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ABOUT THE WATER GLOBAL PRACTICE

Launched in 2014, the World Bank Group's Water Global Practice brings together financing, knowledge, and implementation in one platform. By combining the Bank's global knowledge with country investments, this model generates more firepower for transformational solutions to help countries grow sustainably.

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GWSP 2022 ANNUAL REPORT

**5 Years of Working
Together Toward a
Water-Secure World**

GWSP 2022 ANNUAL REPORT

5 Years of Working
Together Toward a
Water-Secure World



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A photograph of an elderly woman with white hair, wearing a purple and yellow patterned sari, carrying a large purple plastic water container on her head. She is looking directly at the camera with a serious expression. In the background, other people are visible, including a woman in a pink and white checkered dress. The scene is outdoors, possibly at a water collection point.

Investing in water and sanitation remains essential for eradicating poverty, addressing the negative impacts of climate change, and building more inclusive and equitable societies.

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A fisherman in a small wooden boat is pulling a net from the water. He is wearing a blue shirt and dark pants. The net is covered in fish and debris. The background shows a body of water and a cloudy sky. The text is overlaid on the image in three colored boxes: a light blue box for the first line, a darker blue box for the second line, and a green box for the third line.

**Water is central to human
development, economic growth,
and the health of our planet.**

ABBREVIATIONS

FCV	fragility, conflict, and violence
FLID	farmer-led irrigation development
FY	fiscal year
GDP	gross domestic product
GP	Global Practice
GWSP	Global Water Security & Sanitation Partnership
ha	hectare
IBNET	International Benchmarking Network
KLM	knowledge management and learning
PIAP	Performance Improvement Action Plan
PIR	policy, institutional, and regulatory
PER	public expenditure review
PWWA	Pacific Water and Wastewater Association
SDG	Sustainable Development Goal
UNICEF	United Nations Children's Fund
UoF	Utility of the Future
WASH	water supply, sanitation, and hygiene
WPP	Water Partnership Program
WSP	Water and Sanitation Program

MESSAGE FROM THE DIRECTOR



SAROJ KUMAR JHA
Global Director
Water Global Practice

How we value water affects the way in which governments, businesses, and the public use, conserve, and manage it more equitably. These are the issues that we must address, and they are challenging and persistent.

It is with great pleasure that I write the foreword to the Annual Report of the Global Water Security and Sanitation Partnership for the first time. Since I joined the Water Global Practice in August of 2022, I have been gripped by the urgency with which we must address the widening gap between those who are water secure and those who are not. Water is central to human development, economic growth, and the health of our planet. Yet as the global water crisis accelerates, our capacity to adapt—to the crisis, and to climate change in general—is not keeping pace, and we are not on track to meet Sustainable Development Goal 6, to ensure water and sanitation for all.

The technical solutions to many water sector problems are, in fact, known and available. But that is not the real constraint we face.

The issue is that, as a public good, water is undervalued, underpriced, and underinvested. How we value water affects the way in which governments, businesses, and the public use, conserve, and manage it more equitably. These are the issues that we must address, and they are challenging and persistent. Tackling them requires us to improve both water policy and water governance, as successful investment in the water sector requires a robust enabling environment with effective policies, sound regulation, evidence-based operational reforms, and well-governed and accountable institutions.

This makes the GWSP mandate vital, as it is focused on supporting governments to build their capacity to ensure sustainable water service delivery. GWSP's role of advancing knowledge enables governments to formulate innovative



“This makes the GWSP mandate vital, as it is focused on supporting governments to build their capacity to ensure sustainable water service delivery.”



policies and develop sound institutional arrangements, while leveraging World Bank Group financial instruments and convening capacity on global and regional public goods. These efforts produce results, as summarized in this year’s annual report, which looks back at how GWSP has evolved over the past five years. It demonstrates that the support the Partnership provides is more relevant and impactful than ever.

I want to thank my predecessor, Jennifer Sara, for her leadership, passion for water, and her strong commitment to GWSP. And we are very grateful to our partners, who make it possible to achieve more than we would alone.

Seng Kema Oka

PROGRAM MANAGER NOTE



JOEL KOLKER
Program Manager
Water Global Practice

The 2022 annual report provides an opportunity to look back at what has been achieved, examine how the Partnership has adapted to meet evolving needs, and acknowledge outstanding challenges where more work is needed. We all know that, despite our best efforts, change can be agonizingly slow in terms of policy change and capacity development, but it does happen if we address challenges with perseverance, patience, and new ideas. I think this year's report illustrates how GWSP has made change possible.

In the following pages, we look at some issues that GWSP has been at the forefront of addressing for several years, including social

The Global Water Security Partnership has now been in operation for more than five years. It's been an honor and a privilege to watch the Partnership grow and evolve during that time.

inclusion in the water sector; countries affected by fragility, conflict, and violence; and climate change. These continue to be flagship issues for the World Bank, the Water Global Practice, and GWSP. This year we also look at the important issue of biodiversity, and how GWSP's support at the national and subnational level is making a difference in terms of policy and capacity. The Partnership's broad spectrum of support ranges from nature-based solutions for wastewater treatment to collaboration in the protection of transboundary waters. We also look at Public Expenditure Reviews for water, which have proved to be extraordinarily illuminating and give us a better idea of the reforms needed to make the water sector more efficient and our interventions more effective.

This year's report also brings in stories from the field—from South Asia, Sub-Saharan Africa, the



“This year’s annual report illustrates how GWSP has made change possible.”

Middle East and North Africa, Europe and Central Asia, Latin America and the Caribbean, East Asia, and also from the South Pacific, where GWSP support is helping service providers tackle the very real and crippling impacts of climate change. In each of these stories, we learn about the tailored, timely inputs the Partnership has made to help client countries find policy solutions, build key skills, and direct significant investments.

As ever, I would like to thank our clients around the globe, who are ultimately responsible for enhancing water services and progressing toward Sustainable Development Goal 6. I also want to acknowledge our Program Council members, who make GWSP’s work possible, and the staff across the World Bank’s Water Global Practice who have embedded our policy and capacity-building work into lending operations to enhance their impact.





ABOUT GWSP

The Global Water Security & Sanitation Partnership was launched in 2017 as an international partnership to support countries to meet the targets related to water and sanitation under the Sustainable Development Goals, particularly those of Goal 6.

GWSP is a multidonor trust fund administered by the World Bank's Water Global Practice (Water GP) and supported by the Australian Department of Foreign Affairs and Trade, Austria's Federal Ministry of Finance, the Bill & Melinda Gates Foundation, Denmark's Ministry of Foreign Affairs, the Netherlands' Ministry of Foreign Affairs, Spain's Ministry of Economic Affairs and Digital Transformation, the Swedish International Development Cooperation Agency, Switzerland's State Secretariat for Economic Affairs, the Swiss Agency for Development and Cooperation, and the US Agency for International Development.



GWSP acts as the Water GP's "think tank," providing client countries and other development partners with global knowledge, innovations, and country-level technical support while also leveraging World Bank Group resources and financial instruments.

GWSP-funded knowledge and technical assistance influence the design and implementation of client policies and programs, as well as water sector investments and reforms carried out by governments with the support of the World Bank and other partners.

GWSP expands the global knowledge base through its broad dissemination of knowledge and analytics. Dissemination includes, among other things, making experts available for hundreds of speaking engagements and active participation in water-related conferences and meetings around the globe.

The analytical and knowledge work produced by GWSP is open source and available globally to all development partners. While a strong emphasis is placed on quality analytics and delivery through policy dialogues with client governments and World Bank lending operations, it is equally important that the material finds a wide, global audience.

INFLUENCE ON WORLD BANK LENDING

GWSP's unique position within the Water GP enables it to influence, through knowledge and technical assistance, the design and implementation of water sector reforms and infrastructure projects financed by the World Bank Group. In fiscal year 2022 alone, GWSP provided critical knowledge and analytical support to teams, informing \$13 billion in World Bank lending. GWSP also supports partners at global, regional, national, and subnational levels.

In fiscal year 2022 alone, GWSP provided critical knowledge and analytical support to teams, informing \$13 billion in World Bank lending.



GWSP ENTRY POINTS

GWSP supports World Bank task teams and clients through three distinct entry points.



KNOWLEDGE MOBILIZATION

- Leverages the global reach of the Water GP, sharing lessons from one part of the world with another.
- Drives investments and innovation through cutting-edge analyses.
- Supports proof-of-concept applications.
- Shifts mindsets through advocacy and outreach.



LONG-TERM COUNTRY ENGAGEMENT

- Lays the framework for country strategies between lending operations or before lending operations begin.
- Strengthens institutions before and during reforms.
- Provides project implementation support to agencies with lower capacity, especially in fragile and conflict-affected situations.



JUST IN TIME SUPPORT

- Enhances project designs with highly specialized global knowledge.
- Offers rapid response to changing circumstances.
- Provides an unparalleled capacity-building model based on peer-to-peer learning.

PRIMARY THEMES



GWSP

Donors

Clients

GWSP LEVERAGES

GWSP LEARNS FROM

PARTNERS

Private Sector

Academia

KNOWLEDGE INTO IMPLEMENTATION

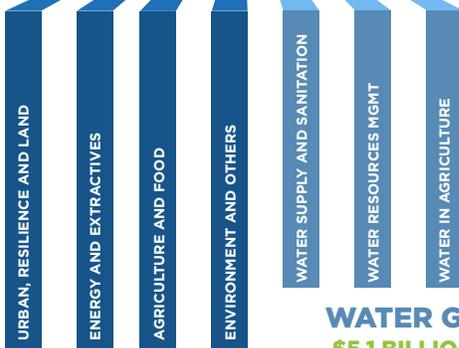
How GWSP Influences World Bank Lending and Works with Partners

\$13 BILLION
FY2022

RESEARCH, KNOWLEDGE, ANALYSIS, CONVENING, ADVOCACY



LESSONS LEARNED & EMERGING TRENDS



IMPACT

GWSP provides client countries with policy advice, technical assistance, and capacity building to enhance the impact of water sector investments and achieve measurable results on the ground —*demonstrating the added value of GWSP funded activities in achieving results not possible with World Bank lending alone.*





EXECUTIVE SUMMARY

The Global Water Security and Sanitation Partnership (GWSP) continues to advance global knowledge and build the government capacity needed to support the sustainable delivery of water services. The fiscal year running from July 2021 to June 2022 (FY22) presented both unprecedented and complex challenges. The COVID-19 pandemic progressed from a crisis to an ongoing development issue. Meanwhile, new challenges in the forms of inflation and rising interest rates emerged, contributing to an emerging debt crisis and threatening global stability, further jeopardized by the war in Europe. Underlying these economic concerns, the impacts of climate change continued to grow and deepen.





Investing in water and sanitation remains essential for eradicating poverty, addressing the negative impacts of climate change, and building more inclusive and equitable societies. Water is inextricably linked to the global economy and to the changing environment. However, progress toward Sustainable Development Goal 6 and the other water targets of the SDGs is insufficient.

In this context, GWSP's focus on analytics, timely data and information, and effective capacity development is ever more crucial. As the Partnership completes its fifth year, it supports client governments through the generation of innovative global knowledge and the provision of country-level support. GWSP complements and influences World Bank Group financial instruments and promotes global dialogue and advocacy with key partners.

As well as describing the activities of the past fiscal year, this year's annual report describes how GWSP has evolved since its inception, and outlines some of the key lessons learned. GWSP results and impacts are presented through its three business lines—water resources management, water in agriculture, and water supply and sanitation—and highlighting GWSP's five key themes: inclusion, resilience, finance, institutions, and sustainability. The report also includes a special chapter highlighting how GWSP's support is contributing to improvements in global biodiversity, climate change, water sector Public Expenditure Reviews, inclusion, and countries affected by fragility, conflict, and violence (FCV).

SPECIAL FOCUS

Fragility, conflict, and violence disrupt development and pose a significant challenge to efforts to eradicate poverty.

Work by the Water Global Practice (Water GP) in FCV-affected countries has grown significantly since GWSP's inception, and the Partnership now supports active engagement in 33 countries. In many cases, work in countries affected by FCV has started with small but critical analytical work, and expanded to influential and impactful operations. Based on the success of these initial projects, GWSP support has expanded into sanitation, water resources management, and irrigation.

Over the past five years, climate change considerations have become embedded throughout the GWSP portfolio, as reflected in the rising number of projects with climate co-benefits. The Partnership plays a critical role in providing the knowledge and tools to help countries understand climate change drivers and impacts on the water sector, and increasing their ability to monitor, manage, and prepare for variable water flows. In FY22, GWSP continued to play an important role in supporting the integration of climate considerations into client countries' policies and investments, supporting the World Bank's Climate Change Action Plan, and a variety of other tools, including climate and disaster risk screening, climate co-benefits assessments, greenhouse gas accounting analyses, the use of a carbon shadow price in economic analysis, and integration of climate change indicators into projects' results frameworks.

Public Expenditure Reviews (PERs) assess how public funds are spent, how well they are spent, and what funding and financing gaps exist.

GWSP supported the development of a robust methodology and comprehensive approach to implementing PERs in the water sector, covering water supply and sanitation, irrigation, and water resources management. The water PERs revealed that in many developing countries, policy priorities and public fund allocations do not align, and only an average of 72 percent of allocated funds are actually spent due to low execution capacity. The PERs have already informed government policy. For instance, the PER undertaken in the Dominican Republic helped build the government's commitment to reforms for the entire water sector, and as a result, in 2021 the government released a Water Pact, laying out the desired reforms in the water sector from 2021 to 2036.

Since its inception, GWSP has supported social inclusion in water.

An emerging lesson is that achieving real change is possible, but is a slow and often nonlinear process, involving the challenging work of changing institutions, shifting social norms, and identifying opportunities to better align incentives to promote inclusion. GWSP's support to social inclusion initially started with a focus on gender, but the program has broadened to develop guidelines and tools that clients can use to reach other marginalized groups, such as persons with disabilities, and effectively engage citizens. For example, with GWSP support, substantive advances have been realized in increasing capacity and impact in efforts to address the gender gap in water sector employment. GWSP's support has advanced the development of water-specific guidance and tools for clients on disability inclusion, and in FY22 almost half of all countries with World Bank water operations included actions on disability.

A young child with dark, curly hair, wearing a yellow mesh vest over a patterned shirt, is filling a white plastic water jug at a public water tap. The child is looking directly at the camera with a serious expression. In the background, another person wearing a red and black checkered patterned garment is partially visible. The scene is outdoors, likely in a rural or semi-urban area.

Fragility, conflict, and violence disrupt development and pose a significant challenge to efforts to eradicate poverty.

GWSP is supporting opportunities to further increase the benefits derived from integrating biodiversity into water sector investments. The use of nature-based solutions has significant potential to increase biodiversity while also adding to resilience, making it an effective way to achieve multiple objectives. In Colombia, a GWSP-supported water diagnostic made recommendations for policies to increase storage capacity by restoring ecosystems such as wetlands and estuaries, and reward efforts by industry and large-scale water users to restore the natural

integrity of waterways and support biodiversity. GWSP is increasingly applying a biodiversity lens to transboundary work, identifying priority actions to support freshwater biodiversity conservation and address the root causes of biodiversity loss in the context of international waters. For instance, with GWSP assistance, technical advice was provided in Cambodia and the Lao People's Democratic Republic on managing transboundary aquatic habitats to restore biodiversity and help boost declining indigenous fish stocks.

GWSP ACTIVITIES IN WATER RESOURCES MANAGEMENT

Since 2017, GWSP has supported activities to address three central needs in water resources management.

These include:

- (1) Accurate data**—and building the capacity to analyze it—to support decision-makers in developing and implementing effective policies and practices
- (2) Cross-sectoral collaboration** to holistically address the many threats to water security
- (3) Water management tools** that are adaptable and transferable.

Groundwater is the principal source of water for drinking, irrigation, and industry in many countries, and vital in sustaining many aquatic and terrestrial ecosystems, but is under increasing pressure due to overexploitation, pollution, and climate change. In FY22 GWSP supported analytical work that highlighted key causes of groundwater contamination and identified strategies for preventing, managing, and responding to threats. In the Horn of Africa, GWSP research and support influenced the design of a transboundary project to foster cooperation with Ethiopia, Kenya, and Somalia to tap into the region's largely underutilized groundwater resources.

GWSP's support in Senegal has evolved from a focus on sanitation to engaging in national water security, and led the government to request support in assessing current water resources management measures and identifying barriers to achieving water security. In Argentina, Colombia, and Peru, water security diagnostics included recommendations on how to enhance water security through improved sector performance and strengthening of the water sector architecture.





GWSP ACTIVITIES SUPPORTING WATER IN AGRICULTURE

Over the past five years, GWSP support to water in agriculture has evolved to address resilience, water security, and environmental sustainability.

It has also involved raising awareness of the role of irrigation in decarbonization and service to farmers, including supporting farmer-led irrigation development. GWSP support has also contributed to the use of disruptive technologies such as remote sensing and water accounting to improve irrigation performance and guide investment decisions.

GWSP supported a web-based water analytics tool and the development of a digital water accounting app that uses remote sensing and ground data analysis to allow users to target the schemes most in need of support to increase efficiency and improve service delivery. In Georgia, for example, the information generated has been highly influential in planning and decision-making for sustainable water irrigation and water storage management.

GWSP has continued to support farmer-led irrigation development, and in FY22 supported a diagnostic in Zimbabwe, which identified constraints farmers face in irrigation, and proposed policy recommendations to increase irrigation efficiency based on feedback from farmer representatives, government agencies, and private sector actors. The Zimbabwean Ministry of Agriculture now considers farmer-led irrigation development to be the most direct and cost-efficient way of accelerating irrigation to contribute to food security, climate resilience, and economic growth in Zimbabwe.



GWSP WATER SUPPLY AND SANITATION ACTIVITIES

Building water and sanitation security is fundamental to green, resilient, and inclusive development. GWSP helps build water and sanitation security by supporting a shift toward establishing the policies, institutions, and regulation needed to tackle the enormous challenges facing the water sector.

GWSP provides knowledge and technical expertise to support utility performance improvement efforts worldwide, helping to build utilities' capacity and letting them benefit from innovation and technology to "leapfrog" to higher levels of maturity. Through the Utility of the Future (UoF) Program, participating utilities are assisted in completing a utility assessment, a 100-day action plan that

tackles the most pressing issues to jumpstart utility reform and obtain quick wins, and a five-year plan to sustain performance. The UoF Program is growing rapidly, and to date has reached over 70 utilities in more than 25 countries.

In Nigeria, GWSP is supporting the implementation of a series of state-level reforms to strengthen the enabling environment and support performance improvement across key elements critical for service quality and sustainability. Technical assistance is also being provided to help the government implement the "Clean Nigeria: Use the Toilet" campaign, designed to achieve an open defecation-free Nigeria by 2025. In Benin, a new rural water supply model has been established with GWSP support, based on professionalized service delivery, private sector innovation, and private finance. GWSP has supported the process of developing and awarding contracts with private water supply system operators, introducing strong incentives for the operators to deliver on expanding access and improving service quality and sustainability. GWSP support in the South Pacific is expanding to address the challenges of climate change and the growing fragility of water resources.



REPORTING ON RESULTS

The GWSP Results Framework tracks how the Partnership helps client countries improve and deliver water services by working to enhance the impact of the World Bank’s water portfolio and achieve measurable results on the ground.

GWSP activities influence project design, strengthen dialogue, and enhance capacity, thereby contributing to outcomes toward sustainable, resilient, and inclusive water management and delivery—and, ultimately, to the overall objective of achieving a water-secure world for all by sustaining water resources, delivering services, and building resilience.

In FY22 GWSP informed \$13 billion in newly reported lending projects, and \$41.9 billion in all lending projects (including previously reported projects). Among the newly influenced lending projects, 13 were linked to 8 countries with fragile and conflict-affected situations (Democratic Republic of Congo, Mali, Mozambique, Niger, Nigeria, Solomon Islands, South Sudan, and Timor-Leste), with commitments of more than \$2.4 billion.

In FY22 nearly half of the lending projects influenced by GWSP sat outside the Water GP, illustrating that GWSP has a wide audience and mandate across the World Bank. For example, GWSP informed approximately \$1.3 billion in the Urban, Disaster Risk Management, Resilience and Land GP’s FY22 lending portfolio, and more than \$1.1 billion in that of the Energy and Extractives GP.

Over the past five years, GWSP technical assistance and analytical work have positively influenced the design of new projects expecting to contribute toward results in water and sanitation, water in agriculture, and water resources management.

In FY22 GWSP supported the following achievements in terms of the design of Water GP projects.



INCLUSION

In FY22, 100 percent of projects were gender tagged, meaning they demonstrated a results chain by linking gender gaps identified in the design phase analysis to specific actions tracked in the Results Framework during implementation. In addition, 88 percent of new projects approved in FY22 (compared to 85 percent in FY21) have other, social inclusion aspects, such as activities that target the poor, vulnerable, or underserved communities or areas. Almost half (46 percent) of the projects in FY22 include actions on disability.



RESILIENCE

One hundred percent of new projects incorporate resilience in the design of water-related activities. Given that the total water lending portfolio almost doubled in FY22, the total financing with climate co-benefits was higher than in FY21 (\$2.2 billion in FY22 compared to \$1.4 billion in FY21).



FINANCING

There was an increase in the percentage of projects that supported reforms/actions improving financial viability (from 69 percent in FY21 to 89 percent in FY22), and projects with explicit focus on leveraging private finance (from 8 percent to 22 percent).



INSTITUTIONS

All the new Water GP lending operations in FY22 included a focus on strengthening institutional capacity through establishing new institutions or enabling existing ones to deliver services sustainably.



SUSTAINABILITY

In FY22, all 24 Water GP lending operations promoted sustainable and efficient water use. Furthermore, the indicator for rural water supply and sanitation that measures the functionality of water points increased from 80 percent in FY21 to 100 percent in FY22.



KNOWLEDGE PRODUCTS

Over the past five years GWSP has supported an extensive library of analytical pieces and knowledge products that have been compiled in “[Knowledge Highlights from the Water GP and GWSP](#)” (2016–21), showcasing over 200 products from GWSP and the Water GP.

40

PUBLICATIONS

In FY22 GWSP supported the production of 40 publications.

Key publications include practical guidance and toolkits to inform on-the-ground change, such as “[The Irrigation Operator of the Future Toolkit](#)” to support irrigation scheme operators in identifying priority problems and defining pragmatic responses to deal with them. The “[Utility of the Future](#)” methodology builds on an extensive body of knowledge on utility performance improvement to guide the implementation of the UoF Program. The “[Practical Manual on Groundwater Quality Monitoring](#)” provides logical, step-by-step guidance on how to set up and manage a groundwater quality monitoring program that can be tailored to and grow with local capacity and resources. Additionally, GWSP supports an active knowledge management and learning program that connects World Bank staff, clients, and development partners through innovative online tools and approaches, such as the Water Online Week and Smart Water Academies that address complex water sector issues and cross-sectoral synergies, and the “[World Bank Data Hub](#)” that aggregates open data on water from the World Bank as well as major development partners and academic institutions.



CHAPTER 1

FROM A SPRINT TO A MARATHON

The fiscal year running from July 2021 to June 2022 (FY22) continued to present both unprecedented and complex challenges. The COVID-19 pandemic progressed from a crisis to an ongoing development issue. Meanwhile, new challenges in the forms of inflation and rising interest rates emerged, contributing to an emerging debt crisis and threatening global stability, further jeopardized by the war in Europe. Underlying these economic concerns, the impacts of climate change continued to grow and deepen.

The World Bank—and the Global Water Security and Sanitation Partnership (GWSP) and the Water Global Practice (Water GP) within it—is adapting and responding to these emerging challenges. Prevailing economic conditions, and increasingly constrained resources, have significant implications for policy reforms and investments, threatening the quantity and quality of water available and undermining the provision of reliable water services. Investing in water and sanitation remains essential for eradicating poverty, addressing the negative impacts of climate change, and building more inclusive and equitable societies.

Progress toward Sustainable Development Goal (SDG) 6 is not being made fast enough, and the world is off track to meet the SDG water targets. What progress is being made is uneven, with inequality gaps



Progress toward Sustainable Development Goal (SDG) 6 is not being made fast enough, and the world is off track to meet the SDG water targets.





widening both between countries and within them. As a public good, water is underinvested, undervalued, underpriced, and often poorly managed.

GWSP and the Water GP are redoubling efforts to promote an environment in which water is correctly valued, as this affects the way in which governments, businesses, and the public use, conserve, manage, and share it more equitably. Well-designed policy actions and reforms, along with autonomous and accountable institutions, are key to improving governance in the water sector and ensuring that water is managed well. The Water GP, with GWSP support, is establishing mechanisms to assist client countries to put in place effective regulation, better operations and maintenance, and efficient, well-targeted water resources management arrangements to insure an equitable and sustainable provision of water, especially for those most in need.

Sustainable delivery of water services is critical to increase food production and address the food crisis. Yet irrigation services are often inefficient and wasteful. They often fail to reach female farmers, who are responsible for a majority of food crop production in some countries. GWSP supports small-scale farmers to increase the scale and value of their irrigated agriculture by taking the lead in the establishment, improvement, and expansion of irrigation systems. The Partnership is supporting the innovation and modernization of irrigation and drainage, for instance by assisting operators to improve service delivery through the use of new remote sensing methods for performance benchmarking. The food system is responsible for 34 percent of global greenhouse gas emissions, the next biggest emitter after the energy sector, and agriculture is the highest source of methane emissions. GWSP has supported the development of low-carbon rice, facilitating adaptation in terms of water savings and mitigation in terms of lower emissions.

There is a global decline in water storage: natural storage—such as glaciers, wetlands, and floodplains—is disappearing; dams are aging and filling with sediment; and groundwater is overextracted. More than half of the world's aquifers are being used unsustainably, meaning that groundwater is being withdrawn faster than it is being replenished. GWSP is helping

governments to address the decline in water storage, including groundwater, using key strategies such as improved monitoring and management, capacity building, community engagement, knowledge sharing, and strategic policy support.

The issue of climate change continues to be of paramount importance. The World Bank Group is today the world's largest financier of climate action in developing countries, at nearly \$32 billion in FY22, up from \$26 billion in FY21. In 2020, the World Bank accounted for over half of multilateral climate finance to developing countries and over two-thirds of adaptation finance. The World Bank has launched new Country Climate and Development Reports, which integrate climate change and development considerations and help countries prioritize the most impactful actions that can reduce greenhouse gas emissions and boost adaptation, while delivering on broader development goals. GWSP is enabling the Water GP to provide timely and valuable support to the preparation of these reports, bolstering efforts toward both climate change adaptation and mitigation, and reflecting the fundamental importance of water in the global response to climate change.

The role of high-quality, well-timed analytical work is ever more crucial. GWSP supports analytical inputs that influence decision-making in client countries. As this year's report shows, the compilation of data, analysis, and research—coupled with the clear articulation of implications—has had enormous impact on policy decisions and development outcomes in many countries. For instance, the Water Supply, Sanitation, and Hygiene (WASH) Poverty Diagnostics, undertaken in 2017, continue to contribute to change. The WASH Poverty Diagnostic in Nigeria hastened water sector reform in that country, which is now complemented by World Bank investment. In Somalia, small-scale analytical work supported several years ago has led to a significant portfolio of investment expected to increase resilience in rural dryland communities. Recently completed water security diagnostics in Peru, Colombia, and Argentina are influencing policy decisions that help address water security gaps. In Ethiopia, Argentina, and Malawi, recent benchmarking diagnostics related to gender in the workplace have led to increased representation of women in decision-making positions in water utilities. The Water GP is building on this analytical foundation to help countries make progress toward achieving the water targets of the SDGs through a growing water lending portfolio.

WATER GP PORTFOLIO

The active water lending portfolio managed by the Water GP in FY22.

148
PROJECTS

\$25B
VALUATION

The Water GP contributed to an additional 146 projects managed by other GPs, with a value of \$24.53 billion. The World Bank's total portfolio of all water-related lending was thus over \$50 billion in FY22.

LOOKING BACK OVER FIVE YEARS

GWSP was initially established for a period of five years, from 2017 to 2021, to support client governments through the generation of innovative global knowledge and the provision of country-level support. It is designed to leverage World Bank Group financial instruments and promote global dialogue and advocacy with key partners. The Partnership was built on the lessons learned from nearly half a century of collaboration driven by the Water and Sanitation Program, and the Water Partnership Program, among others. In early 2020, the GWSP Council agreed to extend the Partnership's mandate through 2030. A 2021 evaluation of the Partnership's design, operating model, management, and implementation found its focus on improved analytics and knowledge to be highly effective, placing it at the forefront of country-focused policy dialogues. Based on the recommendations of this evaluation, an updated strategy was approved in January of 2022.

The end of the first five years of the Partnership's operation provides an opportunity to look back and consider how it has built on its foundations and continues to evolve. As well as describing the activities of the past fiscal year, this report describes how GWSP's business lines and initiatives have progressed since GWSP's inception, and outlines some of the lessons learned.



THIS YEAR'S ANNUAL REPORT

CHAPTER 2

Chapter 2 provides an in-depth look at issues that GWSP has been particularly active in addressing. This year, it looks at how GWSP's support is contributing to improvements in global biodiversity, and describes progress on water sector Public Expenditure Reviews and how they contribute to the better use of existing resources. As in past years, this chapter also includes a look at GWSP's activities related to climate change, inclusion, and countries affected by fragility, conflict, and violence.

CHAPTER 3

Chapter 3, "Knowledge into Action," describes some of GWSP's support to activities at the country, regional, and global levels, and shows how the Partnership is contributing to the progress being made in the World Bank's client countries. This chapter is organized around three business lines—water resources management, water in agriculture, and water supply and sanitation.

CHAPTER 4

Chapter 4 provides an update on results achieved by the Partnership in both FY22 and over its first five years of existence. These results capture the added value of GWSP's "Knowledge into Implementation" model.

CHAPTER 5

The report concludes with an overview of GWSP's support to knowledge products and their dissemination in chapter 5. A financial update and details on results progress, including an updated results framework, are found in the appendices.

CHAPTER 2



A DETAILED LOOK AT KEY ISSUES

WATER AND BIODIVERSITY

Water and biodiversity are inextricably linked. Rivers, wetlands, forests, and other ecosystems are vital in meeting water management goals. They impact water availability and quality through water filtration, flow regulation, erosion control, and water storage.

Biodiversity underpins the provision of these ecosystem services; protecting and restoring biological integrity within watersheds can maintain and enhance the quality and quantity of both groundwater and surface water resources. Globally, biodiversity is facing an unprecedented decline. Freshwater biodiversity is particularly at risk: the rate of biodiversity loss from the world's freshwater systems is two to three times the rate in terrestrial and marine habitats. On average, populations of freshwater species have declined by 84 percent since 1970, with one-third now thought to face extinction.

Biodiversity is embedded in the World Bank's “[Environmental and Social Framework](#)” (ESF), which recognizes that protecting and conserving biodiversity are fundamental to sustainable development. All World Bank projects must consider their direct, indirect, and cumulative impacts on biodiversity. GWSP is supporting





GWSP is supporting opportunities to further increase the benefits derived from integrating biodiversity into water sector investments.

opportunities to further increase the benefits derived from integrating biodiversity into water sector investments. The use of nature-based solutions (NBS) is an effective way to achieve multiple objectives, as NBS have significant potential to increase biodiversity while also enhancing resilience.

Over the past five years, GWSP has supported client countries in developing the potential of “green” infrastructure and NBS alongside traditional “gray” infrastructure investments. The 2019 GWSP-supported publication **“Integrating Green and Gray: Creating Next Generation Infrastructure”** documented



CASE STUDY

In Colombia, a GWSP-supported water diagnostic identified clear warning signs of increased risk from contaminated water. The analysis informed policy suggestions for ways to address this risk while also restoring degraded ecosystems and increasing biodiversity. These included using NBS to increase storage capacity by restoring ecosystems such as wetlands and estuaries, and crafting policies that reward efforts by industrial and other large-scale water users to restore the natural integrity of waterways and support biodiversity.

how investing in the ecosystems surrounding watersheds can deliver infrastructure and water delivery services with greater impact and at lower cost than traditional infrastructure alone, with the added advantages of increasing long-term water security and boosting climate resilience.

GWSP support aligns with the World Bank’s Green, Resilient, and Inclusive Development (GRID) approach to promote environmental goals in tandem with economic growth, and contributes to the 2021–25 Climate Change Action Plan. Through the GWSP-supported Global Program on Nature Based Solutions for Climate Resilience, influenced by the findings published in “Integrating Green and Gray,” the Water GP is helping countries identify opportunities, challenges, and financing for biodiversity-supportive NBS. GWSP support is contributing to collaboration among the Global Facility for Disaster Reduction and Recovery (GFDRR); the Urban, Resilience and Land GP; and the Environment, Natural Resources and Blue Economy GP.



A GWSP-supported analysis of the Rio Salado in Argentina found that investing in wetlands through restoration and biological regeneration would significantly reduce flood damage. Using a selection of native flora, well adapted to the landscape, to reduce erosion and control water flow could increase the river system’s ability to adapt to changing water levels. The study not only spurred investment in NBS for flood mitigation along the Rio Salado, but also provided the impetus for exploring options to bring back native species lost from river ecosystems and help boost the biological diversity of surrounding areas. The government has commissioned a Wetland Management Plan that will build on the study’s findings.



In FY20, GWSP funding in Niger supported analysis and capacity building to highlight the benefits of a cross-sectoral approach using nontraditional methods, such as NBS, to address water security and service delivery issues. GWSP support has been instrumental in promoting dialogue and active cooperation between the ministries of water, agriculture, and the environment to further this transition. All three ministries are now collaborating to implement a World Bank–financed policy support project, to be launched in FY23, which will include nature-conscious water measures that aim to increase the sustainable expansion of groundwater. Using advanced monitoring of groundwater-dependent ecosystems, GWSP has helped establish measures that will prevent biodiversity loss and ensure that expanded groundwater use does not impact the ecological health of the resource. The Partnership has also supported community monitoring instruments that are key to improving the sustainability of water resources.

Influenced by the GWSP-funded work, and with World Bank support, NBS are being incorporated into the flood risk management plans of Romania and Bulgaria. Cities such as Colombo in Sri Lanka, Beira in Mozambique, and Buenos Aires in Argentina have all been

supported by GWSP to include NBS in their flood risk management strategies. Assistance has also been provided in the identification of NBS in Turkey and Cambodia.

In FY20, GWSP funding in Niger supported analysis and capacity building to highlight the benefits of a cross-sectoral approach using nontraditional methods, such as NBS, to address water security and service delivery issues.

As one of the world’s most biodiverse countries, China’s unique fauna and flora are of global significance. With support from GWSP, a roadmap has been developed, which includes concerted efforts to protect, manage, and restore China’s unique freshwater biodiversity. Policy recommendations to this end are complemented by suggestions for a cross-cutting research agenda that can generate the data and information required for improved decision-making and monitoring. The government is being assisted in operationalizing the recommendations through the World Bank’s support of ecological protection along the Yangtze River.

GWSP is increasingly applying a biodiversity lens to transboundary work, which has traditionally focused on river water resources management and benefit sharing engagements—such as irrigation, hydropower, and flood control. Work is now expanding to fill knowledge gaps and identify priority actions to support the conservation of freshwater biodiversity and address the root causes of its loss in the context of international waters. With GWSP assistance, technical advice was provided in Cambodia and Lao People’s Democratic Republic (PDR) on managing transboundary aquatic habitats to restore biodiversity and help boost declining indigenous fish stocks. Both countries were assisted in developing community fishery management guidelines that protect freshwater resources and support livelihoods. In Cambodia, the guidelines are now integrated into the strategic framework for fisheries management and have been adopted by partner projects such as the European Commission’s Cambodia Programme for Sustainable and Inclusive Growth in the Fisheries Sector. In Lao PDR, with GWSP support, the Fisheries Law is now being revised to include Fishery Management Committees and Fishery Management Plans that will support the local rehabilitation of freshwater ecosystems.

As the benefits of healthy ecosystems for climate resilience and economic growth become increasingly clear, GWSP’s support is addressing the global decline in biodiversity and contributing to the sustainability of water resources.



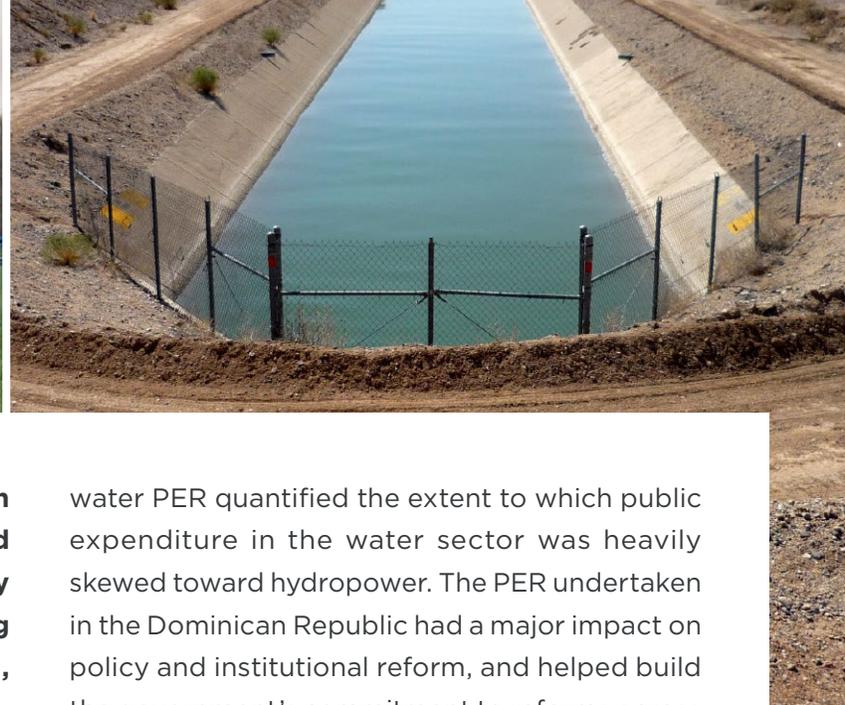


WATER SECTOR PUBLIC EXPENDITURE REVIEWS

Public Expenditure Reviews (PERs) assess how public funds are spent, how well they are spent, and what the funding and financing gaps are. With GWSP support, water sector PERs have been completed in close to 20 countries around the world.

Generating a vast amount of evidence on spending trends, they represent the first ever attempts to understand public spending across the entire water sector using new data sources, including budget data and national accounts. They are thus very powerful tools to drive reform, facilitating more efficient use of existing resources to maximize development impact. PERs are another way in which GWSP is supporting a pivot toward addressing the foundational constraints in the water sector.

The water PERs revealed that in many developing countries, policy priorities and public fund allocations do not align. Governments find it hard to overcome inertia in terms of spending patterns, and changes, when they happen, are often rushed through in an ad-hoc manner. Budget execution rates in the water sector are considerably lower than those of other human development sectors, and even when funds are properly allocated, the PERs reveal that only an average of 72 percent are actually spent due to low execution capacity. Furthermore, while many countries have recognized the interdependencies between water supply and sanitation services, irrigation, and hydropower—and have adopted integrated water resources management policies—most have failed to strategically examine the impact of these various investments and then make clear public policy investment decisions.



To harness the power of water sector PERs, in fiscal years 2021 and 2022 GWSP supported the development of a robust methodology and comprehensive approach to implementing them, covering water supply and sanitation, irrigation, and water resources management.

Country-level water sector PERs or subsector PERs were undertaken in Albania, Bangladesh, Brazil, the Dominican Republic, Sri Lanka, Nepal, Myanmar, Nigeria, Jordan, Kenya, Nigeria, Mozambique, Peru, and Turkey, and contributions were made to macro PERs (not specific to the water sector) in Jordan, Nigeria, and Kenya. As well as undertaking an institutional review of the water sector or relevant subsector, the PERs examined country-level trends, the magnitude of spending in the water sector, and the efficiency of spending.

Data from the PERs reveal that annual public spending on the water sector totals approximately \$140 billion globally, on average. However, without the efficient use of public resources, the PERs show that greater spending does not necessarily correlate with better outcomes, and the justification for more private funding is undermined. For instance, subsidies make up a significant portion of public spending on water supply and sanitation, but they are often poorly targeted. The water PER in Bangladesh revealed that most of the benefits of public expenditure on sanitation flowed to the wealthier sections of society, rather than those most in need, while the opposite was true for expenditures on water. In Nepal, the

water PER quantified the extent to which public expenditure in the water sector was heavily skewed toward hydropower. The PER undertaken in the Dominican Republic had a major impact on policy and institutional reform, and helped build the government's commitment to reforms across the entire water sector. As a result, in 2021 the government released a Water Pact, laying out the desired reforms in the water sector from 2021 to 2036. The PER also provided the basis for a 10-year multiphase World Bank investment in the water sector, starting with the design of the \$250 million Water Sector Modernization Program.

The water sector suffers from fragmentation in both governance and financial management.

A holistic approach is needed to address these problems, taking into account environmental and social needs, disaster risks, and water security. Analyzing public spending in the water sector is providing a better understanding of an inherently fragmented sector, and how public funds are allocated and spent in relation to sector goals. PERs are helping governments to identify needed efficiency improvements and to better understand why policy objectives are not being achieved. In FY22 the findings from the GWSP-supported water PERs were compiled in a synthesis report titled "Public Spending in the Water Sector." This report demonstrates that improving governance effectiveness and addressing issues of state legitimacy and the quality of political institutions can help to increase budget execution in the global water sector.



WATER AND CLIMATE CHANGE

A warmer climate impacts nearly every phase of the water cycle, with possibly catastrophic consequences for food production, energy generation, health, and livelihoods. GWSP is working to address such impacts by contributing critical knowledge and analysis that help client countries strategically plan institutional investments, increase water storage capacity, and improve infrastructure, including climate-resilient green infrastructure and hybrid green-gray solutions.

Over the past five years, climate considerations have become embedded in GWSP support, reflected in the rising number of projects with climate co-benefits. GWSP plays an important role in helping governments understand the drivers of a changing climate and its impacts on the water sector

and in increasing countries' abilities to monitor, manage, and prepare for the variable water flows caused by climate change.

In FY22, GWSP continued to play an important role in supporting the integration of climate considerations into client

countries' policies and investments, supporting the World Bank's Climate Change Action Plan.

As the role of climate in the water portfolio grows, GWSP funding helps support climate and disaster risk screening, climate co-benefit assessments, greenhouse gas accounting analyses, the use of a carbon shadow price in economic analysis, and integration of climate change indicators into projects' results frameworks.

GWSP works closely with client countries to adapt and respond to country priorities.

Driven by these priorities, and working through strong partnerships on the ground, GWSP's resources are used to provide expertise, knowledge, and analysis where they can have the most impact. In Rwanda, for example, GWSP is providing analytical support to help the government better utilize the local knowledge and expertise of farmers to improve the resilience and financial and environmental sustainability of small-scale irrigation schemes in the face of increasing climate risks. In the Mashreq region (comprised of the Islamic Republic of Iran, Iraq, Lebanon, Jordan, the Syrian Arab Republic, and Turkey), GWSP has:

- **Supported** the establishment of the Mashreq Data Portal, an open, public database of information on water issues in the region;
- **Convened** a forum for representatives from all countries in the region to discuss climate change risks; and
- **Assisted** in the development of a collaborative pathway to jointly address the impacts of climate change.

GWSP is also contributing to climate mitigation efforts through water sector interventions that both respond to on-the-ground needs and avoid greenhouse gas emissions.

In Somalia and India, for example, GWSP analytical work quantified the benefits of alternative energy solutions, such as solar-powered pumps at water points in Somalia, that are now being rolled out with the support of awareness raising efforts, demonstrations, and financing. In rice-producing countries, GWSP is supporting the introduction of low-carbon rice through the adoption of new agricultural methods that result in lower emissions.



In response to an increasing demand from countries for tools to help plan for and manage the uncertainty surrounding climate risks, GWSP is supporting the development of quantitative tools that can be adapted and applied across different landscapes, by a range of users, both specialist and nonspecialist.

For instance, GWSP supported the preparation of the “[Resilient Water Infrastructure Design Brief](#)” to guide countries in enhancing the resilience of drinking water and sanitation infrastructure to floods, droughts, and high winds (which are expected to increase due to climate change).

GWSP’s investment in data and analytics is enabling teams to provide quantitative evidence on the water-climate nexus.

GWSP has supported core diagnostic reports that help countries prioritize the most impactful actions to reduce greenhouse gas emissions and boost adaptation across their entire economy, while delivering on broader development goals. In FY22, the World Bank Group’s new Country Climate and Development Reports (CCDRs) identified water as a key nexus issue in 25 countries. GWSP’s investment in data and analytics is enabling teams to provide quantitative evidence on the water-climate nexus. For instance, GWSP supported the preparation of text on development priorities and the water-food-energy nexus in Egypt, which provided the basis for a significant portion of a CCDR on that country. GWSP funding allowed an integrated assessment model, the Global Change Analysis Model, to be used in the preparation of CCDRs in Angola and South Africa to estimate synergies and trade-offs across the water-energy-food-land nexus.





The GWSP-supported **Climate and Economic Analyses for Resilience in Water (CLEAR)** is a standardized methodological framework that supports rapid diagnostic analysis of country-level water and climate-related challenges and opportunities and has played an important role in making the case for the prioritization of water in the **CCDRs**. CLEAR links users to global and country-specific data on hydrology, climatology, demographics, institutional characteristics, public expenditure, water quality, water and sanitation access, and the role of water in the economy, and also considers each government’s Nationally Determined Contributions (NDCs). Its objective is to guide policy makers in quantifying the degree to which water sector challenges impose a binding constraint on development, and to provide the basis for identifying priority investment and policy actions.

In Peru, CLEAR has been used to underscore the connection between low storage and high hydrological variability. The CLEAR analysis was used in both the CCDR and the country’s water security diagnostic (also supported by GWSP) and resulted in concrete, specific recommendations on investing in water storage. The analysis has also been used in discussions with the government about investments in irrigation and urban water supply in the capital city of Lima. In Kenya, CLEAR helped map poverty “hotspots” across the country against those areas at highest risk of drought, alongside projections of changes in water supply and demand up to 2030.

GWSP builds on collaborations and partnerships, both long-standing and new, to tap mutual benefits and overlapping development goals across organizations working to address climate change.

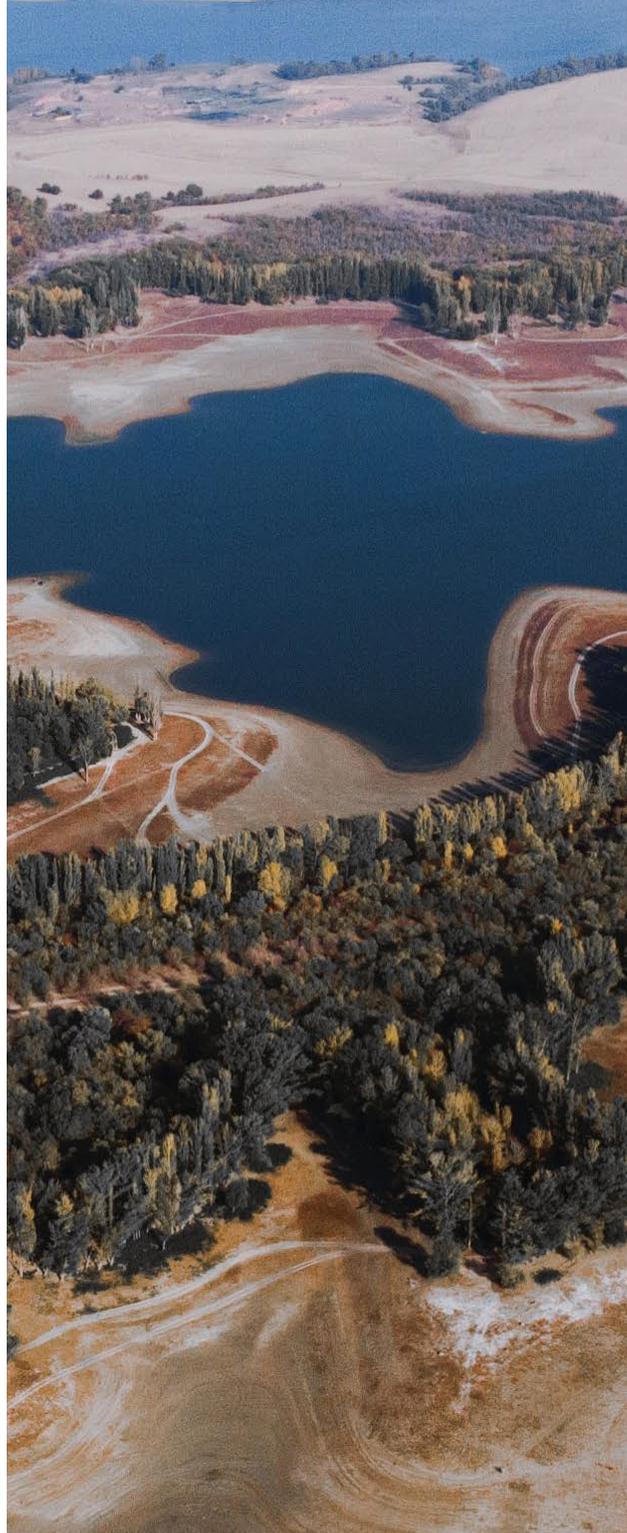
For example, rice production is responsible for around 12 percent of global methane emissions. A GWSP-supported initiative to optimize rice cultivation addresses the cross-cutting issues of climate mitigation, water scarcity, and nutrition. GWSP is providing water-focused analytical support to complement agricultural inputs, with the goal of informing and incentivizing change both on farms and among key policy makers. GWSP support has facilitated related analysis in Vietnam, as well as provided inputs to a new integrated rice paddy transformation pilot project in China.

Over the past five years, GWSP has supported work on climate change and water with a range of partners. These include the University of Maryland, which in 2020 collaborated with the World Bank on a study of the physical impacts of climate change on water resources. The study modeled possible scenarios for the future availability, use, and management of water resources. GWSP supported a partnership with Deltares, an independent institute for applied research in

the field of water, through which the Enable, Plan, Invest, and Control (EPIC) Response Framework was developed. This framework provides a new perspective on hydro-climatic risks by looking at the combined management of floods and droughts. It identifies the roles of different government agencies in managing these risks and highlights where and how these agencies need to collaborate. The EPIC framework has also created a mechanism for engaging in policy discussions in a structured manner to identify gaps, constraints, and opportunities for advancing a country's hydro-climatic risk management system. A decision support tool based on the framework is being piloted in Assam State in India, and in the Gambia, with the goal of scaling up EPIC's application.

**Climate change is now
central to all of
GWSP's work.**

Finding solutions to the challenges of adapting to and mitigating climate change are embedded in all GWSP-supported analytical work and policy dialogues with country counterparts. GWSP is ensuring that water solutions are included in a whole-of-economy approach to low-carbon and climate-resilient development.





WATER AND SOCIAL INCLUSION

Social inclusion is essential to ensuring equal access to water services, jobs, and markets. It also underlies equal voice, and agency, in water decision-making and policies. But climate change threatens to derail past progress as women, girls, and marginalized groups face disparities not only in access to services but also to underlying assets, and are therefore particularly vulnerable to climate impacts.

Since its inception, GWSP has always supported **social inclusion in water**. An emerging lesson from recent efforts is that while achieving real change is possible, the process is slow and often nonlinear, involving the challenging work of changing institutions, shifting social norms, and identifying opportunities to better align incentives to promote inclusion.

GWSP's social inclusion program started with a focus on gender, but has since broadened to include guidelines and tools that clients can use to reach other marginalized groups, such as persons with disabilities, and effectively engage citizens. Efforts to strengthen inclusion beyond gender are more recent and will therefore take time to translate into on-the-ground results, but the experience on gender has provided an encouraging example of how with sufficient time, effort, and partnership, it is possible to achieve tangible progress.



GENDER

With GWSP support, substantive advances have been realized in increasing capacity and impact in efforts to address the gender gap in water sector employment. The “[Equal Aqua platform](#)” started through GWSP-funded analytical work, with one of the most widely cited reports on gender and water, “[Women in Water Utilities: Breaking Barriers](#)” (2019), and expanded to become a global mechanism for promoting opportunities for women in water, benchmarking more than 100 utilities. GWSP assists the sharing of knowledge on how to shift gender diversity in water employment,

as it consolidates and facilitates the exchange of research, knowledge, and tools among a growing number of partner organizations (20 partners as of FY22). In Ethiopia, in just two years, between 2020 and 2022, the average share of female engineers in 23 participating utilities increased from 8 to 12 percent, and the share of female board members grew from 16 to 24 percent. In Argentina, AySA, one of the largest utilities in the region, increased the share of women in leadership positions from 22 to 24 percent in a little over a year, and the utility is well on its way to meet the 28 percent target set for the end of the World Bank project supporting it.

“Equal Aqua” tools (available in multiple languages), self-diagnostics, comparative benchmarking, and exchange with a global peer network of utilities have facilitated change within utilities and have also influenced the approaches of other partner organizations, such as the American Waterworks Association, the Global Water Partnership, the University of Technology Sydney, and the Asian Development Bank.

GWSP’s technical assistance in operationalizing social inclusion has also helped clients to craft transformative interventions focused on gender.

A deep dive into implementation experience in water and agriculture shows that among projects closed between FY17 and FY19 that had adopted a more transformative outcome-oriented approach, 86 percent achieved their gender targets. In Tajikistan, India, and Armenia, targets to enhance female participation and leadership in water user associations were achieved or even exceeded. In Georgia, the critical role of land tenure in providing female farmers with access to irrigation was recognized, and as a result of the social inclusion team’s recommendations, a World Bank-financed project supported land registration in both the husband’s and the wife’s name. Through efforts to raise women’s

awareness, a national communication campaign, and the introduction of female land surveyors, the proportion of female owners or co-owners of land has increased from 38 to 46 percent.

Analytical work funded by GWSP has been integrated into global advocacy on menstrual health and hygiene (MHH) and handwashing.

With GWSP support, the Water GP’s inclusion team has led the engagement with World Bank colleagues working on gender, health, education, finance, competitiveness, taxation, and innovation, stimulating the type of evidence-based multi-sectoral approaches needed to achieve human capital dividends, such as girls staying in school. In FY22, GWSP supported a partnership with the Macro Trade and Investment GP, the International Monetary Fund, and Kenyan counterparts to explore whether interventions such as tax exemptions reduce the price of menstrual products. GWSP-curated evidence on the benefits to adolescent girls of adopting a holistic approach to MHH has prompted an increasing number of client countries to go beyond counting MHH-friendly toilets, to integrating MHH into sexual and reproductive health curricula, and increasing the collaboration between water and education ministries.





DISABILITY INCLUSION

Within the past year and a half, GWSP's support has advanced the development of water-specific guidance and tools for clients on disability inclusion, and in FY22 almost half of all countries with World Bank water operations included actions on disability.

Systematic collaboration among organizations representing persons with disabilities, UNICEF, WaterAid, Sida, and the World Bank has generated a joint resource page hosted by the International Disability Alliance, and led to the ongoing development of a joint online training course on disability-inclusive WASH. GWSP has helped document and promote

good practices through case studies, such as Indonesia's experience with at-scale capacity building, guideline development, and accessible infrastructure integrated into its WASH programs, and Ghana's experience with accessibility in schools.

Although still early, these activities have already translated into results at the country level. For example, Malawi's Lilongwe Water Board finalized and approved a gender and disability policy. In Tanzania a national WASH program monitors the accessibility of sanitation facilities in schools and in health care facilities, with plans underway to scale up efforts; and in Burkina Faso, national specifications for latrines built under a World Bank-supported program include accessibility for persons with disabilities. In Ethiopia, the utility in Addis Ababa not only uses accessible designs, but works with organizations of persons with disabilities on the management of public sanitation facilities, and is planning to scale up this model to other cities in the country.

CITIZEN ENGAGEMENT

Governments are increasingly recognizing that resilience to climate change hinges on the engagement of communities.

Without buy-in and behavior change at the local level, interventions to address water insecurity are unlikely to lead to sustainable change. The GWSP inclusion program has played a role in documenting and cross-fertilizing experience with citizen engagement across client countries. For example, lessons were shared with the government of Niger, where a bottom-up approach to sustainably manage water resources and build resilience to climate change is supported by the World Bank's \$400 million [Niger Integrated Water Security Platform Project](#).

As a result, this project allocated substantial resources to citizen engagement activities. The project is implemented through water platforms that place the commune at the center of climate-informed planning and water-related investments, and empower local communities to build resilience to drought and floods.

GWSP support has facilitated a progression from understanding the empirical underpinnings of social inclusion to developing sector-specific operational tools that resonate with clients.

This has led to concrete shifts in the policy and practice of clients and partners, not only at a project level but also at the broader country level.





WATER IN SETTINGS AFFECTED BY FRAGILITY, CONFLICT, AND VIOLENCE

Fragility, conflict, and violence (FCV) disrupt development and pose a significant challenge to efforts to eradicate poverty.

The World Bank has a long history of working in FCV-affected countries. This is particularly true in the water sector. At the time that GWSP was established in 2017, it was able to build on extensive work carried out in fragile states under the Water and Sanitation Program. A corps of experienced water professionals existed within the World Bank, with an understanding of the complexities and opportunities of working in FCV settings.

In 2017, with GWSP support, the Water Global Practice published **“Turbulent Waters: Pursuing Water Security in Fragile Contexts.”** This detailed report makes the case that water management and the delivery of water services form



an integral part of the dynamics of fragility, and should be prioritized in efforts to strengthen communities, economies, and ecosystems in fragile contexts. Of the 17 economies included in the World Bank’s 2017 WASH Poverty Diagnostics, five were affected by FCV: the Republic of Yemen, the Democratic Republic of Congo, Mozambique, Haiti, and the West Bank and Gaza.

The Water GP’s work in FCV-affected countries has since grown significantly, and GWSP now supports active engagement in 33 such countries.

GWSP has worked with other trust funds to support the building of a relationship between the World Bank and FCV-affected countries. An example of this is found in Somalia, where GWSP funds complemented an allocation from the State and Peacebuilding Trust Fund. In many cases, work in FCV countries has started with small but critical analytical work, and grown to include influential and impactful operations. The model has, in several cases, been to start with an urban project, such as water supply in the capital city (as in Baghdad, Kinshasa, and Monrovia). Based on the success of these initial projects, GWSP support has since expanded into sanitation and water resources management, and, in some contexts, is just beginning in irrigation.

The Water GP has increasingly partnered with humanitarian agencies such as UNICEF and the International Committee of the Red Cross (ICRC). GWSP support has provided opportunities for the Water GP to learn from these agencies, and vice versa. Key partnerships were

documented in the 2021 report **“Joining Forces to Combat Protracted Crises: Humanitarian and Development Support for Water Supply and Sanitation Providers in the Middle East and North Africa,”** published jointly by the World Bank, ICRC, and UNICEF. The report examines problems reported by water service providers operating during a protracted crisis, including inadequately governed water resources management, aggressive competition from alternative providers, paralysis of high-tech wastewater treatment plants, and escalating energy costs. These problems are shown to stem from vulnerabilities that predated the crisis, and had their origins in rapid urbanization and infrastructure expansion. It concludes that humanitarian and development actors must work together to both anticipate and respond to protracted crises.

Of course, there have been serious challenges in the work in FCV countries. There is a need to identify the drivers of conflict and the best way to address them, and to understand the political economy and ensure that interventions build peace and stability (and that they do not contribute to the rent-seeking economy, or even the “warlord economy”).





Some examples of the patient, flexible approach supported with GWSP resources include:

LIBERIA

Water point mapping in Liberia led to a Sector Investment Plan, which in turn led to World Bank investment through the \$10 million Urban Water Supply Project. The aim of this project is to increase access to piped water supply services in Monrovia and improve the operational efficiency of the utility. GWSP also helped support regular Joint Sector Reviews in Liberia, working with UNICEF.

ZIMBABWE

An impact assessment in Zimbabwe, as part of the Beitbridge Small Town Water Project, demonstrated that a public sector water project could help build citizen confidence in government. This led to utility benchmarking, and formed the groundwork for a \$10 million grant to the Zimbabwe water sector from the multidonor trust fund.

HAITI

In Haiti, GWSP supported sectoral building blocks of better and more decentralized (and thus more resilient) service delivery, and a more structured water information and planning system. As a result, the country's Integrated Water and Sanitation Information System has been greatly enhanced. This tool tracks progress in access to water and sanitation services, the type of management of the systems, and the effectiveness of their operational quality, making it valuable to both monitoring and decision-making.

SOMALIA

Initial small-scale analytical work in Somalia led to a pilot, and then to investment at scale (see box 2.1 on the following page).



BOX 2.1



TAKING A SLOW BUT STEADY APPROACH: Using Sand Dams to Build Country Systems and Deliver Water Services in Somalia

Somalia has experienced almost three decades of armed conflict and is one of the poorest and most fragile states in the world.

Furthermore, extreme climate vulnerability and frequent natural disasters are propelling the country toward greater water scarcity in this already arid country and threatening millions of livelihoods directly dependent on agro-pastoralist activities. Following decades of low investment, water points in pasture lands are scarce, claimed by clans, fiercely guarded, and intrinsically linked to resource conflict.

Over the past five years, GWSP helped transform how the World Bank works in Somalia, developing capacity and political capital. GWSP support built on work undertaken by the Water and Sanitation Program, which, in 2014, supported the World Bank's first Somalia infrastructure project in over 27 years. A three-step process—analytics, piloting, and scaling up—has meant that an initial investment of \$400,000 for analytical work in the water sector has grown to a portfolio of World Bank grants to the water sector totaling \$130 million.

THE PROCESS UNFOLDED AS FOLLOWS:

1 Analytical work to identify key issues and possible investment areas was carried out first.

After a WSP study found that boreholes often fail either during drilling or soon after completion, analysis focused on the macroeconomic and micro socioeconomic potential of harvesting water from sand dams. It was determined that enhancing the state's role in developing water sources would help to signal state functionality and be a key component of a peace dividend, building citizen confidence in the state.

2 The theory was tested by starting small and working in a relatively stable region.

From 2016 to 2018, WSP, GWSP, and the State and Peacebuilding Fund co-financed a pilot project to test the application of knowledge and technology suggested in the analytical work, as well as assess the government's ability to implement a World Bank project. The pilot project was a success, with over 42,000 people benefiting from improved water sources against a target of 20,000.

3 Successful models were adapted and scaled up.

With institutional and capacity support from GWSP, this success grew into Phase 1 of the World Bank's \$30 million Biyoole Project, which is financing the development of water and agricultural services among agro-pastoralist communities in dryland areas of Somalia. This project is on track to support the provision of improved water sources to more than 320,000 people by early 2023, against a target of 250,000.



The extensive analytical work and pilot study funded by GWSP lay the groundwork for the project to expand into more fragile areas, scale up from 8 to 50 water points, and increase community-led involvement and sustainable livelihood development. With the \$70 million second phase of the project (now called the Barwaaqo project) about to commence, a further 150 water points will be added across the country. The second phase will include new environmental and climate change elements that facilitate cross-sectoral cooperation within the Somali government, supported by cooperation between World Bank global practices.

The benefits from Somalia's Biyoole project reach beyond the initial scope of the project. Relationships have developed with both the Ministry of Planning and the Ministry of Water, making it possible to expand the regional \$30 million Groundwater for Resilience project into Somalia. There are now plans to adapt the three-step approach to address urban water security concerns in Mogadishu, which could run out of water as soon as 2030.

The slow but steady approach, starting with analytical work, has provided insights that have allowed GWSP to develop a growing number of interventions in other fragile states and conflict zones. Over the past five years, GWSP has expanded support to FCV countries across water and sanitation, water in agriculture, and water resources management. There has been a transition from broad analytical work to activities that are more focused on influencing World Bank operations.

Upcoming work includes urban analytics in Mogadishu (Somalia), and advice to the Government of Zimbabwe on identifying and prioritizing dams for rehabilitation investments, including social and environmental criteria that focus on climate vulnerabilities. In the Democratic Republic of Congo, GWSP is supporting the development and implementation of a 100-day action plan to improve the performance of the public utility, paving the way for investments linked to building urban resilience. GWSP is also supporting finalization and technical approval of a national sanitation law.

In South Sudan, GWSP has supported geospatial and econometric analysis; policy, institutional, and regulatory assessment; and expert interviews and focus group discussions, resulting in a report on fragility and water security to be published in FY23. The report documents key challenges and constraints relating to water security, and identifies opportunities to build resilience to conflict, climate, and disease shocks. Through the report findings and recommendations, GWSP has helped elevate water security as an issue critical for national development and stability. The process prioritizes consultations with government and stakeholders to validate findings and identify priorities, and has laid the groundwork for two newly proposed World Bank finance projects: a \$50 million Climate Resilient Flood Management project and the \$40 million Regional Horn of Africa Groundwater for Resilience project.



CHAPTER 3

WATER RESOURCES MANAGEMENT

The importance of sustainable water resources management cannot be underestimated. By 2050, it is predicted that 1.8 billion people will be living in regions or countries with absolute water scarcity. Such scarcity can drive groundwater depletion, resource degradation, tensions (as countries, individuals, businesses, and sectors compete for water use), and social vulnerability and fragility.

Water scarcity, of any degree, also sharpens the complex trade-offs within the water-food-energy nexus. Achieving equitable and sustainable water resources management is challenging given the shifting dynamics of the water sector, encompassing climate change, conflict, and environmental degradation. But while the forecast may be dire, the collective knowledge base is growing in depth and applicability.

Three things are clear:

1. Accurate data—and the ability to analyze it—is crucial for decision-makers to develop and implement effective policies and practices
2. the underlying cause of many threats to water security are not specific to the water sector, making cross-sectoral knowledge sharing and cooperation key
3. A new context and new challenges require new, updated responses.



By 2050, it is predicted that 1.8 billion people will be living in regions or countries with absolute water scarcity.



No two circumstances are exactly alike.

Thus, water management tools should take the best of global knowledge and experiences and make them adaptable and transferable to on-the-ground realities.

The world is facing a global decline in water storage.

Built storage capacity is decreasing as existing water storage infrastructure ages. Likewise, groundwater, which is the principal source of water for drinking, irrigation, and industry in many countries, and vital in sustaining many aquatic and terrestrial ecosystems, is under increasing pressure due to overexploitation, pollution, and climate change. In FY22 GWSP supported analytical work that highlighted key causes of groundwater contamination and identified strategies for preventing, managing, and responding to threats. This was documented in [“Seeing the Invisible: A Strategic Report on Groundwater Quality.”](#) The [“Practical Manual on Groundwater Quality Monitoring”](#) that accompanies the report signals a shift in approach to supporting water resources management. Moving beyond knowledge and data generation, the Water GP is being supported by GWSP to increasingly focus on action, generating practical guidance designed to assist budget planners, project managers, and water resource managers. The move into supporting implementation is reflected in the development of handbooks, supported by GWSP, that present new knowledge and concrete advice to improve borehole drilling.

Looking into an uncertain future for the world’s water storage supplies, one certainty is the need for collaboration and dialogue across sectors and borders.

Water resources management is of concern well beyond domestic water supply, with impacts on issues ranging from how humans relate to one another and their environment, to building climate resilience, addressing food security, and mitigating conflict. In the Horn of Africa, GWSP research and support influenced the design of a recently approved \$385 million transboundary project to foster cooperation with Ethiopia, Kenya, Somalia, and the Intergovernmental Authority on Development, to tap into the region’s largely underutilized groundwater resources. This project will help these countries cope with, understand, and adapt to drought and other climate stressors impacting their vulnerable borderlands. Likewise, in Cambodia, GWSP support to the Mekong Integrated Water Resources Management project has fostered transboundary dialogue between the Lao People’s Democratic Republic and Cambodia on the effective management of water resources and fisheries. Along with the Energy GP, GWSP is supporting work in water storage, given its central role in climate change mitigation and adaptation. A report, to be released in late 2022, documents ways countries and partners can respond to the increasing global water storage gap.





SENEGAL: INCREASING WATER SECURITY

CHALLENGE

Senegal is struggling to meet the water and sanitation needs of its growing and urbanizing population, with water use set to rise an estimated 30 to 60 percent by 2035.

Most industrial uses and 85 percent of potable water depend on groundwater that is under increasing threat of overuse and pollution. Water-related extreme events and pollution cost Senegal over 10 percent of its GDP.

The Dakar-Mbour-Thiès region is home to over one-third of Senegal's population and generates half of the country's GDP.

Deteriorating water resources and an inadequate institutional framework pose serious threats to the region's economy. To achieve and sustain its development goals



under the Plan for an Emerging Senegal, the country must urgently prioritize water security.

Only a quarter of rural dwellers use safely managed sanitation. The government plans sanitation investments in rural small towns, including sewerage networks, wastewater treatment plants, and sludge disposal facilities. However, this infrastructure will increase the operating costs of the National Sanitation Agency (ONAS), which is already struggling to cover costs of existing wastewater treatment services and facilities.



APPROACH

GWSP's support in Senegal has evolved from a focus on sanitation to engaging in national water security.

In FY22, GWSP supported the completion of a sanitation assessment in six large rural centers where the government plans to build sanitation networks, sewerage plants, and sewage sludge disposal facilities. GWSP support was instrumental in helping ONAS identify better management strategies and test new sanitation service models. The assessment found that oversight and management would be improved if the regulatory framework was adjusted to enable ONAS to operate throughout the entire sanitation chain. Recovery of sanitation fees from

water bills is low, and a recommendation was made to revise tariff structures to balance current losses and ensure cost recovery. The assessment recommended stronger leasing agreements and coordination between ONAS and the service operators to improve technical performance and transparency, allowing ONAS to minimize its facility operation responsibilities and focus on infrastructure development and financing, while the operators focus on operations.

The successful partnerships and dialogue built through the work on rural sanitation led the Government of Senegal to request GWSP support in assessing water security challenges across the sector. The resulting study, **“Challenges and Recommendations for Water Security in Senegal at National Level and in the Dakar-Mbour-Thiès Triangle,”** is the first of its kind to assess water resources management at the national level in Senegal. In the process of identifying barriers to achieving water security, it takes a close look the Dakar-Mbour-Thiès region, where achieving water security will be most critical to development. Demand for water in the region already exceeds current resources, making the need to diversify supply critical. Presented at the World Water Forum in Dakar in March 2022, the study identified seven areas of priority action, including the need to reduce pollution in water reservoirs, promote the use of treated wastewater for agriculture, and increase access to sanitation services.

Ensuring sustainability of water resources and water-related services in Senegal's Dakar-Thiès-Mbour triangle requires a collaborative mechanism that brings together experts representing a range of institutions working across sectors affected by and linked to water security—including water, sanitation, drainage, water resources, agriculture, energy, industry, and urban development—as well as the ministries of economy and finance. To strengthen the integrated approach, a steering committee bringing together all the sectoral ministries was established, which is a first step toward the creation of a national platform that is focused on addressing water security challenges.

ADDITIONALITY

The Government of Senegal is starting to make some of the structural changes recommended in both sanitation service delivery and overall water resources management. The Ministry of Water and Sanitation has revised Senegal's national water law in line with the recommendations of the water security study, and the new law is set to be approved.

The government has requested ongoing World Bank support to the sector, and in particular new investment targeting water security in the Greater Dakar area. A new \$250 million Integrated Water Security and Sanitation project is under preparation, targeting (1) water security and resilience, (2) urban/rural sanitation within the circular economy, (3) irrigation, and (4) strengthening and reform of the framework for public-private partnerships.





ARGENTINA, COLOMBIA, AND PERU: WATER SECURITY

CHALLENGE

Latin America is one of the most water-rich regions in the world, home to important international rivers and aquifers, including two of the five largest river basins and two of the ten longest rivers in the world. Despite the fact that many countries in the region have an abundance of water, the resources of many are under high levels of stress, with potential effects on productive sectors, particularly agriculture.

Unsustainable use of water resources, growing water demands, pollution, declining water storage, urbanization, and climate change have undermined water security. These factors contribute to large gaps in water services and reduce resilience, putting the region's socioeconomic progress at risk.



Governance gaps in managing water-related risks are mainly due to unclear budgetary mechanisms, scarce information, low technical capacities and community awareness, and a lack of prioritization of water at the political level. Overall, a paradigm shift is needed in managing water resources for current and future generations across the region.

APPROACH

GWSP has supported an initiative to identify the key challenges to Latin America's water security, and has supported Argentina, Colombia, and Peru in highlighting the centrality of water security to their national development. Detailed, comprehensive Water Security Diagnostics of the three countries have been prepared, using the Water Security Diagnostics Framework developed with GWSP support. The framework is used to assess what is needed to facilitate social, economic, and environmental development, and link this to water sector performance and deficiencies in the sector's institutional architecture. The Water Security Diagnostics consider management of water resources, delivery of water services, and mitigation of water-related risk with an aim to determine where countries should invest to close water security gaps.

In Argentina, the Water Security Diagnostic found that water security deficits inflict an annual economic cost of about 2.2 percent of GDP, of which 0.8 percent is due to floods and droughts. Much of the loss from droughts due to climate variability in Argentina occurs in the agriculture sector, where about 0.6 percent of GDP is lost. The largest cost driver—accounting for more than half the yearly total—is the lack of secure, piped water supply services for about 17 percent of the population and the lack of sewerage for about 48 percent. The diagnostic documented clear inequalities in water supply and sanitation access, and also found that floods are a poverty trap for lower-income Argentines, especially in urban areas. The poor often find it hard to fully recover before

the next disaster, and experience a loss in well-being (measured in terms of consumption power) more than three times greater than those in the highest income quintile. One reason for Argentina's particular vulnerability to drought is its increasing reliance on rainfed agriculture, which is highly exposed to climate variability. Coastal erosion, driven both by urban development and by sea level rise, poses large risks to the tourist economy.

In Colombia, the Water Security Diagnostic found that a mismatch between freshwater availability and demand makes the country highly vulnerable to water shortage risks in the future. Water security deficits, including floods and droughts, cost Colombia between 2.2 and 2.7 percent of GDP on average. Groundwater resources in the country are inadequately measured and administered, even though groundwater could become a strategic reserve during extended periods of drought. Furthermore, many water bodies are contaminated by untreated industrial and domestic wastewater, affecting public health, increasing the costs of treating water for drinking purposes, and reducing the potential use for other sectors such as agriculture. The industrial sector is the largest contributor of net organic load that is discharged to water bodies. Colombia's water sector is governed by numerous agencies, many laws, and several funding sources, fragmenting the design, implementation, and monitoring of policies and investments. The diagnostic predicted that water shocks will cause serious drags on the Colombian economy if investments and public expenditure stimulus in water do not ramp up.



In Peru, growth is dependent on water, yet the country faces the greatest climate variability in the Latin America and Caribbean region and significant rainfall spatial distribution.

The Water Security Diagnostic found that almost half of the country is highly vulnerable to natural disasters associated with the El Niño phenomenon and long-term climate change. Water insecurity costs Peru between 1.1 and 4.0 percent of GDP, of which 0.65 percent is attributed to floods. In Peru, unlike the other two countries, these estimates include the impact of water insecurity on production in three export-oriented industries: agriculture, mining, and manufacturing. Water shocks linked to extreme rainfall and droughts are expected to increase given the continuous deterioration of watersheds, increased precipitation variability, and the acceleration of glacial retraction in the Andes. Peru provides only half of its population with safely managed water, and even less with safely managed sanitation. The people of the Amazon rainforest shoulder the biggest share of the burden associated with poor water supply and sanitation services. Most of the agricultural land along Peru's Pacific coast is irrigated to sustain commercial agriculture, but in the Andes Mountains and high-altitude Amazon, where 50 percent of the rural population lives in poverty, only about 20 percent of the cultivated land is

under irrigation. This leaves agricultural production exposed to shifts in rainfall patterns linked to climate variability and climate change. Although Peru has a comprehensive water management legal framework, it has not reaped the benefits of the framework, given low levels of implementation.

The Water Security Diagnostics consider management of water resources, delivery of water services, and mitigation of water-related risk with an aim to determine where countries should invest to close water security gaps.

The initiative resulted in a regional report titled “Water Matters: Resilient, Inclusive and Green Growth through Water Security in Latin America,” published in March 2022. This draws on the three national Water Security Diagnostics, as well as other relevant analytical work conducted by the Water GP and the Sustainable Development Unit in Latin America. Because the report does not single out individual countries, it can examine difficult issues faced across the region, such as transparency, corruption, and indigenous people's rights.



ADDITIONALITY

The Water Security Diagnostics gained considerable traction, both in the three countries and regionally. They identified problems, recommended evidence-based solutions, and opened technical and policy dialogues with the respective governments.

The process of developing the diagnostics was highly participatory, which has helped build trust. As a result, other stakeholders have also begun to engage and adopt the messages in the diagnostics. For instance, in Colombia the Bank is working with ANDESCO (Asociación Nacional de Empresas de Servicios Públicos y Comunicaciones), a water utility federation, to host a multidonor roundtable. The regional report, meanwhile, opened engagement with regional partners, including the Organization of American States.



Policy changes have already been achieved as a direct result of the diagnostics. For instance, in Peru, the government made policy changes that integrate an approach to planning based on water security and risk, and consider climate change. In Argentina, the National Plan for Infrastructure Works refers in numerous places to priorities identified in that country's Water Security Diagnostic, and the Ministry of Public Works has requested the World Bank to help prepare projects on flood risk management and improve wastewater treatment.

The Water Security Diagnostics in Argentina, Colombia, and Peru have been used by the teams preparing Country Climate and Development Reports in the three countries, and have prompted dialogue in other countries.



BOX 3.1

BANGLADESH: Bringing the Water, Finance and Transport Sectors Together to Build Climate Resilience in the Jamuna River Basin

Rapid industrial growth and an expanding population are increasing demand for freshwater in Bangladesh and pushing the sustainable management of water resources to the forefront of the country's economic and social development agendas. Over 93 percent of Bangladesh's total renewable water resources are transboundary, making regional cooperation an essential part of water management.

Bangladesh relies on "normal" monsoon floods to recharge groundwater, supply irrigation, deposit fertile sediments, and balance the larger wetlands ecosystem. However, a projected 440 percent rise in industrial growth by 2050 (largely in the garment and textile industry), alongside increasing climate change impacts and a predicted 200 percent growth in household water demand, would put unprecedented pressure on its available water resources. This would be exacerbated by increasing geogenic and industrial pollution in groundwater, which almost exclusively sustains the country's water demands.

Since 2019, GWSP has been supporting a platform to help stakeholders establish a dialogue and increase donor coordination around water sector priorities. The Bangladesh Water Platform provides a dynamic country-specific space for stakeholders to solve substantial water issues by facilitating the collection and sharing of information and knowledge. It thus serves to streamline integrated and coordinated approaches among government actors and sectors. The resulting dialogue helped to develop stakeholder input and consensus for the Bangladesh Delta Plan 2100, which identifies cross-sectoral action needed to improve productivity, address climate change threats, and minimize disaster risks in the delta.

Through the water platform, the World Bank initiated several diagnostic and economic studies to support the plan and inform the design of several intersectoral projects. These include the planned World Bank-financed Jamuna River Economic Corridor Development project, which will focus on increasing climate resilience and financial sustainability. Over the past two years, GWSP support has helped the government prepare for the implementation of this new project, including the development of a hydroeconomic model that found for every dollar invested in the project, \$10 would be generated. This rate of return has made the project the top priority in the Bangladesh Delta Plan 2100.

The Jamuna Project is the first of its kind to integrate all the issues of flood and erosion risk

management: mitigation, preparedness, and recovery. GWSP support has been critical in bringing the water, finance, and transport sectors together to consider this work from a multisectoral perspective. Support has focused on building skills and knowledge for new technologies in the areas of predisaster preparedness, community financial protection, and the use of innovative structures and nature-based solutions for flood and erosion mitigation, including dynamic navigation (which allows a river to move naturally during monsoon floods and integrates modern navigation aids with smart dredging to guide vessels along the best navigation routes during the dry season).

GWSP investment, supplemented by grants from the Korea Green Growth Trust Fund and the Finance, Competitiveness and Innovation GP, has been instrumental in increasing the government's capacity to implement Phase One of this challenging cross-sectoral project. Specific examples of GWSP support include:

- Supporting the river engineering knowledge institute Deltares to work with the Ministry of Water on designing cost-effective, locally adapted flood mitigation structures.
- Increasing the government's capacity to develop and use actuarial analysis and flood-forecasting models to inform ongoing project design and flood-insurance decisions.
- Providing knowledge and technical assistance to complement conventional flood mitigation and dredging investments. This included helping to introduce up-to-date dynamic navigation techniques and supporting a River Information System within the Ministry of Shipping.





CAMBODIA: INCREASING GOVERNMENT CAPACITY TO MANAGE WATER RESOURCES

CHALLENGE

Cambodia's economy and livelihoods are highly dependent on natural resources, and water in particular. Although there is great potential for sustainable agriculture and fisheries development to grow the economy, support rural livelihoods, and reduce social and environmental vulnerabilities, the majority of the country's rural population is engaged in small-scale, low-profit agricultural practices.

Cambodia is highly prone to flood and drought events, with around 80 percent of the land area within the Mekong and Tonlé Sap river basins. Its current irrigation and water storage infrastructure is inadequate for securing livelihoods. Minimal country information and data are available to guide investment, making it difficult to identify priorities and design sustainable water management policies.



Historically, there has been minimal collaboration and dialogue among the many multilateral, international, and local organizations working to tackle these issues. This has led to a duplication of projects in some areas, and knowledge and resource gaps in others.

APPROACH

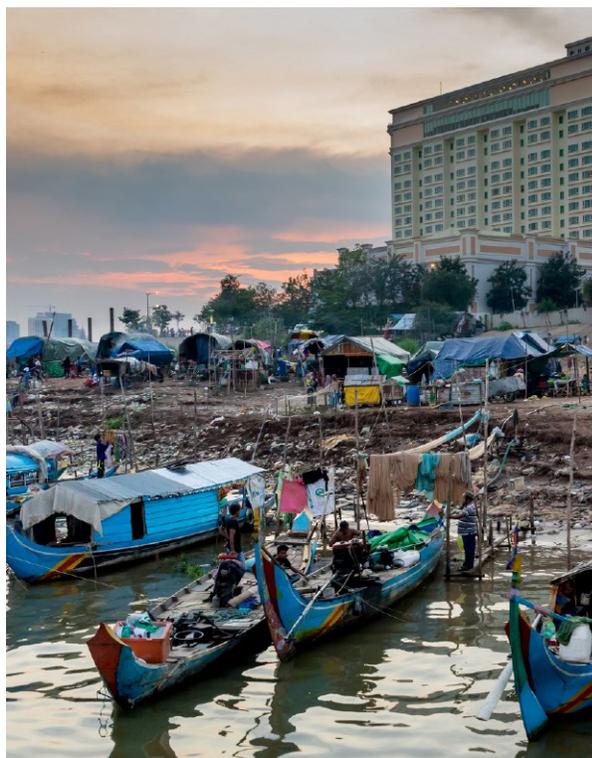
GWSP support played a key role in expanding funding, resources, and collaboration in the country’s water sector. In FY19, with GWSP support, Cambodia established the Development Partner Coordination Group for the Water Resource Sector to bring together donors. Adopting the knowledge and lessons shared from a similar model implemented in Nepal with GWSP support, this water platform is designed as a space for donors to discuss areas of concern and gaps in Cambodia’s water sector. Current members include several international development organizations, and the platform acts as a communication channel to facilitate dialogue with the government.

The platform has been successful in increasing communication, highlighting potential collaborations on water sector projects, and preventing duplication of knowledge development and investments on the ground. Additionally, because many of the donors are also involved in projects along the water-food-energy nexus, there is enhanced opportunity for knowledge sharing and coordination across sectors. The water, environment, and agriculture GPs have worked collaboratively on the Bank’s engagement.

In response to widespread flooding throughout the Mekong River Basin in October 2020, the GWSP-supported Water Expertise Facility provided a grant to enable a rapid assessment of probable causes of flooding during the monsoon season and recommend ways to enhance flood resistance in the water and agricultural sectors. This included bringing together policy makers from relevant ministries to discuss

water resource issues in the Mekong and Tonlé Sap basins and urge the government to take further action on flood management. Moreover, tools designed with GWSP support, such as river basin profiling and water resource management modeling, have influenced how the government is working on issues such as water security for agriculture and flood preparedness.

GWSP-supported knowledge products, such as the report “High and Dry: Climate Change, Water and the Economy,” have been instrumental in filling knowledge gaps and generating government interest in moving toward a more integrated water management model. In early 2021, GWSP supported Cambodia’s first Water Dialogue event. Bringing together senior government officials, key stakeholders, members of the donor community, and World Bank specialists, the event led to greater collaboration and dialogue with the Cambodian government.



ADDITIONALITY

GWSP support has been instrumental in scaling up World Bank investment in Cambodia's water sector, including the planned World Bank-financed Cambodia Water Security Improvement project.

This project has adopted knowledge obtained through GWSP support to apply integrated approaches to address water security challenges, involving **mutisectoral interventions**. The country is now better able to predict and manage the impact of natural disasters on the agriculture sector, and the government is equipped to invest in water security and increase agricultural water productivity. The government is integrating models and hydromet data into a new national information and data center established by the Ministry of Water Resources and Meteorology.





BOX 3.2

SUPPORTING SUSTAINABLE WATER MANAGEMENT IN CHINA

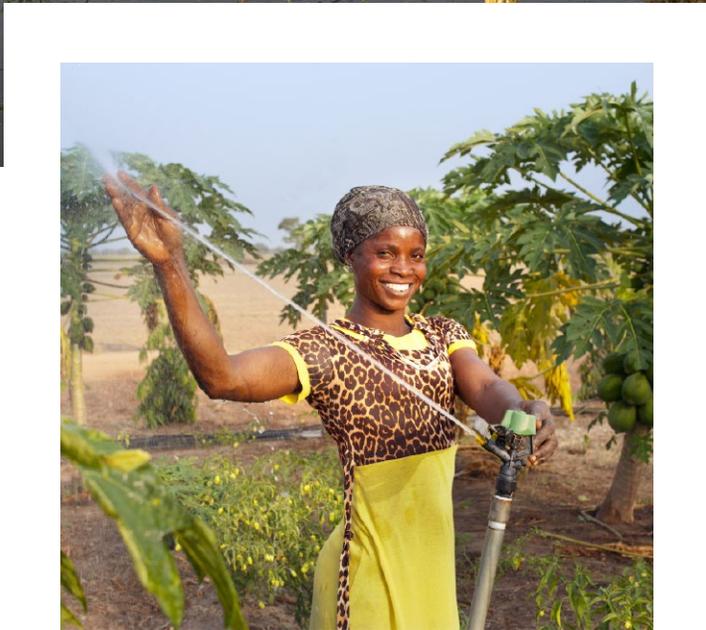
GWSP is helping to build institutional capacity for sustainable water management in China. Through analytical work, technical assistance, and tools, GWSP is supporting government efforts to ensure protection and restoration of the Yangtze River Basin, informing improvements in the policy framework for valuing water, and exploring the contribution of China’s water sector to global public goods.

GWSP is supporting a large-scale, ambitious effort to strengthen water resources management, safeguard water for the environment, and reduce water pollution. The \$400 million World Bank-financed Yangtze River Protection and Ecological Restoration Program complements the approximately \$6 billion the government is investing to support its national strategy for the Yangtze River Basin. The program directly addresses some of the main drivers of biodiversity loss and prioritizes safeguarding water for the environment. Related analysis will yield important lessons for the sustainable management of river basins elsewhere in China and around the world.

GWSP has helped to identify opportunities for improving water policy through the identification, evaluation, and realization of the many and diverse ways water is valued in China. The 2022 GWSP-supported report [“Clear Waters and Lush Mountains: The Value of Water in the Construction of China’s Ecological Civilization”](#) outlines a policy framework that builds on a number of background analyses. Among these is the use of innovative financing mechanisms for “eco-compensation”—fiscal transfers for environmental and natural resources management—and their application in the Yangtze River Basin.

GWSP support has also been key to assessing the contribution of the water sector in China to global public goods. This work has explored the role of knowledge transfer, learning from China’s development of its water sector over the past 40 years, the country’s unique freshwater biodiversity, and China’s approach to the management of transboundary water resources and contribution to the world’s virtual water trade.

Over the past five years, GWSP support to water in agriculture has evolved to address resilience, water security, and environmental sustainability.



WATER IN AGRICULTURE

Water is central to nourishing the world. Reliance on rain-fed agriculture alone is insufficient to meet the challenges posed by climate change, and irrigated agriculture is essential for food security.

Sustainable irrigation and drainage services, along with regenerative agricultural practices, are key, and essential to climate change adaptation and mitigation. Sustainability requires more than engineering and infrastructure investment to break the all-too-common cycle of build-neglect-rehabilitate.

The agriculture sector has shifted focus from generating calories to producing food that is both more nutritious and sustainably grown. There is a need for improved governance, inclusion, and innovation to strengthen and improve the delivery of irrigation and drainage services to farmers.

Over the past five years, GWSP support to water in agriculture has evolved to address resilience, water security, and environmental sustainability. It has also involved raising awareness of the role of irrigation in decarbonization. GWSP support of farmer-led irrigation development and the use of disruptive technologies—such as remote sensing for water accounting—has served to improve irrigation performance and guide investment decisions.

GWSP has supported the development and introduction of a toolkit to assist in improving the management of irrigation service delivery (“The Irrigation Operator of the Future” toolkit), based on another GWSP-supported initiative, the Utility of the Future. The toolkit proposes technical, financial, and governance improvement pathways, and includes indicators to track progress in improving irrigation service delivery. Operators and irrigation service providers are supported to participate in a series of workshops that facilitate the collection of information on the current performance of irrigation and drainage systems, the identification of challenges, and the development of a 100-day action plan and a five-year investment plan. As the initiative moves into a pilot stage, feedback from irrigation operators and service providers is being used to help ensure relevance and improve engagement (see box 3.4).

Given the urgency of producing more food with less water, and in light of the challenges posed by climate change, it is critical to develop tools to help clients make effective, evidence-based irrigation and agriculture investment decisions. Data scarcity should not be an obstacle to optimal water management and governance. GWSP has supported the development of tools to benchmark and assess irrigation performance. In addition, GWSP has supported the development of methods to measure and monitor water resources and to promote efficient water use through water accounting. This work is critical to the sustainable allocation and overall management of water resources.





With GWSP support, the Water GP's Water in Agriculture team has developed several scalable, innovative tools and approaches.

For instance, the Global Water Accounting Tool is a web-based interactive platform that has provided automated water accounting reports for large-scale applications, such as the \$340 million Sindh Water and Agriculture Transformation project in Pakistan. Also with GWSP support, the team has assisted the West Bengal Irrigation and Waterways Department to apply remote sensing and GIS applications to improve oversight of water delivery and utilization, and the benchmarking of irrigation canal performance.

To increase cross-sectoral work and collaboration, the Water in Agriculture team is taking an increasingly holistic approach that builds on cross-sectoral relationships both in and outside the World Bank.

For example, the International Network of Service Providers for Irrigation Excellence, INSPIRE, launched in 2021, is a technical working body with a worldwide reach that brings together over 300 experts in the field to share knowledge and lessons relevant to the effective delivery of water services. INSPIRE is co-led by the World Bank's Agriculture and Food GP and the Water GP and supported by GWSP, along with several other development agencies.

Farmer-led irrigation development (FLID) is a dynamic approach to helping farmers develop irrigated agriculture, and GWSP has helped garner public sector support for it. In FY22, FLID moved from concept to operationalization at scale. GWSP supported work with governments in 13 countries, and more than \$430 million in World Bank lending is now earmarked for FLID. This will leverage farmers' own investments, and expand access to irrigation for 185,000 farmers over 85,000 ha of agricultural land (see box 3.3). While GWSP support to date has focused on Africa, where the need for resilient irrigation is the greatest, in the coming years it will expand to other regions.

GWSP support has also helped raise awareness of concrete ways to decarbonize irrigation, focusing on reducing methane, the most potent greenhouse gas, and nitrous oxide emissions.

GWSP funding has been used to connect and support teams working on interventions that promote low-carbon rice cultivation, including the use of the alternate wet-and-dry irrigation technique, which produces less methane emissions than the traditional flooding of rice paddies. GWSP support will continue to further global knowledge of such challenges as the measurement and validation of emissions reduction at scale and climate financing options, including access to carbon markets.

With GWSP support, the Water in Agriculture team is helping client governments ensure that investments are physically and financially resilient, delivering both economic and environmental benefits.



GEORGIA: NEW APPROACHES TO INCREASING IRRIGATION SYSTEMS' EFFICIENCY



CHALLENGE

In Georgia, the agriculture sector provides over 19 percent of employment nationwide, and generates 28 percent of total exports. The sector has been critical in establishing Georgia as an important source of regional food security and spurring its transition from a lower- to upper-middle-income country. However, reliable water access remains a constraint to expansion and profitability, and as a result a significant share of the population is still employed in low-productivity agricultural activities.

While irrigation schemes are plentiful in Georgia, many are in need of rejuvenation, modernization, and investment. A lack of reliable agro-hydrological data hinders evidence-based decision-making to support investments to ensure efficient and reliable irrigation service delivery. Remote sensing-based methods for the assessment of irrigation performance and water use are increasingly being used as innovative tools to fill such data gaps. These tools generate information on volumes and quality of water flows, as well as current and future trends in supply and demand, which, when systematically organized and presented, inform water accounting processes. Such methods offer an opportunity to help Georgia modernize agricultural water management and work toward water security.



APPROACH

GWSP supported the use of the Global Water Accounting Tool in Georgia to help stakeholders gain access to public-domain remote-sensing-based information. This information includes decision-making parameters such as water availability, use, and productivity; the agricultural water deficit; and the water balance—depending on location and the challenges faced. The tool has informed the development of a digital water accounting app that uses remote sensing and ground data analysis to generate maps that show irrigation performance across various schemes. Using this information, it is possible to target the schemes most in need of support to increase efficiency and improve service delivery. This app was piloted across 20 irrigation schemes in the Alazani Basin in eastern Georgia.

The pilot successfully demonstrated the potential of using satellite data, and also increased the government’s familiarity with water accounting. In FY22, GWSP supported extensive hands-on training to guide the tool’s integration into mainstream decision-making and planning for irrigation.

ADDITIONALITY

The information generated has been highly influential in the government of Georgia’s planning and decision-making for sustainable water irrigation and water storage management. The data complement ongoing environmental flow assessments using remote-based sensing and combining economic, climatic, and hydrological factors to guide more robust choices for irrigation investments.

Other donors and partners, including the French Development Agency, are using the shared data in their projects. The approach has also spurred cross-border dialogue and learning with neighboring countries, improving regional water management. For instance, the water assessment app was showcased in Armenia, which prompted the government to develop a similar tool to guide irrigation and water storage decisions. It is now being piloted in one river basin, with plans to expand to other areas. In Ukraine, the water analytics tool is laying the groundwork for post-war recovery decision-making. Adaptation of the tool for use in Ukraine has led to the development of additional aspects, such as the role of energy use in irrigation and climate impacts, highlighting the tool's adaptive potential.

GWSP will continue to provide support that is complementary to the World Bank's \$150 million Georgia Resilient Agriculture Irrigation and Land (GRAIL) project. Under this project, a roadmap will be developed to establish a Hydro-Agro Informatics Program and Center to institutionalize the use of remote sensing and data analytics and harmonize the collection of data on water and agriculture.





BOX 3.3

ZIMBABWE: Taking Farmer-Led Irrigation to Scale

In recent years, Zimbabwe has experienced one of the highest food price inflation rates in the world, and up to 5 million people are at risk of famine. Irrigation plays a significant role in Zimbabwe's agricultural productivity, addressing food insecurity and securing economic growth. The Government of Zimbabwe is implementing an Irrigation Master Plan that aims to expand irrigation from the current 220,000 hectares to 350,000 hectares in 2025.

However, irrigation systems are not functioning on more than a fifth of the land they cover, and the country is struggling to cover operation and maintenance costs. Under the Irrigation Master Plan, government agencies would develop, operate, and maintain irrigation infrastructure. However, so far, many of the public investments in irrigation have proven to be unsustainable.

Under these circumstances, farmer-led irrigation development (FLID), whereby farmers take the lead in the establishment, improvement, and expansion of irrigated agriculture, offers a sustainable alternative to public sector investment in irrigation infrastructure and management.



GWSP supported a national FLID diagnostic in FY22, generating interest from the Ministry of Lands, Agriculture, Fisheries, Water, Climate and Rural Development. With the support of GWSP, online consultations, stakeholder surveys, and a workshop have been carried out to identify the constraints farmers face in irrigation and propose policy recommendations. Based on the feedback from farmer representatives, government agencies, and private sector actors, key regulatory and policy solutions have been identified. Farmers' access to water and local water management is being enhanced through such approaches as local coordination, the granting of water permits, monitoring of compliance, and application of adaptive allocation (that is, responsive to supply and demand).

To design targeted financing mechanisms, four categories of farmers have been identified, from smallholder farmers not using any irrigation technology to farmers using sophisticated, high-tech systems and connecting digitally with agricultural advisory services. Solutions have been identified to respond to their unique technical and financial constraints. Key policy recommendations have been developed related to building a digital platform of farmers and other stakeholders to enable market linkages.

The Ministry of Agriculture now considers FLID to be the most direct and cost-efficient way of accelerating irrigation to contribute to food security, climate resilience, and economic growth in Zimbabwe. Following the activities supported by GWSP in FY22, the ministry is planning to sustain government action on FLID and go to scale.



BOX 3.4

PILOTING THE “IRRIGATION OPERATOR OF THE FUTURE” TOOLKIT in Albania, Tajikistan, Georgia, and Tanzania

In FY22, GWSP supported the piloting of the Irrigation Operator of the Future toolkit in Albania and Tajikistan, and the use of elements of the toolkit in irrigation sector assessments in Georgia and Tanzania.

In Albania, the toolkit was applied at the field level in selected irrigation schemes. It helped inform the decentralization of the management, operation, and maintenance of irrigation and drainage schemes from the national level to local municipalities. The pilot identified key opportunities for improvement, including the development of greater capacity among technical staff, options for financial sustainability, possible modernization investments to replace open channels with more efficient pressurized pipelines, and reform of the irrigation tariff. These opportunities are now being developed into a strategic action plan.

In Tajikistan, the government’s priority is high-level institutional reform in the context of seriously degraded and dysfunctional infrastructure. Irrigation

systems are mostly pumped, and energy costs are often unaffordable for farmers. The toolkit was used to identify needs in terms of strategy development, irrigation transmission efficiency, and greater on-farm water productivity.

In Georgia and Tanzania, irrigation investment planning diagnostic work was already underway and elements of the toolkit were used to complement existing analyses and identify opportunities. The assessment identified weaknesses to the prioritization of irrigation investments, water-user contracts, tariff setting, and communication with farmers. In Tanzania, the tool identified critical functional and management gaps, and a lack of legal clarity on irrigation fee structures and on the functions of local water user associations. These findings led to recommendations for a more comprehensive national investment strategy, tariff reform, and a drive for improved customer communications and relationship development.

The pilots revealed ways the toolkit can be strengthened and improved. In FY23 full pilots of multiple types of schemes on a range of continents will be undertaken, with the aim of developing a more sophisticated and user-friendly toolkit.



WATER SUPPLY AND SANITATION

Building water and sanitation security is fundamental to green, resilient, and inclusive development. But this security is threatened. There are significant gaps in water supply and sanitation services, and progress toward achieving SDG 6 is too slow. In 2020, 2.0 billion people lacked access to safely managed drinking water and 3.6 billion people lacked access to safely managed sanitation.

It is estimated that progress needs to at least quadruple to reach the water supply and sanitation targets of the SDGs. At the same time, the impacts of climate change are becoming more intense, with prolonged dry and wet spells taking a disproportionate toll on communities lacking access to safe and affordable water and sanitation services. Climate change increasingly jeopardizes the reliable availability of water and is compelling many sector stakeholders to change their way of developing and delivering services. Population growth and escalating urbanization further impede progress. Ensuring water and sanitation security is a growing challenge in many World Bank client countries, as they strive to decentralize service provision and close existing service gaps.

GWSP helps build water and sanitation security by supporting a shift toward establishing the policies, institutions, and regulation needed to tackle the enormous challenges facing the water sector. GWSP support facilitates the development of innovative and scalable solutions to key challenges, such as the need to rapidly increasing

access to safe water and sanitation, ensure maintenance of existing infrastructure, and improve the quality of services.

For example, the GWSP-supported Citywide Inclusive Water Supply initiative examines the traditional focus on piped water connections and explores how off-grid, off-utility services offered by supplementary providers could be reimaged as solutions.

Circular economy approaches, which minimize waste, maximize water use efficiency, and recover, reuse, and restore water resources, offer another example. They can substantially contribute to building water security by increasing the menu of water resource options and helping cities transition from a traditionally linear approach—in which freshwater is extracted, used, treated, and disposed of—to a sustainable, resilient, and circular one.

Utilities and other water service providers are at the very heart of efforts to build water and sanitation security.

But these institutions are increasingly challenged by public health crises, urbanization, and climate change. Despite concerted efforts, many utilities continue to struggle with operational and financial performance, which translates into losses in distribution systems and high rates of nonrevenue water (that is lost en route to users, or otherwise not paid for). Such operating and investment inefficiencies drive up costs and strain revenues, undermining utilities' financial performance and ability to expand coverage. Utilities risk slipping into vicious cycles of no revenue, low staff pay, and poor service delivery. Moreover, water and sanitation utilities that run on a loss or government subsidies have little to no capacity to absorb shocks, or to serve growing peri-urban areas.

With GWSP support, the Water GP works to break these vicious cycles. GWSP helps build utilities' capacity and lets them benefit from innovation and technology to “leapfrog” to higher levels of maturity. This allows them to deliver high-quality services in an efficient manner while embracing innovation, inclusiveness, market and customer orientation, and resilience.

In every country of the world, rates of access to water supply and sanitation services are lower in rural areas than in urban ones.

Yet investments in rural areas are often compromised by low-quality construction and poor maintenance. As a result, water and sanitation infrastructure falls into disrepair, often only a few years after installation. These challenges must be addressed to achieve universal access and ensure water and sanitation security for rural populations. This demands technical support and capacity building at both the user and institutional levels; a separation of policy, ownership, operations, and regulation; and a progression toward professionalized management.

The interconnectedness of water and sanitation with other development priorities, such as health, environmental, social, and economic goals, is putting pressure on historically siloed approaches to water supply and sanitation services.

At the same time new technologies and innovations offer unprecedented opportunities to transform the water and sanitation sector and step out of existing siloes. GWSP is supporting concerted efforts to address these growing pressures and achieve water supply and sanitation security for all.

NIGERIA: SUPPORTING WATER AND SANITATION SECTOR REFORM

CHALLENGE

Nigeria is Africa's largest country, with a population of more than 200 million people, 40 percent of whom live in poverty. Fragility, conflict, and insecurity afflict many parts of the country. Insufficient capacity constrains the public sector, and on many human development indicators, Nigeria ranks among the lowest in the world, with human development outcomes particularly low among girls and young women.

Nigeria has already been substantially impacted by climate risks, including major flooding due to harsher torrential rains and severe drought from extended dry spells. Resilient WASH infrastructure and service provision will be critical for communities to develop greater climate resilience, and to thus mitigate the conflicts between different



users of land and water resources that are being exacerbated by climate change.

In 2021 approximately 70 million Nigerians had no access to basic drinking water services and 114 million were without basic sanitation facilities. Access to piped water declined from 36 percent in 1990 to 11 percent in 2021. An estimated 19 percent of Nigerians practiced open defecation in 2020, and fecal sludge is commonly released untreated into the environment. Urban water utilities largely fail to meet the needs of their already small customer base, forcing a majority to



rely on expensive and often unsafe alternatives, such as private water vendors and shallow private wells. In 2016, water quality testing at a national scale revealed that over three-quarters of the population used contaminated water sources, and that nearly half used sources that were at very high risk of fecal contamination.

The poor performance of the sector was highlighted in the GWSP-supported WASH Poverty Diagnostic in 2017. In 2018, Nigeria’s WASH sector was declared to be in a state of emergency by President Muhammadu Buhari. The government subsequently launched the National Action Plan, a 13-year strategy for the revitalization of Nigeria’s WASH sector, aimed at ensuring universal access to sustainable and safely managed WASH services by 2030.

APPROACH

GWSP has provided significant assistance to support the government’s commitment to reform and build government capacity.

This complements the World Bank’s \$700 million Nigeria Sustainable Urban and Rural Water Supply, Sanitation and Hygiene Program-for-Results (SURWASH).

GWSP is supporting the preparation of Policy, Institutional, and Regulatory (PIR) Plans and Performance Improvement Action Plans (PIAPs) for each of the seven participating states.

These plans must be developed and implemented to receive disbursement under the Program-for-Results project. The PIR plans support the implementation of a series of state-level reforms to strengthen the enabling environment, while the PIAPs support performance improvement across key elements critical for service quality and sustainability at the level of the implementing agency. GWSP has supported the dissemination of preparatory tools through workshops and additional hands-on support to the participating states.

Technical assistance is also being provided to help the government implement the “Clean Nigeria: Use the Toilet” campaign, designed to achieve an open defecation-free Nigeria by 2025 and launched by the Federal Ministry of Water Resources in 2019.

Support was provided through GWSP to the ministry, the federal program implementation unit, the Clean Nigeria Campaign Secretariat, and the states to develop strategic documents for the implementation of the campaign, including a Program Operations Manual, and guidance notes for the preparation of policy, institutional, and regulatory plans and Performance Improvement Action Plans.



Technical assistance was also provided to develop working methodologies and establish operational procedures as well as a monitoring, evaluation, and reporting system used by the Clean Nigeria Campaign Secretariat. At the state level, technical assistance is being provided to develop sanitation action plans that align with the principles of citywide or area-wide inclusive sanitation. GWSP supported extensive training, including assistance to the National Water Resources Institute to design and conduct a short course on rethinking rural sanitation.

The GWSP-supported Utility of the Future (UoF) initiative has allowed seven urban water utilities to assess their current performance, envision their future, and begin the process of defining processes and plans to reach goals that were set as part of their PIAPs. With GWSP assistance, the utilities are implementing 100-day action plans to improve their financial viability. Through sector diagnostics and the PIR plans and PIAPs, sector institutions in the program states are being supported to build their resilience and address risk. Additionally, the GWSP-supported Equal Aqua platform helped six Nigerian utilities create more inclusive and diverse workplaces by promoting gender diversity and disability inclusion.

ADDITIONALITY

The declaration of a WASH state of emergency in Nigeria, driven by evidence, opened the door for an ambitious and bold set of reforms. GWSP analytical work made it possible to implement SURWASH as an innovative program for results, supporting investments across urban and rural areas. Government commitment and capacity have been built, drawing on several interconnected GWSP-supported initiatives, such as UoF and Citywide Inclusive Sanitation.

GWSP support has ensured that sanitation maintains a high profile in the reforms and is recognized as a neglected issue and an urgent priority.





GLOBAL: BUILDING THE CAPACITY OF WATER SERVICE PROVIDERS AT SCALE

CHALLENGE

Global challenges—including climate change, water scarcity, population growth, migrations, rapid urbanization, and recovery from the COVID-19 pandemic—threaten the provision of high-quality and sustainable services, jeopardizing the possibility of providing “water and sanitation for all.” Well-performing water and sanitation utilities are key to providing quality services, but they require a new, strategic management approach to create efficient and sustainable strategic business models, ensure continuity of operations, develop strategic capabilities, and encourage continuous improvement.

APPROACH

GWSP provides knowledge and technical expertise to support utility performance improvement efforts worldwide. The goal is to create future-focused utilities that operate in an efficient, resilient, innovative, and sustainable manner, and deliver reliable, safe, inclusive, transparent, and responsive water and sanitation services.

Through the UoF Program, participating utilities get assistance in the completion of a three-step process. The process comprises a utility assessment, a 100-day action plan that tackles the most pressing issues to jumpstart utility reform and obtain quick wins, and a five-year plan to sustain performance.



With GWSP support, through a partnership with Aguas de Portugal, on-demand utility-to-utility technical assistance is provided. GWSP also supports the digital transformation of water and sanitation utilities. The challenge is to scale up to reach as many countries and service providers as possible, and to address specific capacity issues that service providers face in responding to the sector’s growing challenges.

In Zambia, Peru, Nigeria, Kosovo, Albania, and Poland, a series of week-long, on-site immersion workshops were held. These “ignition weeks” take utilities from initiation and assessment to the preparation of an agreed short-term action plan. This training will support the rolling out of the UoF initiative to at least 30 more utilities in these six countries, where the assistance provided through GWSP is linked to World Bank projects that invest in strengthening the utilities. In Peru, for instance, the UoF framework has been applied in the six utilities participating in the \$200 million World Bank-financed Modernization of Water Supply and Sanitation Services project. They have prepared 100-day plans and five-year plans, under which technical assistance needs have been identified that are being addressed through the project.

All UoF resources are publicly available in eight languages, further supporting roll-out and scale-up. In addition, in response to demand from utilities, a gender lens was incorporated into the UoF Program, in collaboration with the Equal Aqua

platform, resulting in gender-focused diagnostics. The UoF Program also includes the “UoF Global Youth Challenge,” through which over 200 young professionals have proposed innovative ideas for water utility management. The UoF Program is growing rapidly, and to date has reached over 70 utilities in more than 25 countries. It continues to be scaled up; for instance, in the Philippines, 12 utilities and the departments of the interior and local government have been trained to implement the UoF Program at the national level over the next three years.

GWSP support has allowed the Water GP to focus on specific issues related to improving utilities’ operational performance and efficiency, and helping them futureproof their operations. One of these issues is digitization. This simply refers to converting analog data into digital files, but in the context of utility management, it changes the way that utility workers interact with instruments, making measurement of key performance parameters easier and more accurate, enabling remote and more efficient operation. Digitization goes beyond technology and includes human resources, processes, and corporate culture. It requires clear governance, a strong vision, and the application of well-chosen performance indicators to deliver the expected benefits. “Digital transformation” represents a foundational change in how an organization delivers value to its customers and users, and facilitates more proactive, data-driven, informed, and connected utilities and customers.

Utilities have been supported to establish digital roadmaps, which are three-to-five-year action plans to deploy digital solutions.

Because digital solutions change over short periods of time, a digital roadmap is short in nature, and identifies the most important bottlenecks. The roadmap is thus highly relevant to key areas where digital solutions can improve quality, reliability, and overall performance optimization. Water utilities can leverage a set of digitally enabled capabilities to address sector-specific challenges such as deteriorating infrastructure, water scarcity, drought potential, an aging workforce, and energy efficiency.

In Morocco, the national water operator, ONEE Branche Eau, wanted to prioritize the continuity of service provision. With GWSP support, ONEE developed a digital observatory that allows staff to adjust operations according to weather, demands from clients, and other real-time parameters. GWSP also assisted ONEE in assessing its digital maturity level and creating a digital roadmap. Priority projects were identified, and using tools and methodologies developed with GWSP assistance, gradual adoption of digital technologies was supported.

In Cusco, Peru, GWSP supported SEDACUSCO, the water supply and sanitation utility, in applying a “digital lens” to its operations. A digital maturity assessment was conducted, and a series of priority steps toward digital transformation identified. Assistance is being provided as needed in the preparation of a strategic investment plan that responds to the results of the digital lens methodology. There are plans to replicate this approach in five other utilities in Peru that are part of the Modernization of Water Supply and Sanitation Services project.

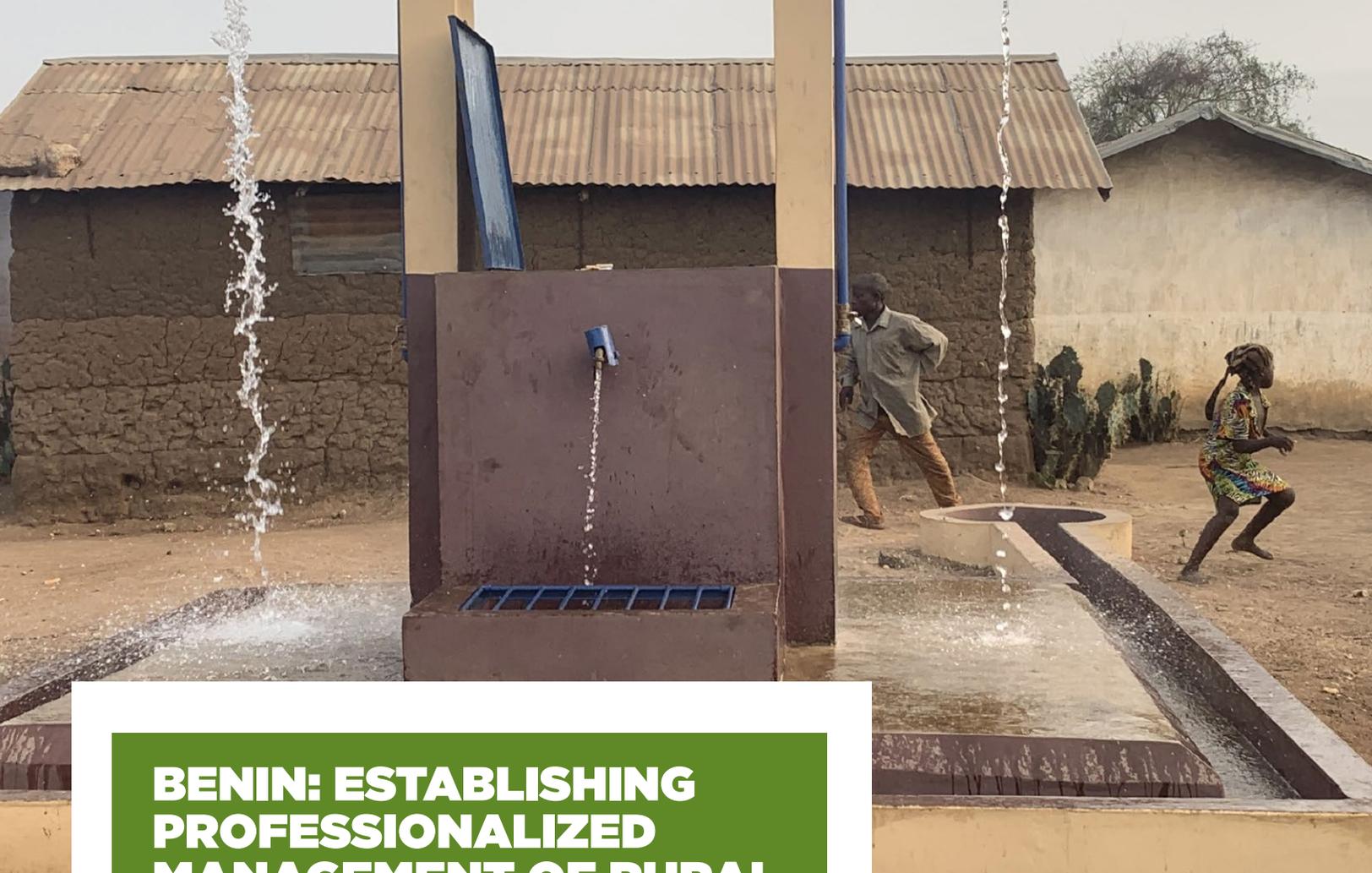


ADDITIONALITY

In Nigeria, Albania, Zambia, and Peru implementation of utility strengthening has influenced the quality of World Bank operations. For instance, in Peru, the World Bank-financed Water Sector Modernization project has UoF 100-day plans at its core, and the diagnostics have contributed to plans for a more ambitious next stage of sector transformation.

The digitization work done in Morocco has established a basis for advice on this topic to be provided to other utilities around the world. It has helped shape a new toolkit, based on a methodology that first assesses the digital maturity of the utility and then builds a relevant roadmap. GWSP is now supporting initial work with utilities in Tunisia, Peru, India, and Kenya at various stages of digital transformation.

In Morocco, GWSP’s support has laid the groundwork for more digitization activities under the \$210 million Water Security and Resilience project, and in Peru it has contributed to a strategic investment plan that encompasses digitization.



BENIN: ESTABLISHING PROFESSIONALIZED MANAGEMENT OF RURAL WATER SUPPLY SYSTEMS

CHALLENGE

It is estimated that in 2020 only 26 percent of the population of Benin used piped water. The government has made ambitious plans to address this, and the Government Action Program, adopted in 2016, sets targets for achieving universal access to water supply in both urban and rural areas well before the end of the SDG era.

In May 2017, the National Strategy for Rural Water Supply 2017–2030 was adopted, and a National Master Plan for the Development of the Rural Water Supply Sector was prepared to operationalize this strategy. Under this plan,

the government will invest more than \$270 million in rural drinking water, complementing close to \$500 million being invested by the World Bank and donors.

The government set up a dedicated executing agency for rural water supply and requested assistance from the World Bank to adopt a new approach. With GWSP support, a new model has been established based on professionalized service delivery, private sector innovation, and private finance. The rural areas of Benin have been divided into three areas, each to be served by a private operator. While the government will pay for initial capital costs, the operators will self-finance, through their remuneration, water system renewal,



rehabilitation, and operation and maintenance. The focus is on achieving higher levels of service, and the government aims to phase out handpumps and standposts and provide everyone with fully metered household connections. These plans are ambitious, time is short, and the government wants to make rapid progress.

APPROACH

Beginning in 2019, GWSP supported the process of developing and awarding contracts with private water supply system operators. With GWSP's assistance, the tender documents were prepared over a very short time period: a call for tenders was launched less than a year after the start of the process.

The COVID-19 pandemic temporarily put the process on hold, but in April 2022, the three affermage contracts were signed with joint venture operators, after a bidding process that attracted both international and regional bidders. The contracts introduce strong incentives for the operators to deliver on expanding access and improving service quality and sustainability, as well as reducing nonrevenue water and improving bill collection. Together, the three contracts

will directly support the provision of safe and affordable drinking water to more than three million people.

GWSP's assistance built on foundational work supported by another trust fund, the Public Private Infrastructure Advisory Facility, to establish the enabling environment for public-private partnerships. An asset holding company will be established to manage the operators and oversee the contracts.

GWSP support also included an evaluation of human resources needs and the development of training resources for the water operators.

Training will be based at the newly expanded Water Training Centre, where 660 people will be trained to help fill the large number of new jobs predicted to be created by the rural water supply initiative. GWSP's assistance also made possible a gender gap assessment to define the specific support needed for women's empowerment in the rural water sector, both in terms of employment and responsibility for decision-making. The initiative will lead to job opportunities for women in a sector where they historically have not been present at the technical, management, and entrepreneurial levels. A new monitoring indicator—"number of women benefiting from training as rural water supply professionals"—has been incorporated into the results framework, with a target of 15 percent.

ADDITIONALITY

Focused technical assistance to the rural water sector, made possible through GWSP support, has led to concrete and tangible results in Benin.

The initial milestones of the reform program included recruitment of regional operators, development of a tariff policy, and training of rural water professionals, all of which have been met. The public-private partnership law in Benin is being implemented for the first time through the World Bank-financed Rural Water Supply Universal Access Program-for-Results, known as AQUA-VIE, leading the way for other sectors in the country.

The rural water supply executing agency has already demonstrated greater capacity and has signed Framework Partnership Agreements with every rural municipality.

It has published six semi-annual reports, publicly available on a government website, contributing to transparency and accountability in the sector. The reports detail both the assets and the performance of service providers based on key performance indicators.

Tariff reform has resulted in tariff regulation by the government to ensure the financial viability of the regional operators and contribute to the development of rural water supply systems.

Where tariff proceeds are not sufficient, the government has committed to allocating funding to cover the costs of service expansion and rehabilitation through an asset management contract that will be signed with the rural water supply executing agency.

Work supported by GWSP influenced two World Bank operations. The \$220.0 million AQUA-VIE project, approved in 2018, finances the construction and rehabilitation of rural piped water supply systems for 1.6 million people. The

€62.0 million Small Town Water Supply and Urban Septage Management project (PEPRAU) is focused on improving access to water in selected small towns and safe fecal sludge disposal in the capital city, Cotonou.

As a result of the satisfactory ratings since the approval of AQUA-VIE in 2018, \$250 million in additional financing was approved by the World Bank in June 2022. This will support the provision of drinking water services to 1.3 million additional people in rural areas, with specific focus on making water infrastructure accessible for persons with disabilities, and will include new reforms to transform the executing agency for rural water supply into an asset holding company.

Renewed capacity in the rural water supply sector has made possible plans to expand efforts to include water resources management, for instance measurement of the impact of rural water supply systems on groundwater, especially in hydro-geologically difficult areas.

Interest in the model used in Benin has been expressed by other countries. For instance, the government of the Democratic Republic of Congo is considering a water supply project supported by the World Bank and has begun discussions with its counterparts in Benin.





PACIFIC ISLANDS: BUILDING THE RESILIENCE OF THE WATER SUPPLY AND SANITATION SECTOR

CHALLENGE

In the small island developing states of the Pacific region, livelihoods are deeply linked to the natural environment. Levels of unplanned urbanization are high, and sanitation and water infrastructure is rudimentary. These countries are uniquely vulnerable to resource scarcity and suffer the impacts of extreme weather disproportionately. Climate change is degrading and depleting water resources. Rising sea levels threaten coastlines and cause salinization of groundwater, making some areas uninhabitable. Extreme weather events are putting scarce freshwater resources under stress.



In small atoll countries, centralized water systems are scarce, and most people still rely on unsafe water sources such as rainwater and unprotected wells. Anthropogenic land-based activities and wastewater pollution have further jeopardized water quality. Local capacity to adapt is limited: there are few water professionals, a lack of data to inform policy reform and responses, and little accountability. Water governance is often complicated by traditional social and political structures. The Pacific region is therefore trailing far behind when it comes to SDG 6.

APPROACH

While the program supported by GWSP in the Pacific islands is relatively new, GWSP supported activities initiated in Papua New Guinea in 2017 have since provided the analytical foundation to influence government policy and improve World Bank project design. To date, the focus of GWSP support has been helping governments to achieve universal water supply and sanitation access, which requires an in-depth understanding of the historical barriers to universal access and the key challenges to effective policy and good governance. GWSP support is now expanding to address the challenges of climate change and the growing fragility of water resources.

Papua New Guinea is one of the poorest countries in the region. It has low levels of access to water supply and sanitation services, which have only decreased over the past two decades. In 2015, the country adopted its first national WASH policy, drafted with support from the Water and Sanitation Program. GWSP has since supported operationalization of this policy; the preparation of prospective legislation to establish the first national WASH authority to oversee the planning, financing, and regulation of sector development; and the design of a mechanism for WASH service delivery in rural areas. The government's capacity to understand and assess the risks associated with water resource selection, including climate change impacts and anthropic pressure, has been enhanced, optimizing investments. These outcomes have informed the implementation of a \$70 million World Bank-financed project with the primary goal of increasing access to water supply services in five towns.

The Solomon Islands are rapidly urbanizing and the population of the capital, Honiara, is

expected to triple in just 30 years. Under the 30-year strategy of the national water utility, Solomon Water, direction will be sought from the Solomon Islands' government on options to provide services in informal settlements, which are estimated to house over 30 percent of Honiara's population. The results have built institutional knowledge and know-how on citywide water and sanitation planning and evidence-based decision-making. Moreover, results have informed investments in a program focused on WASH services in settlements under the Urban Water Supply and Sanitation Sector project, co-financed by the World Bank, the Asian Development Bank, and the European Union (totaling \$82.3 million, of which the World Bank component is \$15.0 million). With GWSP support, the national utility has prepared a strategy to expand service delivery, and decreased the volume of unaccounted for water from more than 7 million cubic meters per year to just over 4 million.

Kiribati is a group of atolls scattered in the central Pacific, and is one of the smallest, most remote, and most geographically dispersed countries in the world. GWSP has provided critical assistance in exploring water security and sanitation service options for the capital city, South Tarawa, which has uniquely fragile water resources. A 2018 GWSP-funded study on building urban water resilience in small island countries focused on South Tarawa and provided a detailed account of water and climate challenges. This study provided critical recommendations for water conservation and source diversification, strengthening of sector capacity, and water catchment management.

This informed the South Tarawa Water Supply project, co-financed by the World Bank, the Asian Development Bank, and the Green Climate Fund and Global Environment Facility (totaling \$58.12 million, of which the

World Bank component is \$15.0 million).

Subsequent GWSP support in 2021 allowed timely inputs from a roundtable of experts on the updating of the South Tarawa sanitation roadmap, which guides investments and reforms in the sanitation sector for the next 20 years. These sanitation investments include the World Bank's \$19.5 million South Tarawa Sanitation project, which builds on the concept of citywide inclusive sanitation.

At a regional level, GWSP support has allowed the World Bank to work with the Pacific Water and Wastewater Association (PWWA) to establish utility benchmarking.

Using data from the GWSP-supported International Benchmarking Network for Water and Sanitation Utilities, PWWA published a report in 2020 analyzing 10 years' worth of benchmarking data from 31 utilities in the Pacific region, including an analysis of the impact of the COVID-19 pandemic. GWSP support will allow the World Bank to assist PWWA member utilities to conduct more detailed analysis of climate change risk and develop plans with select utilities to address these risks across their business operations.

As institutional capacity is low in most South Pacific countries, there is a pressing need for donors to coordinate in order to limit the load on governments.

The Asian Development Bank is active in the region and helps coordinate grants from bilateral donors. The Pacific Regional Infrastructure Facility is a key platform for donors to coordinate and inform technical assistance. GWSP contributions to staff time allow World Bank staff to co-chair the facility's water and sanitation working group with the Asian Development Bank.

ADDITIONALITY

GWSP engagement and support have accelerated the dialogue on the challenges and opportunities in the water sector in the South Pacific region, leading the way for World Bank efforts as a whole. Funding provided through GWSP has strengthened the Bank's ability to deliver quality analytical work and water sector lending to Pacific island governments. Over the past five years, GWSP support in the region has evolved from a few small initiatives to an entire program, including \$120 million of lending.

Impacts of GWSP support have included the first steps to develop legislation to establish the National Water Sanitation and Hygiene Authority in Papua New Guinea, and a definition of the path by which the government of the Solomon Islands can implement water and sanitation services in informal settlements as targeted in the Greater Honiara Urban Development Strategy and Action Plan.

GWSP has helped position the Water GP to address the lack of systematic and coherent climate policies and practices in the water sector across the Pacific region.

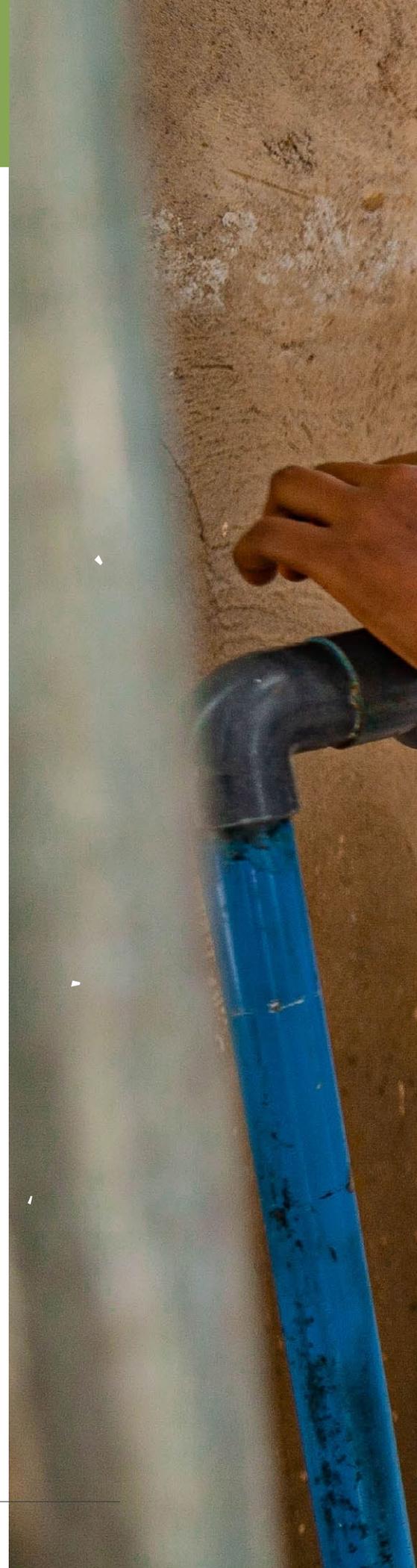
CHAPTER 4



ADVANCING RESULTS

GWSP's objective is to achieve a water-secure world for all by sustaining water resources, delivering services, and building resilience. GWSP supports client governments to achieve water-related SDGs, through the generation of innovative global knowledge and the provision of country-level support, while influencing World Bank Group financial instruments and promoting global dialogue and advocacy with key partners and clients to increase reach and impact.

This chapter highlights the results achieved in FY22 and for the period FY18-22. A complete set of tables listing the indicators, targets, and preliminary measures of the year's progress on Block A and Block B of the Results Framework are presented in appendix B.





GWSP's objective is to achieve a water secure world for all by sustaining water resources, delivering services, and building resilience.



GWSP AS AN AGENT OF CHANGE IN WATER REFORMS AND INVESTMENTS

GWSP activities influence project design, strengthen dialogue, and enhance capacity, thereby contributing to sustainable, resilient, and inclusive water management and delivery—and, ultimately, to the overall objective of achieving a water-secure world for all by sustaining water resources, delivering services, and building resilience.

GWSP ACHIEVES THIS BY:

- 1 Influencing investments** in the water sector, both within the Bank (Water GP and beyond) and outside
- 2 Strengthening water sector dialogue**
- 3 Enhancing the capacity of service delivery institutions.** A detailed account of GWSP's theory of change is illustrated in figure 4.1.



CROSSCUTTING THEMES



Inclusion



Resilience



Financing



Institutions



Sustainability

THE GWSP RESULTS FRAMEWORK

The **GWSP Results Framework** streamlines the tracking and reporting of results using standardized indicators across five priority themes: inclusion, resilience, financing, institutions, and sustainability.

BLOCK A

BLOCK B1

BLOCK C

Indicators are grouped into three blocks. Block A looks at the multiyear knowledge and technical assistance activities supported by GWSP. Block B considers how newly approved and active World Bank lending operations in the water sector have been influenced by GWSP-supported knowledge and technical assistance. Block C includes qualitative and quantitative assessments of the influence and impact of knowledge and technical assistance on lending operations of the Water GP in nine priority countries, based on agreed-upon indicators, at intervals over the life of the Partnership (see box 4.1).¹

¹ In FY22, midterm progress assessments were conducted in five of the nine priority countries (Bangladesh, Ethiopia, Haiti, Pakistan and Vietnam). The results of these assessments are reported separately through country-specific midterm assessment reports.

FIGURE 4.1 THEORY OF CHANGE



GWSP's "Knowledge Into Implementation" Brings About Results Across All Water Subsectors

The GWSP Results Framework tracks how the Partnership helps client countries improve and deliver water services by working to enhance the impact of the World Bank's water portfolio and achieve measurable results on the ground.

In particular, the Results Framework demonstrates the additionality of GWSP support—the added value that could not be achieved with World Bank lending alone.

PROBLEM ANALYSIS

INTERVENTIONS

KEY PROBLEMS & EFFECTS

LACK OF ACCESS

Lack of access to water supply, sanitation, and hygiene underlies public health, economic, and environmental challenges across the developing world.

WATER SHOCKS

Increasing demand, variable supply, widespread pollution, and water-related disasters are resulting in water stress and scarcity.

FOOD INSECURITY

Growing demand for food and fiber, unsustainable resource use, and vulnerability of smallholder farmers are affecting agricultural productivity.

CONTEXTUAL FACTORS

Climate change, fragility, conflict and violence; weak governance; biodiversity loss, etc.

UNDERLYING CHALLENGES

Policy, Institutional, & Regulatory Drivers

- Weak planning processes & water sector management
- Conflicting policies & misaligned incentives
- Weak inst. capacity & collaboration on sector goals
- Low participation and inclusion of stakeholders, land users

Technical Drivers

- Lack of knowledge and data
- Insufficient sharing of best practices
- Knowledge gaps on sustainable water supply and resource mgt.
- Fragmented and poorly target financing
- Poorly planned infrastructure/resilience/sustainability

GWSP ENTRY POINTS


LONG-TERM COUNTRY ENGAGEMENT


KNOWLEDGE MOBILIZATION


JUST IN TIME SUPPORT



THEMES

Inclusion, Sustainability, Financing, Institutions, and Resilience

BLOCK C validates the knowledge into an implementation model across the results chain in select priority countries.

BLOCK C

Supported by our clients, partners, and Bank staff



RESULTS

KEY OUTPUTS

- Water sector stakeholders engaged (including platforms)
 - Water related institutions supported
 - Policy, strategies, regulatory frameworks developed, informed
 - Proof of concept pilots undertaken
- Plans, strategies, policy notes, handbooks, manuals & approaches drafted and disseminated
 - Tools and monitoring systems developed and supported
 - Global knowledge and advocacy campaigns delivered
- Capacity building and training delivered
 - Policy and technical advice provided
 - Diagnostics and analytics conducted
 - Innovative approaches piloted

INTERMEDIATE OUTCOMES

Influenced development finance investments in the water sector

Strengthened in-country water sector dialogue

Enhanced capacity of service delivery institutions to design and implement sustainable, inclusive, and resilient water sector reforms and investment programs

Enhanced capacity of service delivery institutions to raise commercial finance

LONG-TERM OUTCOMES

Institutions strengthened and country policies, legal, and regulatory frameworks in place contributing toward sustainable, resilient, and inclusive water management and service delivery

Infrastructure investment programs implemented contributing toward sustainable, resilient, and inclusive water management and service delivery

Water sector investment programs implemented through a broader range of financing options

INTERNAL
Training learning, project quality assurance, fit-for-purpose lending instruments, etc.



EXTERNAL
Advocacy, knowledge dissemination, dialogue and communication, etc.

BUSINESS LINES
Water Supply and Sanitation, Water in Agriculture, Water Resources Management

BLOCK A

BLOCK B1

BLOCK A

BLOCK B1

BLOCK B2

BLOCK C

BLOCK C

GOALS & IMPACTS

OBJECTIVE

To achieve a water-secure world for all by sustaining water resources, delivering services, and building resilience.



GOAL 1

SDG 6 and other water-related SDGs

GOAL 2

WORLD BANK GROUP TWIN GOALS
End extreme poverty and promote shared growth

BOX 4.1

THE THREE COMPONENTS OF THE GWSP RESULTS FRAMEWORK

BLOCK A

Knowledge, Analytics, and Technical Assistance

- Institutions and/or policies strengthened in support of the five priority themes.
- Amount (in US dollars) of World Bank lending influenced by GWSP-supported knowledge and technical assistance.

BLOCK B1

Influence on World Bank Lending

- Design features of the World Bank's Water Global Practice lending that address GWSP's five priority themes (sustainability, inclusion, finance, institutions, and resilience).
- Access/availability of services and number of strengthened institutions across all water subsectors, reported by the active World Bank lending portfolio in the water sector.

BLOCK C

Combined Results

- Results from technical assistance, knowledge work, and lending operations in nine priority countries (Bangladesh, Benin, Bolivia, Egypt, Ethiopia, Haiti, Pakistan, Uganda, and Vietnam).
- Baseline data reported in FY18, and results reported at midterm (FY20 and FY22) and end of term.

KNOWLEDGE AND TECHNICAL ASSISTANCE SUPPORTED BY GWSP

BLOCK A

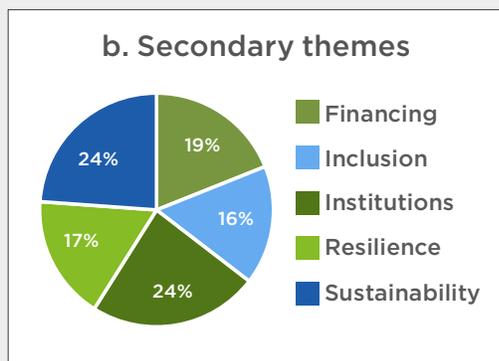
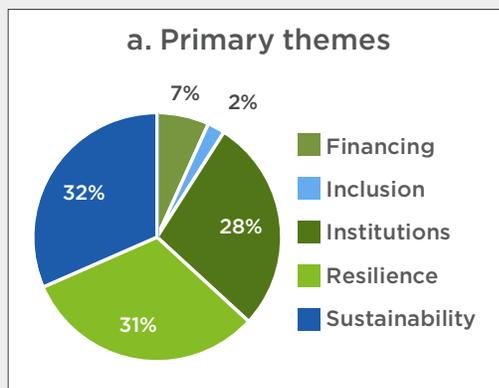
Block A comprises intermediate outcomes that are directly achieved by GWSP's analytical and advisory activities. As seen in the various stories presented in chapter 3, these activities include engaging stakeholders, informing regulatory policy, providing technical assistance, publishing and disseminating knowledge products, developing tools, and piloting innovative approaches, among others. Through these activities, GWSP influences investments in the water sector, both within the Bank and outside.

In FY22, the GWSP portfolio contributed results across all five priority themes. Each GWSP activity was assigned a primary theme to which it was expected to contribute results. Given the cross-cutting nature of the themes, most activities contribute results to more than one theme—these are recorded as secondary themes. Activities are expected to deliver results under all themes selected as applicable (primary and secondary).

When analyzing the makeup of the active portfolio based on primary themes, 32 percent are tagged as contributing to sustainability, 31 percent to resilience, 28 percent to institutions, 7 percent to financing, and 2 percent to inclusion (see figure 4.2a). Financing and inclusion are more cross-cutting and often pursued as part of the much broader objectives of sustainability and institutions,

FIGURE 4.2

PORTFOLIO BREAKDOWN BY PRIMARY AND SECONDARY THEMES, FY22

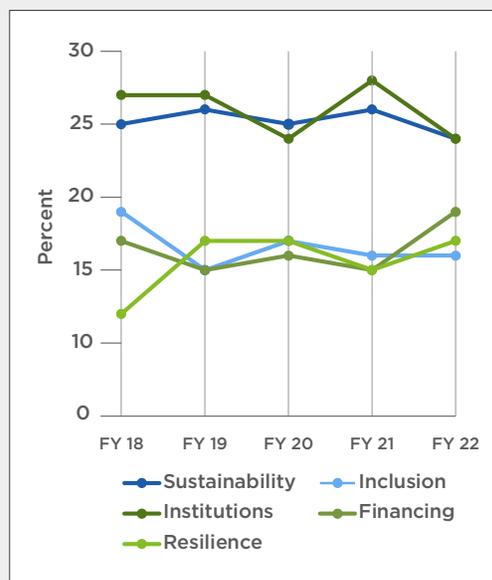


and are therefore most often identified as secondary themes. When looking at secondary themes, the portfolio’s overall contribution toward the five priority themes is more balanced (see figure 4.2b).

Over the past five years, GWSP has maintained a diversified set of activities. While variations are expected as activities enter and exit the portfolio, the portfolio of activities is consistently addressing all five priority themes, as seen in figure 4.3. One portfolio shift of note is the increased focus on resilience. Between

FIGURE 4.3

PORTFOLIO BREAKDOWN BY SECONDARY THEME, FY18-22



FY18 and FY22, the percentage of activities addressing the theme of resilience grew from 12 percent to 17 percent. In the same period, there was a decrease in the percentage of activities addressing inclusion as a secondary theme (from 19 percent to 16 percent). Yet it may be noted that substantial progress has been made on this theme since FY18, as detailed in the section “Social Inclusion in Water” in chapter 2. This progress is largely attributed to the activities being carried out under global grants focused solely on inclusion.

Block A includes 19 indicators that measure expected results at the intermediate Block A includes 19 indicators that measure expected results at the intermediate outcome level across the five priority themes. In FY22 79 percent of active grants reported achieving one or more intermediate outcome, as monitored using Block A indicators. The remaining 18 percent are expected to achieve their results by the end of the grant period (FY23–24) (see figure 4.4).

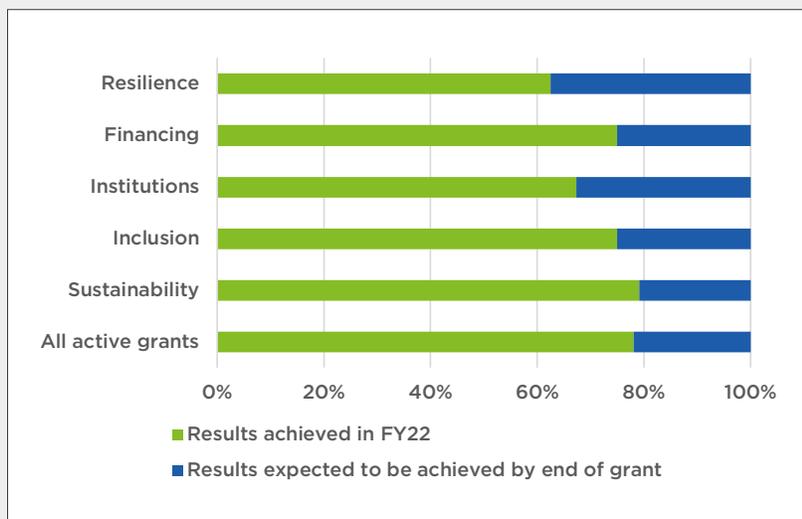
For example, in Vietnam, GWSP supported the development of rural water and sanitation tools such as the source assessment methodology, to ensure sustainable and reliable water supply. Several water-related institutions benefited from this support, including the Ministry of Natural Resources and Environment, the Ministry of Agriculture and Rural Development, and the Ministry of Construction. Thus, in FY22 this grant reported progress toward the following indicators under the sustainability theme: Tools and monitoring systems supported to strengthen (a) the sustainable management of water resources at the national, basin and/or aquifer level and/or (b) built infrastructure assets; and water-related institutions supported to (a) sustain water resources and/or (b) built infrastructure assets.

An example of a grant expected to achieve results by end of FY23 is the Water Sector Dialogue in Egypt, Djibouti, and Yemen. Activities under this grant aim to strengthen the analytical foundation and dialogue on the management and development of water in these three countries, toward sustainable, climate-resilient growth. In FY22 outputs included the delivery of analysis of wastewater sector plans; policies and standards to assess opportunities for enhancing wastewater reuse in Egypt; a holistic financial analysis of desalinization and how it will impact the financial viability of the water and sanitation sector; and a workshop to share experiences and good practices on drought and flood risk management among officials from Egypt, Jordan, and Brazil. In FY23, once a report on expanding nonconventional water sources is finalized and disseminated, it is expected to contribute to the intermediate outcome of informing policies/strategies/regulatory frameworks to strengthen the sustainable management of water resources and/or of built infrastructure assets, and to promote principles of building freshwater resilience.

Box 4.2 summarizes some of the results achieved. A detailed breakdown of the results achieved under Block A is included in appendix B, table B.1.

FIGURE 4.4

PERCENTAGE OF ACTIVE GRANTS REPORTING RESULTS ACHIEVED IN FY22, BY THEME



BOX 4.2**BLOCK A: EXAMPLES OF RESULTS ACHIEVED IN FY22****19****COUNTRIES***(compared to 17 countries in FY21)*

were supported to develop policies and strategies that strengthen the sustainable management of water resources and of built infrastructure assets.

45**ACTIVITIES***(compared to 41 in FY21)*

contributed to results focused on improving the financial viability and creditworthiness of institutions in the water sector.

10**COUNTRY-SPECIFIC GRANTS***(compared to 8 in FY21)*

reported results achieved related to water institutions trained in gender, inclusion issues, and/or human resources practices related to diversity and inclusion.



When looking at the five-year period, there were **288 grants active at some point between FY18 and FY22**. Out of these grants, 234 reported achieving one or more intermediate outcomes, as monitored using Block A indicators. Figure 4.5 shows the cumulative number of grants reporting results achieved under each theme during this period.

GWSP'S DIRECT INFLUENCE ON WORLD BANK WATER LENDING

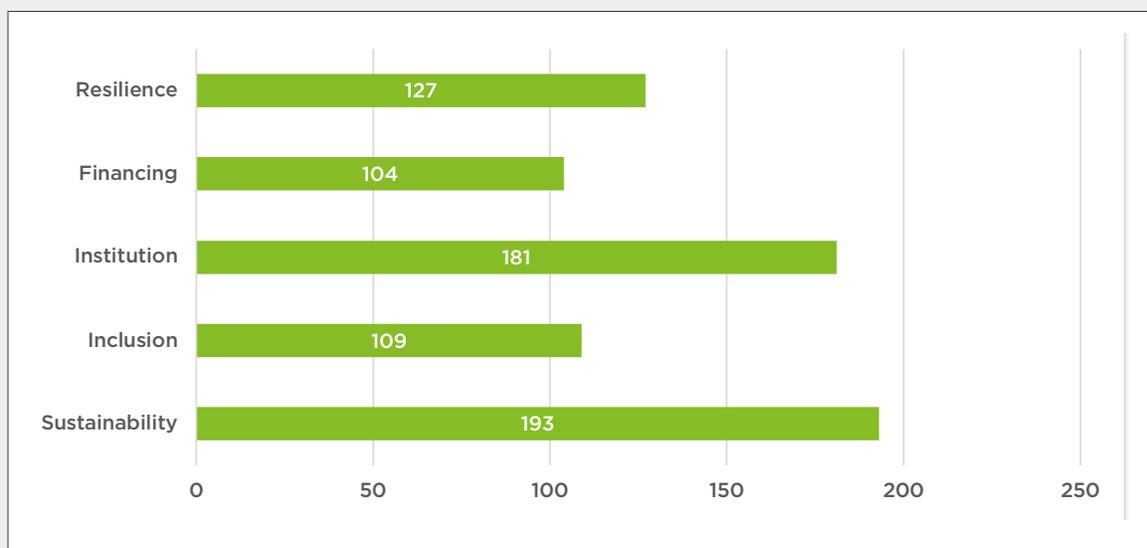
GWSP's unique value proposition enables it to influence, through knowledge and technical assistance, the design and implementation of

water sector reforms and infrastructure projects financed by the World Bank Group. This was recognized as a finding in the Mid-term Program Formative Evaluation that was carried out in FY21.

To quote the evaluation:

The GWSP "Knowledge into Implementation" model provides additionality to the Water GP in enabling the mobilization of high-quality knowledge, country exposure to global diagnostics, extensive knowledge adaptation to contextual priorities, and just-in-time technical assistance provision, laying the groundwork for replication and scale-up in lending operations, and long-term country engagement.

FIGURE 4.5 NUMBER OF GRANTS REPORTING RESULTS ACHIEVED IN FY18-22, BY THEME





In FY22 GWSP informed lending projects totaling \$41.9 billion; of this, \$13.0 billion was for newly reported projects.¹ This last dollar amount reflects the multiyear nature of GWSP activities, which may influence the same project at different points in the project cycle. Among the newly influenced lending projects, 13 were linked to 8 countries affected by fragility and conflict (Democratic Republic of Congo, Mali, Mozambique, Niger, Nigeria, Solomon Islands, South Sudan, and Timor-Leste), with commitments of more than \$2.4 billion.

GWSP's influence extends beyond the Water GP. In FY22 nearly half (approximately 49 percent) of the lending projects influenced by GWSP sat outside the Water GP, illustrating that GWSP has a wide audience and mandate across the World Bank. This is consistent with the role that water plays in all facets of the World Bank Group's work, including agriculture,

energy, and urban development. For example, and as displayed in figure 4.6, GWSP informed approximately \$1.3 billion in the Urban, Disaster Risk Management, Resilience and Land GP's FY22 lending portfolio, and more than \$1.1 billion in that of the Energy and Extractives GP.

When looking at the past five years, GWSP's influence in lending projects led by other GPs such as Health, Nutrition and Population; Agriculture and Food; and Urban, Resilience and Land has increased both in share and total amounts of influenced lending. Variation across sectors is reflective of shifts in the Bank's overall lending portfolio and client demand. For example, in FY20 and FY21 health emerged as one of the top sectors where GWSP was having influence due to COVID-19 response operations. Regionally, most of the lending influenced has focused on Africa, followed by the South Asia and East Asia and Pacific regions (figures 4.7 and 4.8).

1. Influenced lending is calculated based on (a) approved and pipeline lending projects that were informed in a given fiscal year by active grants for the first time, and (b) all active lending projects in a given fiscal year that were informed by active grants (including those that had been previously reported). This figure is based on information collected through the annual monitoring process and the dollar value of World Bank projects that were influenced. If GWSP-supported knowledge was used in the design or implementation of a World Bank operation, the value of that operation is counted in its totality.

FIGURE 4.6

\$13 BILLION IN NEW GWSP-INFLUENCED WORLD BANK LENDING, BY GLOBAL PRACTICE, FY22

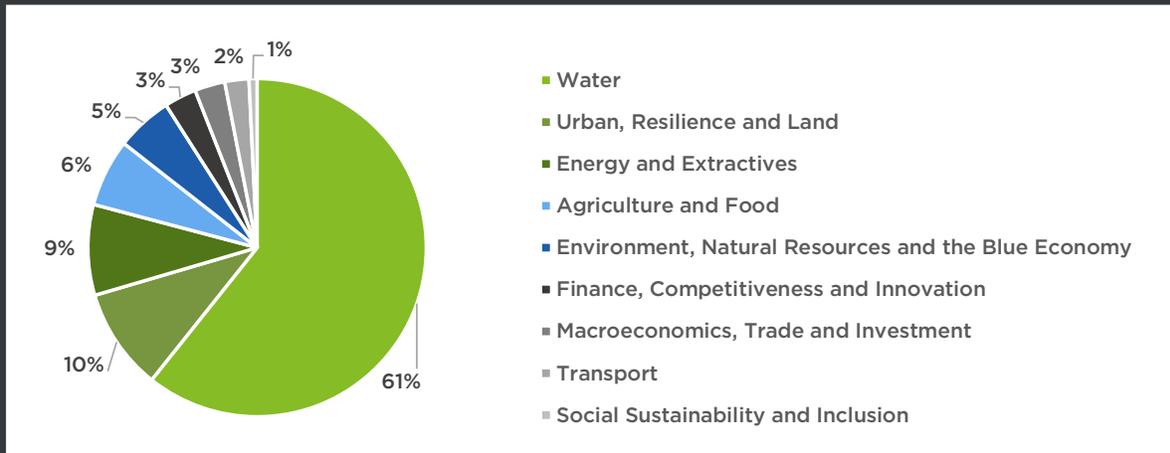


FIGURE 4.7

GWSP-INFLUENCED GLOBAL WATER-RELATED WORLD BANK LENDING, BY REGION, FY22 IN BILLIONS

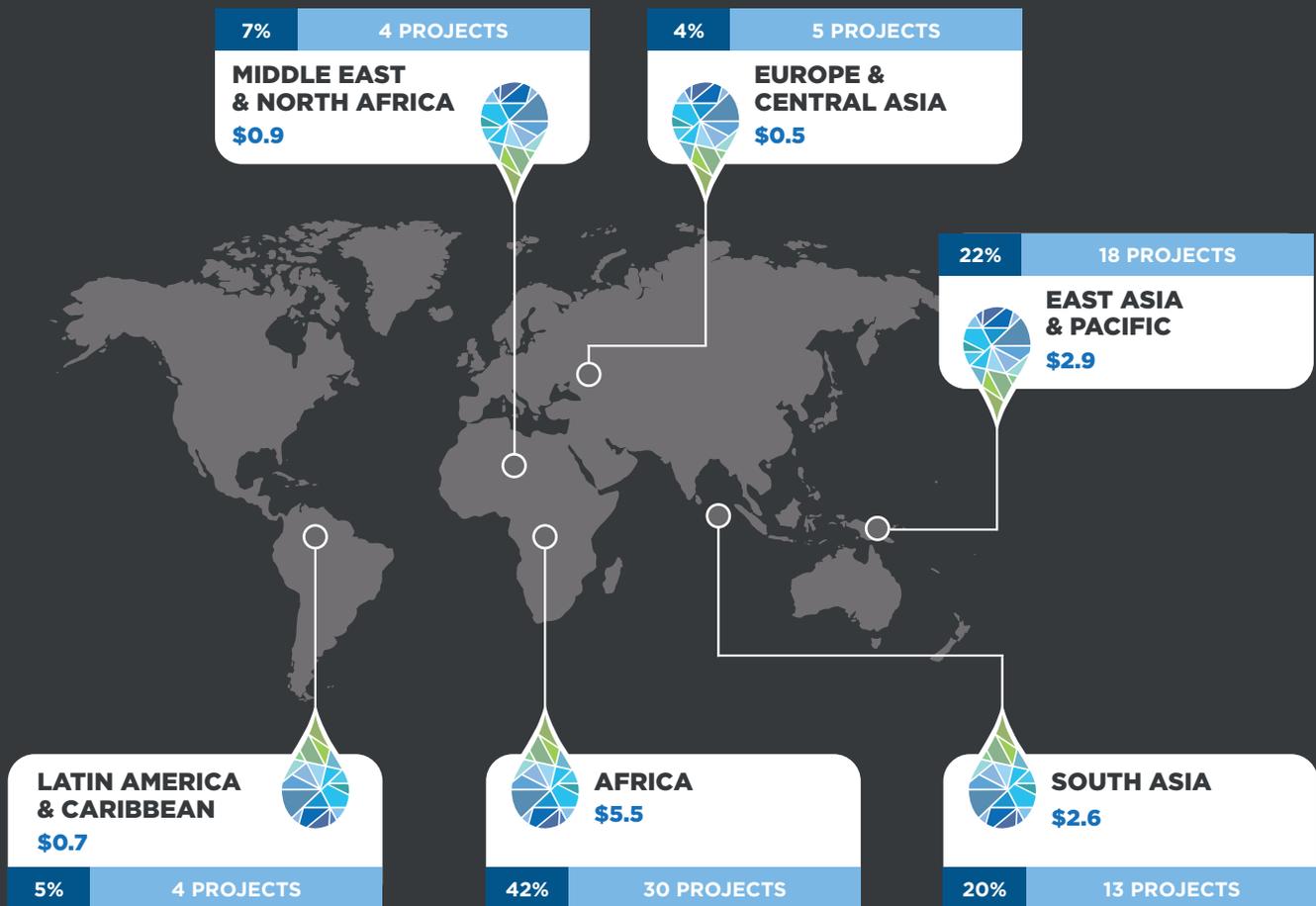
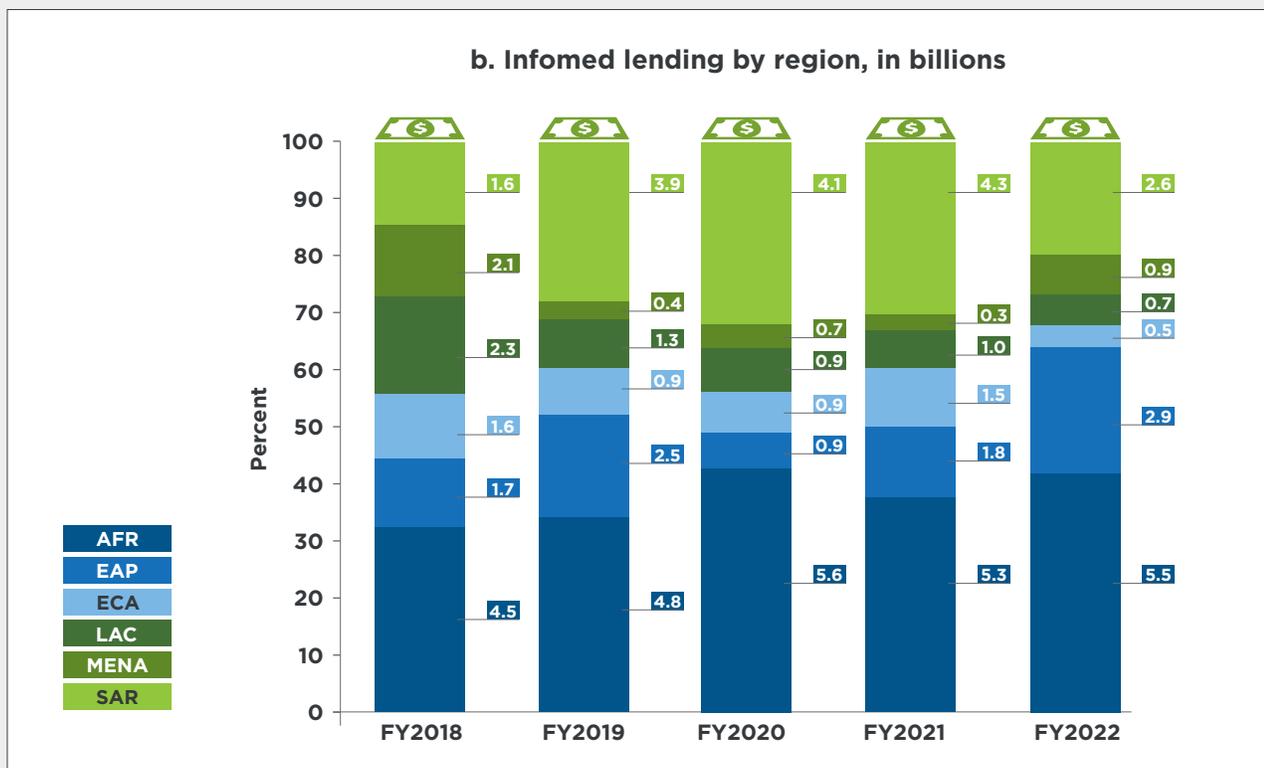
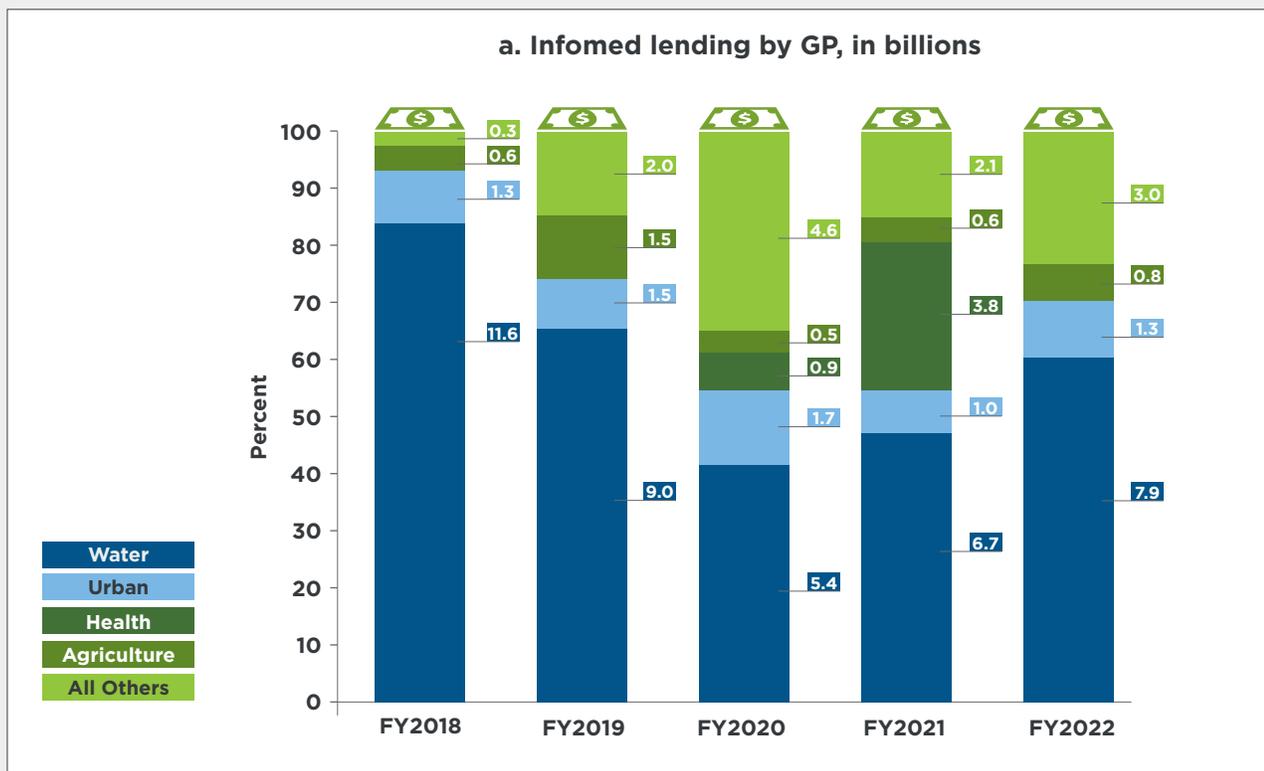


FIGURE 4.8

GWSP-INFLUENCED LENDING ACROSS GLOBAL PRACTICES AND REGIONS, FY18-22



Source: GWSP portfolio monitoring data.

Note: "All others" include the following GPs: Education; Energy and Extractives; Environment, Natural Resources and the Blue Economy; Finance, Competitiveness and Innovation; Governance; Macroeconomic Trade and Investment; Social Sustainability and Inclusion; Transport. AFR = Sub-Saharan Africa; EAP = East Asia and Pacific; ECA = Europe and Central Asia; LAC = Latin America and Caribbean; MENA = Middle East and North Africa; SAR = South Asia.

REPORTING ON PORTFOLIO SHIFTS AND PROJECT RESULTS (BLOCK B)

As illustrated in the GWSP Theory of Change, GWSP's knowledge, analytics, and technical assistance influence how policies and projects are designed and implemented so that they are positioned to deliver better outcomes. Progress along this results chain is reported through Block B indicators.

A first set of indicators (Block B1) is used to document the performance of new Water GP lending across the five priority themes and how thematic priorities are reflected in projects' design and monitoring (refer to appendix B, table B.2). A second set of indicators (Block B2) is used to document the results of all active World Bank water-related lending operations, most of which were influenced by activities funded by GWSP or its predecessors—the Water Sanitation Program and the Water Partnership Program (refer to appendix B, table B.3).

For example, in FY19 GWSP supported the development of a water resources data and knowledge portal, a water resources e-book, and a report about water development in the lowlands of Ethiopia. These outputs were used to improve the capacity of Ethiopia's Ministry of Water, Irrigation, and Electricity and other key stakeholders involved in water resources planning and management to build resilience in water resources management and WASH service delivery. The lowlands report informed the design and preparation of the climate-resilient component of the One WASH—Consolidated Water Supply, Sanitation and Hygiene Account project (approved by the end of FY19) by integrating water resources management in water supply service delivery. The project will increase access to safe water supply, sanitation, and hygiene services; strengthen capacity for their delivery; and enhance water resources management in Ethiopia by 2024. As of June 2022, 204,083 people had gained access to safely managed drinking water services (out of the total target of 3 million), and 1.9 million people had gained access to safely managed sanitation services (total target of 1.9 million) as a result of the project.





NEWLY APPROVED WATER GP LENDING PROJECTS

Even as the Water GP's portfolio of lending projects grew significantly, GWSP continued to contribute to improvements in project design. Between FY21 and FY22, the number of Water GP projects approved almost doubled, from 13 projects (approximately \$2.3 billion in total commitments) to 24 (approximately \$3.76 billion in total commitments). These 24 projects in FY22 were under three main business lines: water supply and sanitation (14 projects), water resources management (6 projects), and water for agriculture (4 projects). The performance against indicators tracking GWSP's influence in the design of new water lending showed improvement in FY22 across 7 out of 10 indicators (Block B, table B.2). The remaining 3 indicators maintained the same high performance as in the previous year (at 100 percent for each indicator).



For example, under the theme of resilience, all 24 projects approved in FY22 scored positively against the indicator documenting the inclusion of measures to protect against increased climate variability and natural events impacting water. One of these was the Horn of Africa—Groundwater for Resilience project, to be implemented in Kenya, Ethiopia, and Somalia. One of the specific design features that will protect against increased variability and natural events affecting water is the use of cost-efficient renewable energy sources, including climate-resilient design elements, in the construction of new infrastructure. These form a basis to start building the climate resilience of vulnerable communities in these areas, in particular to drought. By 2025 3.3 million people in selected borderlands of the Horn of Africa will benefit from increased access to water supply and reduced vulnerability to climate change impacts, in particular drought and floods, as a result of the project. Furthermore, because the project will be implemented in Ethiopia and Somalia, it also contributes toward the indicator, “number of fragile and conflict-affected states supported with a resilience lens.”

IN FY22 GWSP SUPPORTED THE FOLLOWING ACHIEVEMENTS



Inclusion

In FY22, 100 percent of projects were gender tagged, meaning they demonstrated a results chain by linking gender gaps identified in the design phase analysis to specific actions tracked in the Results Framework during implementation. In addition, 88 percent of new projects approved in FY22 (compared to 85 percent in FY21) have other, social inclusion aspects, such as activities that target the poor, vulnerable, or underserved communities or areas. Almost half (46 percent) of the projects in FY22 include actions on disability.



Resilience

One hundred percent of new projects incorporate resilience in the design of water-related activities, in line with FY21. On the other hand, the percentage of projects with climate change co-benefits decreased from 62 percent in FY21 to 58 percent in FY22. Nonetheless, given that the total water lending portfolio almost doubled in FY22, the total financing of projects with co-benefits was higher than in FY21 (\$2.2 billion in FY22 compared to \$1.4 billion in FY21). Furthermore, in FY22, seven projects (compared to 2 in FY21) supported countries affected by fragility and conflict (Ethiopia, Cameroon, Kiribati, Mozambique, Niger, Somalia and Timor-Leste) and incorporated a resilience lens in their design.



Financing

There was an increase in the percentage of projects that supported reforms/actions improving financial viability (from 69 percent in FY21 to 89 percent in FY22), and projects with explicit focus on leveraging private finance (from 8 percent to 22 percent).



Institutions

Compared to the past fiscal year, the percentage of projects that support reforms/actions that strengthen institutional capacity, held steady at 100 percent in FY22. This means that all the new Water GP lending operations of FY22 included a focus on strengthening institutional capacity through establishing new institutions or enabling existing ones to deliver services sustainably.



Sustainability

In FY22, all 24 Water GP lending operations promoted sustainable and efficient water use. Furthermore, the indicator for rural water supply and sanitation that measures the functionality of water points increased from 80 percent in FY21 to 100 percent in FY22.

FY22 also marks the end of the first five-year period by which targets were set to be achieved under Block B1. Overall, Water GP lending projects are better designed in terms of the GWSP themes than they were five years ago. As displayed in table 4.1, by the end of FY22 all targets were either reached or surpassed. The inclusion theme performed particularly well against one indicator. The percentage of new projects that target the poor, vulnerable, or underserved communities or areas (“other social inclusion aspects”) in FY22 was 88 percent compared to a target of 30 percent, and a baseline of 11 percent in FY17. The support provided to client countries and country teams in terms of capacity building, technical advice, and the

development of specific tools over the past five years (as detailed in the section on social inclusion in chapter 2), has been fundamental to achieving and surpassing this target.

The percentage of projects with explicit focus on leveraging private finance was an indicator against which performance was also above target, even though there was more year-on-year variability in this indicator than others. The variation was particularly stark from FY21 to FY22. This can be explained by the challenging financing environment in FY21 brought about by the pandemic and the decision to shift focus toward projects providing immediate support in response to the COVID-19 pandemic.

TABLE 4.1

BLOCK B1 INDICATORS: PROGRESS AND TARGETS SUMMARY

		Baseline FY17	Progress FY22	Targets ^a FY22	Achieved/Exceeded
Sustainability	% of new projects that promote sustainable and efficient water use	74	100	80	✓
	% of new rural WSS lending projects that measure functionality of water points		100	80	✓
Inclusion	% of new projects that are gender tagged ^b	—	100		
	% of new projects with other social inclusion aspects ^c	11	88	30	✓
Institutions	% of projects that support reforms/actions that strengthen institutional capacity	100	100	90	✓
Finance	% of projects that support reforms/actions for improving financial viability ^d	81	89	85	✓
	% of projects with explicit focus on leveraging private finance	10	22	14	✓
Resilience	% of projects incorporating resilience in design of water-related initiatives	74	100	80	✓
	Number of fragile and conflict-affected states supported with a resilience lense	5	7 (20 cumulative FY18-22)	15	✓
	% of new World Bank lending commitments with climate-change co-benefits	31	58	50	✓

Source: Analysis of the FY22 Water Global Practice approved portfolio by GWSP Monitoring and Evaluation team.

Note: WSS = water supply and sanitation; — = not available.

a. Total targets are estimated based on a weighted average of 45 percent operations in water supply and sanitation, 45 percent operations in water security and integrated water resources management, and 10 percent operations in water for agriculture.

b. Measures the percentage of projects that demonstrate a results chain by linking gender gaps identified in analysis to specific actions tracked in the results framework.

c. Projects that target the poor, vulnerable, or underserved communities or areas. Excludes citizen engagement, which is included under corporate monitoring.

d. Total percentage estimated based only on relevant projects. Excludes water security and integrated water resources management.

e. In FY22, 39 countries and 1 territory were classified as fragile and conflict-affected, as per corporate guidelines. Target is cumulative for the period FY18-22.

ACTIVE WORLD BANK LENDING PROJECTS IN THE WATER SECTOR

Better-designed projects and enhanced technical assistance during implementation are expected to result in better project outcomes.

One hundred thirty-five ongoing lending operations in the World Bank's water-related portfolio reported their results in FY22. Across the period FY18–22, more than 470 projects were thus informed. Most of these were influenced by activities funded by GWSP and its predecessors, the Water Sanitation Program and the Water Partnership Program. Box 4.3 highlights some of the results achieved in FY22 alone, and across the FY18–22 period.

In terms of performance, across the five years FY18–22, three-fourths of all B2 indicator targets for water supply and sanitation were surpassed; for the remaining indicators, targets were not achieved but reported progress of at least 86 percent of the period target values.

The targeted number of people with access to improved sanitation was vastly surpassed (201.11 million versus a target of 80.00 million). This is explained by the 159 million people reported by

the Swachh Bharat project in India in FY19. The targets set for biological oxygen demand pollution loads removed by treatment plants and number of utilities with an improved working ratio were also surpassed. This success was due to a stronger focus on expanding access to safely managed water supply and sanitation, and on the important role of well-managed utilities in accelerating progress toward SDG targets.

On the other hand, the total number of people gaining access to improved water sources in FY18–22 (64.3 million) was below the target set for that period (70 million).

This can be explained in part by the impact of the COVID-19 pandemic, particularly during FY20–21, when yearly progress slowed (11.5 million people on average) from the previous two fiscal years (14.4 million on average). The total number of people trained in hygiene behaviors was also lower than expected (11.14 million versus the 13 million target). Although the number of projects supporting water supply, sanitation, and hygiene in health care facilities doubled over the past year, largely as part of the World Bank's COVID fast-track financing, the results from these investments are captured in other indicators related to: (1) risk communication and messaging; (2) access and adequate stock of infection control products and supplies; (3) health care waste management; and (4) access to safe water in health care facilities.



Of indicator targets focused on water in agriculture, and water resources management, half were surpassed; the other half reported at least 80 percent and 90 percent achievement levels, respectively.

Achievement of the target for hydropower and dams was reported as 92 percent (6,928 MW of hydropower generation capacity constructed or rehabilitated vs a target value of 7,000 MW).

Overall, the achievement against indicators in both Block B1 and B2 is consistent with the assumptions underlying GWSP's theory of change. GWSP-funded technical assistance has positively influenced the design of new projects expected to benefit the water and sanitation, water in agriculture, and water

resources management subsectors. Active World Bank-financed projects are furthering progress toward the SDG targets, particularly those related to water. However, implementation challenges related to capacity constraints, policy environments, competing demands for financing, limited fiscal space, and global shocks remain. Disruptions in the implementation of projects, particularly in the past couple years due to COVID-19, have slowed the pace of progress, thus affecting the results achieved as of end-FY22 when compared to the targets set in FY18. Despite the significant progress made to date, there is still much to be done to ensure water security and safely managed services for all.

BOX 4.3

RESULTS REPORTED BY WORLD BANK LENDING OPERATIONS IN FY22 AND ACROSS FY18-22

12.5

MILLION PEOPLE

have access to an improved water source (of which 6.3 million are female); 64.3 million for the period FY18-22 (compared to a target of 70 million)

7

MILLION PEOPLE

have access to improved sanitation (of which 3.5 million are female); 201.1 million for the period FY18-22 (compared to a target of 80 million)

1.7

MILLION PEOPLE

in areas covered by water risk mitigation measures; 21.8 million for the period FY18-22 (compared to a target of 16 million)

13,086

TONS/YEAR OF

biochemical oxygen demand pollution loads were removed by treatment plants; 86,891 tons/year for the period FY18-22 (compared to a target of 25,000 tons/year)

1.4

MILLION HECTARES

are under sustainable land/water management practices; 4.8 million for the period FY18-22 (compared to a target of 1.3 million)

23

INSTITUTIONS

with water resources management monitoring systems; 109 for the period FY18-22 (compared to a target of 120)

CHAPTER 5



KNOWLEDGE TO GO FURTHER

GWSP continues to play an essential role in ensuring the flow of knowledge necessary to meet the rapidly evolving challenges being faced by the Bank's clients. The Knowledge Management and Learning (KML) Program supported by the Partnership ensures that lessons emerging from the Bank's global, regional, and country programs are captured and made available to staff and external stakeholders in ways that build capacity, influence policy, and improve investment decisions and operations. This feedback mechanism has had a demonstrable impact on both project quality and the adoption of innovation.





Capturing and disseminating lessons learned from ongoing programs to build capacity, influence policy, and improve investment decisions and operations.

CLOSING THE LOOP— FROM CAPTURE TO APPLICATION

Given the pace of change and the nature of the challenges being addressed in the water sector, the KML Program uses a variety of tools and approaches to ensure that knowledge is captured and made available where and when it is needed.

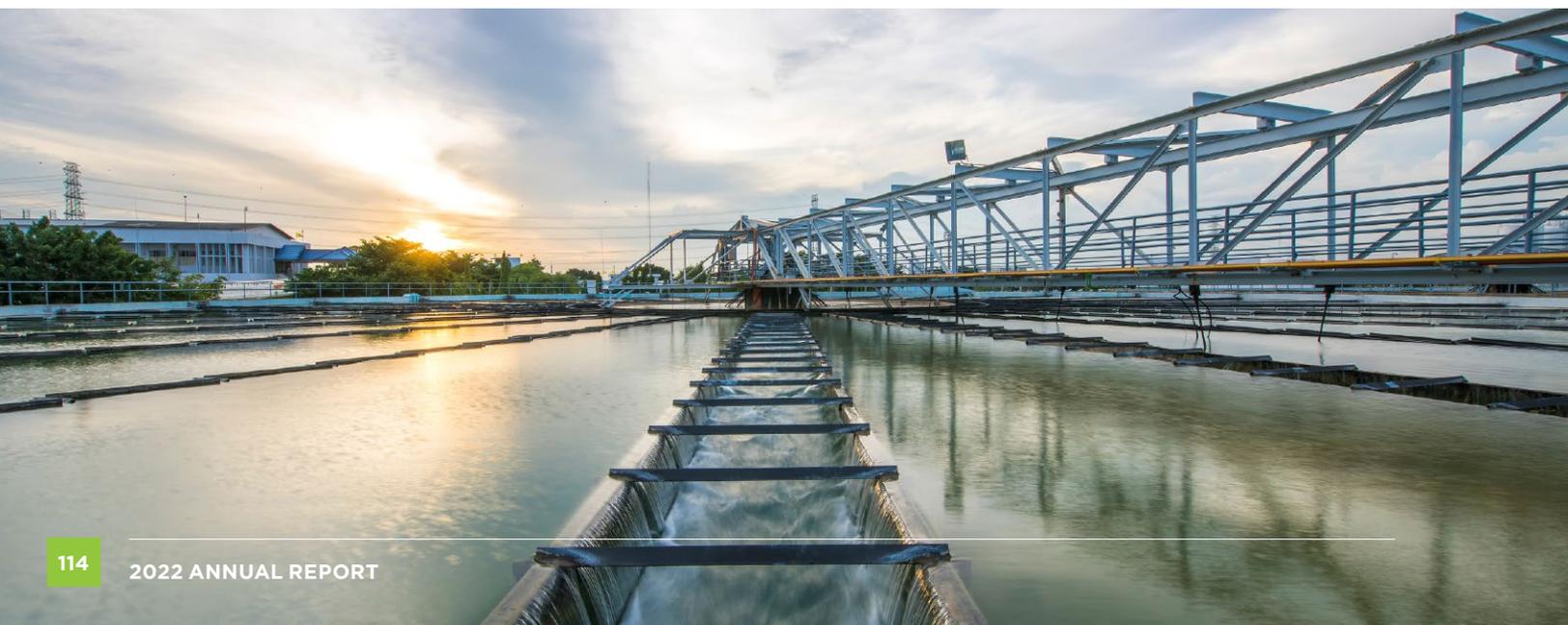
In FY22, the GWSP supported the production of 40 publications. These are compiled in the sixth edition of [Knowledge Highlights from the Water GP and GWSP \(2016–2021\)](#), which showcases over 200 analytical pieces and knowledge products. These range in scope and ambition, from quick knowledge briefs capturing a best practice or local success to comprehensive country diagnostics; and from specific policy advice requested by a client country to comprehensive regional or thematic frameworks intended to shape the global response to water challenges.

Beyond traditional printed publications, online tools and approaches increase the reach and accessibility of knowledge both in and outside

the Bank. A new intranet (internal) platform, rolled out in summer 2022, allows syndicated and moderated flow of content from source units to operational staff. Collaborative tools are increasingly being used to support dialogue among Communities of Practice (CoPs)—peer groups that self-organize to share knowledge and solve common problems. Examples include the Rural Water Supply & Sanitation CoP and the Hydropower & Dams CoP.

Through the flagship AskWater Service Desk, staff gain access to a global network of subject matter experts who respond to technical and operational challenges. Typical questions include requests for model terms of reference, case studies on specific topics, or good practices related to the application of a particular policy. AskWater has managed close to 1,500 cases with user satisfaction rates approaching 90 percent approval and a user base covering 70 percent of its target population.

The Service Desk is undergoing a major upgrade and has recently updated its case management system and several of the databases used to address queries (e.g., CVs, terms of reference, publications, case studies). More advances are planned for FY23.



AskWater has managed close to 1,500 cases with user satisfaction rates approaching 90 percent approval and a user base covering 70 percent of its target population.

As an essential element of the KML Program, GWSP supports a comprehensive learning program that reaches World Bank staff as well as country partners. Among its objectives, the program acts both as accelerator and conduit, ensuring that emerging lessons drawn from the Bank’s operations and analytical work—and those from external experts and partners—are rapidly transmitted to those who can apply them in their work. The strong online participation noted in 2020 and 2021 continued in 2022 with over 6,000 participants, including external partners, in the 53 webinars offered. The series brought cutting-edge innovation, opportunities for reflection and stocktaking, and external perspectives to the work of the water sector.

GWSP also organized a series of Smart Water Academies to address more complex issues and benefit country teams. In the summer of

2021, the GWSP teamed up with the American Water Works Association to run a series of events for World Bank staff and partners from 12 economies, including project teams from Ghana, Liberia, Nepal, Niger, Peru, and West Bank and Gaza.

The Bank’s annual knowledge week, Water Online Week, held under the banner “WOW!2022—Across the Waters and Around the World” was held in February 2022 and attracted over 2,550 participants, including Bank staff, partners, and clients. The forum was an occasion for the Water GP to discuss how the water agenda is delivered with and by partners. It featured short and dynamic plenaries on strategic priorities and cross-cutting themes, an interactive showcase from regional units, and many occasions to connect around the water agenda.



SUPPORTING PROGRESS WITH INNOVATIVE DATA AND INFORMATION

Governments in World Bank client countries are increasingly seeking access to data and knowledge to help tackle development challenges. World Bank staff, often in completely different country contexts, frequently receive remarkably similar questions from their government counterparts—where might new irrigation techniques be most effectively applied? how to most effectively target sanitation projects to tackle waterborne diseases? what specific parts of the country are most affected by water pollution? Much of the data and knowledge that could help with these questions are available but held in different locations, making it challenging for researchers or decision-makers to find the information they need.

Two recent examples demonstrate how open data, access to knowledge, and global engagement platforms are being used to provide clients with the information they need. The World Bank Data Hub, launched at the end of 2020 (<http://wbwaterdata.org>), continues aggregating open data on water, not only from the World Bank but also from major development partners and academic institutions. The comprehensive catalog of datasets, searchable by strategic priorities and countries, has been augmented with data visualizations that allow for rapid analysis of water-related development challenges, notably around water quality and inclusion in water. These draw from the flagship studies [Quality Unknown: The Invisible Water Crisis](#) and [“Women in Water Utilities: Breaking Barriers.”](#) The book *Quality Unknown* demonstrates how better information

disclosure can not only improve decision-making at the household level—for example, if people know water from a certain well has a higher concentration of arsenic, they will get their water from elsewhere—but it can also inspire citizen engagement and social movements. A large dataset related to rainfall shocks and food losses was also added recently to complement the 2017 flagship report [Uncharted Waters: The New Economics of Water Scarcity and Variability](#). The Data Hub was recently featured by the [UN Innovation Update](#).

In the second example, GWSP is supporting the modernization of the International Benchmarking Network (IBNET), originally launched in 1994. The new IBNET goes beyond data services by aligning the World Bank with like-minded partners, many of whom have existing relationships with water utilities and regulators. Through partnership, enhanced by an online collaboration platform, the new IBNET will not only leverage these relationships, but be in a better position to scale initiatives aimed at expanding access to global expertise, partner capacity-building, and peer-to-peer dialogue required to raise utility performance. The continuous and broadened engagement offered by the new platform, and being welcomed by prospective partners, is likely to provide incentives to utilities and regulators to provide data to IBNET while addressing the urgent need to use these data to solve real-world problems.

Recognizing the importance of innovation and of testing new ideas ahead of scale-up, as well as the speed of change in the sector, the Water Expertise Facility provides just-in-time funding in response to requests from Bank water operations. These small grants are used to increase access to external expertise typically in response to emerging and often urgent issues

not evident during project preparation. These expert inputs contribute to the work of the Bank's clients, providing timely advice and guidance that offer direction, overcome policy bottlenecks, and introduce good and emerging practices.

Since 2017, the Water Expertise Facility has approved 144 small grants totaling close to \$4.5 million. In FY22, it provided 21 grants across all world regions. Grants supported analytical work and pilots, including water sector reform in South Africa, water storage and irrigation in Nepal, the development of a WASH strategy in the Zambezi River Basin, a study of the state of the water supply and sanitation sector in Central Asia, plastic pollution in Sri Lanka, and consultations on the water sector in Timor-Leste. A full list is provided on the following page in table 5.1.



TABLE 5.5

JUST-IN-TIME SUPPORT IN FY22

COUNTRY / REGION	SUPPORTED PROJECT/ INITIATIVE	EXPERTISE PROVIDED
AFRICA, EASTERN AND SOUTHERN (AFE)		
Angola	Climate Change Development Report (CCDR) in Angola	Guidance on a cross-sectoral modeling effort to represent the dynamics and linkages between water, energy, and food production; specifically review existing information; and conduct a physical and socioeconomic assessment of climate change impacts.
Eswatini	Eswatini: Water Supply and Sanitation Access Project	Guidance on the development of a business forecasting model that will help the Eswatini Water Services Corporation perform financial forecasting for internal and external stakeholders, implement its strategic plan, identify realistic targets for its annual business scorecard, set cost-reflective tariffs, revise key performance indicators, and develop business plans.
Madagascar Benin Angola	Madagascar National Water Project; the Benin Unlocking Human and Productive Potential DPO Series; and the Girls Empowerment and Learning for All Project in Angola and São Tomé and Príncipe	Guidance on the design and facilitation of a workshop on institutional WASH in Madagascar, the design of institutional WASH activities across countries in francophone Africa, and dissemination and further development of an operational toolkit.
Malawi	Deep-Dive Study for Promoting Resilient Urban Development and Driving Sustainable Regional Growth in Malawi	Technical expertise to review the soundness of Blantyre Water Board's medium-term investment program for water production and distribution infrastructure, and to define technical improvements to water distribution and service improvements.
Mozambique	Improving Storage and Infrastructure for Water Security and Resilient Economic Growth in Mozambique project	Provision of hydraulic advice to assist with dam safety and water resources, including in the development of the National Directorate of Water Resources and Ministry of Water, and quality assurance in dam safety assessments.
South Africa	South Africa Reimbursable Advisory Service (RAS) for Infrastructure Investment	Support of the South African Water and Sanitation Department in refining and implementing its new framework for sustainable improvement of water supply and sanitation services in the country.
Zambia	Zambia/Lusaka Sanitation Project	Guidance on behavioral interventions and nimble evaluation techniques to improve delivery and uptake of sanitation services provided by the Lusaka Water and Sewerage Company.
AFRICA, WEST AND CENTRAL (AFW)		
Madagascar Benin Angola	Madagascar National Water Project; the Benin Unlocking Human and Productive Potential DPO Series; and the Girls Empowerment and Learning for All Project in Angola and São Tomé and Príncipe	Guidance on the design and facilitation of a workshop on institutional WASH in Madagascar, design of institutional WASH activities across countries in francophone Africa, and dissemination and further development of an operational toolkit.
EAST ASIA AND PACIFIC (EAP)		
Lao DPR	Laos Scaling-up Water Supply, Sanitation and Hygiene Project	Support for a menstrual hygiene management pilot in Lao PDR, including field research on innovative sanitary pads.
Timor-Leste	Dili Water Supply Project	Guidance on a study of politically feasible approaches to improve water sector performance in Timor-Leste.

EAST CENTRAL ASIA (ECA)		
Georgia	Georgia Irrigation and Land Market Development Project	Guidance on a range of tariff options supported by data and a model for tariff calculations in Southern Caucasus countries.
Kazakhstan Kyrgyz Republic Tajikistan Turkmenistan Uzbekistan	Water Services and Institutional Support Project	Support to a study identifying and promoting solutions for sustainable and climate resilient water supply and sanitation services, particularly in the rural areas of Central Asia.
MIDDLE EAST AND NORTH AFRICA (MNA)		
Mashreq Region	Mashreq Platform for Transboundary Water	Provides support for the design and establishment of a proposed research center.
SOUTH ASIA (SAR)		
Bangladesh	Bangladesh Country Climate and Development Report	Support for a deep dive on diversification of water sources in Bangladesh, specifically aimed at providing insights into future priorities.
India	Punjab Municipal Services Improvement Project	Assistance to the Ludhiana city water supply scheme to develop the specifications for a data-driven decision-making system harnessing recent advances in artificial intelligence and the Internet of Things.
Nepal	Modernization of Rani Jamara Kulariya Irrigation Scheme Phase 2 project	Support for a review of the main watersheds in the country, the storage initiatives and programs being proposed, and the government's policies and plans for storage.
Sri Lanka	Integrated Watershed and Water Resources Management Project in Sri Lanka	Support to a review of sustainable solutions for plastic handling at hydropower plants and dams.
LATIN AMERICA AND THE CARIBBEAN (LCR)		
Argentina	Buenos Aires Water Supply and Sanitation with a Focus on Vulnerable Areas Program	Input to technical reviews and workshops for the Buenos Aires water utility (AySA) relating to (i) modernization of AySA's customer relationship management, (ii) integration of human resource systems, (iii) modernization of business cycle management, (iv) development of predictive asset management tools with artificial intelligence, and (v) enabling of remote work.
Brazil	Paraiba Improving Water Resources Management and Services Provision; Ceará Water Security and Governance; SABESP Improving Water Service Access and Security Project in the Metropolitan Region of São Paulo and Espírito Santo Integrated Water Management	Guidance in the preparation of bidding documents for design and build; design, build, and operate; and performance-based contracts across the four projects.
Guatemala	Creceer Sano Project	Support to the development of instruments to facilitate household behavior change and handwashing.
Peru	Peru Integrated Water Resources Management in 10 Basins Project	Technical expertise in groundwater management and support to a consultation process aimed at identifying practical solutions in the development of a groundwater management plan.
GLOBAL		
Global	Global Hand Hygiene Accelerator	Support to a comprehensive capacity-building assessment targeting handwashing and identification of knowledge gaps that could be addressed via an e-learning course.

GWSP COMMUNICATIONS

Communication plays a vital role in disseminating the innovative research produced by GWSP—ensuring it reaches key policy makers and implementers while providing key inputs to shaping policy discussions.

Communication builds and maintains the essential partnerships that help advance the shared goal of achieving water security for all. It also creates greater awareness of GWSP’s unique contributions to the water sector and the impact of GWSP’s knowledge on World Bank lending operations.

Tailored communication packages focused on the release of analytical reports and operational results in client countries allow GWSP’s messages to reach a wider, more targeted audience across the globe. Of course, country clients remain the focus of GWSP’s work and communication efforts.

► Linking Knowledge to Operations

This emphasis on innovative global and country-focused knowledge, as well as the provision of country-level support, can be seen firsthand in the results of GWSP’s impact on World Bank country-based operations. In FY22, GWSP produced several stories, videos, and blogs linking knowledge to operations and showcasing efforts to provide client countries with better water and sanitation services and integrated water resources management. The feature story “[Bringing Water Closer to Home in](#)

[Rural Communities in Tanzania](#),” produced with GWSP support, showcases what access to water and sanitation has concretely meant for people like Mama Teresia Saveri, who “never thought [the] water challenge would ever be resolved in [her] lifetime.” The story is complemented by four high-impact videos that follow families, health care providers, and water utility workers who have all benefited from the program.

Additionally, GWSP produces an annual [Virtual Showcase](#) that includes short videos that allows viewers to immerse themselves in stories and multimedia showcasing the impact of the Partnership’s work in client countries. This year, the showcase documents how GWSP provided critical support to government counterparts in the Dominican Republic, where less than 10 percent of municipal wastewater is treated, to help address performance problems. The showcase includes a video that illustrates how GWSP provided support to develop a comprehensive, transformational program to improve water supply and sanitation services for the Greater Shimala Area in India. Additional videos show the Partnership’s impact on improving the water utility’s operational efficiency in Togo and increasing cooperation on transboundary water issues in the Middle East.

► Engaging in High-Level Events

Over the course of the year, GWSP supported participation in several high-level events that helped position the World Bank as one of the most trusted voices in the water and sanitation development agenda. In March 2022, GWSP supported participation in the Dakar World Water Forum, where World Bank water experts spoke at more than 45 sessions, participated in 4 high-level plenaries, and took part in a panel with private sector CEOs. GWSP-supported knowledge and research on water and sanitation was highlighted at the forum, and World Bank staff engaged



with participants from government, civil society organizations, academia, and youth at the GWSP/World Bank Group pavilion. Interactive displays and the combination of hard-copy publications with virtual reality sets allowed participants to engage with the content in the format that best fits their needs. A GWSP-supported “[Water Security in Senegal](#)” report was launched ahead of the forum and widely disseminated through a comprehensive communications package in English and French.

During Stockholm World Water Week 2021, GWSP supported the Water GP to convene and participate in over 50 sessions online and host a virtual expo where conference participants could review key publications, chat with World Bank staff, and ask questions. The conference focused on the theme of “Building Resilience Faster,” and as such, GWSP supported leadership and participation in sessions on issues such as the climate crisis, water scarcity, food security, health, biodiversity, and impacts of the COVID-19 pandemic.

GWSP supported the World Water Week session, “Water Migrants: Facts or Fiction,” which offered an evidence-based global assessment of the water-migration nexus, as well as insights into the most appropriate policy solutions. In collaboration with IUCN,

Sida, WaterAid, and the Government of the Netherlands, GWSP supported the Water GP to organize a session looking at ways to accelerate different levels of citizen participation and voice in climate-affected watershed and river basin management. During World Water Week, the GWSP-supported EPIC Response, a new policy framework for hydro-climatic risk management, was launched followed by a discussion on how decision-makers focused on water, disaster, risk management, hydro-met, and agriculture can collaborate to reduce these risks.

At the Second Dushanbe Water Action Decade Conference, in Tajikistan, GWSP supported the Water GP to share tools and methods for clients to use in designing effective water-smart solutions at the country, regional, and global levels. The conference was organized as part of the International Decade for Action, “Water for Sustainable Development,” and served as a platform for soliciting and consolidating inputs in the lead up to the UN 2023 Water Conference.

In Jakarta, Indonesia, GWSP supported World Bank participation in the Sanitation and Water for All—Sector Ministers’ Meeting 2022, which convened leaders from around the world to find innovative ways to prioritize water, sanitation, and hygiene in government policies and ensure the integration of WASH efforts in national climate, health, and economic strategies. Two GWSP-supported reports were launched at this meeting: “[A National Framework for Integrated Urban Water Management in Indonesia](#)” and “[Pathways to Integrated Urban Water Management for Greater Jakarta](#),” which lay out a roadmap for implementing an integrated urban water management framework for water-secure cities in Indonesia.

► Promoting Awareness and Action on Key Issues

To mark Menstrual Hygiene Day 2022, the Water GP, with GWSP support, partnered once again with the nongovernmental organization WASH United to raise awareness about the importance of women and girls having access to safe and affordable menstrual hygiene products. This year, the role that policy and regulatory systems play in facilitating access to better menstrual health and hygiene for women and girls worldwide was highlighted. The GWSP-supported feature story “[Policy Reforms for Dignity, Equality, and Menstrual Health](#)” was made available on the World Bank website in English, Spanish, and French to reach a wider global audience. The animated video “[Red is the color...](#)”—produced by WASH United with GWSP support—reached an audience of 2.3 million people on Facebook alone. This year, the Partnership supported a dedicated [Menstrual Health and Hygiene brief page](#); this features recent reports, blogs, feature stories, and other resources on this important topic. Within a few months, the brief page received 19,000 visits from 15,000 unique visitors, with the largest share of the audience coming from India, the United States, Nigeria, Ghana, Kenya, and the Philippines. Visitors spent an average of six minutes on the site, compared to the average of under a minute on a typical website, indicating that the Menstrual Health and Hygiene brief page is fulfilling a need for information for global audiences.

On World Toilet Day, GWSP supported a shift in the conversation on sanitation from liability to resource, highlighting the importance of well-managed sanitation in mitigating climate change and promoting sustainable development. The GWSP-supported communication campaign included a [blog](#) analyzing the linkages between

sanitation and climate change, a Facebook Live conversation, and an extensive social media package complete with visual postcards and short videos.

► Promoting GWSP’s Work in the Digital Space

GWSP’s digital engagement and online presence offer opportunities for the Partnership’s wealth of analytics and research to reach a wider, more diverse, and more inclusive set of stakeholders, thereby complementing and reinforcing in-person engagement in the post-pandemic era. This online engagement was strengthened with the creation of a [revamped website](#) that hosts GWSP-supported publications as well as various multimedia and visual briefs that highlight integrated efforts with the World Bank Water GP in client countries. A year after its initial launch, the GWSP website has attracted visitors from a wide range of countries, with the largest number of visits coming from the United States, India, the United Kingdom, Kenya, the Philippines, and Spain. Seventy-one percent of visitors have returned to the site more than once, which is a good indication of brand loyalty and of the fact that people are finding the information beneficial.

In addition to its website and [growing Twitter channel](#), GWSP continues to communicate with stakeholders via the bimonthly newsletter, the *GWSP Digest*, which shares the latest research, publications, blogs, and stories with key policy makers from government, think tanks, the private sector, civil society, and academia. This year, GWSP also created a dedicated [Trello board](#) that hosts web stories, blogs, publications, and social media material in order to facilitate the sharing of assets with strategic partners.

PUBLICATION HIGHLIGHTS

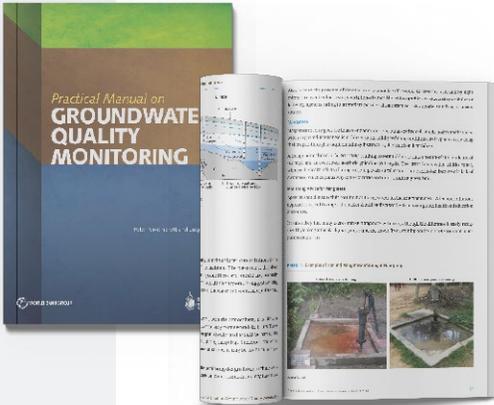
GWSP's support over the past five years has allowed the Water GP to develop an extensive body of knowledge for policy makers, implementers, and other vital partners working at the global, regional, national, and subnational levels. Highlighted here are the major analytical pieces produced and distributed this year, as just a sample of the GWSP-supported analytical work performed. As with all GWSP's analytical work, the impact will be global, used over several years, contribute to the transformation of government policy and implementation, and influence World Bank lending.

The Irrigation Operator of the Future: A Toolkit-Information Pack for Irrigation Service Delivery Performance Assessment and Planning



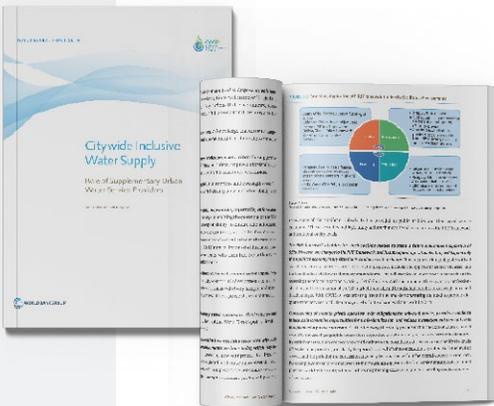
Irrigation operators globally face a tough reality of perpetual demands for higher performance alongside water competition, limited finances, and declining infrastructure condition. This toolkit was compiled to support operators responsible for medium- and large-scale irrigation schemes in developing countries to identify priority problems and define pragmatic responses to deal with them. It is both a repository of operational information and a facilitated process of engagement to support operators to plan a realistic pathway for change.

FEATURED PUBLICATIONS



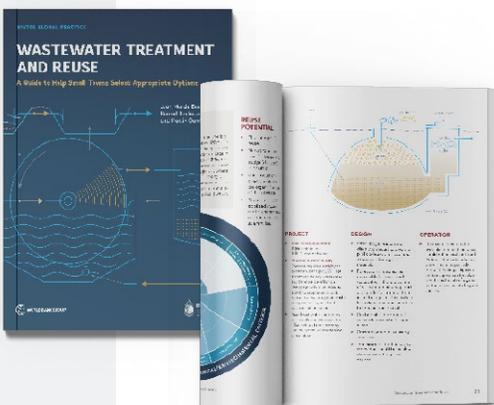
Practical Manual on Groundwater Quality Monitoring

A companion to “[Seeing the Invisible: A Strategic Report on Groundwater Quality](#),” the manual provides managers and their teams with practical guidance on how to set up and manage a groundwater quality monitoring program. It provides a logical, step-by-step approach that can be tailored to, and grow with, the capacity to implement such a program. The guiding principle is that monitoring is the fundamental activity that shapes our identification of issues, the framing of problems, the design of solutions, and the measurement of the effectiveness of those solutions.



Citywide Inclusive Water Supply: Role of Supplementary Urban Water Service Providers

This report outlines a proactive vision of how development of the supplementary service provider in the water sector can promote citywide inclusive water supply; ensure rapid progress is made in achieving SDG Target 6.1; and deliver on the green, resilient, and inclusive development and jobs development agenda. Using case studies from around the world, it analyzes the potential of off-utility provision of water and develops a framework focused on what is needed to formalize, professionalize, and scale up these services. It also presents potential models for high-quality supplementary service providers’ water delivery.



Wastewater Treatment and Reuse: A Guide to Help Small Towns Select Appropriate Options

This guide is part of a suite of tools to support engineers, managers, and other stakeholders in the planning, design, and implementation of sanitation projects in urbanizing areas. Addressing the specific context of small towns, the guide begins with an introduction of key concepts for a decision-maker to understand, then applies a suggested five-step approach to exploring appropriate wastewater treatment technologies, culminating with case studies from three regions applying this approach.

Utility of the Future: Taking Water and Sanitation Utilities Beyond the Next Level 2.0—A Methodology to Ignite Transformation in Water and Sanitation Utilities

To help guide water supply and sanitation service utilities to reinvent and strengthen themselves, GWSP has supported the development of the Utility of the Future Program, designed to ignite, materialize, and maintain their transformative efforts toward being future-focused and providing reliable, safe, inclusive, transparent, and responsive services. Building on an extensive body of knowledge on utility performance improvement, this methodological document provides a practical guide to implementing the Utility of the Future Program.



Water Supply and Sanitation Policies, Institutions, and Regulation: Adapting to a Changing World—Synthesis Report

Policies, institutions, and regulation (PIR) are essential to achieving the SDGs related to water and sanitation, but they need a considerable boost to be effective. This report has two main objectives. The first is to reflect on the body of PIR knowledge and experiences accumulated globally and in selected countries to refine the PIR concept based on lessons learned. The second is to advocate for greater action on PIR by policy makers, development partners, international financial institutions, and civil society by using projects and investments as implementation vehicles.





APPENDICES

APPENDIX A: FINANCIAL UPDATE

GWSP DONOR CONTRIBUTIONS

From inception through June 30, 2022, signed contributions to GWSP total \$212.3 million (table A.1), of which \$204.3 million is new funding, complementing \$7.9 million rolled over from the Water and Sanitation Program and the Water Partnership Program. GWSP met its initial five-year funding target of \$200 million.

At the end of FY22, GWSP had nine active donors contribute to GWSP. They include Australia's Department of Foreign Affairs and Trade; Austria's Federal Ministry of Finance; the Bill and Melinda Gates Foundation; Denmark's Royal Ministry of Foreign Affairs; Netherland's Ministry for Foreign Trade and Development Cooperation; the Swedish International Development Cooperation Agency; the Swiss Agency for Development and Cooperation; the Swiss State Secretariat for Economic Affairs; and the United States Agency for International Development.



From inception through June 30, 2022, new funding contributions to GWSP total \$204.3 million, surpassing the initial five-year funding target of \$200 million.



TABLE A.1

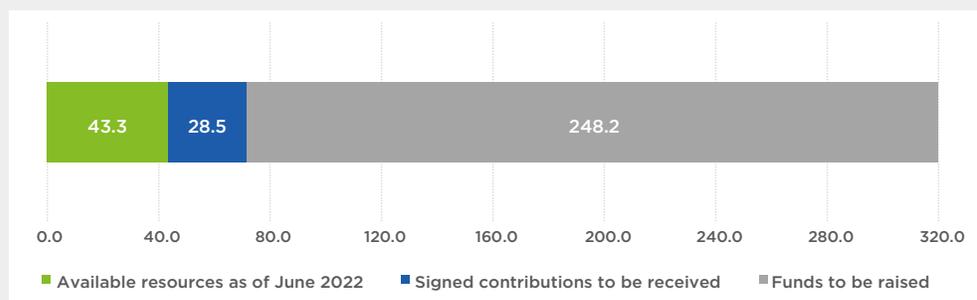
GWSP DONOR CONTRIBUTIONS AS OF JUNE 30, 2022

DONOR NAME	US\$ MILLIONS	SHARE (%)
Swedish International Development Cooperation Agency (Sida)	61.6	29
Netherlands – Ministry for Foreign Trade and Development Cooperation	48.3	23
Bill and Melinda Gates Foundation	21.0	10
Australia – Department of Foreign Affairs and Trade	19.2	9
Swiss Agency for Development and Cooperation (SDC)	18.4	9
Swiss State Secretariat for Economic Affairs (SECO)	10.7	5
Denmark – Royal Ministry of Foreign Affairs	10.6	5
United States Agency for International Development (USAID)	8.3	4
Austria – Federal Ministry of Finance	6.8	3
United Kingdom – Foreign, Commonwealth and Development Office	3.5	2
Norway – Ministry of Foreign Affairs	2.4	1
Rockefeller Foundation	1.6	1
Ireland – Ministry for Foreign Affairs/ Irish Aid	0.02	0.01
Total commitments	212.3	100.0%

Note: Funding from the United Kingdom, Norway, the Rockefeller Foundation, and Ireland was rolled over from the two preceding programs. These donors have since exited the GWSP trust fund. The Ministry for Foreign Trade and Development Cooperation falls under the Netherlands' Ministry of Foreign Affairs.

FIGURE A.1

FUNDING STATUS, FY23–30 (\$ MILLIONS)



The last twelve months were envisioned as modest in terms of fundraising, as GWSP's independent evaluation had recently been completed and the new strategy, which will take the Partnership through 2030, was approved in January 2022. In FY22, GWSP signed new contributions totaling \$11.5 million. These included \$2.3 million from Austria's Federal Ministry of Finance, \$1.0 million from the Bill and Melinda Gates Foundation, and \$8.2 million from the Swiss Agency for Development and Cooperation.

In FY22, the GWSP Council endorsed a strategy update for GWSP that includes a target budget of \$320 million for the FY23–FY30 period. Fundraising efforts were stepped up following the endorsement of the strategy and have continued with both existing and new partners. At the end of FY22, GWSP had \$43.3 million available for allocation. In addition, \$28.5 million signed contributions were scheduled for payment in FY23 and beyond. This leaves a gap in funding of \$248.2 million, to be raised in the FY23–FY30 period (see figure A.1).

FY22 DISBURSEMENTS

In FY22, GWSP disbursed \$32.9 million to support its work program activities and had an active portfolio of 146 activities in 45 countries and regions. Of the total 146 activities, 50 were newly approved in FY22, and 96 were from previous fiscal years.

Eighty-three percent of disbursements went to knowledge and analytics that are global, regional, or country-based (see figure A.2). Around half (46 percent) of the disbursements for knowledge and analytics were in regional

units, while the remaining (54 percent) were global. Much of that global work was rooted in country-based the analysis that was then summarized in overarching summaries, findings, and recommendations. In other words, GWSP’s global analytical work is based on country-focused, evidence-based experience used to build global messages.

Over \$15.0 million was disbursed by regional units in FY22. These activities include country-level knowledge and technical assistance that influenced policy dialogue and project design. The Africa region accounted for the largest percentage of regional disbursements in FY22 (see figure A.3). The Partnership disbursed \$12.3 million to

FIGURE A.2

FY22 DISBURSEMENTS, BY ACTIVITY

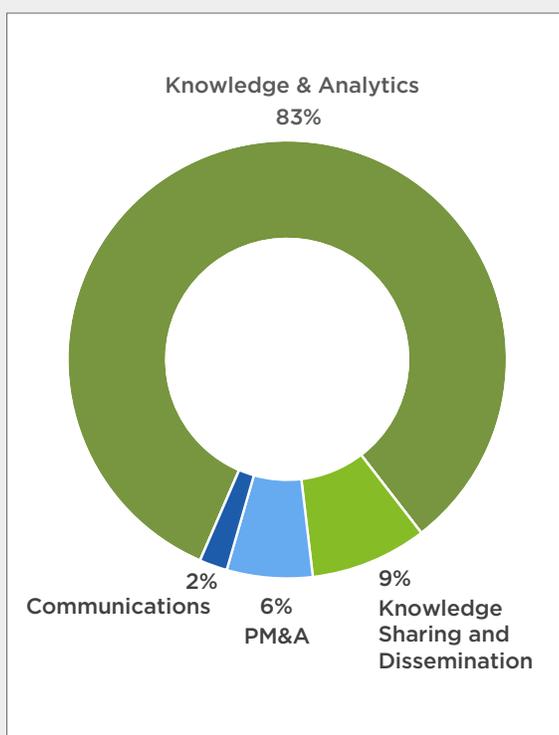


FIGURE A.3

FY22 DISBURSEMENTS FOR KNOWLEDGE AND ANALYTICS, BY REGION

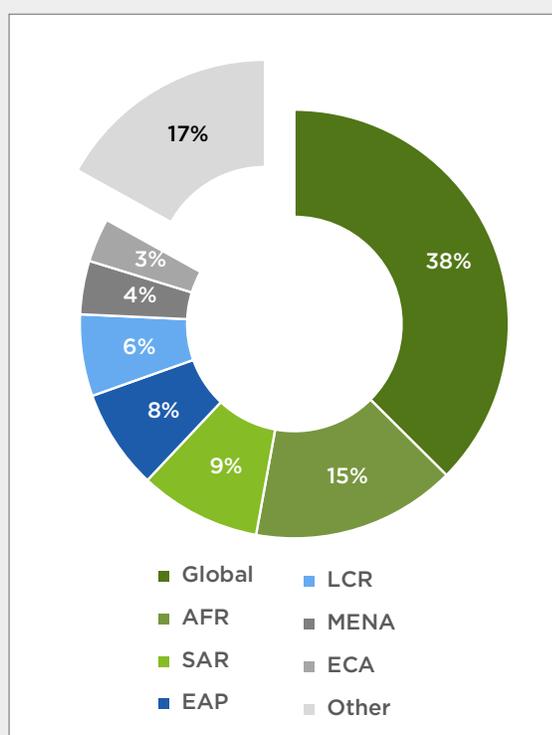
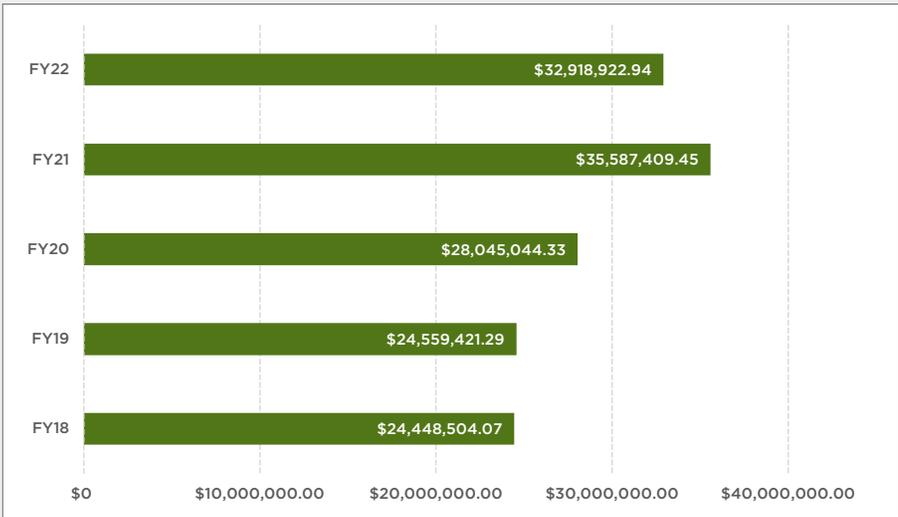


FIGURE A.4

GWSP ANNUAL DISBURSEMENTS



Note: “Other” denotes global activities related to GWSP program management and administration; knowledge sharing and dissemination; and communications. AFR = Sub-Saharan Africa; EAP = East Asia and Pacific; ECA = Europe and Central Asia; LAC = Latin America and the Caribbean; MNA = Middle East and North Africa; SAR = South Asia.

knowledge and analytics categorized as global. These activities include developing and refining tools for use by country teams as well as curating and expanding cutting-edge research that is directly applicable to the current challenges our clients are facing. The disbursements to activities were managed globally and again drew heavily on expertise at the regional and country levels.

To ensure that the analytics were used most effectively and reached clients and other key development partners, the remaining disbursements of \$5.6 million, accounting for 17 percent of the total, were used to maximize the use of the analytical work through comprehensive communications, knowledge dissemination, and program management and administration effort.

Communications, partnerships, learning, and knowledge dissemination activities all drive the knowledge-into-implementation agenda

and are what makes the GWSP model unique.

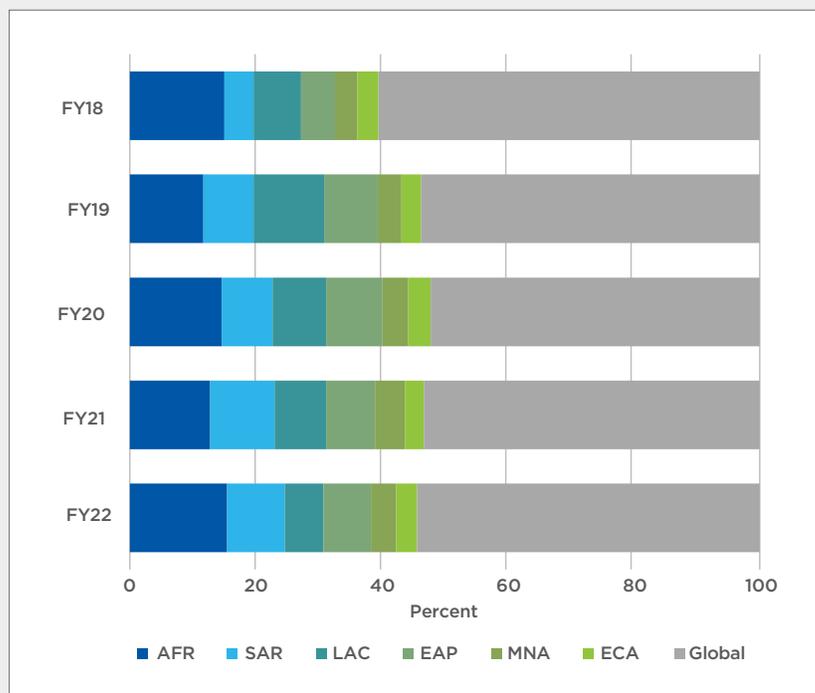
These critical inputs into the program help to get cutting-edge research and analytics into the hands of clients and partners to influence policy, improve implementation, and build capacity. They also enhance the Partnership’s ability to reinforce these critical interventions through lending from the World Bank and other international finance institutions. Chapter 5 highlights some of the activities delivered under these categories.

The program management and administration (PM&A) functions ensure the smooth, efficient, and effective management of the Partnership.

The Block C midterm assessments for Bangladesh, Ethiopia, Haiti, Pakistan, and Vietnam began in FY22 and are included in the PM&A budget. GWSP has a lean program management team that plays an important role administering the trust fund operations, and monitoring and reporting results.

FIGURE A.5

GWSP DISBURSEMENTS BY REGION AND FISCAL YEAR



Note: Global disbursements include knowledge management, communications, monitoring and evaluation, and program management and administration. The nine Block C countries, organized by region, are: AFR (Benin, Ethiopia, and Uganda); LAC (Bolivia and Haiti); EAP (Vietnam); SAR (Bangladesh and Pakistan); and MNA (Egypt).

FINANCIAL TRENDS

Disbursements over the past four fiscal years have shown an upward trend and a slight decrease for FY22 (see figures A.4 and A.5). Disbursements in FY22 decreased by 7.5 percent due to prudent consideration of the Ukraine crisis and possible negative impact on the funding raising situation of GWSP for FY23 and beyond.

While disbursements in FY22 contracted slightly due to geopolitical instability, future disbursements and demand for GWSP resources is expected to grow as the Water

GP portfolio is showing strong projected demand for analytical work and lending. At the global level, there is growing recognition of the centrality of water to both climate change adaptation and mitigation. At the country level, the Water GP is committed to expanding its collaboration with other global practices to expand delivery of water with and through others.

COLLABORATION WITH OTHER TRUST FUND PROGRAMS

GWSP coordinates closely with the following transboundary water-focused multidonor trust funds that are managed in the regions:

Central Asia Energy Water Development Program (CAWEP), the Cooperation in International Waters in Africa (CIWA), and the Danube Region Water Security (DWP). These funds are managed by staff in the Water GP, and the overall approaches and strategies in support of transboundary water are coordinated globally.

Collaboration with other trust fund programs outside the Water GP offers an avenue for expanding the Water GP's reach and influence in other sectors. From FY18 to FY22, \$7.7 million were disbursed by the Water GP from the Public-Private Infrastructure Advisory Facility

(PPIAF). An example of funded activities includes co-funding technical assistance to scale up private sector participation under the Vietnam Water Sector Support Program. In Nigeria, the Quality Infrastructure Investment Partnership (QII) is providing support to improve quality infrastructure investment for the Nigeria Sustainable Urban and Rural Water Supply, Sanitation and Hygiene Program, discussed in chapter 3.

Another example of collaboration is the Resilience for Water Security Program. This is a joint program of the Water GP and the Global Facility for Disaster Reduction and Recovery (GFDRR) trust fund that focuses on the resilience of urban water supply and sanitation, dams and downstream communities, and river basins. GWSP plays a coordinating role to help facilitate collaboration and ensure strategic alignment and resource use. Table A.2 lists the largest collaborating trust funds based on disbursements between FY18 and FY22.

TABLE A.2

TOP 10 TRUST FUND PROGRAMS DISBURSING THROUGH THE WATER GP (FY18-FY22)

NO.	PROGRAM
1	Public-Private Infrastructure Advisory Facility (PPIAF)
2	South Asia Water Initiative (SAWI) ^a
3	Global Facility for Disaster Reduction and Recovery (GFDRR)
4	Quality Infrastructure Investment Partnership (QII)
5	Western Balkans Investment Framework Program
7	Global Partnership for Results-Based Approaches (GPRBA)
6	Global Environment Facility (GEF)
8	Australian Trust Fund for Indonesia Infrastructure Support
9	Korea Green Growth Trust Fund (KGGTF)
10	Smart Mobility and Water Program – United Kingdom Prosperity Trust Fund (Brazil)

a. The South Asia Water Initiative (SAWI) multidonor trust fund closed in June 2021, after more than a decade of work to increase regional cooperation in managing major Himalayan river systems and building climate resilience.

APPENDIX B: RESULTS PROGRESS

BLOCK A: GWSP-FUNDED KNOWLEDGE AND ANALYTICS ACTIVITIES

TABLE B.1 SUMMARY OF RESULTS ACHIEVED
AS OF JUNE 30, 2022, REPORTED
BY 132 ACTIVE GWSP-FUNDED
ACTIVITIES IN FY22

● Results to be achieved
by end of grant

● FY22 results achieved

INDICATOR	% of Projects with Indicator	
Sustainability		
Policies/strategies/regulatory frameworks informed to strengthen: (1) sustainable management of water resources; and/or (2) built infrastructure assets.	50	●
	36	●
Tools and monitoring systems supported to strengthen: (1) the sustainable management of water resources at the national, basin, and/or aquifer level; and/or (2) built infrastructure assets.	32	●
	24	●
Water-related institutions supported to: (1) sustain water resources; and/or (2) built infrastructure assets.	45	●
	36	●
Knowledge products generated on sustainability.	34	●
	30	●
Inclusion		
Policies/strategies generated or refined to enhance social inclusion in the management of water resources, or service delivery.	20	●
	15	●
Initiatives that develop approaches including integrated cross-sectoral approaches where relevant to address water, sanitation, and/or nutrition issues.	20	●
	15	●
Water-related institutions trained in gender and/or inclusion issues and/or human resources practices related to diversity and inclusion.	8	●
	10	●
Knowledge products generated on inclusion.	10	●
	10	●
Institutions		
Policies/strategies/regulatory frameworks informed to strengthen the institutional environment for improved water resources management, and/or water service delivery.	48	●
	31	●
Fragility, conflict, and violence-affected states supported to develop and/or implement a water sector transition strategy.	4	●
	2	●
Water-related institutions supported to strengthen capacity for managing water resources or service delivery.	59	●
	27	●
Knowledge products generated on institutions.	31	●
	31	●
Financing		
Policies/strategies/regulatory frameworks developed to improve financial viability.	28	●
	16	●
Institutions supported to improve their financial viability and creditworthiness.	15	●
	15	●
Knowledge products generated on financing.	25	●
	20	●
Resilience		
Policies/strategies/regulatory frameworks developed or implemented to strengthen the resilience of freshwater basins, and/or of the delivery of services for communities dependent on them.	32	●
	18	●
Diagnostics conducted or implementation undertaken to promote principles of building freshwater resilience.	29	●
	19	●
Water-related institutions supported to build resilience in water resources management or service delivery.	38	●
	23	●
Knowledge products generated on resilience.	29	●
	24	●

BLOCK B: WATER GP OUTCOMES

TABLE B.2 PORTFOLIO INFLUENCE INDICATORS

	Baseline		Progress						Target ^a
	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY22
	27	27	27	28	22	24	13	24	
Indicators									
 Sustainability	% of new projects that promote sustainable and efficient water use								
	74	63	74	75	86	96	100	100	80
	% of new rural WSS lending projects that measure functionality of water points								
	—	—	—	60	100	67	80	100	80
 Inclusion	% of new projects that are gender tagged ^b								
	—	—	—	50	81	95	100	100	—
	% of new projects with other social inclusion aspects ^c								
	11	19	11	50	59	63	85	88	30
 Institutions	% of projects that support reforms/actions that strengthen institutional capacity								
	100	100	100	100	100	96	100	100	90
 Financing	% of projects that support reforms/actions for improving financial viability ^d								
	81	88	81	77	74	88	69	89	85
	% of projects with explicit focus on leveraging private finance								
	10	6	10	14	11	19	8	22	14
 Resilience	% of projects incorporating resilience in design of water-related initiatives								
	74	74	74	75	82	88	100	100	80
	Number of fragile and conflict-affected states supported with a resilience lense								
	5	5	5	2	4	5	2	7	15
	% of new World Bank lending commitments with climate change co-benefits ^e								
	31	18	31	54	52	60	62	58	50

Source: Analysis of the FY22 Water Global Practice approved portfolio by GWSP Monitoring and Evaluation team.

Note: WSS = water supply and sanitation; — = not available.

- Total targets are estimated based on a weighted average of 45 percent operations in water supply and sanitation, 45 percent operations in water security and integrated water resources management, and 10 percent operations in water for agriculture.
- Measures the percentage of projects that demonstrate a results chain by linking gender gaps identified in the analysis to specific actions tracked in the results framework.
- Projects that target the poor, vulnerable, or underserved communities or areas. Excludes citizen engagement, which is included under corporate monitoring.
- Total percentage estimated based only on relevant projects. Excludes water security and integrated water resources management.
- In FY22, 39 countries and 1 territory were classified as having fragile and conflict-affected situations, as per corporate guidelines. Target is cumulative for the period FY18–22.

TABLE B.3 SECTOR RESULTS INDICATORS

		Baseline		Progress					Cumulative Performance	Indicative Targets	
		FY13-17	Yearly Average	FY18	FY19	FY20	FY21	FY22	FY18-22	FY18-22	Yearly Average
Water Supply and Sanitation											
1.1	People with access to improved water sources (million)	72	14	15.7 <i>of which female: 7.9</i>	13.1 <i>of which female: 6.6</i>	11.4 <i>of which female: 5.5</i>	11.6 <i>of which female: 6.5</i>	12.5 <i>of which female: 6.3</i>	64.3	70	14
1.2	People with access to improved sanitation (million)	30	6	11.5 <i>of which female: 5.7</i>	172 <i>of which female: 86</i>	4.2 <i>of which female: 2.1</i>	6.4 <i>of which female: 3.2</i>	7.01 <i>of which female: 3.54</i>	201.11	80	16
1.3	Biochemical oxygen demand pollution loads removed by treatment plants (tons/year)	15,000	3,000	8,300	12,900	8,994	43,611	13,086	86,891	25,000	5,000
1.4	People trained in hygiene behavior (million)	11.7	2.3	4.3 <i>of which female: 2.1</i>	3.2 <i>of which female: 1.7</i>	1.87 <i>of which female: 0.96</i>	1.28 <i>of which female: 0.65</i>	0.49 <i>of which female: 0.26</i>	11.14	13	2.6
1.5	Utilities with improved working ratio	85	17	27	28	19	26	18	118	90	18
Water for Agriculture											
		FY13-17	Yearly Average	FY18	FY19	FY20	FY21	FY22	FY18-22	FY18-22	Yearly Average
2.1	Area with new/improved irrigation services (million hectares)	4.3	0.8	0.5	0.7	0.99	0.67	0.8	3.66	4	0.8
2.2	Farmers adopting improved agricultural technology (million)	6	1.2	2 <i>of which female: 0.4</i>	2.9 <i>of which female: 0.6</i>	2.9 <i>of which female: 0.9</i>	1.4 <i>of which female: 0.44</i>	2.64 <i>of which female: 0.62</i>	11.84	3.5	0.7
2.3	Water user associations created/strengthened	17,900	3,580	4,900	3,050	2,422	2,188	3,294	15,854	20,000	4,000
2.4	Water users with improved irrigation services (million)	5.6	1.1	1.8 <i>of which female: 0.5</i>	2.2 <i>of which female: 1</i>	0.63 <i>of which female: 0.18</i>	0.47 <i>of which female: 0.11</i>	0.33 <i>of which female: 101,975</i>	5.43	5	1
Water Security and Integrated Water Resources Management											
		FY13-17	Yearly Average	FY18	FY19	FY20	FY21	FY22	FY18-22	FY18-22	Yearly Average
3.1	People in areas covered by water risk mitigation measures (flooding/drought) (million)	15.3	3	3.7	5	2.2	9.2	1.67	21.77	16	3.2
3.2	Basins with management plans/stakeholder engagement mechanisms	85	17	22	20	9	21	19	91	140	28
3.3	Institutions with water resources management monitoring systems	110	22	30	21	15	20	23	109	120	24
3.4	Area under sustainable land/water management practices (million hectares)	1.2	0.24	0.32	0.5	1.2	1.4	1.4	4.82	1.3	0.26
3.5	Hydropower generation capacity constructed/rehabilitated (megawatts)	2,100	420	1,400	4,000	1,253	224.95	50	6,928	7,500	1,500



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