

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

The 2030 Water Resources Group forges multi-stakeholder partnerships, or MSPs, to collectively manage this scarce resource for the benefit of people, ecosystems, and economies.

This report tracks our activities and impacts between July 1, 2019, and June 30, 2020. It provides a record of our strategic approach and our work at the country level.

# **CUMULATIVE HIGHLIGHTS IN NUMBERS**

PARTNERS 900



PUBLIC **278** 

PRIVATE O A

CSO/OTHERS
229

REDUCE NON-TREATED WASTEWATER DISCHARGE BY

296M



REDUCED FRESHWATER ABSTRACTION BY



523M CUBIC METERS

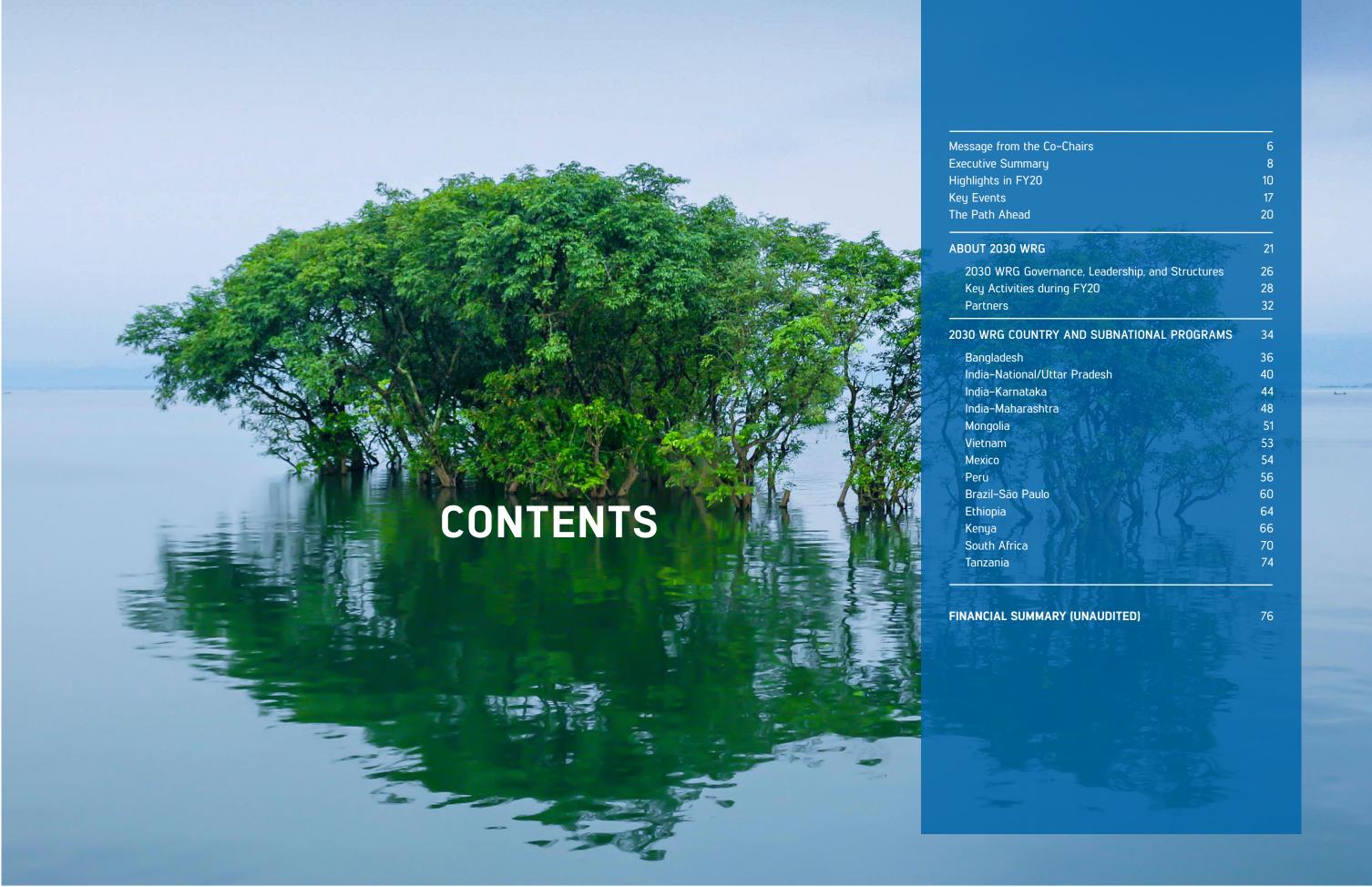
US\$893M
OF INVESTMENTS
FACILITATED INTO
INFRASTRUCTURE AND
TECHNOLOGY



MULTI-STAKEHOLDER
PARTNERSHIP MEETINGS HELD
ACROSS THE WORLD

62 PUBLICATIONS DEVELOPED

PROJECTS/
POLICIES IMPLEMENTED



DRAFT PENDING APPROVAL

DRAFT PENDING APPROVAL

# 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

Water is a critical linchpin for the climate, environment, and resilience agendas. It is vital to protecting and replenishing natural, human, and economic capital. Today, our work is more important than ever as water is central to preventing and combating COVID-19. While there is awareness of the urgency of water sector challenges the World Economic Forum's Global Risk Report consistently lists water among its top five risks. We must accelerate action and scale to remove it from the list of top risks.

#### Go-To-Vehicle for Rapid Response

With the onset of the global pandemic, 2030 WRG's well-established cross-sectoral partnerships were rapidly mobilized to respond to the urgent need for water, sanitation, and hygiene solutions. In Bangladesh, for example, 2030 WRG worked with partners to provide handwashing facilities, soap, and sanitizer in all 64 districts, and to develop a nationwide handwashing awareness-raising campaign that reached an estimated 20 million people. In São Paulo (Brazil), 2030 WRG and partners worked to provide

vulnerable populations with hygiene products to prevent the spread of Covid-19 in municipalities within Piracicaba-Capivari-Jundiai (PCJ) basin. As the COVID-19 pandemic continues, 2030 WRG Multi-Stakeholder Platforms will assess how best to use the power of collective action to further support response efforts, as SDG 17 becomes more necessary than ever to tackle growing challenges.

#### Re-Imagining Water Management

In 2019, 2030 WRG identified three leadership areas for its work: transforming value chains, promoting circular economies, and building resilience. Across these areas, 2030 WRG delivered several outcomes, including a new regulation on the reuse of non-potable urban water in São Paolo, a groundwater dashboard in Mongolia using ML/Al for policy and decision making, guidelines for polluter pays principles for industrial wastewater in Kenya, a new water-efficient irrigation system in South Africa, a new concept on access to post-harvest credit in Maharashtra using fin-tech and alternative financing, a water-quality monitoring PPP in Dhaka (Bangladesh) to monitor pollution real-time, and a new Social Pact for Water in Mexico for a stakeholder-endorsed legal framework for water. 2030 WRG will continue to drive impact, innovation, influence and institutional reforms in its leadership areas.

#### Innovate at scale to support SDGs

While 2030 WRG accomplished a great deal over the past year, much more remains to be done. Going forward, 2030 WRG will delve deeper, leveraging World Bank investments for greater impact in the countries we work in, and expanding its presence from national and state levels to the city level. 2030 WRG plans to innovate faster as 2030 WRG Multi-Stakeholder Platforms embrace disruptive technologies. And finally, 2030 WRG plans to grow cautiously but firmly, expanding its engagement to more countries and states as the urgency for collective approaches becomes more evident each day.

Delivering on these ambitions requires us to join forces with more partners to enhance our influence and impact. 2030 WRG is at an inflection point in its growth trajectory. We hope you will join us for the next phase of our work to re-imagine and reinvent how water resources are managed.



# **EXECUTIVE SUMMARY**

Overview of the context in which we operated and our key activities.

Water security was not a regular feature in mainstream news during 2019, when headlines were dominated by natural disasters like Hurricane Dorian in the Bahamas and wildfires in California, Australia, and Canada. From early 2020, the Covid–19 pandemic generated an increased level of attention for water when the World Health Organization started promoting regular handwashing as the first line of defense against infection, effectively highlighting how many people still lack access to safe water and sanitation. However, this clear message about the value of water had already receded from the headlines by mid–2020.

This lack of public attention makes the work of water-focused global initiatives like 2030 WRG all the more important. Effective water management begins with evidence-based planning long before disaster strikes. By the time a river bursts its banks in flood, dams run dry, or there is a cholera outbreak, the best anyone can do is control the level of damage caused. Planning for the long term is especially important in the context of climate change, which is seeing natural disasters like floods and droughts occur more frequently and intensely across the globe.

The sixth of the Sustainable Development Goals (SDG 6) aims to "ensure availability and sustainable management

of water and sanitation for all" by 2030. This goal and its sub-goals reflect the concepts of integrated management, cooperation, capacity-building, participation, and support.

When we start work in a new jurisdiction, one of our first activities is to reach out to the government to obtain support. During the year under review, we received mandate letters to endorse our work from the governments of Pakistan, Rwanda, and the Indian state of Madhya Pradesh. We have already started work on projects in Madhya Pradesh, focusing on reservoir rejuvenation through surface irrigation schemes. Our strategic aim is to reach 25 countries by 2030.

2.2 BILLION
PEOPLE LACK SAFELY
MANAGED DRINKING
WATER

4.2 BILLION
PEOPLE LACK SAFELY
MANAGED SANITATION

3 BILLION
PEOPLE LACK BASIC
HANDWASHING FACILITIES
AT HOME

700 MILLION
PEOPLE COULD BE DISPLACED
BY WATER SCARCITY BY 2030

**62**%

THE SHORTFALL IN FUNDING
THAT SOME COUNTRIES FACE ON
THE PATH TO ACHIEVING WATER AND
SANITATION TARGETS.

Source: The Sustainable Development Goals Report 2020  $\,$ 

# Steering Board visit

Our Steering Board paid its first-ever visit to a country program in November 2019. Also attended by the cochairs of our Governing Council, the visit brought together more than 60 participants to share experiences and view firsthand the progress made in Peru. See the gallery of photos on page 27.

# Impacts in key thematic areas

Drawing on the experience of the 2030 WRG multistakeholder platforms (MSPs), our Governing Council has identified three thematic areas where water challenges are the most urgent, and where small changes will have the greatest impact. These areas are agriculture, industry, and coping with climate change. 2030 WRG also works to leverage the power of appropriate technologies so that possible solutions can be rapidly rolled out to meet the scale of the challenge.



### Improved resilience planning

Extreme weather events linked to climate change are growing increasingly frequent and intense. Given the slow progress made toward achieving the Paris Agreement and reducing the rate of growth in greenhouse gas emissions, there is a need for countries the world over to prepare for water-supply shortages resulting from floods and droughts.

Effective resilience planning begins with robust data and information on the regulatory, economic, financial, and technical aspects of water management. Enabling resilience planning often means providing input, at the request of governments, into policy or law-making processes. During the year, our work to strengthen resilience planning included:

- Further developing the hydro-economic analysis in Ethiopia and expanding the analysis in Mongolia to include copper mining in the Gobi Desert. Hydroeconomic analyses like these provide country partnerships with a shared knowledge base from which to develop resilience plans.
- Developing an electronic dashboard to monitor groundwater abstraction in Mongolia. This will facilitate informed decision-making and feed into forwardlooking policies on groundwater use.
- Supporting the government of Peru in strengthening local capacities for water governance and water

resources management among the officials involved in the OECD Water Governance Policy Dialogue Process.

- Providing technical advisory and capacity-building support to the Mexican government and civil society to strengthen the country's water financing system for economic recovery.
- Making evidence-based submissions on water management systems and legal frameworks in Bangladesh, Mexico, and Vietnam, and in the Indian states of Karnataka and Uttar Pradesh.
- Preparing the consolidated Short-Term and Long-Term Action Plan for Water Sector Development in Bundelkhand with the Ministry of Jal Shakti in Uttar Pradesh, India, as approved by the Honorable Chief Minister.
- Supporting consultants in developing recommendations for an enabling environment to implement industrial wastewater reuse in Karnataka, India.
- Contributing strategic and technical expertise to support the Social Pact for Water process, a multi-stakeholder dialogue to discuss the challenges and opportunities to reform the national water legal framework in Mexico.

In different geographies, the MSPs worked with governments to support better valuing of water with the aim of enabling more sustainable decision-making:

- In Bangladesh, a groundbreaking study was completed to better understand the total economic value of water-including its social and environmental costsand set shadow prices to facilitate more informed decision-making about future investments and projects. The study was funded by the government of Bangladesh.
- In Brazil, a study is being developed on methodologies to provide River Basin Committees with additional technical criteria for raw water pricing decisions. The study will also help them to improve the effectiveness of the methodology for determining water-use charges, through better integration with river basin
- In Kenya, the 2030 WRG partnership supported the Water Services Regulatory Board in developing draft guidelines for incentivizing treatment and reuse of industrial effluent.

Green infrastructure-or nature-based solutions-are increasingly being used as a strategy for resilience planning. For instance, projects in Uttar Pradesh, India, are using pond rejuvenation and afforestation to improve the water quality of water bodies. In Peru, where green been set up to identify possible projects. The state-owned million for green infrastructure projects that will contribute water utility company covering the capital city of Lima to tackling Lima's water stress.

infrastructure was a focus this year, a pipeline process has has announced the implementation of a fund of about \$24

# **COVID-19: FROM RAPID RESPONSE TO BUILDING BACK BETTER**

The 2030 WRG multi-stakeholder partnership (MSP) model proved its worth in the early stages of the Covid-19 pandemic. Established partnerships were effective at coordinating disaster responses, providing urgently needed water, sanitation, and hygiene (WASH) solutions in a range of geographic areas.

Responses to the Covid-19 pandemic included:

- Bangladesh—An emergency WASH support project provided handwashing facilities, soap, and sanitizer to the Deputy Commissioner's offices in all 64 districts, and a nationwide handwashing awareness-raising campaign reached an estimated 20 million people.
- São Paulo, Brazil—2030 WRG, Global Compact, and the Association of Municipalities of the PCJ Basin brought together partners from the public and private sectors to provide vulnerable populations with hygiene products—mostly sanitizer and soap—to prevent the spread of Covid-19 in municipalities within this basin.



- · Peru-The Public water utility Sedapal and private companies came together to collect and manage donations. This initiative will enable poor households to receive water tanks to safely store water, while larger water cistern trucks will supply popular social dining rooms that provide food for many of Lima's
- South Africa—The partnership in South Africa, the Strategic Water Partners Network (SWPN), and GIZ undertook a snap survey to understand key members' responses to the pandemic. Among other responses, various voluntary and in-kind contributions had been made to support the most vulnerable communities. A letter offering support with coordinating collective action was sent to the Ministry of Human Settlements, Water, and Sanitation.
- Karnataka, India—The large-scale drip irrigation project already in process set up a cellphone-based communication system to maintain communication with farmers during lockdown.

2030 WRG is well positioned to convene stakeholders to find action-oriented, scalable, and sustainable solutions to post-pandemic challenges. Longer-term projects that emerged this year in response to Covid-19 include:

- Bangladesh—In partnership with Unilever, UNICEF, the United Nations Development Programme, the World Health Organization, and the World Economic Forum, long-term programs are being developed to combat Covid-19.
- Maharashtra, India—A white paper is being developed for the government that will highlight the case for using drones and other disruptive technologies for implementation and monitoring interventions in
- Uttar Pradesh, India—An assessment of the lockdown's impact on the pollution levels of the Hindon River is being completed, in collaboration with the University of Chicago. The resulting analysis will inform future interventions to improve water quality.

# Transforming the agricultural value chain

Irrigated agriculture is at least twice as productive as rainfed agriculture, yet only 40% of the world's food is produced on irrigated land. Given that agriculture currently accounts for 70% of freshwater withdrawals globally, encouraging waterefficient practices across the entire agricultural value chain could unlock water savings and contribute substantially to narrowing the growing gap between supply and demand.

Farmers often identify cost and lack of access to financing as a key barrier to installing water-efficient irrigation systems. Several MSPs across the world are helping to develop local solutions to this challenge. In Tanzania, for instance, the MSP helped three farming groups develop viable projects that can be used when applying for finance from development or commercial banks, while the 2030 WRG Kenya partnership helped encourage smallholder farmers to form a savings cooperative to collectively access financing for on-farm water harvesting and storage equipment.

Often, lack of access to finance is only one of the water problems faced by a country's agricultural sector. To better gauge the nature and extent of these challenges, Kenya and South Africa both embarked on tailored research projects during the year under review. Whereas Kenya's Assessment of Farmer–Led Irrigation Development (FLID) action–research project took a broad view, examining the entire water supply chain, including financial and market aspects, the South African project focused more narrowly on off–farm water, aiming to quantify how much water gets lost by using open canals to transport water from source to farms. The results of these projects—and similar ones conducted by the other MSPs—will help guide targeted action in years to come.

Work already under way in Asia—most notably the Drip-to-Market Agro-Corridor (DMAC) in northern Karnataka, India, and the Introducing Water Efficient Technologies (IWET) project in Bangladesh—indicates that strengthening the link between farmers and their markets creates a cycle that encourages and accelerates the adoption of drip irrigation on farms. The security that comes from improved production (from switching to drip irrigation and more water-efficient crops), coupled with fairer prices from guaranteed buyers who also often support farmers with seeds and fertilizer, encourages both farmers to seek finance and banks to approve financing.

The results of strengthened market linkages have been marked: in Bangladesh, where farmers generally pay a fixed seasonal price for water regardless of how much they use, The IWET project has seen substantial results. During the two years since it was launched, the project has encouraged changes in agricultural practices that have resulted in water offtake savings of 3.6 million cubic meters—the equivalent of 1,440 Olympic-sized swimming pools.

It is critical that the uptake of irrigation technologies is led by farmers. The IWET and DMAC projects, for example, work closely with farmers to ensure their role remains central. To create opportunities for ongoing learning, farm centers or field schools feature in some projects: a waterefficiency project in command areas in Maharashtra state, India, has established 332 field farm schools since May 2019, while training modules developed through the IWET project in Bangladesh have been greatly appreciated by the Department of Agricultural Extension and are being considered for inclusion in the national agricultural syllabus.



# **WAYS WE SUPPORT AGRICULTURAL WATER EFFICIENCY**



Figure 1: Transforming the agricultural value chain

# Promoting circular water economies

Reusing treated wastewater reduces both water pollution and the demand for raw water by creating alternative water sources. However, these benefits cannot be accessed without first giving careful thought to the technologies that will be used, how water-treatment projects will be financed and sustained by the market, and the regulations that will control such reuse.

#### Market solutions

Matching the quality of treated wastewater with an appropriate application is central to the concept of a circular water economy. The ability to do so relies on a clear grasp of the required water quality, how much is reliably available for reuse, and how easily it can be transported from the treatment facility to the end user. There are usually no quick answers to these questions.

During the year, the 2030 WRG partnership in São Paulo, Brazil, convened three water and sanitation utilities (two public and one private) operating in the metropolitan area of Campinas. This was done to evaluate the feasibility of structuring a special purpose entity to invest in a wastewater reclaiming facility to provide treated domestic effluent for direct nonpotable industrial reuse. The 2030 WRG Textiles Task Force in Vietnam has also commissioned a study on the feasibility of wastewater reuse in two textile-specific industrial parks. Meanwhile, in Maharashtra, India, 2030 WRG engaged in a study on the availability of treated urban wastewater for agricultural use. It soon became clear that this would require action on several levels, including exploring technologies to measure water quality, looking into alternative financing solutions, and working with local governing bodies to form wastewater users' associations.

#### Regulatory reform support

Governments need to walk a fine line between creating an enabling environment for the circular water economy on the one hand, and ensuring the safety of people and ecosystems on the other. To support them in this mission, during the year we convened sanitation utilities and public regulatory entities of the state of São Paulo in Brazil to change normative requirements on direct non-potable reuse of treated domestic wastewater for urban purposes, while in Kenya, we convened various stakeholders to discuss tariffs for industrial wastewater effluent. We also supported the government of Vietnam with recommendations for revising the Law on Environmental Protection to include wastewater treatment and reuse.



Figure 2: Four key solution areas in a circular economy

#### Technological solutions

On a more practical level, a program in partnership with the São Paulo State Basic Sanitation Company to audit and optimize the operational performance of the main wastewater treatment plants in the metropolitan area of São Paulo continued. In the first phase of this program, 2030 WRG hired an international expert to assess the main bottlenecks in the treatment processes and the actions needed to solve them. The second phase (in progress) will encompass a deed audit of four plants to formulate recommendations on expanding treatment capacity and improving final effluent quality. During the first phase, the Barueri plant, one of the largest in South America, improved its processes significantly following the proactive adoption of preliminary recommendations before the final audit report was complete. In South Africa, the SWPN helped develop a strategic plan to reduce water losses as well as unbilled- and unaccounted-for water use in a municipality in one of the country's semi-arid provinces.

#### Financial solutions

To deliver environmental and economic benefit over the long term, wastewater treatment facilities need to be financially feasible. However, this is often a challenge. During the year, our team in Ethiopia embarked on a project to explore management— and policy—related solutions for ensuring the financial sustainability of 11 treatment plants at industrial parks in the country. The study was still under way at the close of the financial year.

Finding ways to finance long-term projects can involve exploring new opportunities. For example, the Greater Dhaka water-quality monitoring project in Bangladesh will use a public-private partnership (PPP) to release government funding for a 15-year project that aims to monitor pollution by establishing real-time water-quality monitoring, improving laboratory capacity, and sharing results via a user-friendly, public-access website.

#### Good practice

In many of our geographies, businesses are leading the way in exploring best practice. In Tanzania, the 2030 WRG partnership is working with businesses to create a catalogue of good water practices—including technology used in production—intended to lead to greater industry investment



# Technological innovation and optimization

Our MSPs are increasingly exploring cutting-edge technologies to improve water efficiency, and to digitalize and automate the various cogs that constitute a circular water economy. The Greater Dhaka water-quality monitoring project in Bangladesh (above) is an example. In another instance, the team in Mongolia is developing a project that uses the internet of things (IoT) to detect effluent pollution in order to strengthen enforcement of the newly amended Water Pollution Fee Law. In Kenya, we participated in preparations for a public-private project to reduce municipal water losses..

Work is also being done to scale up the use of wastewater certificates based on blockchain technologies—the outcome

of the Mumbai Hackathon for Clean Water in FY19, which was hosted by 2030 WRG Maharashtra.

Encouraged by the success of the hackathon held in India, the 2030 WRG Bangladesh MSP plans to host its own hackathon to develop:

- An online citizens' access tool to enable people to compare their water consumption with other households in Greater Dhaka, perhaps linked with the online municipal billing system. It has been shown that comparing oneself to one's peers creates change, and the hope is that this tool will lead to a reduction in household water footprints..
- A wastewater recycling and reuse toolkit—a robust water-balancing tool to examine the quantity and quality of water going into and out of water bodies close to economic zones. Such a tool could build greater transparency into the operations of waterintensive industries.

The Bangladesh hackathon is likely to go ahead toward the end of 2020. It will bring together teams of coders who will compete to develop these tools, based on data storage and open-source visualization libraries. Mentors will also be onsite to provide support. The entries will be judged, and prizes will be awarded.

The government of Bangladesh has approved the two proposed tools for development, and private sector funding has been secured to develop the resulting tools into products. Unilever will support the online citizens' access tool and H&M will support the wastewater recycling and reuse toolkit.



Other technologies are also being explored, with teams being open to all possibilities. The Maharashtra team, for example, is exploring using drones to track soil health and harnessing blockchain technology for warehouse receipt financing to increase availability and access to post-harvest credit for smallholder farmers.

At the same time, teams working with people on the ground know that new technologies are no magic bullet. Many of the projects this year explored better use of current technologies and the repair of existing infrastructure:

- In South Africa, the Irri-Drop project will identify how to find and fix water losses in irrigation canals in large-scale irrigation projects.
- In Kenya, a farmers' cooperative formed with the support of the Mount Kenya Ewaso Water Partnership

will enable farmers to finance better reservoir liners as well as rainwater tanks.

- In Uttar Pradesh, India, the PRAGATI project will work with more than 300 farmers to rejuvenate existing traditional irrigation infrastructure, helping to increase livelihood and economic security, water security, and food security.
- In the metropolitan area of São Paulo, Brazil, preliminary analysis of four wastewater treatment plants found that it is possible to optimize the performance of the current civil infrastructure and equipment of each facility to reach higher treatment capacity and effluent quality, postponing the need for investment in more costly technologies and new civil works.



# **KEY EVENTS**

### January 2020:

Side Event "An Action Agenda for Water Security," Davos, Switzerland

Members of the 2030 WRG Governing Council attended a very special side event in Davos, Switzerland, held during the World Economic Forum Annual Meetings.

The session "An Action Agenda for Water Security" highlighted water as a top global risk, reinforcing the growing interest and momentum from particularly the business community to support and scale existing and emerging initiatives to collectively tackle water challenges, and look for cohesive and integrated solutions.

#### January 2020:

Strengthening the Water Financing System Workshop, Mexico City

2030 WRG, in partnership with the World Bank Water Global Practice and the International Finance Corporation, held this workshop to discuss the workplan and provide initial technical advisory on the water financing system. Three General Deputy Directors of CONAGUA participated in this meeting.

#### November 2019:

Israel's Water Technology and Environment Control Conference

In 2019 the Israeli Ministry of Economy and Industry organized a customized, curated program for 2030 WRG as part of the Water Technology and Environment Control Conference to learn about and discuss innovations in water management.

The event brought together representatives from the MSPs of India, Peru, and Vietnam, alongside the 2030 WRG Secretariat, and included a series of panel discussions, roundtables, and site visits to learn about Israel's water system, including the laws, regulations, policies, infrastructure, tariffs, and plans for improvement. One of the visits was to the Aqwise water treatment facility, which provides drinking water to the Kibbutz Sdot Yam and is involved in a project in Agra, India, providing drinking water from the contaminated Yamuna River to over 2 million people.

#### November 2019:

2030 WRG Steering Board visit to Peru

The Peru team welcomed the first-ever field visit by 2030 WRG Steering Board members to a country program.



Our Steering Board, co-chairs and members of the 2030 WRG Steering Committee in Lima, Peru, on the first day of the visit.

KEY EVENTS

The three-day visit to Lima, Peru, showcased an MSP in action for the Governing Council Co-Chairs and some global Steering Board members, who got to know the country stakeholders and learn from others' experiences. More than 60 participants, including local and international attendees, were part of the general session.

#### Highlights of the visit included:

- A high-level ministerial meeting convened by the Ministry of Environment. The meetings allowed for fruitful networking and discussion around water challenges.
- An event hosted by the Swiss Embassy, Nestlé, and 2030 WRG, during which Paul Bulcke (Chairperson of Nestlé and 2030 WRG Governing Council Co-Chair) and the representative of the National Water Authority awarded the company Fenix Power a Blue Certificate. The Blue Certificate is granted by the Peruvian National Water Authority to water-responsible private companies that assess their water footprint, engage in a concrete activity to reduce their water footprint, and implement a shared-value project with local communities. The certificate makes companies more appealing to investors, customers, and clients who are conscious about sustainability and the environment.

 An academic conference hosted by the Universidad del Pacífico, which is part of the local Steering Committee, on water resources as a factor for productivity and competitiveness, the circular water economy, and private sector involvement in the sustainability of water resources. Speakers included some members of our Global Steering Board and international invitees, as well as local members of the MSP.



Fabiola Muñoz, Peru's Minister of Environment, addresses the audience at the launch of the Steering Board and Governing Council Co-Chairs' November visit to Peru.



2030 WRG Steering Board members and Governing Council Co-Chairs were honored to attend a high-level meeting with Peruvian ministers during their trip..



Left to right: Gonzalo Delacámara (Senior Research Fellow and Head: Department of Water Economics at IMDEA Water Institute), Ulrike Sapiro (Senior Director of Global Water Stewardship and Sustainable Agriculture at Coca-Cola), Jane Nelson (Director of the Corporate Responsibility Initiative at Harvard Kennedy School), and Karin Krchnak (2030 WRG Program Manager).



Fenix Power was awarded a Blue Certificate by the Peruvian National Water Authority (ANA) for its work in water efficiency. Left to right: Paul Bulcke (chairperson of Nestlé and 2030 WRG Co-Chair), Roxana Aliaga (Corporate Affairs Manager at Fenix Power), Amarildo Fernandez (Head of the National Water Authority, ANA), and Markus Alexander Antonietti (Swiss Ambassador to Peru).



Karin Krchnak, 2030 WRG Program Manager, presents at a panel discussion on the role of MSPs in helping to achieve the SDGs. On the panel were, from left to right: Julia Torreblanca (VP of Corporate Affairs at Cerro Verde), Roberta Barbieri (VP of Global Water and Environmental Solutions at PepsiCo), Ulrike Sapiro (Senior Director of Global Water Stewardship and Sustainable Agriculture at Coca-Cola), Cesar Fonseca (LAC Regional Coordinator at 2030 WRG), Dario Perez (Country Manager at Fluence Corp.), and Jane Nelson (Director of the Corporate Responsibility Initiative at Harvard Kennedy School).

- A panel discussion on the role of MSPs in helping to meet the SDGs. This took place during a reception hosted by Coca-Cola, a member of the local partnership's Steering Committee. Panelists included international water consultant Gonzalo Delacámara from IMDEA, Jane Nelson from Harvard University, Ulrike Sapiro, the Senior Director of Global Water Stewardship and Sustainable Agriculture at Coca-Cola, and Karin Krchnak, the 2030 WRG Program Manager. Comments were also made by Fabiola Muñoz, then Minister of Environment, on the importance of collective action in Peru.
- A regional working retreat for 2030 WRG teams, which offered a chance to conduct deep dives into 2030 WRG's activities in Peru, Mexico, and São Paolo to identify initiatives that could be replicated across multiple countries, for example, the Blue Certificate.

#### September 2019:

#### World Economic Forum on Africa

2030 WRG hosted a side event exploring the pathways to urban resiliency on the sidelines of the 28th World Economic Forum on Africa in Cape Town, South Africa, the theme of which was Shaping Inclusive Growth and Shared Futures in the Fourth Industrial Revolution. More than a dozen attendees investigated how current and emerging partnerships are making African cities more resilient, with a focus on circular economy approaches—particularly industrial and municipal wastewater reuse.

#### **August 2019:**

#### World Water Week, Stockholm

2030 WRG actively participated in three co-convened sessions during World Water Week in August 2019. The Stockholm International Water Institute (SIWI) co-hosted the Business Leaders Breakfast with 2030 WRG and the Dutch government during Stockholm World Water Week. The event focused on driving water-resilient business transformations. Around 60 invited participants were present to discuss how to build resilience into operations and water use; how to create opportunities for generating income through water-resilient business; and how to finance more robust, forward-thinking, and adaptive approaches to resilience-building.

# THE PATH AHEAD

The Covid-19 pandemic has impacted on the efforts of 2030 WRG over the fiscal year. From an operational point of view, it required MSP partners to adjust to new ways of working. While Steering Boards opted to wait for in-person meetings, Workstreams and Task Forces forged ahead, meeting virtually and keeping Steering Boards informed of activities. As Covid-19 restrictions continue, 2030 WRG will continue to support country teams as they adapt to the circumstances at hand. As noted in this Annual Report, 2030 WRG MSPs successfully pivoted to respond to the Covid-19 pandemic in the short, medium, and long term. Going forward, MSPs will assess how best to use the power of the collective action approach to support efforts, including institutional coordination and trust-building across actors, as SDG 17 (partnerships for the goals) becomes more important than ever before in tackling growing challenges.

In the next year, a forward-looking third-party evaluation will be conducted to harness the lessons learned from the 2030 WRG model to evaluate possibilities for how to evolve. The evaluation will help 2030 WRG consider the MSP model's application at different scales and with various sectors to accelerate action on the SDGs over the next 10 years. This

is particularly important in the context of a post-Covid-19

2030 WRG is committed to deepening its engagement in countries over the next year. This includes adapting 2030 WRG's multi-stakeholder approach to the city level, starting with Cape Town. A hydro-economic analysis, the foundation of 2030 WRG's model of Analyze-Convene-Transform, will be carried out as a building block in the collective action journey to avoid Day Zero (the city running out of water) in future.

Breaking down institutional silos is a key aspect of the 2030 WRG model and is achieved through the MSPs. 2030 WRG MSPs include multiple ministries finding ways to work together, in addition to inclusive and transparent collaboration across government, industry and civil society. To date, 2030 WRG has not captured in its metrics this aspect of its work. In the next year, 2030 WRG plans to consider ways to improve how it measures the cross-sectoral solutions that 2030 WRG MSPs are driving in countries and watersheds. The aim is to better capture the larger systemic shifts that 2030 WRG has enabled through its work on policy and regulatory reform, institutional strengthening, and the creation of the needed enabling environment for innovations and transformative change.



# **ABOUT 2030 WRG**



# **WHERE WE WORK**

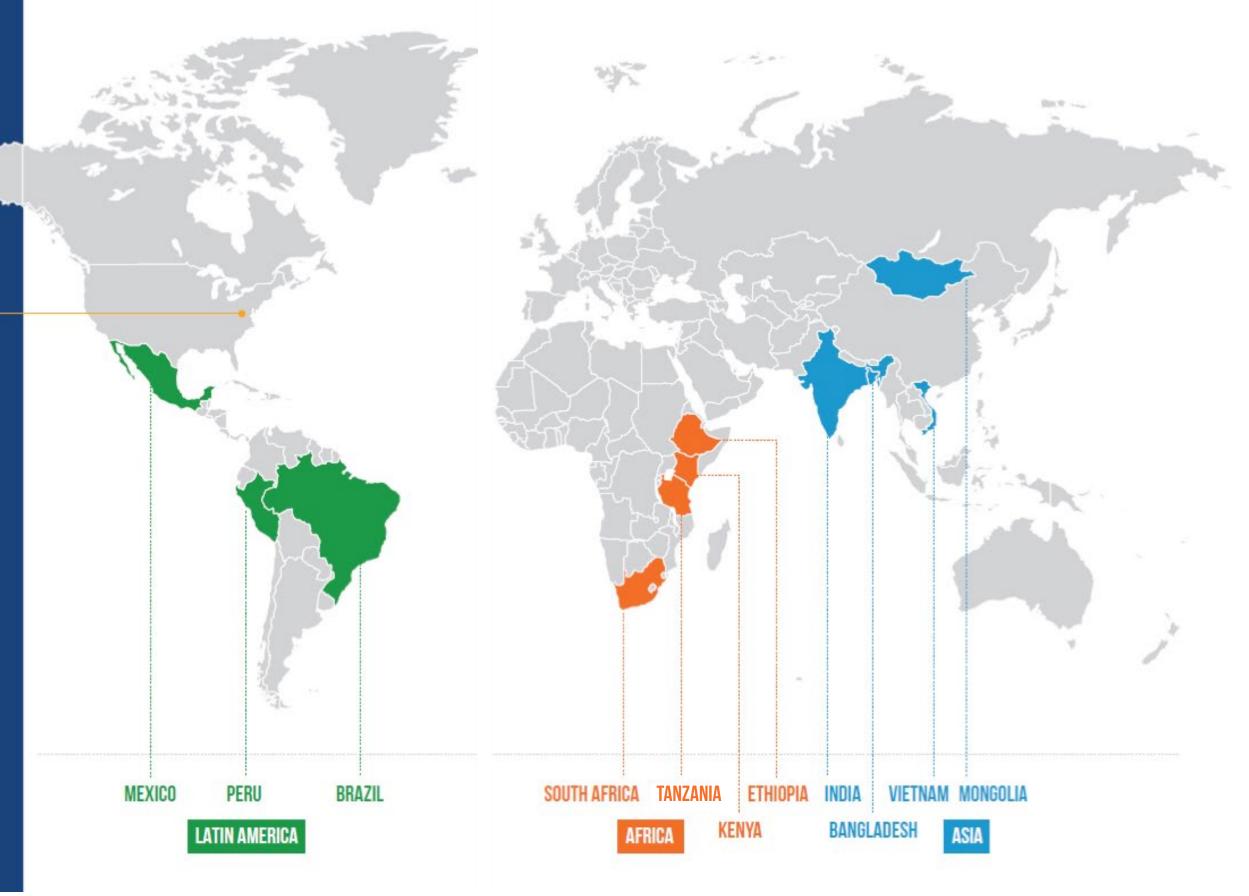
HOSTED AT THE WORLD BANK IN WASHINGTON, DC

WE HAVE MOBILIZED

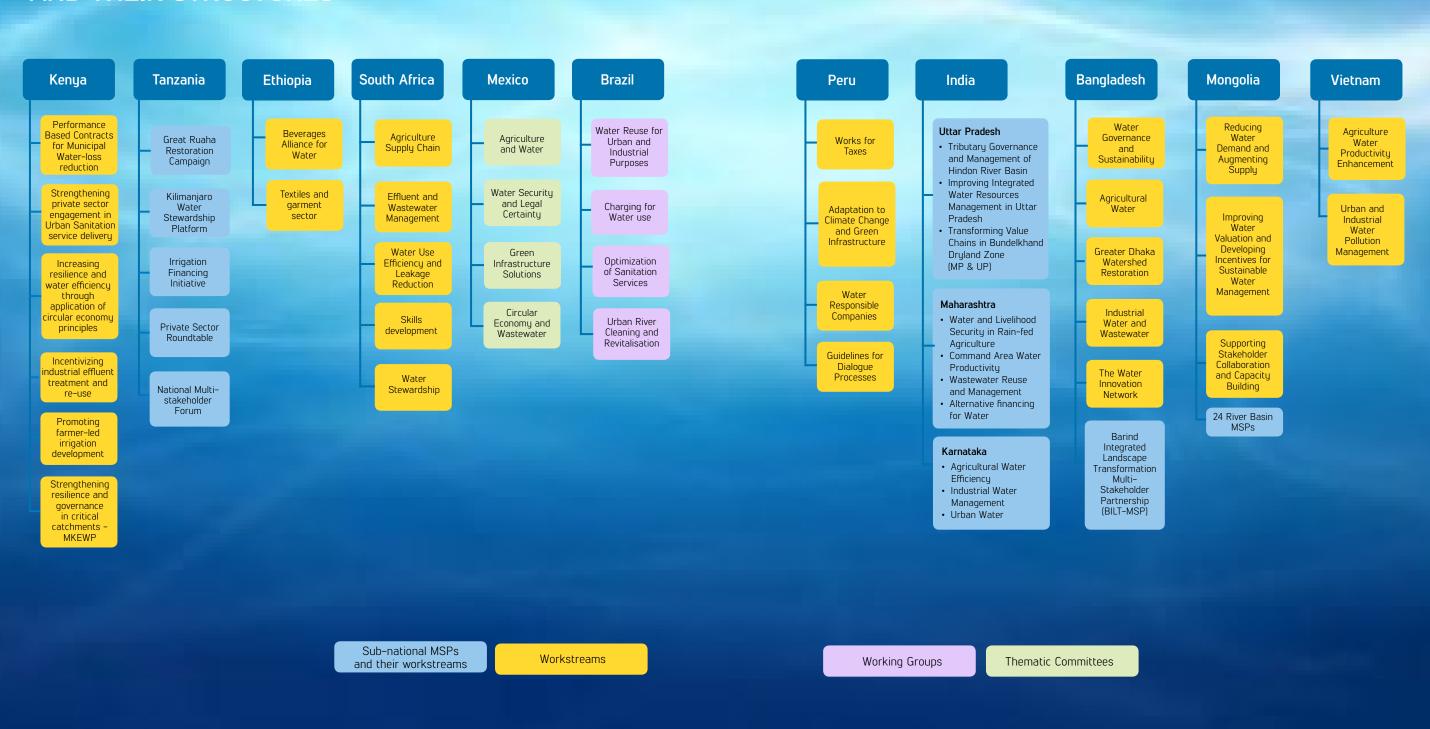
**PARTNERS** 

(PUBLIC 278, PRIVATE 284, **CSO/OTHERS 338) ACROSS** 

**COUNTRIES AND STATES** THROUGH OUR **MULTI-STAKEHODER** PLATFORM MODEL



# NATIONAL AND SUBNATIONAL PARTNERSHIPS AND THEIR STRUCTURES



# 2030 WRG GOVERNANCE, LEADERSHIP, AND STRUCTURES

# MEMBERS OF THE GOVERNING COUNCIL

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



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)



Howard Bamsey Chair, Global Water Secretary of Financial Partnership (GWP) Policy Affairs, Ministry



**Carlos Brito** Chief Executive Officer, AB InBev



Ohad Cohen Head of the Foreign Trade Administration, Ministru of Economu and Industru Government of Israel



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



László Balogh

Deputy State

Government of

Hungary

for National Economy,

Tony Milikin Chief Sustainability and Procurement Officer, AB InBev



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



Muhammad Musa. Executive Director RRAC International



Bruno Oberle Director-General International Union for Conservation of Nature



James Quinceu 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)

# MEMBERS OF THE STEERING BOARD

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 Steerina Roard



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



**7afrir Asaf** Director of the Emerging Markets and Development Finance Department, Ministry of Economy and Industry, Government of Israel



Roberta Barbieri Vice President, Global Water and Environmental Solutions, PepsiCo



James Dalton Director, Global Water Programme, International Union for Conservation of Nature (IUCN)



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



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



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



Ghislaine Weder Head, Economics and International Relations, Nestlé



VALUING WATER, ENABLING CHANGE. 27

# **KEY ACTIVITIES DURING FY20**

# Leveraging Impacts and Investments of Partners, including the World Bank Group

Across the 2030 WRG MSPs, there are common challenges (such as agriculture and water, industrial water management, and coping with climate change), and 2030 WRG is facilitating the sharing of knowledge and solutions across these areas to help scale initiatives and contribute to achieving the SDGs.

2030 WRG has worked to drive improved solutions and achieve impacts in key thematic areas. However, more work needs to be done to bring together work across the MSPs in these directions, including through aligning and leveraging the World Bank Group.

There are 25 ongoing collaboration activities with the World Bank Group. 17 of which are with the Water Global Practice. There are 29 potential future collaboration opportunities across the World Bank, which require further refinement and engagement before they are explored in FY21 and beyond.

Examples of 2030 WRG leveraging impacts and investments with the World Bank include:

• Kenya: 2030 WRG in Kenya is working with the Water Global Practice to promote the use of performance-based contracts for non-revenue water reduction among an initial set of five water service providers by providing technical assistance to design these contracts and crowding in private capital to complement public finance. In addition, the teams are also exploring opportunities to support sanitation value chain analysis, identifying promising private sector/ market-based business models for moving people up

THERE ARE **ONGOING COLLABORATION ACTIVITIES WITH** THE WORLD **BANK GROUP** 

**POTENTIAL FUTURE COLLABORATION OPPORTUNITES ACROSS THE WORLD BANK GROUP** 

THERE ARE

the sanitation ladder at scale, and establishing ways to create an enabling environment for private sector participation to facilitate scaling up of private sector initiatives in sanitation service delivery.

- East Africa: 2030 WRG collaborates with the Water in Agriculture Global Solutions Group of the World Bank Water Global Practice to advance farmer-led irrigation initiatives. Through this collaboration, 2030 WRG has supported the Water Global Practice in the design and implementation of Uganda's Micro Irrigation Program, Rwanda's Small Scale Irrigation Subsidy Program, and Kenya's FLID irrigation initiatives.
- Peru: The 2030 WRG Steering Board in Peru has coordinated working group activities with the local World Bank team. It was agreed that the MSP will be used as a space to present and discuss World Bank projects and receive feedback from the public and private sectors and academia. Moreover, a closer collaboration and potential synergies will be sought on the analytical work supported by 2030 WRG. The Ministry of Environment also requested support from both the World Bank Water Global Practice and 2030 WRG to strengthen capacities on water governance of government officials from different sectors involved in the OECD Water Governance Policy Dialogue Process. During FY21, 2030 WRG and the World Bank's Water Global Practice will work jointly to provide technical assistance to the government under the ongoing OECD activities.
- Bangladesh: In Bangladesh, 2030 WRG is working with the World Bank Group on the development and implementation of the Bangladesh Delta Plan 2100, and an associated Investment Plan; the implementation of the first PPP in industrial wastewater treatment in economic zones; the first PPP in municipal wastewater treatment and fecal sludge management in Gazipur City Corporation; the development of Green Economic Zones Guidelines; the development of a project proposal to restore four rivers around Dhaka; implementation of real-time water-quality monitoring stations to monitor the water quality of the four rivers around Dhaka city; and river plastics pollution.
- Globally/Locally: In the context of Covid-19, with the spotlight focused on the importance of water and sanitation, 2030 WRG is collaborating with the World Bank Water Global Practice on a new concept note, Global Hand Hygiene Accelerator, to mitigate existing gaps and bring together the necessary knowledge, resources, and tools to improve hygiene interventions in World Bank-supported projects and in collaboration with local stakeholders. 2030 WRG is looking to support collective action interventions in Bangladesh and Kenya, building on its Multi-Stakeholder Platforms.



Marsabit County, Kenya

Women collecting water from a storage tank that is connected to the roof of an adjacent building enabling rain water to be harvested and kept in this drought prope region.



Drip irrigation system using parallel plastic tubes placed on the ground on a farm in East Africa.



Peru floating Uros islands on the Titicaca lake.



Bangladeshi women working in a rice field in Dhaka, Bangladesh

ABOUT THE 2030 WATER RESOURCES GROUP

ABOUT THE 2030 WATER RESOURCES GROUP

### 2030 WRG Task Forces

- The **Sustainability of MSPs Task Force** developed a collective risk assessment tool to help MSPs identify project- and workstream-level risks.
- The Expansion Task Force identified countries and states to engage with as part of our plan to expand to 25 countries by 2030.
- The Fundraising Task Force actively generated ideas to raise funds, with particular focus on philanthropic organizations and the private sector.
- The Knowledge Management Task Force started developing a new website (linked to our existing site) that showcases various case studies, tools, resources, webinars, and blogs on the theme of disruptive technologies.
- The Communications Task Force identified strategic opportunities to elevate the work of our partnerships, focusing on business media, potential funders, and interested parties within the greater World Bank landscape.
- The Monitoring and Evaluation Task Force reviewed the metrics we use to measure our impact and is developing recommendations for additional key performance indicators.



# **Publications**



June 2020: 2030 Water Resources Group in Mongolia: Program Overview. Available at https:// www.2030wrg.org/wp-content/ uploads/2020/07/2030-WRG-in-Mongolia-Program-overview.pdf



June 2020: Towards the Strengthening of Mexican Waters Concession Regime—Volume 3. (Spanish, published in partnership with CCA.) Available at https:// www.2030wrg.org/wp-content/ uploads/2020/09/Documento\_ Colaborativo\_3.pdf



June 2020: Normative Principles and Organizational Guidelines for the Mexican Water Sector. (Spanish, published in partnership with CCA.) Available at https://www.2030wrg. org/wp-content/uploads/2020/07/ CCA-2030WRG-Position-Paper-on-Mexican-Water-Sector-Reform.pdf



March 2020: Towards the Strengthening of Mexican Waters Concession Regime—Volume 2. (Spanish, published in partnership with CCA.) Available at https:// www.2030wrg.org/wp-content/ uploads/2020/04/Iniciativa\_SHCJ\_ Documento\_2.pdf



November 2019: Accelerating and Scaling Solutions in Water: Five Years of 2030 WRG in Peru (2014–2019). Available at https:// www.2030wrg.org/wp-content/ uploads/2019/11/5Years-of-2030WRG\_Peru-Brch\_Web.pdf

#### Webinars and Videos

May—June 2020: "Leveraging Agri-Tech Startups for Food Security and Resilience during Covid–19." Three-part series, starting with session 1 at https://youtu.be/u-GBIUpcMfs

January 2020: "2030 WRG Steering Board Visit to Peru-November 2019. "Watch this at https://youtu.be/s3BgyXhtPWA

November 2019: "Accelerating and Scaling Solutions on Water." Watch this at https://youtu.be/2ubB\_w2Z-g

# **PARTNERS**

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

# **Global partners**







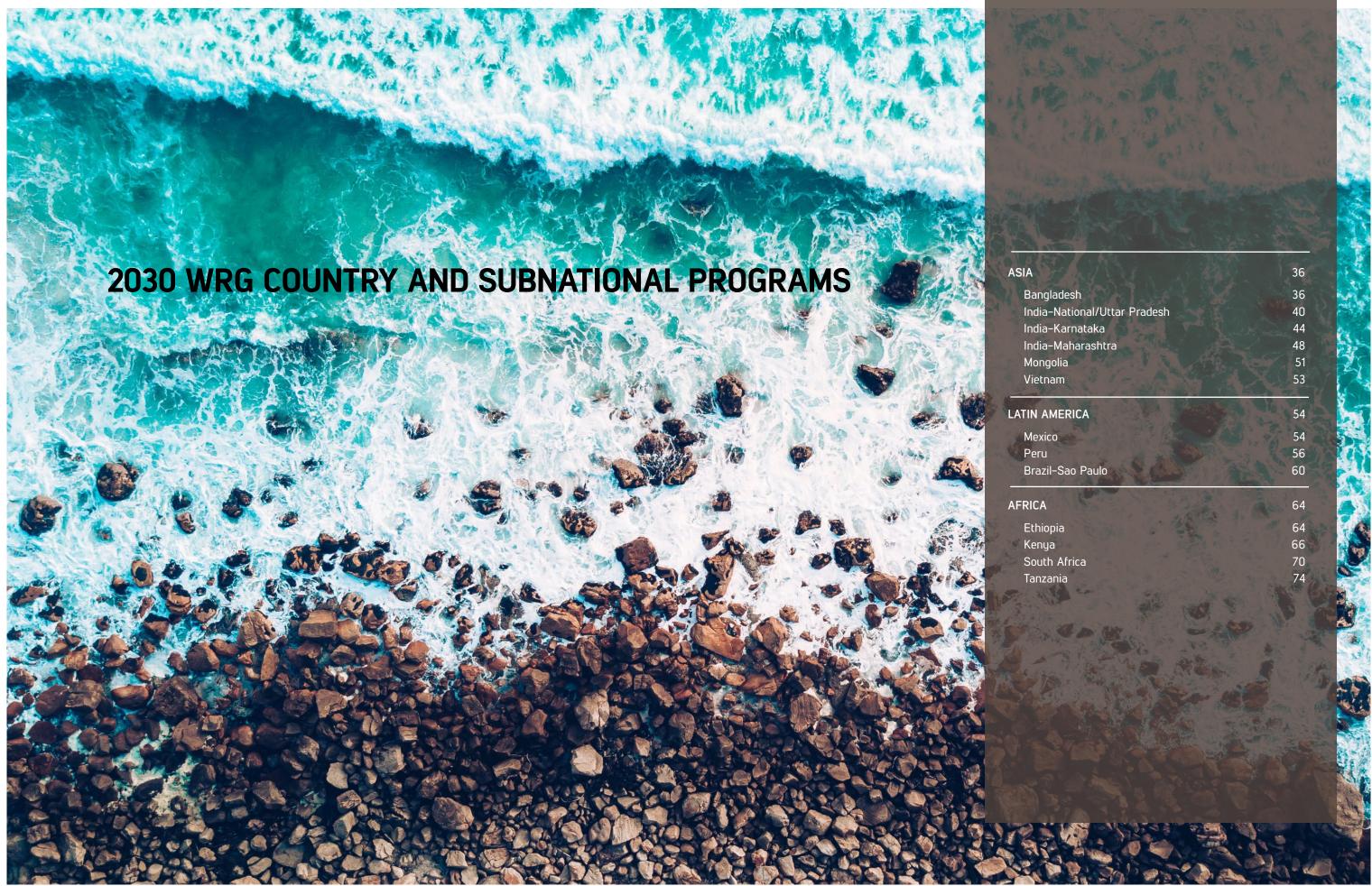






# Country-level funding partners

Bangladesh	Coca-Cola Foundation H&M Unilever	
Ethiopia	P4G	
India-Karnataka	Government of Karnataka	
India-Maharashtra	Government of Maharashtra Maharashtra Water Resources Regulatory Authority	
India-National	Government of India	
India–Uttar Pradesh	Dutch government	
Kenya	PPIAF facility CORDAID FFI SNV Membership contributions	
Mexico	Consejo Consultivo del Agua A.C.	
Mongolia	Government of Mongolia	
South Africa	Department of Water and Sanitation Anglo American Eskom Sasol Nestlé South Africa Distell South32 South Africa South African Sugar Association South African Breweries Coca-Cola Bottling South Africa GIZ 2030 WRG	



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# BANGLADESH

# **AREAS OF WORK**



Water governance and sustainability



Agricultural water



Greater Dhaka watershed restoration



Industrial water and wastewater



innovation



2030 WRG acts as the Secretariat to the Bangladesh Water Multi-Stakeholder Partnership (BWMSP), a quasi-legal entity that focuses on the areas below. We facilitate the efficient, effective functioning of the Steering Board and its workstreams (see page 35) by developing project concept notes and proposals for solutions, identifying and partnering with third-party implementers, mobilizing financing for projects, and monitoring project progress.

### Key highlights

# Valuing water to allow for informed decision-making toward sustainable development

The BWMSP is working with the government, the private sector, and civil society to develop and implement a methodology for valuing water to facilitate more informed decision-making about future investments and projects.

There is a Bangla saying, "panir moto shosta," which means "as cheap as water." The perception that water is cheap is anchored in the language people use in this country—a perception that is exacerbated by heavy rainfalls in the wet season. However, the reality is that some regions face serious seasonal water stress.

In a step toward addressing this challenge, the High-Level Valuing Water Committee and the Ministry of Water Resources initiated a study—with funding from the government of Bangladesh—on using shadow prices to identify the true value of water. These shadow prices will be distinguished by region, season, source, and sector.

Once finalized, the shadow prices will be used in public sector investment planning. The private sector will also pilot using the shadow prices to understand how easily they can be used to inform investment decisions. Currently, there is no mechanism to consider the value of water in such decisions. Bangladesh will be the first country to develop shadow prices for water at the national level and incorporate these in investment decision-making.

The project's position paper has been approved and will be published early in FY21. The project itself is expected to be completed by December 2020 and will be followed by the creation of a Valuing Water Knowledge Hub and an interactive awareness-raising campaign.

### More crop per drop in agricultural hotspot

Water pricing in the water-scarce Barind Tract does not currently incentivize farmers to become more water efficient because they pay a fixed seasonal price for water regardless of how much they use. The Introducing Water Efficient Technologies (IWET) project uses the incentive of increased profits—brought about by improved productivity coupled with better market linkages—to encourage water

In the two years since it was launched, the demonstration project has worked with 6,000 farmers to save 3.6 million cubic meters of water by switching to drip irrigation from flooding-type irrigation; using more water-efficient rice-farming technologies, that is, alternate wetting and drying; and shifting to less thirsty crops such as mangoes. The shift in crops has created opportunities for related industries (for example, primary processors of mangoes) to emerge along the value chain.

By the end of FY20, 70 farmer hubs had been formed, giving the farmers better access to seeds and fertilizer. These hubs also help farmers combine produce and transport as needed—gaining better access to markets and fairer prices.

**MILLION** CUBIC **METERS** OF WATER **SAVED** 

The Water Efficient Technologies (IWET) project has worked with 6,000 farmers to save 3.6 million cubic meters of water by switching to drip irrigation from floodingtype irrigation

BANGLADESH continued

IWET project has developed a state-of-the-art training module on ultra-high density mango that has been much appreciated by the Department of Agricultural Extension within the Ministry of Agriculture. This training module is being considered for inclusion in the national agricultural syllabus, extending the impact of the project.

# Drawing on project outcomes to shape future policy

To support the Bangladesh government in its aim to reduce groundwater abstraction, a study that will allow learning from the Barind Tract project to influence policy was initiated in FY20.

The study will examine the merits of charging for groundwater based on abstracted volume rather than charging a fixed fee for the area irrigated in order to help the government prepare economic incentives for the adoption of water-efficient practices. The change could save 50% of irrigation water. The study's recommendations will focus on

To improve farmer uptake of water-efficient practices, the community use of water-saving technology and establishing an efficient community-led supply system. Innovative technology, including a smart card, will allow farmers to monitor their water use.

# Greater Dhaka water-quality monitoring project begins

Twenty advanced, IoT-enabled water-quality monitoring stations will be installed in four major rivers over the next three years as part of an ambitious project to monitor water quality around Bangladesh's capital city.

The initial set-up period, which started in September 2019, will be followed by 15 years of post-installation support by a PPP that draws on private sector expertise. Public sector capacity-building during this time will allow for a phased transfer of the monitoring stations to the government within the concession period.

This is the first time in Bangladesh that a PPP will be called on to operate and maintain a water-quality-monitoring

project. The project aims to monitor pollution in real time, improve laboratory capacity, and enable the sharing of results via a user-friendly, public-access website. The project will also help evaluate the effectiveness of policy reforms and infrastructure investments aimed at addressing water pollution.

### Nationwide Covid-19 response

A nationwide project to provide emergency WASH support in response to Covid-19 reached more than 20 million people, who were targeted by an awareness-raising campaign and given easy access to handwashing facilities, soap, and sanitizer. 2030 WRG Bangladesh collaborated with the Ministry of Health, Unilever, and the Bangladesh Red Crescent Society to gather resources and implement the project in all 64 districts, which also included training hygiene workers and providing safe drinking water. 2030 WRG Bangladesh is now in discussions with Unilever, UNICEF, the United Nations Development Programme, the World Health Organization, and the World Economic Forum to partner in developing long-term programs to combat infectious diseases.



**PEOPLE** 

# Managed aquifer recharge

The BWMSP is contributing to developing a National Strategy and Guideline for scaling up managed aquifer recharge to reduce water scarcity in stressed areas. A scoping report was completed in June 2020 and a draft strategy paper is expected to be ready by December 2020.

# National framework to operationalize waterresilient production practices

The BWMSP convened public and private sector stakeholders to develop a National Framework for Water-Resilient Production Practice for the textile and apparel sector. The framework, which acts as an assessment tool for wateruse performance in industrial activity, draws on circular economy principles, global and national environmental priorities, and legislation. Designed to be implemented in a phased manner, the framework takes a "recognition, reward, and rebate" approach by linking short-, medium-, and longterm water-efficiency improvement targets with market-led incentives. The framework has been well received by the Ministry of Industries, and the Central Bank of Bangladesh has accredited the framework's scoring matrix for accessing

its Green Transformation Fund. The scope of the national framework is expected to be expanded to include the leather and fast-moving consumer goods sectors.

### Contributions to guidelines for green economic zones

During FY20, the BWMSP developed green and resilient economic zone (GREZ) guidelines for Bangladesh. The objective is to establish improved national environmental performance standards in economic zones. The GREZ guidelines cover four areas—industrial park development and management, environment, social, and economic—with green and resilience principles and practices incorporated across all areas. The draft guidelines were submitted to the Task Force for Green Economic Zones for review and approval, leading to their adoption by the end of the year. At present, about 90 economic zone sites have been identified out of the target of 100 by the end of FY21.

# Improving fecal sludge management practices at household level to support Gazipur Wastewater Management Project

A study to develop technical and financing options to improve household-level containment of fecal sludge, to enable beneficiaries to take up improved public services proposed under the wastewater management project, was initiated during FY20.

The technical work seeks to identify viable options for improved containment, while the financing options being developed include microfinance to enable households to purchase upgraded technology and services. This intervention will increase the coverage and effectiveness of safe fecal sludge emptying services proposed under Gazipur City Corporation's Integrated Wastewater and Fecal Sludge Management Project. The project also integrates network services for collecting wastewater in selected highdensity areas of the city. The potential for reuse of treated wastewater by industries located near the proposed sewage treatment facilities is also being studied.

Technical due diligence has been completed on Gazipur City Corporation's project, which 2030 WRG is helping through consensus-building, supporting studies, quality assurance, and stakeholder coordination.

# INDIA-NATIONAL/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



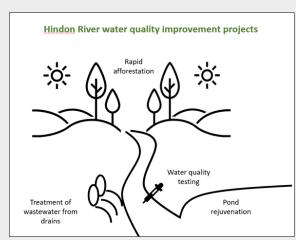
Improving water resources management in Uttar Pradesh

2030 WRG supports three subnational MSPs in India: one each in Karnataka, Maharashtra, and Uttar Pradesh. There is also 2030 WRG activity at the national level.

Each of the state-level MSPs has a Steering Committee under the leadership of the state's Chief Secretary—the highest-ranking civil servant. 2030 WRG is working to help the country establish MSPs in other states with the newly formed national Ministry of Jal Shakti, which combines the former Ministry of Water Resources, River Development, and Ganga Rejuvenation and the Ministry of Drinking Water and Sanitation.

2030 WRG has been working in Uttar Pradesh to address water issues through integrated stakeholder actions for collective impact. The program focuses on the Hindon river efforts in Bundelkhand are coordinated by an MSP, for Bundelkhand and Hindon was prepared and endorsed by the Honorable Chief Minister of Uttar Pradesh.

# Key highlights



# Decentralized wastewater treatment in the Hindon River

This project, the first of its kind in the Hindon river basin, aims to facilitate the development of decentralized treatment of wastewater flowing from 50 drains into the Hindon River.

The treated wastewater will meet the regulatory standards for discharge and generate good-quality treated wastewater, which will augment the environmental flows in the rainfed basin and the Bundelkhand region of the state. Stakeholder river. With a budget of \$10 million, the project is expected to prevent 27 million liters per day of untreated wastewater constituted through a government order. A vision document from reaching the river. The government of Uttar Pradesh is now planning to roll out similar decentralized solutions..

### Afforestation to improve ecological flows

Rigorous afforestation in the Hindon river basin has been identified as a potential solution to address the environmental flows issue in the river. A task force has been set up to assess the feasibility of using the Miyawaki Method to restore the Hindon River's catchment area.

Initially proposed to the government by academics within the MSP, the Miyawaki Method involves rapid afforestation by planting unique combinations of native species with an optimized utilization of natural resources. Two sites are currently under implementation and another two will be added in the coming months.

**HINDON RIVER WASTEWATER TREATMENT** PROJECT BUDGET The Hindon River project is expected to prevent 27 million liters per day of untreated wastewater from reaching the river.



# Strengthening the agricultural value chain

This project provides farmer-producer organizations with increased access to five key areas, including finance and credit services, logistical support and services, crop insurance, market linkages, and knowledge around water-use efficiency. The objective is to enable these collectives to access innovative products and services to accelerate their economic growth. In its first phase, the project aims to set up 10 to 15 demonstration projects where farmer collectives will work with private sector solutions, financial institutions, and government-led schemes and benefits.

### Hindon lockdown analysis

Taking the opportunity of decreased industrial activity due to the pandemic, the government of Uttar Pradesh asked the 2030 WRG MSP to undertake an assessment of the impact of the lockdown on the pollution levels of the Hindon River.

Conducted in collaboration with the University of Chicago, the resulting analysis of river health will inform future interventions to improve water quality.

# Project PRAGATI: Participatory Rural Agricultural Advancement through Tank-Based Irrigation

Building on work done in the previous financial year to renovate existing reservoirs, Project PRAGATI has been conceptualized to help farmers increase water productivity and profitability. Project PRAGATI is focused on building a "Resilient Bundelkhand" through the demand-side management of water resources. It also aims to double farmers' incomes, by ensuring more crop per drop and linking farmers to markets.

# Ponds rejuvenation project in Bundelkhand

The ponds rejuvenation project aims to prepare a holistic plan to identify the areas of intervention, build capacity, promote sustainable water resources management, and implement drought mitigation measures to ensure water availability in the Bundelkhand region and to increase farmers' incomes.

### Water sector development in Bundelkhand

We organized and helped execute a "National Seminar on Bundelkhand Development Issues, Strategies and Way Forward," in collaboration with the Bundelkhand Development Board and Department of Planning.

2030 WRG, working with the Ministry of Jal Shakti as the coordinator of the water sector, also prepared the consolidated *Short-Term and Long-Term Action Plan for Water Sector Development* in Bundelkhand. This highlights the important challenges in the water sector, the solutions, and the way forward.

### Drip-to-Market Agro-Hub in Pahuj

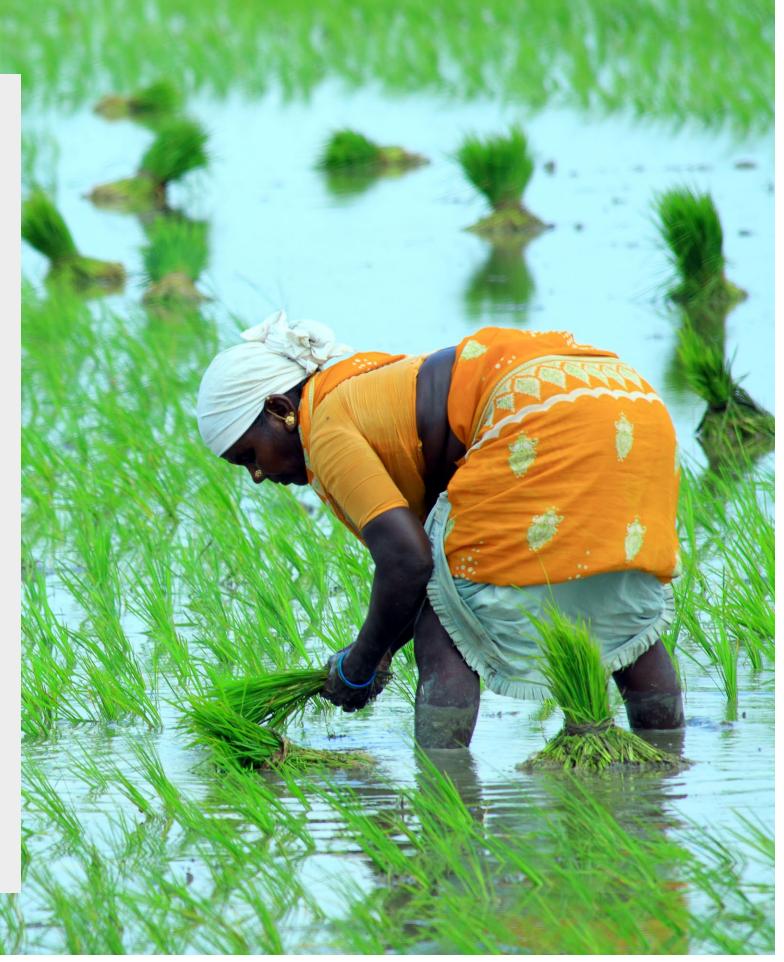
2030 WRG is working with the government of Uttar Pradesh to facilitate private sector participation in developing a Drip-to-Market Agro-Hub in Bundelkhand. The project will initially focus on 3,660 hectares. Activities include developing automated high-efficiency irrigation systems; transitioning to high-value, less water-intensive crops; and increasing access to markets. The government of Uttar Pradesh is looking to scale up this concept to 15 large reservoirs of Bundelkhand. Recently, the government of Israel and the government of Uttar Pradesh signed a memorandum of understanding to jointly prepare an implementation plan for the Drip-to-Market Agro-Hub Project in Pahuj, targeting 25 villages in its catchment.

# Development of Uttar Pradesh State Water Policy through multi-stakeholder consultations

The 2030 WRG Uttar Pradesh MSP supported the government of Uttar Pradesh with the development of a State Water Policy 2030 through multi-stakeholder consultations...

# Support to Government of Madhya Pradesh

Following its successful interventions in Uttar Pradesh, 2030 WRG received a letter of mandate to support the government of Madhya Pradesh in addressing water-related issues in the state. 2030 WRG is following up on the development of work programs in Madhya Pradesh, building on the areas of overlap with Uttar Pradesh on key issues.



# INDIA-KARNATAKA

# **AREAS OF WORK**







Industrial water management



Urban water



The Karnataka MSP's Steering Committee is under the leadership of the state's Chief Secretary. It works through three workstreams aligned with the areas of work indicated in the adjacent figure (see also page 35).

### Key highlights

# Drip-to-Market Agro-Corridor project poised to support expansion

The ambitious Ramthal drip irrigation project in Northern Karnataka entered its third year during FY20.

2030 WRG's contribution to this project involved helping to develop the vision and MSP governance structure to achieve market linkages between water users' groups, which represent farmers, and viable markets. To achieve this goal, the Drip-to-Market Agro-Corridor (DMAC) project was launched in 2017, soon obtaining commitments from 14 large companies to support the projects. As Secretariat to the MSP, 2030 WRG closely co-ordinates the efforts of the DMAC Project Implementation Unit, and reports to the MSP Steering Board, which oversees results achieved under the

Having successfully rolled out drip irrigation to 24,000 hectares in the Ramthal area, the project was poised to scale up to more than 200,000 hectares across five projects at Poorigali (Mandya District), Tarikere (Chikkamagaluru), Singatalur (Gadag), Savanur (Haveri), and Koppal in Karnataka. The Covid-19 pandemic constrained progress of project activities. In preparation for the planned rollout, the DMAC Project Implementation Unit, in coordination with 2030 WRG, has:

- Identified 15 buyers.
- Started linking these buyers to water usage associations so that the buyers could provide support in the form of seeds and fertilizer ahead of the next planting season.
- Initiated the process to secure memoranda of understanding that will both ensure that produce gets to market and enable farmers to access financing.

A report on the impact of the Ramthal project, which is expected to be available toward the end of 2020, will contribute to scaling up the project in new geographies.

#### Impact in Action

#### DMAC puts more money in Ramthal farmers' pockets

During the second 2019 planting season, which ended with the December-January 2020 harvest, the DMAC project focused on securing sales for four water usage associations within the Ramthal project area. It linked the association of farmers with the right buyers, helped these associations develop the ability to secure larger procurements themselves, and proposed to add 15 additional MoUs for future support.

With this level of support, for four water users' associations sold close to 175 metric tonnes of produce to food processors. Pooling and collectively marketing their harvest directly to established buyers through associations enabled the farmers to get a better price for their produce and pay lower transportation costs than in the past, when they sold to intermediaries or local traders. All told, the four associations earned about 7,500,000 rupees (nearly \$100,000) from the harvest.

MILLION **RUPEES IN EARNINGS** 

All told, the four associations earned about 7,500,000 rupees (nearly \$100,000) from the harvest.

# THE RAMTHAL DRIP-TO-MARKET AGRO-CORRIDOR PROJECT



# **CONCEPT AND PREFEASIBILITY**

2030 WRG CONCEIVED THE PROJECT AND UNDERTOOK PREFEASIBILITY STUDIES.



# **ENGINEERING AND CONSTRUCTION**

THE GOVERNMENT OF KARNATAKA'S WATER
RESOURCES DEPARTMENT FUNDED THE
CONSTRUCTION OF DRIP IRRIGATION INFRASTRUCTURE.



# **IMPLEMENTATION**

THE DEPARTMENT OF AGRICULTURE AND HORTICULTURE OVERSEES THE PROJECT MANAGEMENT UNIT. TWO PRIVATE COMPANIES WILL OPERATE AND MAINTAIN THE IRRIGATION SYSTEM FOR FIVE YEARS.



# **LINKING TO MARKETS**

2030 WRG AND THE DEPARTMENT OF AGRICULTURE AND HORTICULTURE FACILITATE MARKET LINKAGES BETWEEN FARMERS AND BUYERS.



# SUSTAINABILITY

DURING IMPLEMENTATION, FARMERS BUILD THEIR CAPACITY TO OPERATE THE IRRIGATION SYSTEM AND STRENGTHEN THEIR REVENUE MODELS. FARMERS' ASSOCIATIONS WILL TAKE OVER THE IRRIGATION SYSTEM AFTER FIVE YEARS.



\* MAKE SURE STAKEHOLDERS Are aligned



\* SUPPORT FARMERS AS THEY ORGANIZE INTO WATER USERS' ASSOCIATIONS



\* GUIDE AND REVIEW THE Project management unit



\* ENABLE UPTAKE OF CAPACITY-BUILDING PROJECTS BY COMMUNITY ORGANIZATIONS



\* BUILD EMPOWERED Farmers' Collectives and Resilient Institutions.



# Keeping farmers informed through Covid-19 restrictions

The DMAC's Project Implementation Unit partnered with Reliance Foundation to set up a cellphone-based communication system that used text, voice, and interactive systems to communicate with farmers during lockdown on relevant matters such as the market, access to seed and water, and maintenance technology. Between March and June 2020, five voice conferences were hosted to share information and answer farmers' questions. Eight informative voice messages were sent to a database of nearly 2,500 farmers. Farmers were also able to call a contact center set up to provide support.

### Use of treated water in agriculture

Preparatory work has been done for a project to investigate the availability of wastewater for agricultural use in and around urban areas of Karnataka. A detailed project proposal that combines existing government initiatives in tank filling and groundwater recharge with best practices in agricultural water-use efficiency and market-based incentives for farmers is in the process of being developed.

# Policy recommendations for industrial wastewater reuse

Supported by the 2030 WRG Karnataka MSP, consultants appointed by the Commerce and Industries Department, government of Karnataka, have conducted an analysis of existing regulations for industry as well as national and global best practices to develop, in consultation with our partners, recommendations for an enabling environment to implement industrial wastewater reuse. Guidelines were developed for inputs into the industrial policy expected to be rolled out early next year. Subsequent to the policy, a study of feasible projects and business cases for execution of PPP investments in common effluent treatment plants will be completed in the coming year.

# Upcoming work

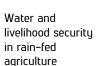
The 2030 WRG Karnataka MSP is preparing to assess the risks that climate change poses to coastal-area agriculture in Karnataka, especially those linked to saltwater intrusions into freshwater sources, with the aim of developing a policy brief on water productivity in coastal ecosystems. In addition, a study is being prepared to assess challenges and provide prudent solutions in water conservation, and soil and crop productivity in upland, hilly ecosystems.



### INDIA-MAHARASHTRA

# **AREAS OF WORK**







Command area water productivity



Wastewater reuse and management

The Maharashtra MSP has a Steering Committee under the leadership of the state's Chief Secretary. It works through three workstreams aligned to the areas of work noted above (see also page 35).

### Key highlights

### Wastewater reuse in agriculture

Rural farmers who lack access to irrigation infrastructure are driven to use whatever water they can find, often resorting to domestic wastewater to water their crops. The health risk this poses has come into sharp focus, especially with the Covid-19 pandemic.

In 2018, the Maharashtra MSP initiated a project to address this challenge while allowing affected communities to lead and shape the solutions. It soon became clear that creating an ecosystem where farmers seek better-quality water would require action on several levels. During the year under review, the partnership has helped the government of Maharashtra and its partners prepare to act by:

- Identifying opportunities for alternative financing in the water sector.
- Linking with academics and research organizations to develop technologies to measure water quality.
- Working with local governing bodies to form wastewater users' associations.

# Improving productivity and livelihoods

In May 2019, the 2030 WRG Maharashtra partnership and the government of Maharashtra's Water Resources Department conceived a project to integrate development of irrigation facilities, improve on-farm water-use efficiency, and establish linkages to agricultural markets while strengthening water users' associations and improving livelihoods in the command

# in command areas



#### An integrated approach to improving command area water productivity



The project is a partnership between the government of Maharashtra, private sector partners, and civil society organizations. The first project was undertaken by ITC Limited and covers 98,000 hectares in six districts across four different command areas (in the Pune, Ahmednagar,

**IMPROVED** WATER-USE **EFFICIENCY** 

Improved water-use efficiency by 19% for sugarcane over about 9.400 hectares of land. preventing the use of about 43.8 million cubic meters of water.

Solapur, Yavatmal, Sangli, and Satara districts). The farms in these areas produce crops that include sugarcane, onions, tur dal, and cotton. So far, the project has:

- Improved water-use efficiency by 19% for sugarcane and 8% for onions over about 9,400 hectares of land, preventing the use of about 43.8 million cubic meters of
- Supported the establishment of 26 custom hiring centers by providing farm equipment to existing selfhelp groups to rent out. The groups earned income from hiring out the equipment, while the farmers benefited from being able to use advanced farming equipment.
- Established 332 farm field schools, in which groups of farmers convene to learn new and innovative agricultural practices together, covering 13,312 farmers across all the four command areas.

The government of Maharashtra's Water Resources Department is pioneering this innovative initiative and providing strategic guidance, project monitoring, and supervision in addition to off-farm water provision. The project area is expanding in FY21, with new private sector partners participating. Two additional projects with the Development Support Centre and Yuva Mitra were initiated in August 2020, covering an additional 55,000 hectares in Maharashtra.

# Harnessing disruptive technologies to address food-security challenges post-Covid-19

The Maharashtra MSP is well positioned to convene stakeholders to find action-oriented, scalable, and sustainable solutions to post-pandemic food-security challenges. These solutions involve leveraging the benefits of the agri- and fintech startup ecosystems with innovative finance to address a range of challenges at both the farm level and post-harvest

The partnership is working with the government of Maharashtra and other stakeholders to:

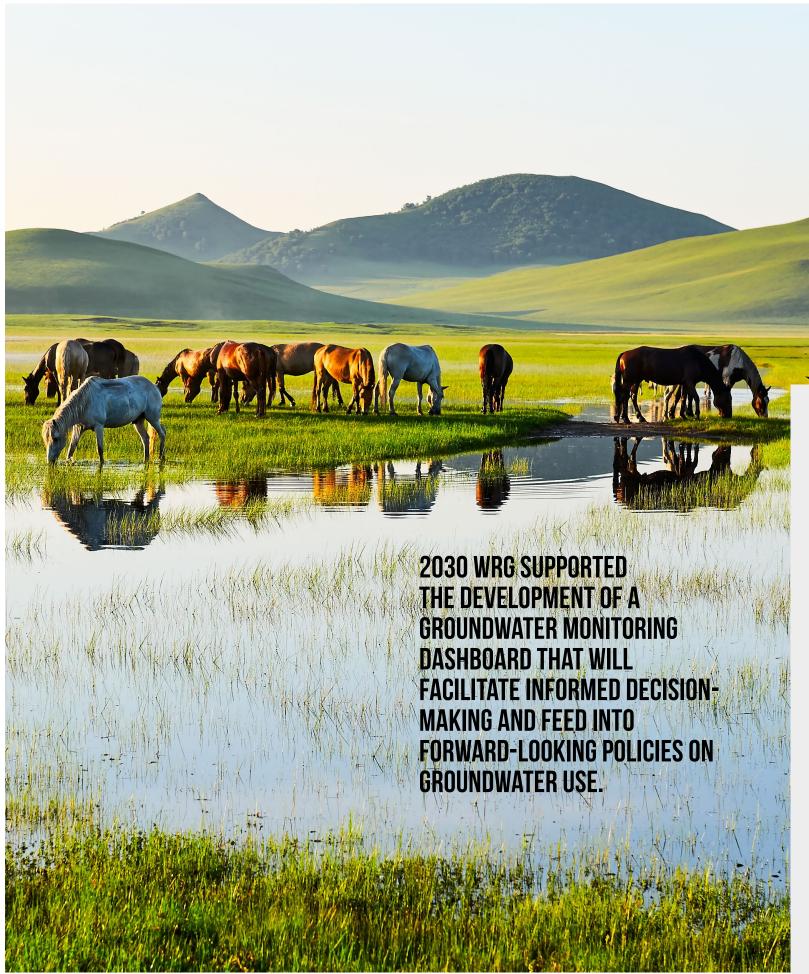
- Develop a white paper that will highlight use cases for drones and other disruptive technologies for implementation and monitoring in agriculture; develop a cost-benefit analysis for applications in two identified geo-climatic regions of Maharashtra, and build a go-tomarket solution in preparation for launching a pilot.
- · Explore blockchain technology for warehouse receipt financing to increase availability and access to postharvest credit for smallholder farmers.

Supporting

stakeholder

collaboration

and capacitybuilding



# MONGOLIA

# **AREAS OF WORK**



Reducing water demand and augmenting supply



Improving water valuation and developing incentives for sustainable water management



Mongolia's national MSP was formed in September 2014 and works through three workstreams aligned with the focus areas noted below. 2030 WRG Mongolia plays an independent supporting role, promoting dialogue and collaboration among government, the private sector, and civil society.

# Key highlights

# Groundwater monitoring dashboard nears completion

A groundwater monitoring dashboard that will facilitate informed decision-making and feed into forward-looking policies on groundwater use is nearing completion.

With growth predicted in mining, a good understanding of the groundwater level availability, particularly in the mining sector in the Southern Gobi region, is critical. The groundwater dashboard is a project of the 2030 WRGinitiated Groundwater Management Center and will be finalized early in FY21. It is currently with the Ministry of Environment and Tourism and other stakeholders for review.

The data used to populate the dashboard was collected over five years, from 2015 to 2019. Artificial intelligence is being used to analyze this data to inform council decisions on future water permissions. Meanwhile, to improve the quality of the data, the Ministry of Environment and Tourism will extend the groundwater monitoring network, which previously totaled 268 monitoring boreholes, by 20 new boreholes in 2020.

Developing the dashboard involved a rapid learning curve for the Mongolia team and ongoing technical support from 2030 WRG in India.

# Hydro-economic analysis update and impact to date

Mongolia's Ministry of Mining and Heavy Industry asked 2030 WRG Mongolia to update a 2016 hydro-economic analysis to include copper mining in the Southern Gobi.

The 2016 analysis included a detailed analysis of the water

challenge in the Southern Gobi Desert that incorporated the impact of gold and coal mining. For this year's update, the scope was expanded to include copper mining.

The 2016 analysis enabled a set of concrete recommendations for action. These are reflected in Mongolia's recently published Vision 2050, which sets out a long-term development policy and related objectives. The vision document recognizes the continued importance of the mining sector, but points to the limited availability of water as a key limiting factor.

The analysis update will contribute to the development of a Mining and Heavy Industry Development Plan aligned to Vision 2050 that aims to achieve full productive capacity while using water resources sustainably. The updated draft is in the process of being reviewed by the Mongolia MSP before being submitted to the Ministry.

# Using disruptive technology to track water pollution

IoT technologies have the potential to facilitate enforcement of Mongolia's newly amended Water Pollution Fee Law.

The amended Water Pollution Fee Law has been in effect since May 2019. The updated law draws on the polluter pays principle to promote water treatment and reuse, especially among large water users. The 2030 WRG MSP in Mongolia has started developing a digital architecture that aims to use IoT techniques to detect water pollution and machine learning algorithms for analysis. Still at an early stage, and awaiting funding, the project will initially focus on big water users (using over 50 cubic meters a day). Voluntary participants will be asked to install online water-quality meters at their factories to demonstrate the viability and benefits of the approach. The meters will be sourced from India, where 2030 WRG has well-established links with technology suppliers.



# **VIETNAM**

# **AREAS OF WORK**



2030 WRG has been active in Vietnam since 2016. The Urban and Industrial Water Pollution Management workstream was formed in December 2019 after a water governance study by the World Bank's Global Water Practice highlighted the need to work in this sector. The workstream is chaired by the Vietnam Environment Administration (which falls under the Ministry of Natural Resources and Environment). One task force, focusing on textiles, has been formed, with another two-focusing on urban wastewater management and alternative finance—imminent.

### Key highlights

# Advocating for circular water principles in environmental protection laws

The 2030 WRG Urban and Industrial Water Pollution Management workstream committed considerable time to developing recommendations for revising the 2014 Law on Environmental Protection, due to be amended in November 2020.

Drawing on our experience in India, Mongolia, and South Africa, the proposed revisions focus on wastewater reuse, both in industry and generally. The report was handed to the Ministry of Environment and presented to the National Assembly in May 2020. The workstream will continue to engage different National Assembly committees to advocate for the approval of the law by the end of 2020, and work closely with the government on formulating sub-law documents in the year to come.

# Study initiated on feasibility of industrial wastewater reuse

The Textiles Task Force—which was formed by the newly convened Urban and Industrial Water Pollution Management multi-stakeholder workstream—has commissioned a study on the feasibility of wastewater reuse in two textile-specific industrial parks.

The Textiles Task Force was launched in December 2019. Private partners, including prominent brands that have taken action on the challenge of water reduction and reuse, are taking part in the task force, as are the Vietnam Textile and Apparel Association (VITAS), the Vietnam Chamber of Commerce and Industry, and civil society groups with an interest in textiles. 2030 WRG Vietnam plays a technical advisory, facilitating, and convening role.

The workstream is chaired by VITAS, the Vietnam Environment Administration, and 2030 WRG Vietnam. It is supported by the Ministry of Planning and Investment (the state management agency for the development of economic zones and industrial parks) and the Ministry of Industry and Trade (which oversees the industry sector, including textiles). For the feasibility study, 2030 WRG Vietnam has collected circular economy experiences from 2030 WRG partnerships globally, including Bangladesh, India, and Mongolia.

The feasibility study and the expected pilots in the industrial park will inform the government's decision to support a circular wastewater economy. This work is expected to be completed by December 2020.

# **MEXICO**

# **AREAS OF WORK**









Strengthening water allocation

Circular economy and wastewater

Agriculture and water

The Social Pact for Water

2030 WRG Mexico is a member of the Steering Board of Mexico's existing water advisory council, Consejo Consultivo del Agua (CCA), which was formed in 2000 and advises Mexico's President and the National Water Commission (CONAGUA). The CCA is acknowledged in the National Water Law and its president sits on CONAGUA's Governing Board. The CCA's Steering Board consists of a balance of representatives from the private, public, and non-profit sectors.

#### Key highlights

# Contributing to public debate on Mexico's National Water Law reform: The Social Pact for Water process

2030 WRG Mexico contributed strategic and technical expertise to the Social Pact for Water process, a multi-stakeholder dialogue to discuss the national legal framework.

In a context of significant social cleavages and polarization, Mexico's national water legal framework is currently under revision. CCA, Mexico's MSP, has enabled a national multistakeholder dialogue aimed at capturing the different visions and perspectives on the challenges and prospects for a new legal framework. An output of this process is the CCA's position paper: Normative Principles and Organizational Guidelines for the Mexican Water Sector.

2030 WRG Mexico, which belongs to the MSP, participated in this dialogue by bringing strategic, scientific, technical, and financial expertise to the process. In doing so, it supported the enabling of a robust public sphere, as well as the development of a richer understanding of the complex challenges and opportunities faced by different stakeholders. 2030 WRG contributed to the final drafting of the position paper, integrating knowledge from international best practices.

The Social Pact for Water process has been under way since January 2019. By the end of FY20, the outputs of the process were feeding into the CCA's advisory activities with the government's executive and legislative branches to produce a National Water Law Bid that reflects the consensus of stakeholders, genuinely supports the pursuit of the human right to water and sanitation, and creates an enabling environment to pursue collaborative and participatory governance toward water security.

THE WATER
ALLOCATION REGIME
IS AN IMPORTANT
INSTRUMENT FOR
MANAGING WATER
SUSTAINABLY IN
MEXICO.



# Position papers on water allocation regime drafted

The water allocation regime is an important instrument for managing water sustainably in Mexico. A drawback of the current regime is that there is little flexibility to respond to increasing water demand pressures driven by regional development trends and climate change. These pressures have been highlighted by the Covid-19 pandemic, as domestic water demand surged in many cities across the country and in regions already experiencing severe water scarcity.

In this context, 2030 WRG Mexico has worked in partnership with the CCA to enable a multi-stakeholder dialogue to identify bottlenecks and opportunities to strengthen and modernize the water allocation regime. The outputs of this dialogue process have been a series of position papers that provide concrete policy recommendations to increase the regime's adaptive flexibility for resilience. The content of the position papers has also informed the CCA's work on the new National Water Law Bid. Moreover, 2030 WRG Mexico has helped CONAGUA review some specific water re-allocation instruments deployed during the Covid-19 emergency response.

This collaboration between 2030 WRG, the CCA, and CONAGUA has helped to identify areas for further dialogue and technical advisory, including supporting the analysis of informal/illegal water markets and the viability of collective water rights for indigenous people. These technical advisory activities will be carried out in collaboration with the World Bank's Water Practice.

# Seeking new paths for financing water projects to build back better

2030 WRG Mexico has started a technical advisory initiative to diagnose bottlenecks in Mexico's complex water financing system.

Together, the World Bank's Water Practice and 2030 WRG Mexico are examining the various financial instruments available for providing water infrastructure and services through the use of different sources and mechanisms—national, state, municipal, private, and blended—in order to optimize the harnessing of financial resources for the water sector. In a context of severe austerity policies and budgetary challenges, especially following the Covid–19 crisis, it is crucial to find new ways to bring financial resources and stakeholders together to strengthen the water financing system to build back better.

2030 WRG's initial diagnostic work was ongoing at the end of FY20, and included a capacity-building process to help civil servants and the private sector develop expertise in PPP projects. This is an extension of a previous effort to increase institutional capacity for PPPs in the agriwater infrastructure sector that developed some policy recommendations to create a more enabling environment for PPP projects and a circular economy business model for wastewater use in agriculture based on a strong model of public-private cooperation.

Once the diagnostic process is complete, a concrete workplan will be developed to help CONAGUA—and other public and private sector partners—build system—wide capacity for PPPs and financial innovation. In addition, technical support will be provided to aid in the financial design behind strategic projects (especially those requiring advanced forms of financing).

54 THE 2030 WATER RESOURCES GROUP ANNUAL REPORT 2020 THE 2030 WATER RESOURCES GROUP ANNUAL REPORT 2020

# **PERU**

# **AREAS OF WORK**



Works for taxes



Water responsible companies



Adaptation to climate change and green infrastructure



Guidelines for dialogue processes



The 2030 WRG Peru MSP was established in 2014. 2030 WRG Peru facilitates the efficient, effective functioning of the Steering Board and its workstreams by providing secretariat support, promoting partnerships between the public and private sectors, providing a neutral space for dialogue on matters related to water policy and governance, developing project concept notes and proposals for solutions, identifying third-party implementers, mobilizing financing for projects, monitoring project progress, and resolving key bottlenecks as required.

### Key highlights

# Supporting dialogue toward upcoming Country Report for OECD

In November 2019, the Ministry of Environment asked 2030 WRG Peru and the World Bank Water Global Practice (WGP) to provide support in strengthening local capacities on water governance and water resources management among the officials involved in the OECD Water Governance Policy Dialogue Process.

In January 2019, Peru started the OECD Water Governance Policy Dialogue Process. This is a voluntary process that is not part of the formal procedure to join the OECD as a full member country. However, it will evaluate the country's performance in designing and implementing water policies, enabling a better understanding of how to fill the gaps in future water governance. The final product will be the Country Report on Water Governance, issued by the OECD, with specific policy recommendations for implementation.

At the request of the Ministry of Environment, officials from different sectors involved in the Water Governance Policy Dialogue Process will receive support on water governance from 2030 WRG Peru and the World Bank Water Global Practice. This capacity strengthening is aimed at sharing knowledge and enriching understanding.

As part of the support provided to the Policy Dialogue Process, in February 2020, 2030 WRG and the World Bank Water Global Practice organized and facilitated a two-day workshop for 30 representatives from various government sectors. On the workshop agenda were the current initiatives,

opportunities, and challenges identified in the first draft of the Country Report produced by the OECD team. It culminated in a list of recommendations for the revised Country Report. After the workshop, a multi-sectoral commission was formed to continue the dialogue process.

2030 WRG Peru and the Water Global Practice will continue collaborating with the Ministry of Environment and national authorities to complete this dialogue process and to further implement the recommendations once the final country report is issued. Due to the Covid-19 pandemic, virtual workshops will be organized for the remaining consultations.

# Building a synergic approach for green infrastructure initiatives

Green infrastructure is still a relatively new concept in Peru. Efforts during the year focused on identifying financing mechanisms for future investments, exchanging experiences, and promoting ongoing dialogue to identify synergies to promote the implementation of nature-based solutions. The Covid-19 crisis has highlighted the urgent need to increase use of this kind of infrastructure to tackle water scarcity.

The Adaptation to Climate Change and Green Infrastructure working group was established two years ago to promote green infrastructure and nature-based solutions among the government, the private sector, academia, and international cooperation organizations. However, during this last fiscal year, this working group has become one of the top priorities. It is currently led by 2030 WRG Peru and the Ministry of Environment, with the participation of The Nature Conservancy, Forest Trends, and Biofin (an initiative of the United Nations Development Programme) within the MSP.

**PERU** continued

#### Working group activities during FY20 include:

- Identifying natural infrastructure projects from the National Project Repository that could potentially be financed by mechanisms such as public investment, direct private investment, or the Works for Taxes mechanism.
- Mapping of stakeholders from both the private and public sectors and academia.
- Developing a communications plan to increase awareness of the benefits and opportunities generated by natural infrastructure projects.

During the year, Sedapal, the state-owned water utility company covering the city of Lima, announced the implementation of a fund of about \$24 million for green infrastructure projects. The projects will reduce the water access gap by investing in the middle and upper basins of the main surrounding rivers. 2030 WRG and international agencies were invited to bring together key stakeholders to discuss guidelines, best practices, and project identification, with the aim of kickstarting the execution of green infrastructure projects funded by Sedapal.

# Covid-19 response: Water tanks for households and popular social dining rooms

2030 WRG in Peru is coordinating with some of its MSP members on water-related responses to the pandemic. As a first effort, Sedapal and private companies have come together in a public-private partnership to collect donations for water and water-safe storage for the poorest districts of Lima. Water supply in these areas has been a real problem, due to isolation measures and a lack of household water connections, which meant that people could not access safe water. The 2030 WRG-led initiative will enable more households in specific districts of Lima to receive water tanks to safely store water. In addition, some popular social dining rooms that provide food for many of Lima's most vulnerable people will also be able to safely store clean water provided by water cistern trucks. Alongside the donations, 2030 WRG is preparing a capacity-building and communications program to share knowledge about handwashing behavior and safe water practices among recipients.



# BRAZIL-SÃO PAULO

# **AREAS OF WORK**



Water reuse for urban and industrial puposes



Charging for water use



Optimization of sanitation services



2030 WRG started working in Brazil in July 2017, when it signed a memorandum of understanding with the government of the state of São Paulo, through what was then the State Department for Water Resources and Sanitation (Secretaria Estadual de Saneamento e Recursos Hídricos). This department has been recently restructured by the new São Paulo state government (2019–2022) into the State Department for Infrastructure and Environment (Secretaria Estadual de Infraestrutura e Meio Ambiente). At the end of FY20, the São Paulo team was coordinating the activities of three working groups. A recently formed Steering Committee will supervise and validate their work.

#### Key highlights

# 2030 WRG supports utility to improve efficiency of wastewater treatment

SABESP, the state of São Paulo's water and sanitation utility, is making changes to improve the treatment capacity and the quality of treated wastewater in four of the main sewage treatment plants in the São Paulo metropolitan area, based on preliminary recommendations of a 2030 WRG-initiated process audit.

Twenty-one million people live in the São Paulo metropolis, which encompasses 39 municipalities. SABESP is the utility responsible for providing water and sanitation services in most localities in the metropolitan area.

The 2030 WRG working group responsible for optimization of sanitation has partnered with SABESP to improve the treatment conditions, capacity, and efficiency of four of the five main wastewater treatment plants in the São Paulo metropolitan area.

2030 WRG HAS PARTNERED WITH SABESP TO IMPROVE THE TREATMENT CONDITIONS, CAPACITY, AND EFFICIENCY OF THE FOUR OF THE FIVE MAIN WASTEWATER TREATMENT PLANTS IN THE SÃO PAULO METROPOLITAN AREA.

MILLION PEOPLE LIVE IN SÃO PAULO The five main wastewater treatment facilities, including the Barueri plant, one of the largest in South America, currently treat a total volume of 20 cubic meters per second.

The five main wastewater treatment facilities, including the Barueri plant—one of the largest in South America, currently treat a total volume of 20 cubic meters per second. The treated wastewater is discharged into the water bodies of the Tietê river basin. However, these plants experience operational bottlenecks that limit their treatment capacity and efficiency. At the same time, SABESP is expanding the collection networks in the region. There is an urgent need to ensure that the existing wastewater treatment facilities are performing optimally, so that they can receive increased sewage loads and meet—and even exceed—their original design specifications and the environmental requirements.

Following discussions with SABESP, the 2030 WRG working group enlisted an independent consultant to do a preliminary analysis of the plants' treatment processes to identify possibilities to introduce a circular water economy. The investigation showed that the first step should be improving treatment capacity and effluent quality. It also found that it would be possible to enhance the performance of the current civil infrastructure and equipment, thus postponing the need for investment in more costly technologies and new civil works

BRAZIL—SÃO PAULO continued

#### BRAZIL—SÃO PAULO continued

Having agreed on the concepts and strategy, SABESP began to prepare process audits for Barueri, the main treatment plant. Technical discussions, even in this preliminary stage of the project, were able to identify operational changes and investments needed. SABESP was proactive and, based on the consultant's preliminary observations, adopted the necessary measures. This process has already resulted in significant improvement in the quality of final effluent treated by the Barueri plant, reducing the amount of organic load discharged into the Tietê River. The utility's actions and investments in the first phase of the program have already helped to avoid discharge of an organic load comparable to around 140 million cubic meters of raw sewage in four months.

The first phase of preliminary analysis has been completed and a report consolidating the main aspects of the program was discussed. Even though the final report will only be released in FY21, the review process has already had noticeable impacts.

Based on these promising results, SABESP decided to continue the work and contract the same consultancy to perform a complete process audit of four treatment plants in the metropolitan area as a counterpart to an ongoing loan from the World Bank. It also mobilized a robust and experienced team, provided historical data of all treatment facilities, and is now installing new online monitoring equipment to prepare these plants for the operational tests

that will be part of the audit process in the second phase of the project.

# Regulations on wastewater reuse for urban purposes revised

The 2030 WRG working group on water reuse for urban and industrial areas convened public and private sector utilities and regulatory agencies to discuss and approve normative changes to make urban wastewater reuse more feasible.

Treated wastewater for urban applications—such as garden irrigation, washing streets and vehicles, sanitation facilities, and so on—needs to meet stringent environmental and health standards. The state of São Paulo already had a specific resolution that set requirements for direct non-potable reuse of treated wastewater for urban purposes. However, this regulation established monitoring obligations that were prohibitively expensive for utilities to comply with, making wastewater reuse impractical from a business perspective.

The 2030 WRG working group convened the main public and private concessionaires operating in the state to develop a new regulation proposal on the subject. The main adjustment focused on reducing the frequency with which treated wastewater was required to be tested for some parameters, to remain feasible while still upholding existing environmental and health standards.

The revisions proposed by utilities were submitted to the state health and environmental agencies, which accepted the changes suggested, resulting in the issuing of a new regulation. This project once again proves the value of 2030 WRG's multi-stakeholder approach.

# Exploring the potential for direct wastewater reuse for industrial purposes at basin level

2030 WRG's working group on water reuse for urban and industrial areas convened three sanitation utilities to form a partnership to investigate the feasibility of direct wastewater reuse for industrial purposes in the Campinas metropolitan region's Piracicaba, Capivari, and Jundiai (PCJ) rivers basin.

The 2030 WRG working group convened the three concessionaires operating in the PCJ Basin to conduct technical and feasibility studies regarding the establishment of a future special purpose entity. The entity will receive treated sewage from three municipalities, treat the final effluent according to the technical specifications of potential customers, and sell it to industries in the region.

The concessionaires have agreed to work together, and based on 2030 WRG proposals, prepared the terms of reference for contracting the study in the next financial year. 2030 WRG São Paulo started negotiations with IFC's Upstream Sector to co-finance the feasibility study to be contracted

by the private concessionaire involved. This groundbreaking arrangement brings public and private companies together in a novel way, and illustrates the benefits of mutual trust, developed through collaboration.

These studies are practical regional applications of the ideas proposed in the studies for a national wastewater reuse policy developed by INTERÁGUAS—the Federal Integrated Water Sector Project, a comprehensive program supported by the World Bank Group.

### Covid-19 response: Short-term WASH project

2030 WRG, Global Compact, and the Association of Municipalities of the PCJ Basin brought together partners from the public and private sectors to provide vulnerable populations with hygiene products—mostly sanitizer and soap—to prevent the spread of Covid-19 in municipalities of the PCJ Basins. At the end of FY20, cosmetics company O Boticário was due to donate kits for 11,000 families, with SABESP committing to receiving and storing the products. CPFL, an electric power company, had agreed to deliver them to the municipalities, where they will be distributed by local organizations.



# **ETHIOPIA**

# **AREAS OF WORK**



Hydro-economic analysis



Industrial wastewater treatment and reuse



Private sector collaboration

In September 2016, the Ethiopian government invited 2030 WRG to explore opportunities for establishing an MSP to support sustainable water management. To support this process, a national hydro–economic analysis was initiated in 2018 and is due to be completed soon, paving the way for future collaboration in the country.

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

#### Key highlights

# Toward more financially sustainable wastewater treatment plants

2030 WRG Ethiopia has been asked to help central wastewater treatment plants servicing 11 Ethiopian industrial parks to develop more viable financial models.

The government of Ethiopia has invested in 11 industrial parks with central effluent treatment plants. Four of the parks use zero liquid discharge technologies, while seven use advanced conventional wastewater treatment methods. The Ethiopian Industrial Parks Development Corporation manages the industrial parks, which mostly cater to the garment and textiles industry.

The wastewater treatment plants are facing financial challenges. 2030 WRG Ethiopia has been asked to explore management— and policy-related solutions to secure the financial sustainability of the treatment plants, starting with a flagship industrial park in southern Ethiopia that has yet to cover its operating costs. The proposed solution should ideally be scalable to the other 10 plants.

The project draws on our global experience: 2030 WRG in Bangladesh has done similar work for the Bangladesh Economic Zone Authority, and the expert on that project will be called on to analyze the data and make financial

recommendations. Although the project has been delayed due to the Covid-19 pandemic, work is continuing remotely.

### Hydro-economic analysis

A 2030 WRG-initiated hydro-economic analysis, detailing Ethiopia's water challenges through the lens of economic as well as social development, is at an advanced stage.

The Ethiopian Ministry of Water, Irrigation, and Energy (MoWIE) and two advisory groups—the Public Sector Advisory Group and the Private Sector and Civil Society Organizations Advisory Group—are providing valuable inputs to this report. The drafting process is expected to lead to further formal opportunities for all parties to work together.

The 2030 WRG multi-stakeholder approach has already contributed to bringing the public and private sectors together to discuss various issues. For example, we played a role in bringing more private partners into the MoWIE's Multi-Stakeholder Forum working groups on water resources management. We were also recently asked to support the government in reviewing a draft water policy and to bring in private partners to do the same. This will be done through a series of online workshops in the early part of FY21.

The hydro-economic analysis will be circulated for review within focus groups. It is expected to be finalized by the

end of 2020. The 2030 WRG Ethiopia MSP will be developed based on guidance from the outcomes of the hydro-economic analysis in 2021.

# Beverage Alliance initiates water footprint project

2030 WRG Ethiopia has received funding for the first phase of a project initiated through the fledgling Ethiopian Beverage Alliance for Water.

The Ethiopian Beverage Alliance for Water brings together beverage-industry actors for collective solutions and action on industrial water management. We helped initiate this alliance with the support of founding partners Coca-Cola and the Ethiopian Bottled Water and Soft Drinks Manufacturing Industries Association (EBSMIA). Partners are currently preparing to formally launch the alliance and recruit more members.

During the year, we received seed funding from the P4G (Partnership for Green Growth and Global Goals 2030) for a project to establish the water footprint of businesses in the beverage industry. This study will form the basis of future discussions around water-use efficiency, fostering better community-industry relationships, and minimizing environmental damage. The seed funding was matched by the three partners—2030 WRG, EBSMIA, and Coca-Cola.



# KENYA

# **AREAS OF WORK**







Industrial water management



Agricultural water management

AGRICULTURE IS THE MOST WATER-INTENSIVE SECTOR IN KENYA, ACCOUNTING **FOR NEARLY** OF ARABLE LAND IS IRRIGATED

The Kenya MSP was formed in 2015 after an invitation by the government of Kenya to support the development of a multi-stakeholder partnership. 2030 WRG facilitates the effective functioning of the Governing Board and its three workstreams by providing secretariat support, developing project concept notes and proposals for solutions, identifying third-party implementers, mobilizing financing for projects, monitoring project progress, and resolving key bottlenecks as required.

# Key highlights

# Performance-based project to address water losses

Kenya loses 42% of its municipal water to theft, leaks, and faulty equipment. A performance-based contract project is aiming to address the problem while proving the value of collaboration between the public and private sectors.

Performance-based PPPs are structured such that improvements in water losses are linked to payouts for the private service provider—a useful model in Kenya's water sector, where the PPP concept in the water sector is yet to prove itself.

During the year, a preliminary technical and financial review of five utilities identified as possible candidates to take part in the pilot project was completed under the Urban Water Management workstream. In FY21, a detailed assessment of each utility will be conducted to establish its suitability for performance-based contracts (PBCs) to address non-revenue water, and to develop an indicative PBC project scope and contracting terms. This assessment, which will be funded by the World Bank's Water Global Practice under the national performance-based financing program component of the Kenya Water and Sanitation Development Project, will include developing documents for procuring the most suitable private sector partner for each utility.

The project is being led by the national Water Services Regulatory Board, which has shown strong commitment to the project, including mentioning it in its *Annual Sector Performance Report of 2019.* 2030 WRG plays a facilitating and technical advisory role.

# Improving access to irrigation for smallholder farmers

Agriculture is the most water-intensive sector in Kenya, accounting for nearly 60% of water withdrawals. Yet only 3% of arable land is irrigated, with smallholder farmers struggling to access water-efficient technologies.

Transitioning smallholder farmers to efficient irrigation systems in Kenya is a challenge. The Assessment of Farmer-Led Irrigation Development (FLID) action-research project works with various stakeholders to formulate new business models to dismantle the barriers to accessing irrigation encountered by smallholders in Kenya.

The action-research project, which targets 10 farming groups across six counties, started in January 2020 and is expected to run to December 2020. The output of the research will be the production of scalable FLID business models. The project considers the entire agricultural ecosystem, including farmer organizations, finance, water storage, input-supply systems, value addition technology, post-harvest practices, and market linkages.

The identified beneficiaries are linked to the World Bank-supported National Agricultural and Rural Inclusive Growth Project being implemented by the government of Kenya. The FLID action-research will be conducted by SNV Netherlands Development Organisation and Wageningen University and Research. This project is under the Agricultural Water Management workstream, which is chaired by the Principal Secretary for Irrigation of the State Department for Water Services.

KENYA continued

# Developing polluter pays guidelines for industrial wastewater

In an important step toward implementing a trade effluent management system for utilities, the 2030 WRG Kenya MSP's Urban Water Management workstream supported the Water Services Regulatory Board in developing draft guidelines for incentivizing treatment and reuse of industrial effluent.

Once adopted, the proposed guidelines will be a significant achievement for the regulatory environment. Utilities seeking to develop risk-based tariffs for effluent will now have the guidelines and backing to do so: a successful example of the 2030 WRG MSP model working to create an enabling regulatory environment.

The Trade Effluent Management System project sees 2030 WRG partnering with two utilities to develop and implement a system that transfers the risk of insufficiently treating effluent water to the discharger in question—the polluter pays principle.

2030 WRG will be responsible for upstream analysis of the type, quality, composition, and quantity of effluent from a representative group of commercial water users; developing a risk index based on international best practices that can be used to develop a surcharge mechanism; and identifying and engaging pilot sites to test the mechanism. The utility partners will be responsible for engaging industry and

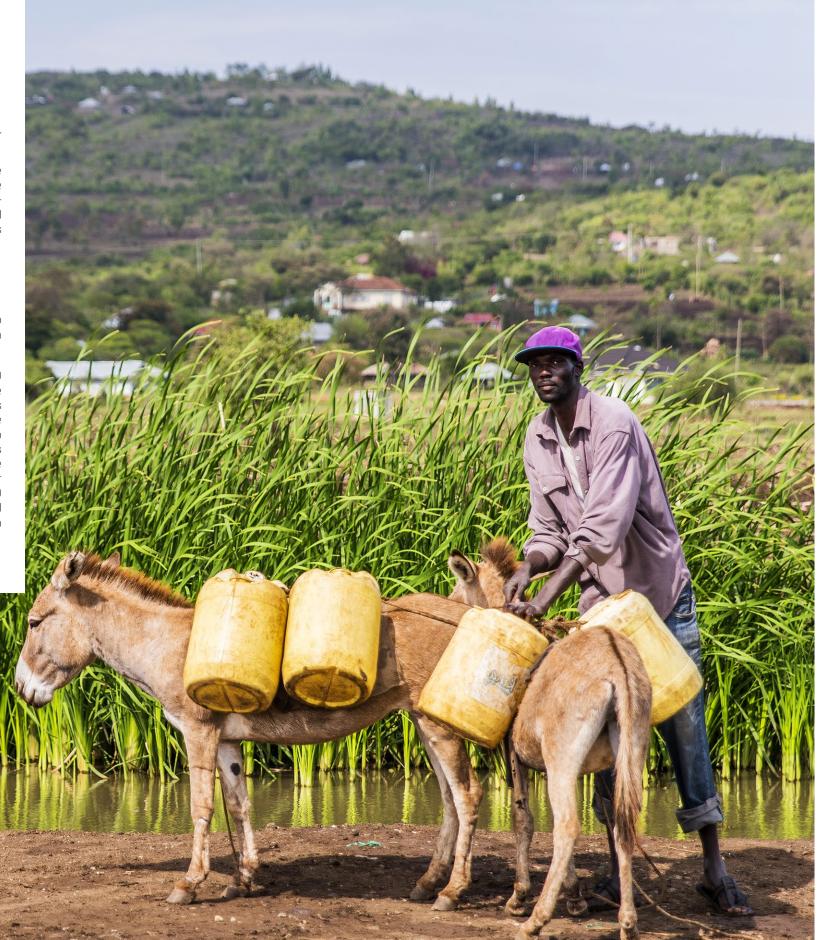
revising water-usage licenses to reflect the new mechanism, as well as developing implementation capacity.

By the end of FY20, 2030 WRG was preparing to initiate the upstream analysis. As the project gathers momentum, we will keep working with the utilities to develop additional pretreatment guidelines through these pilot agreements, as well as to provide technical support to design the mechanisms they will use.

# Farmers' cooperative starts saving to access water infrastructure finance

A farmers' savings cooperative is building up capital to enable farmers to collectively access funding for on-farm water storage to help them better survive dry periods.

The cooperative aims to access financing for at least 30 million liters of on-farm water harvesting and storage equipment to help smallholders survive periods when rivers are dry. The cooperative was formed in early 2019 at the urging of the Mount Kenya Ewaso Water Partnership (MKEWP), which 2030 WRG helped to establish four years ago. MKEWP is a forum for collective management of the Ewaso Ng'iro North catchment, the largest of five water catchments in Kenya. Today, the MKEWP has over 70 partners and receives ongoing partnership facilitation and project preparation funding support from 2030 WRG's Kenya MSP under its Agricultural Water Management workstream.



### **SOUTH AFRICA**

# **AREAS OF WORK**



Water use efficiency and leakage reduction



Effluent and wastewater management and sanitation



Agricultural supply chain



Water stewardship

Cross-cutting: Skills development



2030 WRG provides support to the South African MSP, which is known as the Strategic Water Partners Network (SWPN).

# Key highlights

# Taking aim at water losses in irrigation canals

The SWPN is jointly supporting research to determine how water losses are occurring along the agricultural conveyance systems—the canals that carry water from source to farms.

Seventy percent of South Africa's water is used in agriculture, of which an estimated 20% is lost. While farm-level water efficiency has generally improved over the years, conveyance losses—those that occur in getting the water to the farms—remain stubbornly high.

Canal water transfers still dominate irrigation water conveyance because they are more economical. But these canals are now old and, despite repairs, in poor condition. Further, some secondary and tertiary canals remain unlined, with associated higher losses.

The SWPN, in partnership with the Agricultural Research Council and South Africa's Water Research Commission and Agricultural Research Council, are conducting a study to analyze canal losses from the Vaalharts and Loskop irrigation schemes, to find out precisely where the losses are happening. Less data is available from smaller irrigation schemes, though significant losses occur there too.

This study is part of a larger, ongoing four-year project into the development of the Irri-Drop Framework Report, similar to the No-Drop Framework pioneered several years ago by the SWPN for managing urban water losses. The project also feeds into another SWPN-facilitated project, the upgrade of the Vaalharts irrigation scheduling practices using the Water Administration System (WAS). The Vaalharts Irrigation Scheme is one of South Africa's biggest water schemes. WAS is a water-saving tool developed with significant SWPN support. This year an awareness video on WAS was produced with support from GiZ (see the video at https://vimeo.com/387182245/2c07794d5b).

# Plan to reduce water losses in semi-arid province developed

The Polokwane Water Loss Partnership is making waves in combating water losses. Working closely with municipal authorities, the SWPN is supporting implementing a plan to reduce non-revenue water in the City of Polokwane over the next five years. The City of Polokwane experiences substantial water losses, in the order of 40%. To address this wastage, the SWPN drafted a water-conservation and water demand management strategy and business plan for the city, the capital of South Africa's Limpopo province and a hub of economic activity in the area.

The project is being jointly funded by two SWPN founding member companies, Anglo American and South African Breweries (SAB), to the value of R10 million (about \$595,000). Both Anglo American and SAB have business interests in the region and wish to help improve the sustainability of water supply. Reducing non-revenue water will contribute greatly to water security in this semi-arid area.

# Partnerships in the spotlight at Annual Water Stewardship Event

This year's fifth Annual Water Stewardship Event focused on "Strengthening the Water Value Chain through Partnerships."

A value chain is only as strong as its weakest link. This is particularly true for the water sector. "Can a weak link be strengthened through partnerships?" was the question that guided the discussions of more than 150 leaders from the water sector at the fifth Annual Water Stewardship Event, which took place during October 2019 in Johannesburg.

The event—which was jointly hosted by the SWPN, the GIZ Natural Resources Stewardship Programme (NatuReS), the National Business Initiative (NBI), and the Royal Danish Embassy—explored strategies to overcome some of the country's most pernicious water challenges. Partner activities were profiled, case studies were presented, and lessons learned on implementing water stewardship were shared.

**SOUTH AFRICA** continued

**SOUTH AFRICA** continued

# Covid-19 response: Snap survey on emergency action

In support of a collective action response to Covid-19, the SWPN, 2030 WRG, and GIZ undertook a snap survey of key members' responses to the outbreak. Responses were received from private and public sector stakeholders, civil society, and development partners. The survey highlighted the following:

- Partners were actively responding to the crisis through established on-the-ground interventions.
- Various voluntary and in-kind contributions were being made to support the most vulnerable communities.
- Responding to the crisis introduced complexity that, in many instances, required greater alignment, coordination, and support.

The findings of the survey were shared with the Ministry of Human Settlements, Water, and Sanitation, outlining the collective response, with recommendations to the Minister on where coordinated collective action could be prioritized. A special Covid-19 newsletter was issued, providing timely information on managing the pandemic from a water perspective.

# Project pipeline review

As the SWPN enters its 10th year in existence, a need was identified to review the strength of the pipeline of partnership projects available to the SWPN to support water-saving efforts in South Africa and to identify potential new areas of focus.

To this end, 2030 WRG has appointed a consultant to undertake a comprehensive project pipeline review for the SWPN to identify new opportunities to develop holistic, ambitious water stewardship projects and programs that leverage private sector capacity and financing while optimizing the use of scarce public resources. Of the projects identified, the most promising will be selected for further development. All the findings will be shared with the broader South African water sector for potential implementation regardless of whether they have a fit within the SWPN. This review is under way.

### SWPN website

2030 WRG contributed funding toward the development of a website for the local SWPN partnership to complement the various social media platforms used by the network. The website address is www.swpn.org.za.



VALUING WATER, ENABLING CHANGE. 73

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# **TANZANIA**

# **AREAS OF WORK**



Great Ruaha restoration campaign



Kilimanjaro water stewardship platform



Irrigation financing initiative



Private Sector roundtable

In November 2016, 2030 WRG launched the Tanzania MSP under the leadership of the Ministry of Water. In November 2018, the Ministry of Water took steps to strengthen the forum, in effect turning it into an advisory platform within the National Water Board. Four subnational MSPs are active in Tanzania (see page 34), with the MSP approach also being rolled out to basin level.

#### Key highlights

# Water stewardship platforms rolled out to other basins

The Ministry of Water, drawing on knowledge gained from the successful Kilimanjaro Water Stewardship Platform established by 2030 WRG, has formed multi-stakeholder partnerships for all nine water basins in Tanzania.

Now in its fourth year, the Kilimanjaro Water Stewardship Platform (KWSP) is chaired by the Pangani Basin Water Board and includes a strong contingent of small-scale farmers. 2030 WRG continues to have a coordinating role, helping the platform to function by doing background work, participating in working group activities, and covering costs for key meetings.

The platform has four self-running working groups. Currently, the Irrigation Financing Initiative described below is being implemented within the KWSP network. Among other activities during the year, these groups initiated a mobile phone-based communications and awareness program with water users in the catchment and took steps to actively manage the catchment, including rehabilitating waterways.

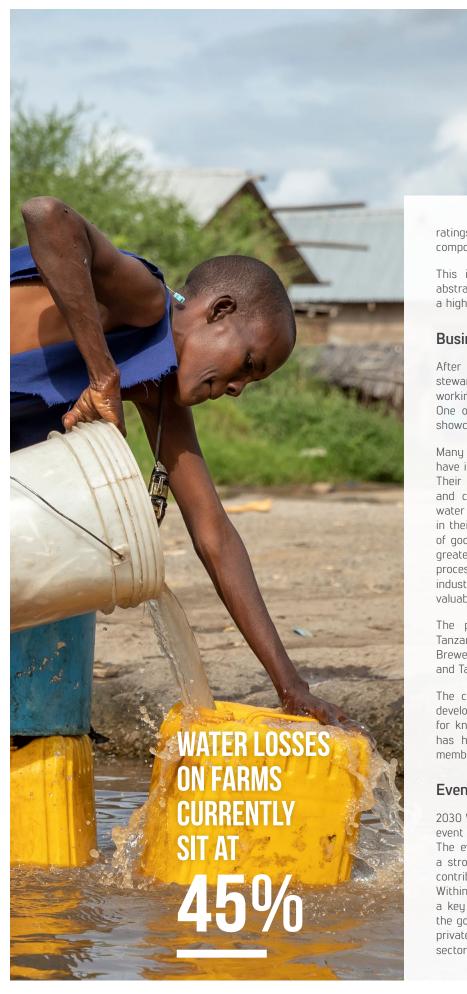
The KWSP is a collaboration with the Natural Resources Stewardship Programme (formerly, International Water Stewardship Program), the Pangani Basin Water Board, the Tanzania Horticulture Association, Rikolto, and other stakeholders.

# Helping farmers access financing and markets

Water losses on farms currently sit at 45%. An initiative by the 2030 WRG Tanzania partnership to help farmer groups successfully apply for drip irrigation finance has gained ground, with three projects ready to submit their application but he end of the year.

The project aims to help 3,000 farmers in the Kilimanjaro Water Stewardship area access financing and markets for their produce in the next three years. By the end of FY20, three project proposals were ready to be submitted to both the Tanzania Agricultural Development Bank and commercial banks for financing. By December 2020, additional farming groups will have completed their project proposals and be ready for loans.

Farming groups that are successful in their applications will use the financing to switch from traditional, inefficient forms of irrigation to more efficient irrigation technologies such as drip irrigation or micro-sprinklers. To pay back the loans, the farmers will need to be linked to markets. The project will therefore also partner with buyers for their produce. In turn, contracts with buyers will increase the farmers' credit



ratings. The project also has an education and training component.

This initiative is expected to reduce agricultural water abstraction by 50%, resulting in more water in the river and a higher water table.

# Businesses inspired to collaborate

After attending a 2030 WRG presentation on water stewardship, five companies were inspired to set up a working group for business-to-business knowledge-sharing. One of the group's first projects will be a publication to showcase water stewardship in industry.

Many Tanzanian businesses—especially large water users—have invested heavily in projects to improve water security. Their interventions are varied, ranging from providing staff and communities with training in how to use domestic water efficiently, to investing in water–saving technology in their processes. The compendium will create a catalogue of good water practices in Tanzania, and hopefully lead to greater industry investment in water–saving technology and processes. Strengthening water stewardship practices in industries in this way will shape the private sector into a valuable water management partner for the government.

The partnership will work with the Confederation of Tanzanian Industries, together with Diageo (Serengeti Breweries), AB InBev (Tanzania Breweries), Bakhresa Group, and Tanga Cement.

The concept note for this publication, which 2030 WRG developed and is currently being revised, includes a proposal for knowledge-sharing visits between companies. Covid-19 has had an impact on the progress of this project as members were not able to meet in person.

#### Event focused on civil society inputs hosted

2030 WRG supported the Ministry of Water in organizing an event for the Multi-Stakeholder Forum in December 2019. The event allowed the members of the forum, which has a strong civil society component (40% of membership), to contribute to the dialogue on enhancing water security. Within the forum, the Private Sector Working Group plays a key role in bringing civil society, the private sector, and the government together in discussion on water tariffs. The private sector makes up 13% of the forum, while the public sector makes up 46% of forum members.

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# 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: Contributions to 2030 WRG (\$)

Donor Name	Total Contributions Amount (in \$)	FY20 Contributions Paid-in Amount (in \$)
Israel - Ministry of Economy & Industry	3,000,000	
Swiss Agency for Development and Cooperation (SDC)	3,000,000	999,973
Swedish International Development Cooperation Agency (Sida) <sup>1</sup>	1,912,830	947,468
Total Contributions from Public Sector through Trust Funds	7,912,830	1,947,418
Coca-Cola Company	3,000,000	500,000
Anheuser-Busch InBev Procurement GmbH	1,900,000	200,000
Grundfos Holding A/S	1,500,000	
Nestlé SA	1,500,000	500,000
PepsiCo Foundation	1,500,000	
Unilever U.K. Central Resources Limited	1,500,000	
The Coca-Cola Foundation	250,000	250,000
Total Contributions from Private Sector through Trust Funds	11,150,000	1,450,000
Grand Total <sup>2</sup>	19,062,830	3,397,418
Contributions from International Finance Corporation (IFC)	2,000,000	1,000,000
Contributions from Global Water Security And Sanitation Program (GWSP)	1,506,000	1,105,000
Contributions from Public-Private Infrastructure Advisory Facility (PPIAF)	300,000	300,000
Total Funding from the World Bank Group	3,860,000	2,450,000

#### Table 2: FY20 Co-Financing Facilitated by 2030 WRG's MSPs (\$)

S. No.	Name of Program	Donor Name	In-Kind Contribution (\$US)	Parallel Contributions (\$US)	Total Contribution (\$US)
1	Bangladesh	н&м		47,222	47,222
2	Bangladesh	DASCOH Foundation	2,063	4.813	6,875
3	Bangladesh	SNV		103,764	103,764
4	Bangladesh	Syngenta Foundation for Sustainable Agriculture	20,773	47,971	68,744
5	Bangladesh	Government of Bangladesh's Ministry of Water Resources		579,000	579,000
6	Bangladesh	Unilever Bangladesh Limited		38,683	38,683
7	Bangladesh	Government of Bangladesh's Ministry of Agriculture		550,000	550,000
8	Bangladesh	The Coca Cola Company		250,000	250,000
9	Bangladesh	H&M		30,000	30,000
10	Bangladesh	Global Water Security And Sanitation (GWSP)		350,000	350,000
11	Global	Global Water Security And Sanitation (GWSP)		205,000	205,000
12	Karnataka	Government of Karnataka's Directorate of Large and Mega Industries		79,009	79,009
13	Karnataka	Government of Karnataka		2,670,000	2,670,000
14	Kenya	World Bank's National Agricultural and Rural Inclusive Growth Project		9,000	9,000
15	Kenya	Public-Private Infrastructure Advisory Facility (PPIAF)		300,000	300,000
16	Maharashtra	IDH The Sustainable Trade Initiative	32,760		32,760
17	Maharashtra	WWF India		45,350	45,350
18	Maharashtra	Government of Maharashtra's Project on Climate Resilient Agriculture (PoCRA)	670		670
19	Maharashtra	UNDP SDG Finance Facility		10,000	10,000
20	Maharashtra	Government of Maharashtra's Water Resources Department		44,850	44,850
21	Mongolia	DIE German Development Institute		2,206	2,206
		·			
22	Mongolia	Government of Mongolia's Ministry of Environment and Tourism (MET)	00075	5,900	5,900
23	Mongolia	Government of Mongolia's Ministry of Environment and Tourism (MET)	36,075		36,075
24	Mongolia	Government of Mongolia's Ministry of Environment and Tourism (MET)	104,000		104,000
25	Mongolia	Bulgan Province Governor's Office		3.100	3,100
26	Mongolia	APU company		17,300	17,300
27	Mongolia	SouthGobi Sands		9,505	9,505
28	Mongolia	Government of Mongolia Tax Office		5.179	5,179
29	Mongolia	Bulgan Province Governor's Office		609,656	609,656
30	Mongolia	Ministry of Environment and Tourism		5,357	5,357
31	Peru	Fenix Power		102,198	102,198
32	Peru	Global Water Security And Sanitation (GWSP)		300,000	300,000
33	Rwanda	Global Water Security And Sanitation (GWSP)		250,000	250,000
34	S <b>ã</b> o Paulo	SABESP		856,367	856,367
35	South Africa	Anglo American		6.000	6.000
				6.000	6.000
36	South Africa	Coca-Cola Bottling Association South Africa			
37	South Africa	Distell		15,000	15,000
38	South Africa	DWS		60,000	60,000
39	South Africa	Eskom		21,000	21,000
40	South Africa	Nestlé		12,000	12,000
41	South Africa	SAB		35,400	35,400

Note 1: Sida net contributions received in US dollar equivalent after deducting refunds and unpaid contributions due to Sida's exit from 2030 WRG.

Note 2: Total contributions toward 2030 WRG Trustee TF072950 only. The IFC Trustee TF071915 was legally closed in April 2019 and its donor contributions are not included in this financial summary..

Table 2: FY19 Co-Financing Facilitated by 2030 WRG's MSPs (\$) continued

S. No.	Name of Program	Donor Name	In-Kind Contribution (\$US)	Parallel Contributions (\$US)	Total Contribution (\$US)
42	South Africa	SASA		6,300	6,300
43	South Africa	Sasol		18,000	18,000
44	South Africa	GIZ	6,900		6,900
45	South Africa	Royal Danish Embassy	2,760		2,760
46	South Africa	NBI	1,931		1,931
47	South Africa	Government of Uttar Pradesh's Forest Department in Shamli		28,809	28,809
TO	TAL		207,931	7,739,939	7,947,870

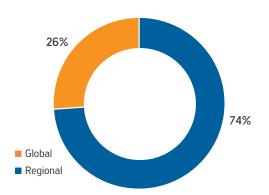
# **Expenses**

Table 3: FY20 Expenses

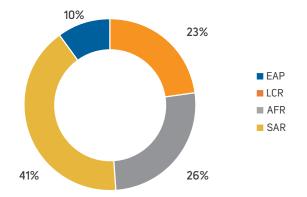
FY20 Total Expenses by Type of Activities (\$)		
Type of Activity	Amount	
Regional	4,372,334	
Global	1,564,924	
GRAND TOTAL	5,937,258	

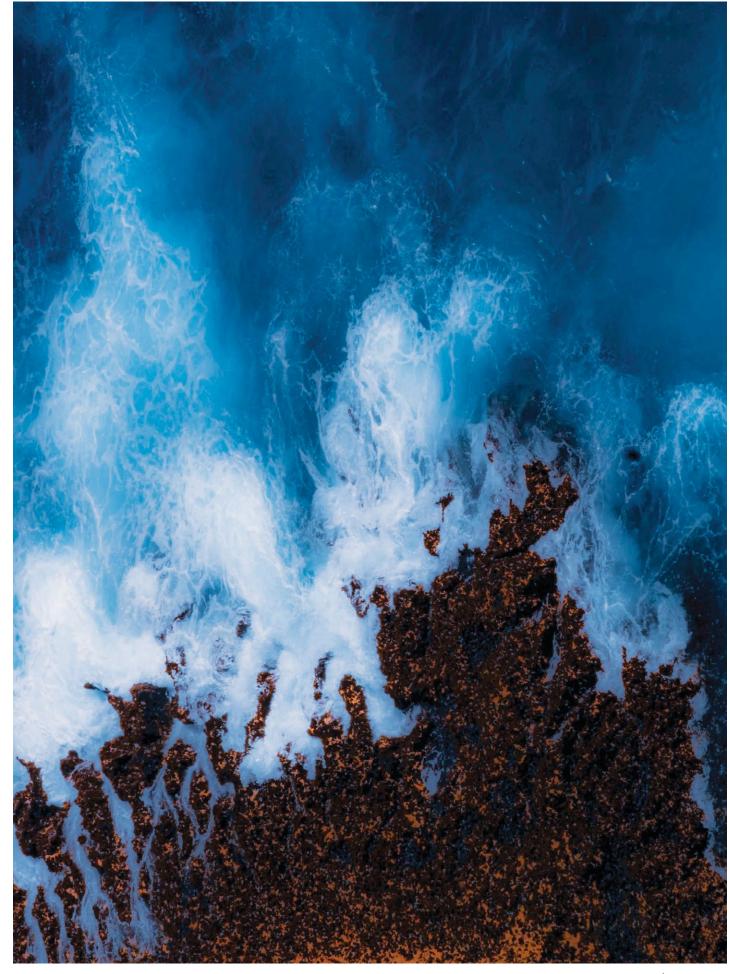
FY20 Total Expenses by Region (\$)			
Name of Region	Amount		
East Asia and Pacific (EAP)	460,716		
Latin America and Caribbean (LCR)	990,105		
Africa (AFR)	1.129,520		
South Asia (SAR)	1,791,993		
GRAND TOTAL	4,372,334		

FY20 Total Expenses by Type of Activities



FY20 Total Expenses by Region





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2030 Water Resources Group 2020 Annual Report

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