Accelerating decentralized wastewater treatment and reuse in the Ganga Basin
- Creating a blueprint for water accounting
- Strengthening agriculture value chains
- Improving water resources management

Key highlights

A green light for decentralized wastewater treatment drains

2030 WRG successfully facilitated innovative decentralized treatment solutions to treat wastewater flowing into the Hindon River in the Saharanpur district of Uttar Pradesh. The National Green Tribunal, which monitors pollution in the rivers, acknowledged that two drains that were part of the project were the only drains in the region that met regulatory standards and were exempt from penalties. 2030 WRG received a letter of commendation from the Saharanpur Administration for this work.

2030 WRG SUCCESSFULLY FACILITATED INNOVATIVE DECENTRALIZED TREATMENT SOLUTIONS TO TREAT WASTEWATER FLOWING INTO THE HINDON RIVER IN THE SAHARANPUR DISTRICT OF UTTAR PRADESH.

Following the successful implementation of the decentralized wastewater project in Saharanpur, 2030 WRG received a similar request from the Ghaziabad Municipal Corporation for setting up a multi-stakeholder group to facilitate integrated water resources management, including wastewater treatment, in the region. This work is now under way.

Replicating the Hindon Tributary Management model in other parts of the state, 2030 WRG is also supporting the rejuvenation of the Varuna and Assi tributaries of the Ganga, which converge at the ancient city of Varanasi.

Supporting farmer-producer organizations for COVID economic recovery and resilience

In August 2020, in the wake of the COVID-induced lockdown and imminent stress faced by the agricultural sector, 2030 WRG responded to a request from the government of Uttar Pradesh to set up a multi-stakeholder group to help farmer-producer organizations access financial and agricultural technology solutions. The project, chaired by the government's Agricultural Produce Commissioner, aims to address water-use efficiency alongside agricultural productivity and profitability. The initiative has already seen increased yield and profits to strengthen the state's agricultural value chain.

To initiate action on the ground, the MSP conducted a comprehensive needs assessment of 50 farmer-producer organizations, including a hands-on workshop with farmer representatives to identify critical areas of improvement alongside relevant agri-tech solutions that could be customized for support. This process included screening available technology solutions and linking farmer-producer organizations to appropriate programs run by the state and the private sector.

The project has already mobilized finance through 2030 WRG's MSP partner, the India Agritech Innovation Network, for six projects for agri-tech innovations benefiting more than 10,000 farmers, with six more projects planned and expected to impact an additional 9,000 farmers across the state. The project has been appreciated by both farmer collectives and the government of Uttar Pradesh.

The project will be scaled up through support from central and state-level schemes and introduced in Madhya Pradesh in the coming financial year.

2030 WRG has also partnered with the United Nations Development Program to set up the Uttar Pradesh COVID Economic Recovery Alliance (UPCERA). This is a model strategic partnership of leading civil society organizations designed to facilitate economic recovery by integrating efforts of partners through regular dialogue. The alliance is also working on organizing the state's response to rural and urban livelihoods disrupted by the pandemic.

UPCERA currently has 15 civil society organizations that are supporting the government to strengthen outreach, provide livelihood support services, help solve water and agriculture security related challenges, promote a multi-stakeholder and community engagement approach, and work with communities on the post-COVID-19 recovery.

PROJECT PRAGAT

INCREASING FARMER INCOME: SCALING UP ACROSS STATES

Project PRAGATI—Participatory Rural Agricultural Advancement through Increased Incomes—originally aimed to support the government of Uttar Pradesh in assisting drought-stricken farmers in Bundelkhand, a region home to millions of the most economically vulnerable population in India. Historically, small-scale farmers have struggled in this agricultural region, which is prone to drought and flash floods. Rocky terrain means soil moisture retention is reduced, leading to low agricultural productivity.

The PRAGATI model is designed to ensure water, agriculture, and livelihood security for farmers. It works at the village level to develop and implement security plans that are focused on increasing water (both storage and efficiency), diversifying agriculture with a sustainability lens, and introducing alternative livelihoods to increase farmers' incomes. Another unique feature of the project is that it works through a comprehensive participatory approach promoting demand- and supply-side interventions particularly through women-led self-help groups. Because the PRAGATI project evolved during the pandemic, it is also earning appreciation as a COVID-19 recovery and resilience model.

Nine months after it began, the project is scaling up in Uttar Pradesh and set to start in Madhya Pradesh. Implemented on 8,000 hectares, and affecting 10,000 families, it is estimated that the PRAGATI Project has already conserved 80 billion liters of water in Uttar Pradesh between April 2020 and June 2021.

With a multi-stakeholder design at its core, the project has seen the convergence of technical and financial resources from the Mahatma Gandhi National Rural Employment Guarantee Act cell, the Department of Rural Development and other relevant departments, GIZ through its Water Security and Climate Adaptation in Rural India program, the Dalmia Bharat Foundation, Parmarth Samaj Sevi Sansthan, and other civil society organizations and private sector partners. Other stakeholders, including academia, played complementary roles ranging from arranging demonstrations of technology available from the private sector, to undertaking water budgeting exercises.

The PRAGATI project requires minimal investment because it links farmers with existing initiatives and infrastructure offered by the government. It also identifies areas where local government institutions need support in delivering their programs. Aiming to leverage possibilities for convergence, it introduces private sector partners, including corporate social investment initiatives, into the matrix of opportunities offered to farmers.

In Uttar Pradesh, 2030 WRG has acted as a convener, bringing the PRAGATI stakeholders together. Initially implemented in the Jhansi district in July 2020, the project is now being replicated in the Sitapur district with 2030 WRG's MSP partner, the Dalmia Bharat Foundation. Despite the pandemic and related challenges, both districts have demonstrated visible results in a little more than over a year. Because the process is built around sound integrated water resource management principles it is applicable—and easily replicable—in similar contexts like Madhya Pradesh where the government has invited 2030 WRG to set up PRAGATI as part of larger efforts to work towards sustainable water resource management in the state.

THE PRAGATI MODEL IS DESIGNED TO ENSURE WATER, AGRICULTURE, AND LIVELIHOOD SECURITY FOR FARMERS.

80
BILLION-LITERS OF WATER SAVED

The PRAGATI Project has already conserved 80 billion liters of water in Uttar Pradesh between April 2020 and June 2021.

8000ha

The project in Uttar Pradesh and set to start in Madhya Pradesh; implemented on 8,000 hectares, and affecting 10,000 families

MONGOLIA

AREAS OF WORK

Water demand reduction and supply augmentation

Water valuation and incentives for sustainable water management

Strengthening water governance with multi-stakeholder partnership

Mongolia's national MSP was established in 2014, with its Steering Board chaired by the State Secretary of the Ministry of Environment and Tourism. 2030 WRG's national MSP aims to position the water sector as key to economic development and a lever for change. The government of Mongolia has a national long-term development policy program, Vision 2050, which acknowledges that water resources are a limiting factor for the mining sector, which is a crucial element in the country's development. The initial hydro-economic analysis, conducted by 2030 WRG into coal and gold mining in the Southern Gobi desert, was updated over FY20 and FY21 to include copper mining, and acts as the basis for long-term planning.

In a significant policy-related development, two key national water policy programs are ending in FY22, which means that long-term national water priorities and integrated water resources management strategies will need to be redefined. These policy priorities will be aligned with the national Sustainable Development Goals agenda, the national development program Vision 2050, and the Green Development Policy of Mongolia. 2030 WRG has been asked to support the process by providing international best practice and tools in policy planning, along with a global perspective on climate change, socioeconomic, and political trends. Through its MSP, 2030 WRG will also play a key role in ensuring that the priorities of multiple stakeholders are reflected.

Key highlights

Digital water platform to monitor groundwater

Working closely with the Ministry of Environment and Tourism, 2030 WRG Mongolia and the 2030 WRG Global Disruptive Technology task team have upgraded the country's existing groundwater monitoring network to a digital water platform. The project started in July 2020 and the platform was finalized in March 2021.

The highly interactive platform conducts five different analyses for groundwater monitoring wells in the capital city, Ulaanbaatar, and in the Southern Gobi region. The platform has used machine learning and artificial intelligence to improve the quality of all groundwater level data and now predicts the groundwater levels of 12 wells in Ulaanbaatar up to six months in advance.

This technology enables the capital city, and the mining hubs, to keep up with rapidly growing water demand. The dashboard is available to a range of stakeholders, allowing informed and inclusive decision-making in planning water policies and allocating resources.

Because of this transparency, the tool has been identified by the Ministry of Environment and Tourism as a tool that will contribute to resolving water-use-related conflict between local government and communities on the one hand, and business on the other. The 2030 WRG Mongolia team has planned a series of events to train relevant stakeholders on how to use the platform.

A substantial achievement in enforcing "polluter pays" principle in Mongolia

Building on previous work to support the development of a "polluter pays" policy and standards, the 2030 WRG Mongolia program has initiated a project that will reuse treated wastewater in Ulaanbaatar to cool down the city's main power plant. The project is estimated to save 40 percent of freshwater used in power generation in the plant and will improve the living standards of 343,000 people previously affected by the wastewater discharge.

Untreated wastewater discharging from a mental health care center will be mixed with melted ice overflow and used to cool down the power plant in Ulaanbaatar. The project will construct the physical infrastructure needed to achieve this.

During FY21, third-party funding for the feasibility study was secured from the Korean Green Growth Trust Fund and the concept note was finalized.

The project not only brings technical solutions to the water-energy nexus, but also represents effective multi-stakeholder collaboration of public organizations, such as the city governor's office and water supply and sewage service company; academia; and the private sector.

TURNING PRINCIPLES INTO PRACTICE

2030 WRG supported government of Mongolia to make amendments to the Water Pollution Fee Law → Developed national standards for wastewater reuse → Assembled a model system in Ulaanbaatar to demonstrate urban wastewater treatment and reuse in practice

PAKISTAN

AREAS OF WORK

Groundwater management

Agricultural value chain

Water treatment and reuse

During FY21, Pakistan's Ministry of Science and Technology invited 2030 WRG to form an MSP for water management. The invitation identified the Pakistan Council of Research in Water Resource (PCRWR) as the focal agency for collaborating and supporting 2030 WRG in establishing the MSP. A letter of intent has been signed between the PCRWR and the World Bank Country Office.

The invitation followed a consultative process and scoping exercise involving government ministries, the private sector and civil society organizations. 2030 WRG has also undertaken draft stakeholder mapping exercise and has identified all relevant stakeholders. Despite the impact of COVID-19 in FY21, the team were able to successfully engage with the private sector and civil society organizations in addition to establishing working relations with the PCRWR.

These discussions included the World Wide Fund for Nature (WWF), the International Union for Conservation of Nature, the International Water Management Institute, the South Asia Conservation Agriculture Network, The Asia Foundation, PepsiCo, Nestlé, the Coca-Cola Company, and Earth Genome.

The initial consultations have helped identify the preliminary work areas shown above.

Water scarcity in Pakistan

Between 93 percent and 95 percent of available freshwater resources are consumed by the country's agricultural economy.[1] According to the World Bank, nearly 80 percent of the country's freshwater is used to grow four major crops: wheat, rice, sugarcane, and cotton. Collectively, they contribute only 5 percent to Pakistan's GDP.[2] The country's contiguous irrigation system, the largest in the world, also experiences several water governance issues.

A new study on groundwater in 29 cities by the PCRWR revealed that, in 20 cities, over half the water was unsafe for drinking and, in at least three cities, 100 percent of the total groundwater supply was unsafe for drinking.[3]

The first National Water Policy was approved as an umbrella document for subnational policies to follow in 2018. Since independence in 1947, only two major reservoirs—Mangla on the Jhelum river and Tarbela on the Indus river, with 30 days of storage capacity—have been constructed. But recent major government initiatives will go a long way in meeting the country's water security issues. These initiatives include two mega multi-purpose dams (Diamer Bhasha and Mohmand) and four smaller dams (Naulong, Kurram Tangi, Nai Gaj, and Dawarat) among others. The government is also promoting the efficient use of water in agriculture through several projects in irrigated areas and has recently embarked on the "Recharge Pakistan" project, funded by the Green Climate Fund and executed by the WWF (see on the next page).

Key highlights

Outlining a study for a water information knowledge base

This year, 2030 WRG established the draft outline of a study to create a knowledge base for initiating the Pakistan MSP. The study will identify interventions and priorities for the country to move towards water-enabled sustainable development. A secondary objective of the study is to raise awareness and bring the private sector and local communities together to engage in water activities.

Partnering on projects

Two projects have been identified, both at initial concept stage:

- Working with WWF and several government entities to support the government's "Recharge Pakistan" project. This project seeks to increase water storage and recharge through wetlands, floodplains, and hill-torrents management; promote climate-adapted, community-based natural resource management and livelihoods; and create shifts in understanding that will enable this approach to be scaled up.
- Working with the PCRWR to develop a project on valuing water for different uses that will recognize and consider all the benefits provided by water—including economic, social, and ecological dimensions—and trigger systemic change. It will aim to drive decision-making that protects freshwater sources and ensures that water allocation is productive, equitable, and environmentally sustainable.

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[1] The Asia Foundation, 2017. Pakistan's Water Crisis: Why a National Water Policy is needed. Available at: https://reliefweb.int/report/pakistan/pakistan-s-water-crisis-why-national-water-policy-needed

[2] Young, William; Anwar, Arif; Bhatti, Tousif; Borgomeo, Edoardo; Davies, Stephen William; Garthwaite Iii, William Raymond; Gilmont, Efrem Michael; Leb,C hristina; Lytton, Lucy; Makin, Ian; Saeed, Basharat Ahmed. Pakistan Getting More from Water : A Visual Guide (English). Washington, D.C.: World Bank Group. Available at: https://documents.worldbank.org/en/publication/documents-reports/documentdetail/178401567590601969/pakistan-getting-more-from-water-a-visual-guide

[3] Wasim Amir. 2021. No Safe Drinking Water in Major Cities, NA told. Published August 2021, Daily Dawn, Karachi, Pakistan. Available at: https://www.dawn.com/news/1639701

VIETNAM

AREAS OF WORK

Urban Industrial water pollution

Agricultural water productivity enhancement

A new workstream on agriculture water productivity enhancement in Vietnam was finalized during the reporting period and officially launched in July 2021. 2030 WRG worked in collaboration with the Ministry of Agriculture and Rural Development to establish the new workstream. It has three taskforces: agriculture water policies; private financing; and technology and innovation. The workstream is chaired by the Vice Minister of Ministry of Agriculture and Rural Development. The urban and industrial water pollution workstream, chaired by the Vietnam Environment Administration under the Ministry of Natural Resources and Environment, was formed in December 2019.

The key highlights below include work done to implement the circular water economy in textile industrial parks. 2030 WRG also continues to support policy dialogue to improve the public-private partnership framework for municipal wastewater treatment. Projects in the pipeline are likely to include a pilot initiative on agri-water efficiency in coffee, sugarcane, and rice crops in collaboration with the private sector.

Key highlights

Feasibility study on wastewater reuse in textile industrial parks provides basis for action

Water recycling offers an important opportunity to address the twin impacts of the textile industry—recycling reduces the discharge of polluted wastewater into water bodies, while reducing the raw water demand on limited water sources. Because of the volumes involved, recycling wastewater at industrial parks can provide considerable economies of scale. In addition, because textile industries require high-quality water to carry out processing, any water used at an industrial park dominated by textile companies requires some treatment of raw water. Apart from reducing dependency on raw water, recycling can also ensure that the water used is of the required high quality.

There are over 300 industrial parks in Vietnam, many with textile industries. Although many of the parks do have wastewater treatment systems, there are limitations on their efficacy. There is also limited understanding of how to make the most of the new opportunities offered by the circular economy. This year, a feasibility study on wastewater opportunities in the textile industry has been completed for Pho Noi Industrial Park near Hanoi, providing new insights and a basis for action. The industrial park houses 45 enterprises, of which about 58 percent are textile-based. Of these, 38 percent use wet processing.

Pho Noi Industrial Park has a water treatment plant and central effluent treatment plant that serve most of the tenants, but forecasts show that demand will outstrip available capacity by 2022. The study evaluated three scenarios, considering both technical and financial feasibility, against the base scenario, which is the construction of a new water treatment plant with capacity of 5,000 cubic meters per day and a new central effluent treatment plant with capacity of 8,000 cubic meters per day.

The study also identified the type of policy reforms that can move the textile industry towards the most sustainable long-term water practices. This knowledge will enable 2030 WRG to make recommendations on policies for wastewater tariffs and wastewater discharge standards.

The second industrial park in this study is the green-field Phong Dien Industrial Park in the central province of Thua Thien Hue. Because it is at an early stage of design, the study provides a high-level set of recommendations that take into account the water circularity opportunities and protect the Tam Giang lagoon, which is in close proximity. The Phong Dien Industrial Park analysis work will be completed in 2021. This activity is set to unlock more than $1 million in investment potential, as well as the opportunity to demonstrate innovative treatment technologies in Vietnam.

Facilitating private investments in urban and industrial wastewater to meet government targets

Vietnam has set targets for wastewater collection and treatment in relevant plans. To support government's objectives, 2030 WRG has developed a policy paper on public-private partnerships for urban wastewater. It has also developed a compendium of international public-private partnership case studies for wastewater treatment and reuse. The policy paper and case studies will provide a base for identifying a suitable public-private partnership framework for the wastewater sector in Vietnam.

The policy paper collates case studies that demonstrate how public finance contributions, credit enhancement, and innovative structuring have been used elsewhere to construct viable investment opportunities. It focuses on the current targets for wastewater collection and treatment, identifying the gaps that need to be overcome to achieve those objectives. The paper benefits from the strong collaboration between 2030 WRG, the World Bank's Water Global Practice, and IFC and continues to serve as an instrument for furthering policy dialogues with the government of Vietnam.

AREAS OF WORK

Water management for resilience and green growth

Financial innovation for resilience, circular economy and economic recovery

The social pact for water

The 2021 financial year was a challenging one for the 2030 WRG program in Mexico due to the complex and interdependent impacts of the COVID-19 emergency. In response to the pandemic, 2030 WRG, in collaboration with the World Bank's Water Global Practice, the National Water Commission of Mexico (CONAGUA), the Water Advisory Council (CCA)—with whom the 2030 WRG has developed a strategic alliance—and other stakeholders, focused on supporting the Mexican government's economic recovery and resilience-building efforts. Consequently, two of the country workstreams were redesigned to support the priority objectives set by government and organized civil society this year.

Key highlights

Strengthening the water financing system for resilience, circular economy and rebuilding back better

2030 WRG, working with the Water Global Practice, CONAGUA, the CCA, and other local stakeholders, is backing a workstream to help government conceptualize and implement a robust water financing system for Mexico's water sector.

The workstream aims to identify and remove investment bottlenecks, increase resource flows, and diversify sources of financing for the water sector. So far, this initiative has focused on analyzing a group of innovative financial mechanisms, including an emergency liquidity facility, see Graph 1 (on page 59) for water utilities, joint ventures for water supply and sanitation services, state-level water infrastructure funds; take or pay contracts for wastewater re-use, see Graph 2 (on page 60), as well as unsolicited proposals for public-private partnerships and revolving funds. It also considered the prospect of supporting the design of CONAGUA's innovative-specialized financing unit.

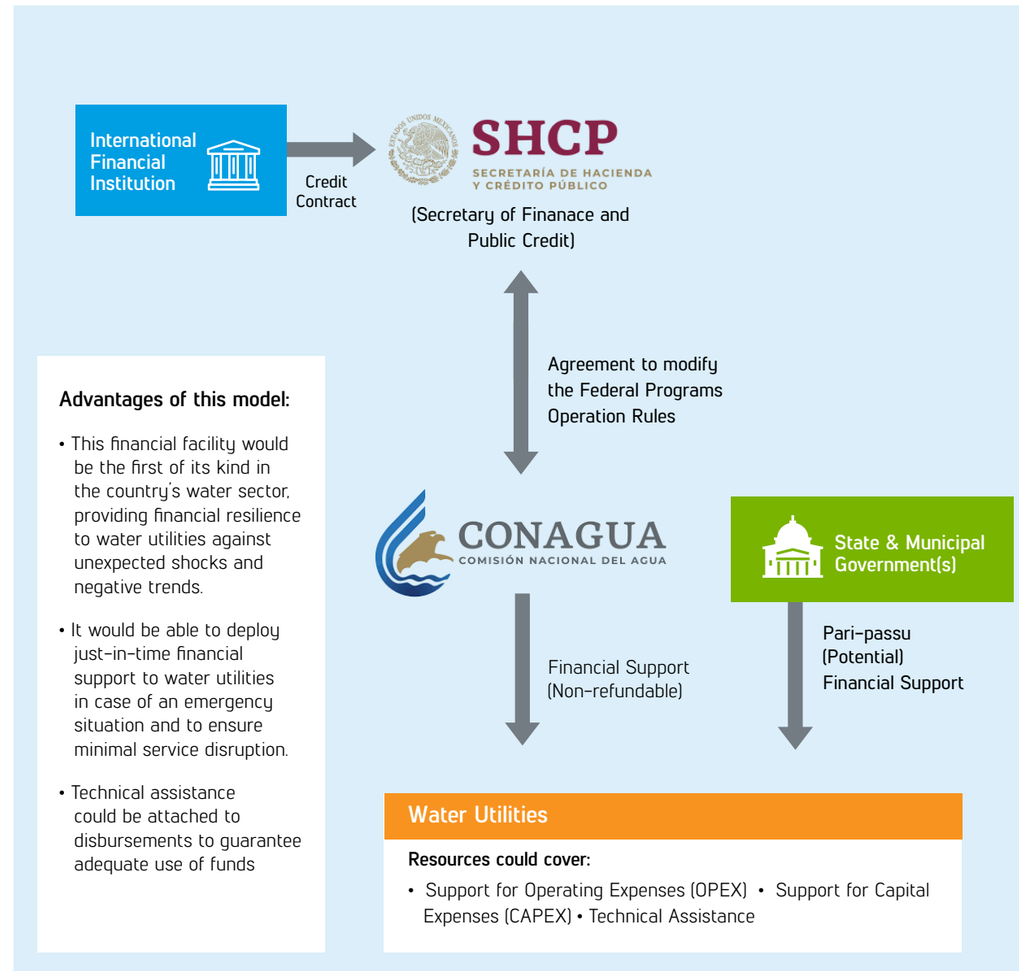
This work has paved the way for the recent launch of a more comprehensive analytical and advisory services project by the Water Global Practice, "Building Resilience in the Water Sector in Mexico". The project will explore new opportunities to support the implementation of recommendations emerging from previous technical assistance on the water financing system provided by the Water Global Practice, IFC, and 2030 WRG.

Strengthening water allocation for resilience, water security and green growth

Regional development trends, drawbacks in water resources planning, and climate change are prompting greater competition and conflict over water resources in Mexico. This has placed increasing pressure on the water allocation regime and its capacity to pursue water security for all, economic efficiency, and social equity. 2030 WRG, in collaboration with the Water Global Practice, the CCA, the Private Sector's

EMERGENCY AND RECOVERY LIQUIDITY FACILITY FOR WATER UTILITIES

Prospective institutional design for Mexican water and sanitation sector

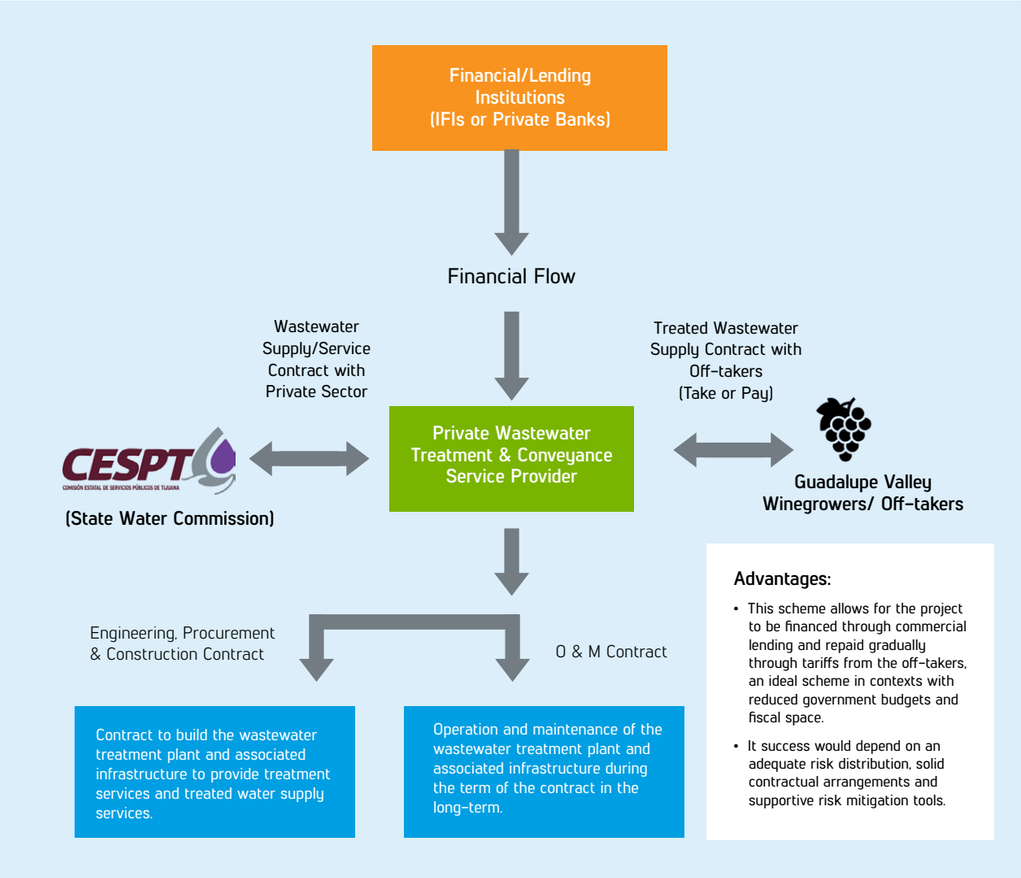


Note: Proposal jointly developed with the World Bank Water Global Practice. To see other designs and proposals, please review the publication Building Financial Resilience: Lessons Learned from the Early Impact of COVID-19 on Water and Sanitation Service Providers in Latin America.

Link: https://openknowledge.worldbank.org/bitstream/handle/10986/36300/Building-Financial-Resilience-Lessons-Learned-from-the-Early-Impact-of-COVID-19-on-Water-and-Sanitation-Service-Providers-in-Latin-America.pdf?sequence=1&isAllowed=y

WASTEWATER TREATMENT/CONVEYANCE AND TAKE OR PAY CONTRACT SCHEME

(CIRCULAR ECONOMY)



Commission for Sustainable Development Studies, and other stakeholders, has enabled a policy dialogue and technical assistance program to support the development of innovative policy instruments and legal mechanisms to increase the water allocation regime's resilience and flexibility.

As part of this workstream, 2030 WRG drafted two working papers in FY21, which are currently under discussion. The papers highlight the advantages and challenges of the existing water allocation regime and provide policy recommendations to help increase resilience against water scarcity, increased water conflicts, and uncertainty. We also helped CONAGUA review the water allocation instrument used to ensure that water utilities had priority access to water resources as part of the government's response to the COVID-19 pandemic.

Social Pact for Water

The above-mentioned technical advisory and knowledge generation-sharing efforts will continue in partnership with the CCA and other stakeholders. They are taking place in the context of a nationwide debate over pending and socially-contested reforms to the National Water Law framework, and where the CCA—with the support of the 2030WRG—is enabling the continuous creation of open and inclusive deliberative arenas to discuss how to best address the negative trends and emerging challenges faced by the Mexican water sector, and to achieve reforms that would be supported by all stakeholders and underpinned by an authentic social pact for water.

AREAS OF WORK

- Water responsible companies
- Reducing water and sanitation gaps
- Promotion of nature-based solutions
- Water governance and multi-sectoral dialogues
- Dialogues about water security policies

The Peru MSP, established in 2014, focuses on positioning water as a top priority in the country's agenda and creating partnerships along with the private sector, civil society, and academia, using its position as a high-level multi-sectoral platform.

To reduce the water supply-demand gap over the long term it is critical that water programs remain stable through changes of government. Over the next few years, 2030 WRG in Peru will continue its strategic work to continue creating a safe and neutral space for public-private dialogue and collaboration for impact on water governance and security. Other areas of ongoing focus, reflected in the MSP's active workstreams, will be supporting mechanisms for private companies to engage to reduce their water footprints, and promoting nature-based solutions to tackle the country's water shortage by using natural solutions that will renovate the ecosystem and contribute to water security.

Key highlights

Supporting water governance policy dialogues

At the request of the Minister of Environment, 2030 WRG and the World Bank Water Global Practice organized three virtual sessions with public officials and two workshops with private sector representatives on water security, governance, economic instruments for water risk management, and the regulatory framework. The aim was to strengthen local capacity among the officials and stakeholders involved in water policy dialogues with the OECD.

This capacity-building series was a complementary activity to the ongoing official Dialogue on Water Governance and Water Resources Management, jointly implemented by the government of Peru and the OECD. The process, which started in 2019, aimed to enable a better understanding of water governance in Peru and provide recommendations and potential future actions. This year, the private sector has been drawn into the process, reflecting the strategic work done by 2030 WRG and the Water Global Practice in building this kind of long-term multi-sectoral partnership. An unforeseen result of the success of these capacity-building processes is that the Ministry of Environment opted to use the 2030 WRG workshop model for two online sessions with civil society, also aimed at sharing knowledge and enriching understanding of water governance issues.

This process ended in March 2021 with the release of the Water Governance in Peru report by the OECD during a virtual event on water governance in Latin American countries. 2030 WRG will continue working to contribute to the implementation of the recommendations.

Promoting the private sector as a partner in working for water security

2030 WRG, through the MSP, continued to support the National Water Authority in promoting two important mechanisms for change within the private sector: The Works for Taxes mechanism and the Blue Certificate.

Works for Taxes allows companies to offset taxes through the construction of public works. In September 2020, potential water and sanitation infrastructure projects were presented to companies interested in the mechanism. The webinar (with 380 representatives from public and private sector, civil society, and academia) was jointly organized by the MSP, a water-focused NGO (Agualimpia), and ALOXI, the private sector association representing companies who have taken up the Works for Taxes mechanism.

The event offered, for the first time, a complete roadmap for investments in water and sanitation projects through this mechanism, along with important lessons learned from private companies. It provided a platform for participants to envisage the benefits of investing in water and sanitation through an efficient mechanism that will help build a resilient future for the country. It was supported by the Ministry of Housing, Construction, and Sanitation, which subsequently added 25 additional water and sanitation projects to the pipeline of potential water and sanitation projects to be executed through Works for Taxes nationwide. A second workshop specifically for the private sector representatives was held in November 2020 to build capacity and share recommendations.

2030 WRG also supported the National Water Authority in promoting the Blue Certificate, a national award given in recognition of significant efforts made by companies to reduce their water footprint. Support for the process included technical support for the water processes required and for scaling of the initiative, which has been particularly challenging in the pandemic environment. 2030 WRG also facilitated an online session to share lessons learned among companies awarded with the certificate and attract new participants, as well as a second workshop with the relevant stakeholders to provide technical recommendations. This was part of the National Water Authority's strategic planning to strengthen implementation of the Blue Certificate.

BRAZIL—SÃO PAULO

AREAS OF WORK

Reuse of treated municipal wastewater

Performance improvement of water and sanitation services

Water resources management methodologies and tools

The first meeting of the new 2030 WRG São Paulo Steering Committee took place in December 2020. The committee is chaired by the State Secretary of Infrastructure and Environment (previously the State Department for Water Resources and Sanitation) and is composed of representatives from water and sanitation utilities, segments of the water production chain, water users, NGOs, public regulatory bodies, and academia.

All the main projects developed by the São Paulo team focus on long-term objectives related to water security, such as improving and expanding wastewater collection and treatment services, promoting direct reuse of treated domestic effluents, and enhancing water resources management at basin level.

Key highlights

Optimizing wastewater treatment

SABESP, the state-owned utility that operates concessions of water and sanitation services in 67% of the municipalities of the state of São Paulo, is working with technical and institutional support of 2030 WRG to improve the efficiency of four major wastewater treatment plants of the Metropolitan Region of São Paulo and preparing them to further investments in circular economy. After satisfactory results from the assessment pilot phase of SABESP's Barueri plant in FY20, the company decided to implement this year a full audit of the operations of Barueri, Parque Novo Mundo, São Miguel, and ABC stations.

The audit aimed to provide specific technical recommendations for each plant, so to allow expanding their treatment capacities and improving the quality of the final effluent only through optimizing conventional treatment processes, at both current and projected flows, by 2030. The projected flows reflect the volumes that will be collected once universal service coverage has been reached in the metropolitan area (which has almost 22 million inhabitants in 2021).

The audit process included analysis of the historical performance data of the four plants, as well as a series of laboratory and field tests to extract specific operational data. SABESP has invested in installing measurement instruments and implementing online monitoring of performance. In addition, operational personnel have received training from international specialists on how to undertake performance tests in the field.

This program is enabling a shift in SABESP's operation and asset management procedures. Data collected during the audits is fed into a performance modeling simulator, which indicates the adjustments needed in management and maintenance, the improvements in equipment, and the civil works to be implemented for achieving the optimization goals. In the future, systematic monitoring will offer parameters for monitoring performance, providing a basis for additional changes in maintenance practices and equipment improvements.

Although the main investments and results will be implemented by SABESP only after the auditing recommendations are issued (final report anticipated early in FY22), some preliminary recommendations already implemented in the Barueri plant have significantly improved the quality of the effluents discharged at the Tietê River, which runs through the metropolitan area.

By improving secondary treatment processes in selected plants, the company will be able to postpone high-cost investments in upgraded tertiary treatment technologies, and the savings will be invested in the universalization of sewage collection. The optimization program is highly replicable to other wastewater treatment plants operated by SABESP in the state of São Paulo, as well as to other concessionaires' stations inside and outside the state.

BRAZIL—SÃO PAULO *continued*

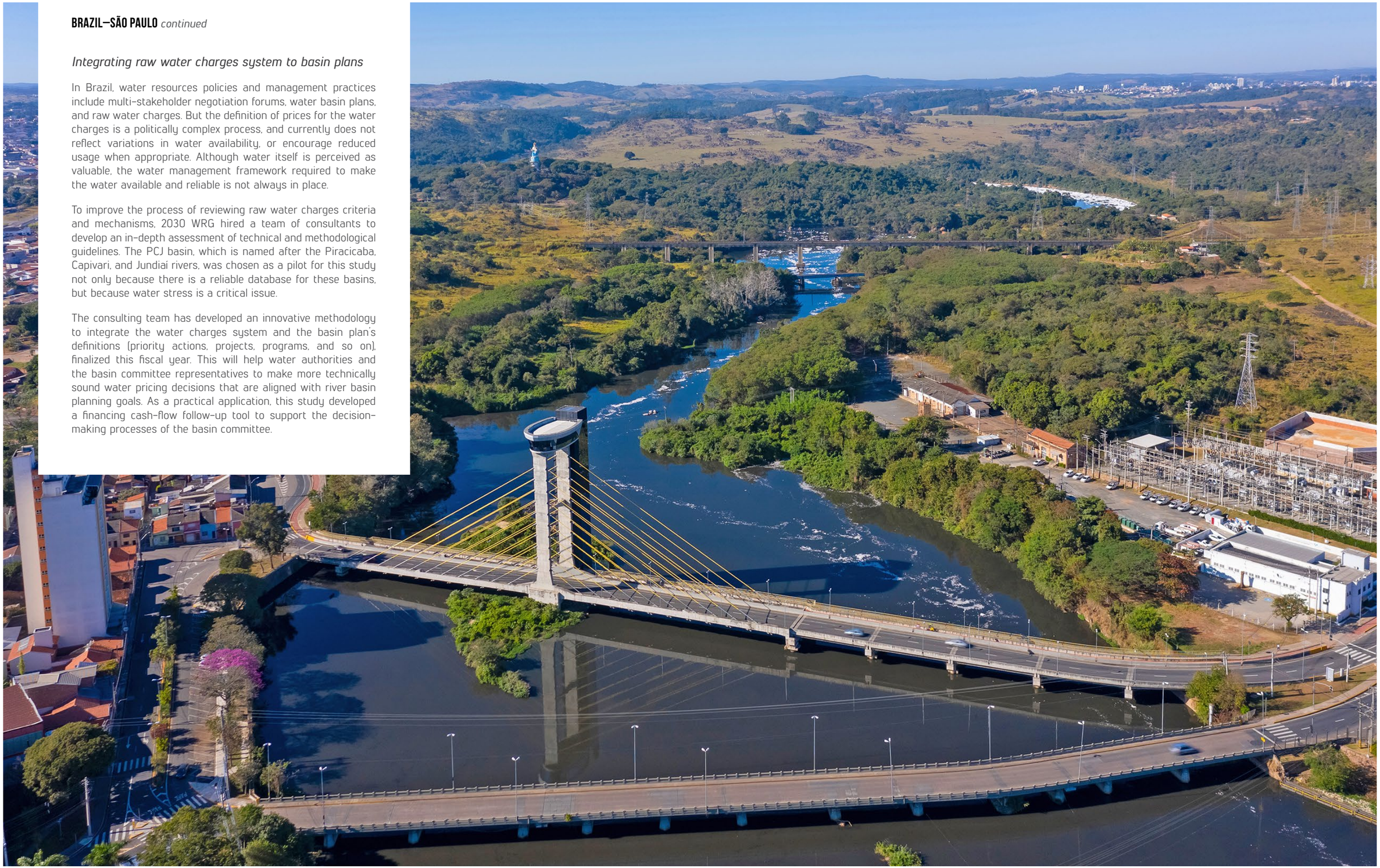
BRAZIL–SÃO PAULO *continued*

Integrating raw water charges system to basin plans

In Brazil, water resources policies and management practices include multi-stakeholder negotiation forums, water basin plans, and raw water charges. But the definition of prices for the water charges is a politically complex process, and currently does not reflect variations in water availability, or encourage reduced usage when appropriate. Although water itself is perceived as valuable, the water management framework required to make the water available and reliable is not always in place.

To improve the process of reviewing raw water charges criteria and mechanisms, 2030 WRG hired a team of consultants to develop an in-depth assessment of technical and methodological guidelines. The PCJ basin, which is named after the Piracicaba, Capivari, and Jundiaí rivers, was chosen as a pilot for this study not only because there is a reliable database for these basins, but because water stress is a critical issue.

The consulting team has developed an innovative methodology to integrate the water charges system and the basin plan's definitions (priority actions, projects, programs, and so on), finalized this fiscal year. This will help water authorities and the basin committee representatives to make more technically sound water pricing decisions that are aligned with river basin planning goals. As a practical application, this study developed a financing cash-flow follow-up tool to support the decision-making processes of the basin committee.



ETHIOPIA

AREAS OF WORK

Hydro-economic framework study

Industrial wastewater treatment and reuse

Private sector collaboration

2030 WRG has been working with the Ethiopian government towards establishing an MSP to support sustainable water management in the country since 2016. Although a formal platform has not yet been created, we have engaged with various relevant stakeholders and established two advisory groups: The Public Sector Advisory Group and the Private Sector and Civil Society Organizations Advisory Group. The advisory groups are guiding a hydro-economic framework study that will provide foundational information for the MSP.

2030 WRG HAS BEEN ASKED TO HELP CENTRAL WASTEWATER TREATMENT PLANTS SERVICING 11 ETHIOPIAN INDUSTRIAL PARKS TO DEVELOP MORE VIABLE FINANCIAL MODELS.

The three areas of work shown above are the current focus for 2030 WRG. Future themes emerging from the framework study include expanding farmer-led irrigation and building greater resilience to the impacts of climate change.

Key highlights

Sustainably managing wastewater treatment at industrial parks

2030 WRG's technical support is helping the government position Ethiopia as an African leader in light manufacturing.

The government has established over 13 state-of-the-art industrial parks to boost manufacturing capacity. The parks use circular economy principles to minimize freshwater consumption and ensure long-term environmental sustainability —with central water supply and central effluent treatment plants that allow wastewater to be treated before reuse or discharge.

2030 WRG provided technical support for a cost recovery modelling to ensure the financial viability of the central effluent treatment plants, which are managed by the Ethiopian Industrial Parks Development Corporation. In FY21, an Excel-based cost recovery model was developed for the central effluent treatment plant of the Hawassa Industrial Park as a pilot. The model draws on global studies on the operation and cost recovery approaches of central effluent treatment plants, as well as careful consideration of the local context. Industrial park managers were also trained on how to use this financial tool. Although the Industrial Parks Development Corporation has not put the model into operation, it has been well received and adopted as a decision-making tool.

Establishing partnerships: The Ethiopian Beverage Alliance for Water

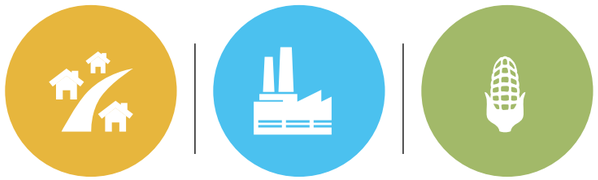
During FY21, 2030 WRG completed critical preparatory work towards the formal establishment of the Beverage Alliance on Water in September 2021. This included mobilizing partners and working with early joiners to put in place governance structures and financing for the partnership.

To help private partners change their water footprint, 2030 WRG drafted a Water Accounting Survey Concept Note for a tool that will allow willing beverage companies to assess their water usage.

The water footprint tool is just one of several activities that are on the alliance's agenda. The primary objective of this alliance is to use collective action to accelerate sustainable water resources management across the beverage sector in Ethiopia, working closely with communities to develop joint projects and promote water stewardship. It will do this by raising awareness on water scarcity, driving policy framework dialogues, and addressing water-use efficiency and pollution reduction in factories.

The current Steering Committee for the Beverage Alliance includes the Coca-Cola Company; Heineken; Water Aid; One Water; and the Ethiopian Bottled Water, Soft Drinks, Fruits & Vegetables Manufacturing Industries Association. It has secured initial funding from the Partnership for Green Growth and Global Goals 2030. The first meeting with potential members to raise awareness of the beverage alliance took place in January 2021, with subsequent roundtable discussions held to develop a deeper understanding of its purpose.

AREAS OF WORK



Strengthening the resilience of urban water systems

Promoting circular economy in industrial water management

Transforming agricultural value chains

In 2015, after several years of preparatory engagements, 2030 WRG was invited by the government of Kenya to support the development of an MSP, starting with a hydro-economic analysis that identified a possible water supply and demand gap of 30 percent by 2030. The MSP now has a Governing Board, which works at the national level, and three workstreams that enable interventions at county and national levels. For optimal impact, 2030 WRG secretariat work in Kenya is aligned with the government's economic strategy, Vision 2030. This work is forward-looking, with 2030 WRG bringing a dynamic understanding of how priorities around water may evolve.

Key highlights

A Framework for Action to catalyze development of small-scale farmer-led irrigation

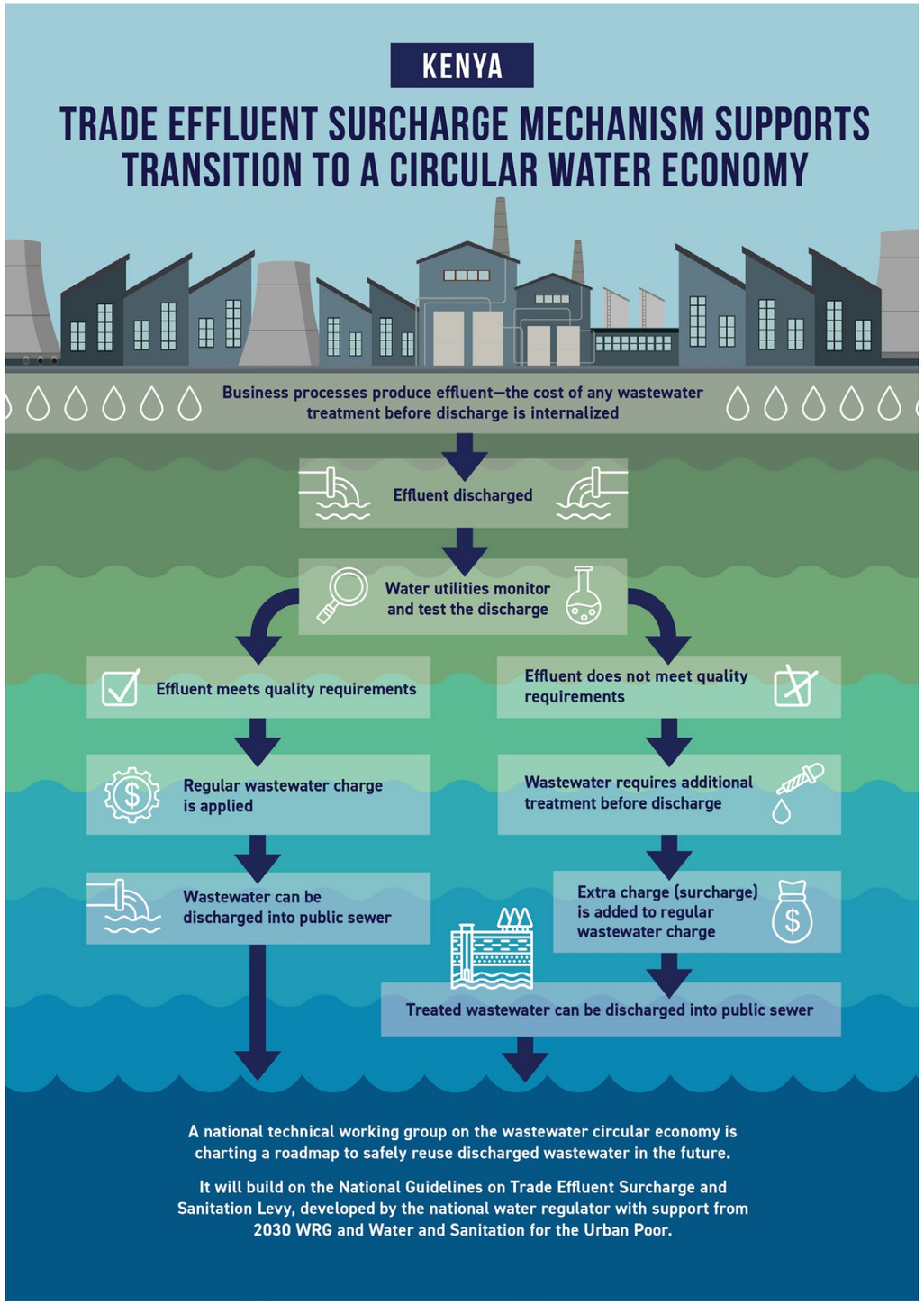
About 80 percent of the Kenyan population derive their livelihood from agriculture and related activities.[4] Anticipating the impacts of population growth and climate change, Vision 2030 commits Kenya to solving poverty and food insecurity by relacing overreliance on rain-fed agriculture with widespread irrigation. 2030 WRG together with the World Bank has completed a diagnostic that reveals the constraints for and opportunities available to small-scale farmers in adopting irrigation. In fact, small-scale farmers could help the government achieve up to 50 percent of its targets for expanding irrigated agriculture.

The assessment, a rapid diagnostic, has identified key interventions, outlined in a Framework for Action, that will catalyze farmer-led, small-scale irrigation development in Kenya. This Framework for Action builds on previous work done by 2030 WRG in conceptualizing partnership models to increase access to finance for small-scale farmers in Kenya.

Ensuring that policy-making and implementing bodies work together to facilitate change, this work was carried out in collaboration with the World Bank Group, the Ministry of Agriculture, the Ministry of Water, the Private Sector Alliance, and county governments.

2030 WRG's convening role brought together national and local government, but it also brought stakeholders from the private sector—who have a potentially unique contribution to make—into the dialogue. A major outcome of the diagnostic process was a joint agreement by stakeholders on the Framework for Action, recognizing the significance of farmer-led small-scale irrigation to achieving national food and water security goals.

[4] FAO, Kenya at a Glance. Available at: https://www.fao.org/kenya/fao-in-kenya/kenya-at-a-glance/en/



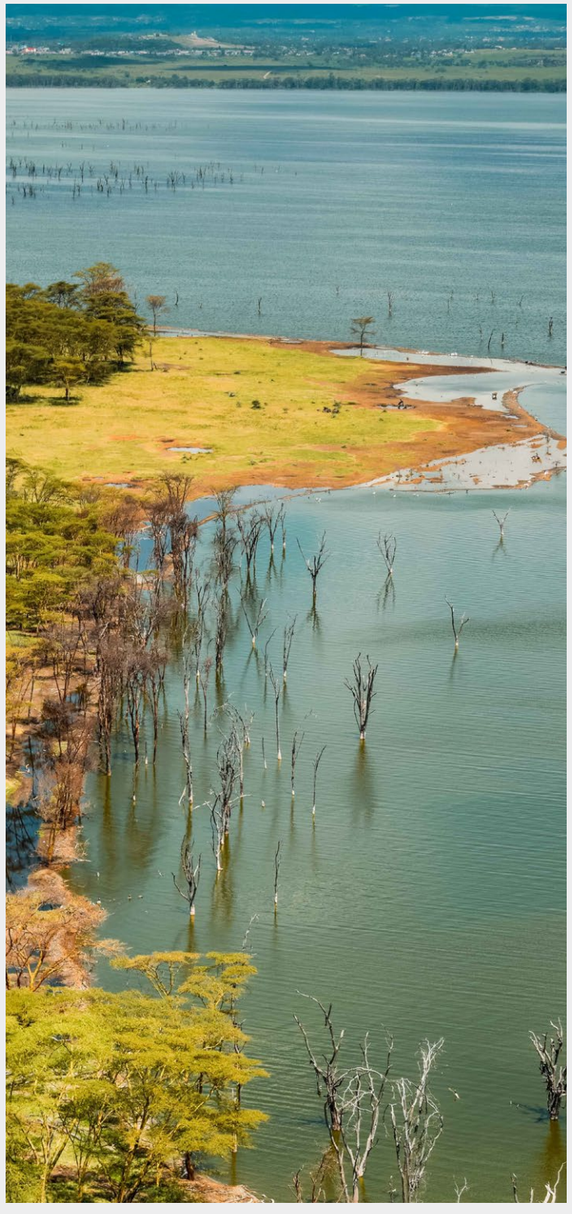
Long-term strategic work to transitioning water management to circular economy shows results

Promoting the circular economy—where treated water is reused—is an important part of 2030 WRG strategy to help reduce the gap between water supply and demand. In Kenya, we provide thought leadership around policy, standards and regulation, data information and technology, investments and partnerships to help both state and non-state actors extract value from wastewater in a circular economy.

Environmental legislation in Kenya demands that polluters bear the cost of remediating the effects of pollution—sometimes known as the polluter pays principle. In practice, water utilities have not had the framework to entrench the principle in the management of public sewer systems. This has led to underperformance of the public sewer systems and wastewater treatment plants.

To help utilities improve wastewater management and businesses to internalize the value of water, 2030 WRG is supporting the national water regulator and two major water utilities. It is helping the utilities establish a trade effluent surcharge mechanism and supporting the regulator to develop national guidelines on trade effluent surcharge. A surcharge is a charge added to the regular wastewater charge that a business will pay for discharging to the public sewer trade effluent that does not meet the set quality standards. The two utilities, Nairobi and Nakuru water service providers, will use the surcharge mechanism to recover the cost of treating trade effluent whose quality does not meet the quality standards. Once operationalized, the surcharge mechanism could be scaled up to other water utilities in the 47 counties in Kenya.

For the trade effluent surcharge mechanism to work, there is a need for a national regulatory instrument to guide the practice. The instrument, the National Guidelines on Trade Effluent Surcharge and Sanitation Levy, was developed by the national water regulator, with support from 2030 WRG and Water and Sanitation for the Urban Poor. In addition, 2030 WRG, in partnership with the Ministry of Environment and others, has established a national technical working group on the wastewater circular economy. Notable work done by this technical working group includes a baseline study designed to harmonize the wastewater ecosystem and chart a national roadmap—including a national policy, priorities, and blueprints for intervention—for a wastewater circular economy.



RWANDA

During FY21, 2030 WRG was invited by the government of Rwanda to work with the country's Water Resources Board to establish an MSP. While coordinating and working closely with the Rwanda Water Resources Board, areas for initial focus have been defined in collaboration with the government. These include an agricultural water management working group.

Despite the abundance of water in Rwanda, there is water scarcity because it is unevenly distributed across the country. As a result, all the government's current strategies for economic growth set out water-related targets, as will their Vision 2050, which is currently being updated. One of 2030 WRG's initial activities—the hydro-economic analysis—aims to feed into the government's new strategies and targets, providing a cross sectoral approach and a better understanding of the water context.

The hydro-economic analysis will also provide the foundation for work undertaken by the future MSP's workstreams. Farmer-led irrigation has already been identified as critical, with agriculture accounting for 29 percent of GDP. Although the hydro-economic analysis process is at an early stage, it is anticipated that promoting climate resilience, specifically to flooding and erosion, will emerge as a future focus.

Key highlights

Developing mechanisms for multi-stakeholder engagement

2030 WRG brings its experience of MSPs—particularly of involving the private sector in partnerships—into this new working relationship with public, private, and civil society organizations. With 2030 WRG's overarching aim being to close the gap between water demand and supply, it is good news for the MSP that the Rwandan government already has a Master Plan for Water Resources. And, critically, as a result of 2030 WRG's preparatory engagements, the MSP will have the active involvement of government at a high level. The key government entities participating are the Ministry of Environment, the Ministry of Agriculture, and the Rwanda Water Resources Board.

In FY21, 2030 WRG worked in collaboration with the Water Resources Board to develop a partnership strategy and operational framework for strengthening the national MSPs that already exist. There are several water-related platforms and stakeholder engagement processes in Rwanda, but there is a need to synchronize activities to avoid overlap and gaps. 2030 WRG is playing a key enabling role in working with the government agencies to establish a mechanism for coordinating these activities.

50 | **PERCENT OF IRRIGATION COST**

In 2015, the Ministry of Agriculture and Animal Resources initiated a **small-scale irrigation technology program** to **support smallholder farmers by subsidizing 50 percent of the cost of the irrigation.**

Bringing regional expertise to small-scale irrigation technology subsidy

The Rwandan government has a deep appreciation of the role of small scale farmers for its agricultural output and is keen to support small scale irrigation expansion to increase the productivity of small scale farmers and their resilience.. In 2015, the Ministry of Agriculture and Animal Resources initiated a small-scale irrigation technology program to support smallholder farmers by subsidizing 50 percent of the cost of the irrigation. Now, the Ministry of Agriculture wants to scale up the program, which is supported by the World Bank Agriculture and Food Global Practice operation.

As a step towards this scale-up, 2030 WRG began undertaking an assessment of the subsidy during FY21. The draft report on the assessment was completed shortly after the end of the financial year. The report examines how effective the subsidy is, as well as opportunities for financing from the private sector to ensure sustainability. It also identifies and proposes improvements for policy and implementation. 2030 WRG has brought regional African expertise in farmer-led irrigation development to this work, along with global experience in technical and financing options for such development.

SOUTH AFRICA

AREAS OF WORK

Water use efficiency and leakage reduction

Effluent and wastewater management and sanitation

Agricultural supply chain

Water stewardship

2030 WRG provides support to the South African MSP, which is known as the Strategic Water Partners Network (SWPN). The SWPN is a multi-stakeholder partnership working collectively to close a 17 percent gap between water supply and demand anticipated by 2030. The Department of Water and Sanitation and Nestlé co-chair the partnership.

As part of a Water Stewardship Project Review last year, the SWPN's four working groups met virtually to identify a pipeline of three potential projects for each group. During FY21, the SWPN developed concept notes and identified partnerships to implement the proposed new programs and projects. At the start of FY22, consultations to finalize the project concepts and phasing will be held, and funding sought. The SWPN plans to support public-private and civil society collaboration to take forward the projects, while working to identify good practices in collective action and implementing state-of-the-art solutions.

Key highlights

Municipal program will ensure not one drop is wasted

The preparatory work to revitalize the No-Drop program, which provides certificates of recognition to municipalities that prioritize water conservation and demand management, was completed in FY21. The Embassy of Demark, Pretoria, is partnering with the SWPN and 2030 WRG to support this project, which aims to improve service delivery and water security while reducing water losses and non-revenue water.

An estimated 41 percent of the water in South Africa's municipal systems is non-revenue water. This water, lost through leaks, theft, or metering inaccuracies, has a volume of about 1,660 million cubic meters, with a value of more than $9.9 billion annually.[5] At the same time, each person in South African uses 64 more liters of water per day (including industrial use) than the global average of 173 liters per day.[6]

The program will collect and analyze data on water losses, non-revenue water, and efficiency, and provide technical and scientific support to create guidelines for water conservation through demand management. It also aims to provide the South African public with credible and transparent results on the status of water-use efficiency in municipalities.

Improving school sanitation

Not all schools in South Africa have secure and hygienic toilets. A pilot program in up to 10 schools will explore a holistic approach that uses appropriate technology and addresses ongoing operations and maintenance issues, to provide a basis for possible future scale-up.

The SWPN's proposed school sanitation program is intended to support government policies and strategies and build partnerships at all levels to achieve facilities and practices that are appropriate to South Africa. The project will include working alongside government and school management structures to improve systems for budgeting and managing procurement and maintenance, while also drawing on support from non-profits and the private sector. Concept documentation has been prepared, partnerships identified, and funding is being sought.

Polokwane Water Partnership on Non-Revenue Water Reduction

The SWPN launched the second phase of its Polokwane Water Partnership. In collaboration with municipal authorities, the SWPN is implementing a plan to reduce non-revenue water in the city of Polokwane over a period of five years. The project, which is supported by the local municipality, AB InBev, and Anglo American, has set targets to reduce non-revenue water from 65 percent to 35 percent and free up 4.33 million cubic meters per year in this semi-arid area.

[5] National Water & Sanitation Master Plan, South Africa.

[6] National Water & Sanitation Master Plan, South Africa.

TANZANIA

AREAS OF WORK

National Multi-Sectorial Forum

Kilimanjaro Water Stewardship Platform

Irrigation financing initiative

Private sector roundtable

Four subnational MSPs are active in Tanzania, under a Multi-Sectoral Forum that has operated under the leadership of the Ministry of Water since 2016. This relationship has ensured alignment between 2030 WRG's areas of work and the Tanzanian government's Integrated Water Resources Management Development Plan at basin level. Over time, 2030 WRG has built up the social and institutional partnerships that are vital to continuity, putting water programs in Tanzania on a trajectory to sustainability.

A key part of Tanzania's water management strategy is a plan to create nine state-run water basin management forums That are vibrant and effective in providing a dialogue platform for all stakeholders in the basins. Arrangements to incorporate the Kilimanjaro Water Stewardship Platform (KSWP) into the first of these forums were formally concluded in FY21. This follows the evolution of the Multi-Sectoral Forum into a national apex body for the nine new basin forums.

In the role of secretariat to the National Multi-Sectoral Forum, one of 2030 WRG's most significant strategic contributions remains bringing the private sector into strong partnerships that include local and national government, donors, civil society, and non-governmental organizations. There has been an intention to transform the forum into a functional, results-oriented, transparent, and ongoing platform.

Key highlights

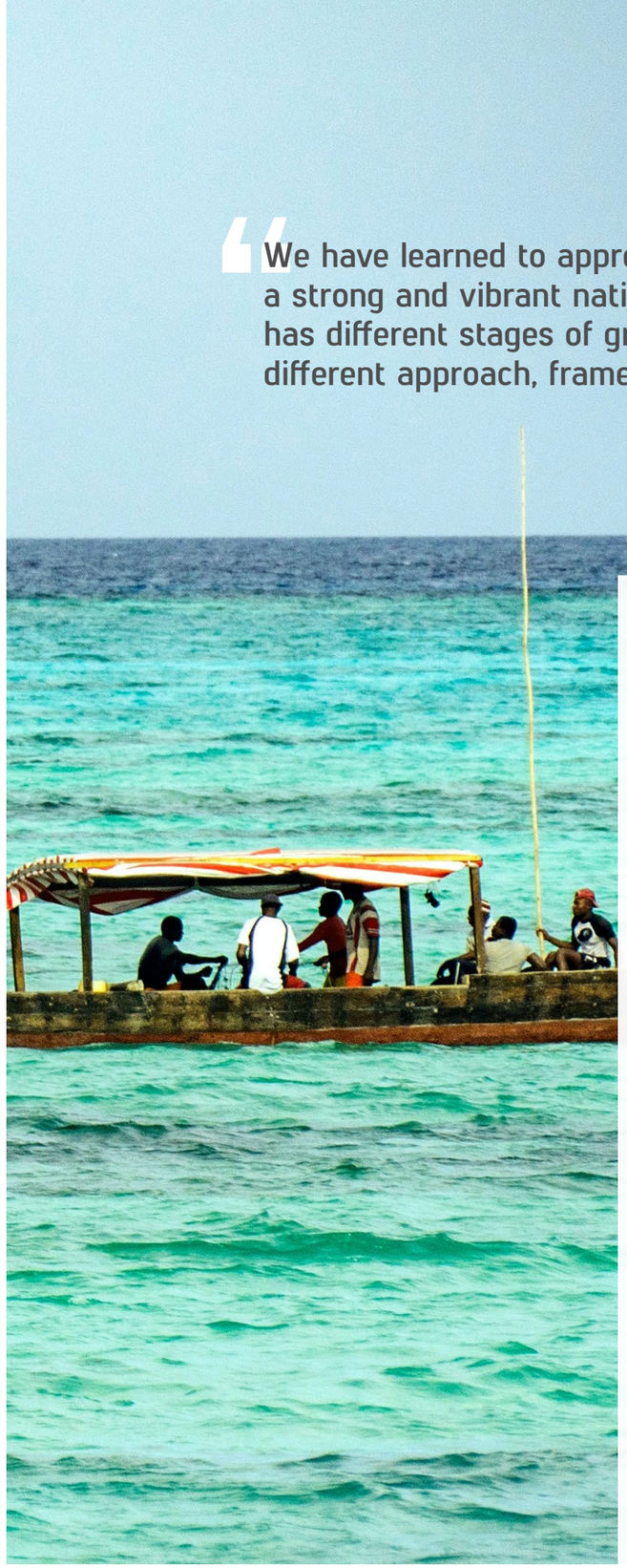
Kilimanjaro Water Stewardship Platform adopted by government as key element in new water-management strategy

2030 WRG's commitment to addressing water resources challenges and working closely with key partners through the KSWP has been acknowledged by the Pangani Basin Water Board. Workstreams within the KSWP include catchment governance, catchment management and restoration, water use efficiency, and water stewardship standards.

From July 2021, the platform will be embedded within the Pangani Basin Water governance structure and renamed the Kikuletwa Catchment Forum. The administrative boundaries of the forum will expand to cover the hydrological boundary of the entire Kikuletwa catchment in Pangani basin. This will increase the water management coverage, but it will also bring new challenges. 2030 WRG will continue to provide support, especially in developing strong governance structures for the Kikuletwa Catchment Forum. It has also been invited to develop a framework to support more catchment forums in Pangani and other priority basins—in effect, acting as a model for nine new river basin forums that the government aims to form. 2030 WRG will continue to provide partnership-building support under the new arrangement.

Reflecting 2030 WRG's focus on partnership building, new stakeholders were drawn into KWSP working groups in FY21, and four well-attended working group meetings were held. In March 2021, a project funded by GIZ and private partners to plant trees was launched under the catchment restoration group, with the establishment of a tree nursery of 21,500 trees. In May, the project undertook a survey of restoration hotspots in Usa River to establish a sustainable basis for the tree-planting, including approaches to support their growth. Another of the working groups helped small-scale farmer groups apply for drip irrigation finance, with five farmer groups in the process of submitting their applications to the Tanzania Agricultural Development Bank in 2021

> "We have learned to appreciate the process of establishing a strong and vibrant national multi-sectoral platform that has different stages of growth, and each stage requires a different approach, framework, and insight."
>
> *– Country staff*



Lessons learned from 2030 WRG's partnership-building inform Multi-Sectoral Forum

Government regulations governing an expanded role for the national Multi-Sectoral Forum were finalized in early 2020. The forum aims to coordinate a range of water management actions by individual stakeholders under a common plan. The forum will also be an apex for the nine new river basin forums that have already been established based on the KWSP model. During the year, 2030 WRG supported work to streamline the coordination of the national Multi-Sectoral Forum, improving its governance structures in order to enhance its effectiveness and increase transparency in decision-making as well as make it more result- and output-oriented.

"We have learned to appreciate the process of establishing a strong and vibrant national multi-sectoral platform that has different stages of growth, and each stage requires a different approach, framework, and insight." – Country staff

Under the forum umbrella, a high-level hybrid in-person/virtual event—the Multi-Stakeholder Forum on Water Resources Management—was held in Dar es Salaam in December 2020. In addition to creating space to discuss advances in water management within the government framework, it provided a platform for private companies to highlight their contributions in addressing water security.

FINANCIAL SUMMARY (Unaudited)

2030 WRG obtains funding from a variety of development corporations, public sector trusts, and private sector institutions. The bulk of these funds support the functioning of the Multi-Stakeholder Platforms in countries, while a small percentage covers operational support provided by the global Secretariat.

Income

Table 1: Donations to the World Bank Trust Funds until 6/30/2021 ($)

Donor Name	Total Contributions Amount (in $)	FY21 Contributions Paid-in Amount (in $)
Israel - Ministry of Economy & Industry	3,000,000	
Swiss Agency for Development and Cooperation (SDC)	3,000,000	999,950
Swedish International Development Cooperation Agency (Sida)[1]	1,912,830	
Total Contributions from Public Sector through Trust Funds	**7,912,830**	**999,950**
Coca-Cola Company	3,000,000	1,000,000
Anheuser-Busch Companies LLC	1,900,000	500,000
Grundfos Holding A/S[2]	500,000	
Nestlé SA	1,500,000	
PepsiCo Foundation	1,500,000	
Unilever U.K. Central Resources Limited	1,500,000	750,000
Credit Suisse Foundation	1,500,000	1,500,000
The Coca-Cola Foundation	250,000	
The Hungarian Export-Import Bank plc	3,000,000	
Total Contributions from Private Sector through Trust Funds	**14,650,000**	**3,750,000**
Grand Total[3]	**22,562,830**	**4,749,950**
Contributions from International Finance Corporation (IFC)	2,000,000	
Contributions from Global Water Security And Sanitation Program (GWSP)	1,560,000	205,000
Contributions from Public-Private Infrastructure Advisory Facility (PPIAF)	300,000	
Contributions from Korean Green Growth Trust Fund (KGGTF)	489,000	163,000
Total Funding from the World Bank Group	**4,349,000**	**368,000**

Note 1: It stands for SIDA net contributions received in US$ equivalent after deducting refunds and unpaid contributions due to SIDA exit from 2030 WRG.

Note 2: Total contributions from Grundfos have been manually adjusted from $1.5m to $500k to reflect the amount received and the fact that Grundfos has exited from 2030 WRG.

Note 3: Total contributions from Private and Public Sectors relate to the contributions signed under the 2030 WRG Trustee TF072950, except that the contributions from Hungarian Export-Import Bank plc is contributions towards the IFC Trustee TF073557 - out of the total amt $10mil signed into the agreement, $3mil is for WRG for over three years starting from July 1, 2021. The IFC Trust Fund TF071915 are not included in this financial summary after its legal closure in April 2019.

Table 2: FY21 Co-Financing Facilitated by 2030 WRG's MSPs ($)

No.	Name of Program	Donor Name	In-Kind Contribution ($US)	Parallel Contributions ($US)	Total Contribution ($US)
1	Bangladesh	Dascoh Foundation	2,893	2,893	5,785
2	Bangladesh	Syngenta Foundation	18,900	38,925	57,825
3	Karnataka, India	Government of Karnataka		84,652	84,652
4	Kenya	World Bank Water GP		561,485	561,485
5	Maharashtra, India	Yuva Mitra		12,209	12,209
6	Maharashtra, India	Western Sydney University	50,400		50,400
7	Maharashtra, India	Development Support Centre, Maharashtra's Water Resources Department and Axis Bank Foundation		63,623	63,623
8	Maharashtra, India	Digital impact Square, Atal Incubation Centre-India School of Business/AIC-1SB, Atal Innovation Mission-Innovation Centre Denmark (AIM-ICDK) and NASSCOM		49,109	49,109
9	Maharashtra, India	VNV Advisory		6,783	6,783
10	Maharashtra, India	Department of Biotechnology and UK Research and Innovation/ NERC		325,583	325,583
11	Mongolia	Mongolian Water Authority		2,100	2,100
12	Mongolia	World Bank Korean Green Growth Trust Fund		489,000	489,000
13	Mongolia	KPM LLC	17,490		17,490
14	Mongolia	Water Authority	4,736		4,736
15	Mongolia	Delgermurun Shishhed RBA		1,070	1,070
16	Mongolia	Korea Environmental Industry and Technology Institute (KEITI)		370,000	370,000
17	Mongolia	Mongolian Ministry of Environment and Tourism	85,782		85,782
18	Mongolia	Government of Mongolia		72,574	72,574
19	Peru	Various		357,350	357,350
20	Rwanda	World Bank Environment GP		39,200	39,200
21	Sao Paulo	IFC		61,200	61,200
22	Sao Paulo	IFC		74,023,354	74,023,354
23	South Africa	Eskom		9,990	9,990
24	South Africa	Distel		16,650	16,650
25	South Africa	Nestle		13,320	13,320
26	South Africa	Anglo Operations		19,980	19,980
27	South Africa	Coca Cola Bottling SA		6,660	6,660
28	South Africa	ABInbev Africa		26,640	26,640
29	South Africa	South 32		13,320	13,320
30	South Africa	South Africa Department of Water and Sanitation		66,600	66,600
31	Tanzania	Ministry of Water and the Canadian High Commission in Tanzania		1,800	1,800
32	Tanzania	GIZ		8,336	8,336
33	Uttar Pradesh, India	Collectives for Integrated Livelihoods Initiatives		21,706	21,706
34	Uttar Pradesh, India	Collectives for Integrated Livelihoods Initiatives		10,853	10,853
35	Uttar Pradesh, India	Collectives for Integrated Livelihoods Initiatives		61,933	61,933
Total			**180,201**	**76,838,898**	**77,019,098**

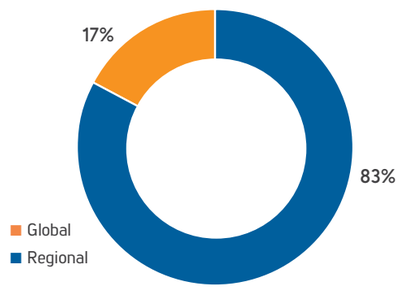
Expenses

Table 3: FY21 Expenses ($)

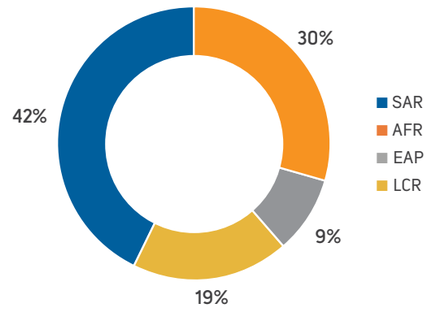
FY21 Total Expenses by Type of Activities ($)	
Type of Activity	**Amount**
Regional	6,071,417
Global	1,270,726
GRAND TOTAL	**7,342,143**

FY21 Total Expenses by Region ($)	
Name of Region	**Amount**
Africa (AFR)	1,795,847
East Asia and Pacific (EAP)	549,235
Latin America and Caribbean (LCR)	1,166,029
South Asia (SAR)	2,560,307
GRAND TOTAL	**6,071,417**

FY21 Total Expenses by Type of Activities



FY21 Total Expenses by Region



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2030 Water Resources Group

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