2030 Water Resources Group

HOSTED BY WORLD BANK GROUP Water

2030 WRG OFFERING:

Advancing global water security through public-private collaboration

WHO WE ARE

The 2030 Water Resources Group (2030 WRG) is a multi-donor trust fund managed by the World Bank's Global Water Practice that advances the role of the private sector in addressing global water insecurity and climate change impacts together with government and civil society (see 2030wrg.org).

HOW WE WORK

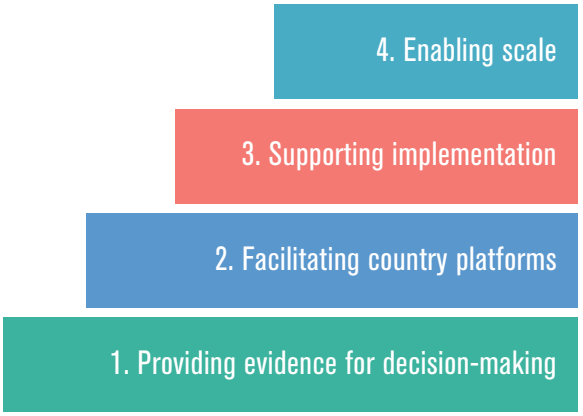
2030 WRG catalyzes collaboration between the private sector and government to tackle water security challenges and climate change impacts. 2030 WRG engagements center on four steps:

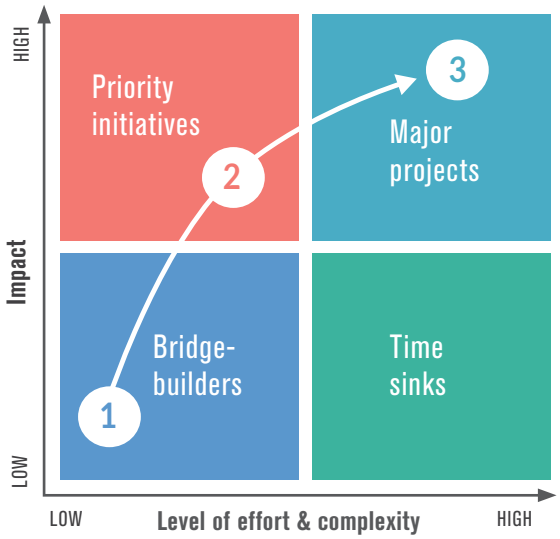
1. **FRAME CHOICES TO SUPPORT EFFECTIVE DECISION-MAKING.** 2030 WRG frames choices for decision-makers in government and the private sector to address water security challenges in three areas: water for the environment, water for food, and water for cities. The purpose is to prioritize critical decisions and actions that will have a significant impact on water security and climate outcomes, with an important role for the private sector. This work draws on data and analytics within and beyond the World Bank such as water security diagnostics,[1] country climate and development reports,[2] water sector assessments, hydro-economic analyses, and Aqueduct.[3]

EXAMPLES: 2030 WRG routinely performed hydro-economic analyses to inform water allocation choices and trade-offs, identify options to close the water demand-supply gap, and provide an entry point for stakeholder engagement. Hydro-economic analyses have been undertaken in Bangladesh, India (Karnataka, Maharashtra), Kenya, Mongolia (Box 1), Peru, Rwanda, South Africa, Tanzania, and Vietnam.[4] A recent analysis of the country climate and development reports pointed to a need to structure support for high-value, low-regret investments while crowding in multiple financing sources.[5]

FUTURE FOCUS AREAS: 2030 WRG provides a framing of critical choices for decision-makers based on available evidence and an assessment of impact versus the level of effort and complexity involved to achieve results. These will be supported by relevant diagnostic tools. Depending on the context, decisions could be sequenced, starting with options to build trust early in the process through "bridge-builders" and to achieve some visible quick wins. This could proceed to priority initiatives, which require more effort but have greater impact, and then to more complex high-impact major projects requiring more significant effort, as depicted in the diagram below.

2030 WRG ADDS VALUE BY





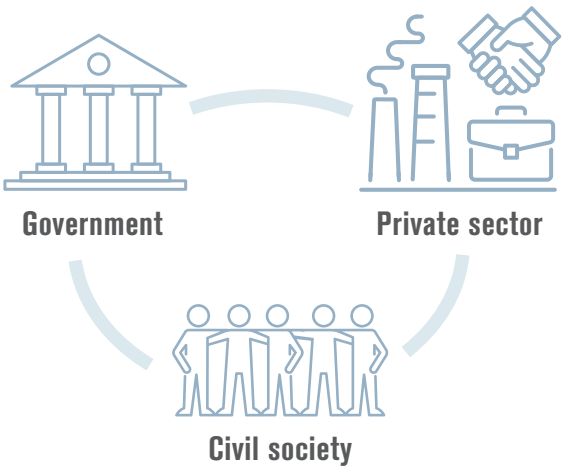
[1] www.worldbank.org/en/topic/water/publication/water-security-diagnostic-initiative
[2] www.worldbank.org/en/publication/country-climate-development-reports
[3] https://www.wri.org/aqueduct
[4] https://2030wrg.orzg/publications/#
[5] Diving into Water, Climate, and Development: An Analysis of Water in the Country Climate and Development Reports, Water Economy and Climate Change Global Solutions Group, October 2023

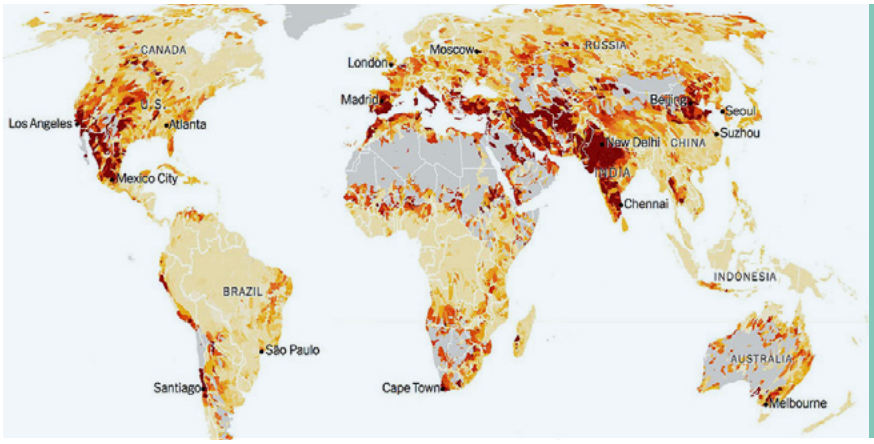
2. FACILITATE COUNTRY PLATFORMS.

2030 WRG convenes and facilitates platforms that bring together stakeholders across sectors to develop a common understanding of pressing water challenges, agree on priorities, and work together to implement effective solutions. The platforms build trust, enabling more complex challenges to be addressed. Multi-stakeholder platforms are typically established at a country level but can also be convened at a city-region and state level. 2030 WRG also facilitates monitoring and reporting, increasing accountability among partners.

EXAMPLES: Mongolia (Box 1), Bangladesh (Box 2), India (Box 3), South Africa (Box 4), Brazil, Kenya, Mexico, Peru, Rwanda, Tanzania, and Vietnam.

FUTURE FOCUS AREAS: 2030 WRG convenes country, state, and city-region platforms where there is alignment with its three themes (water for environment, food, and cities), high-level government commitment, private sector support, and alignment with World Bank operations, especially with those under the Water, Agriculture, and Environment Global Practices.. This work is based on an assessment of potential impact (water security risk and scale of impact).



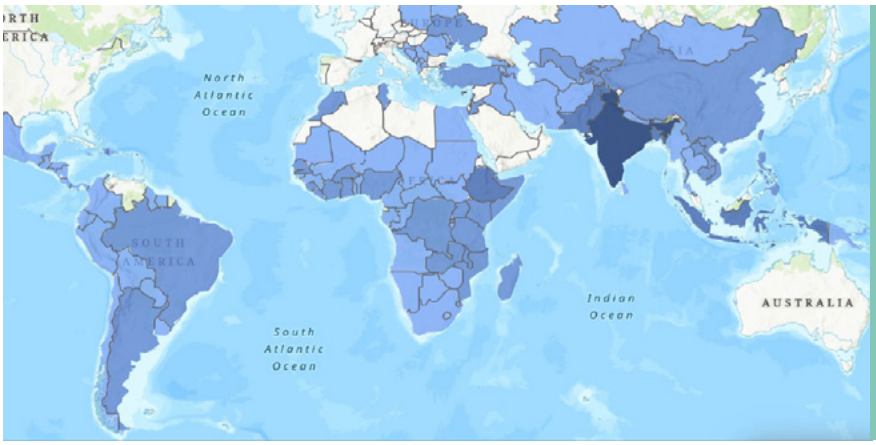


Source: https://www.nytimes.com/interactive/2019/08/06/climate/world-water-stress.html

CRITERIA FOR EXPANSION

Potential for impact

- Water security risk
- Alignment to themes
- Scale of impact



Source: https://maps.worldbank.org/projects?status=active

Institutional alignment

- Government demand
- Private sector support
- World Bank alignment

3. **SUPPORT IMPLEMENTATION.** 2030 WRG supports implementation by offering tested solutions and piloting innovative approaches.[6] It adopts an adaptable rapid-learning approach, with a focus on creating and improving markets and mobilizing private sector participation and financing. It does so primarily through the design of large-scale programs in a particular country called accelerators. 2030 WRG enrolls implementation partners from the government, the private sector, and civil society, and mobilizes resources to support implementation.

EXAMPLES: The Bangladesh accelerator is scaling water pollution management by mobilizing both private capital and expertise, in support of climate change mitigation and adaptation. (See Box 2.)

The PRAGATI accelerator in Uttar Pradesh, India, is helping 1 million farmers increase their incomes and improve sustainable agriculture and water management practices across key crop value chains in the state. (See Box 3.)

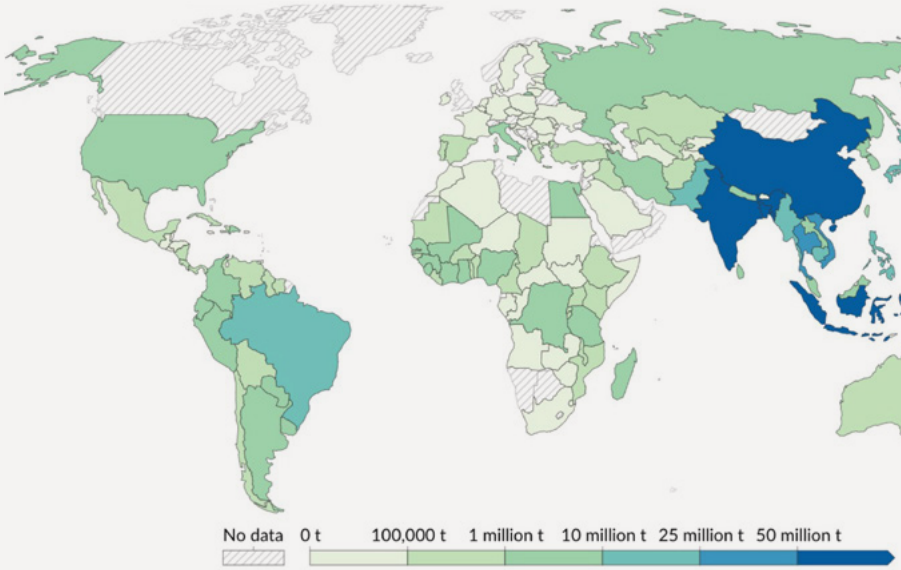
2030 WRG helped develop an innovative hybrid annuity model to finance municipal wastewater treatment in the Ganga basin. This model has subsequently been replicated in other contexts. (See Box 5.)

[6] See 2030wrg.org/innovations/

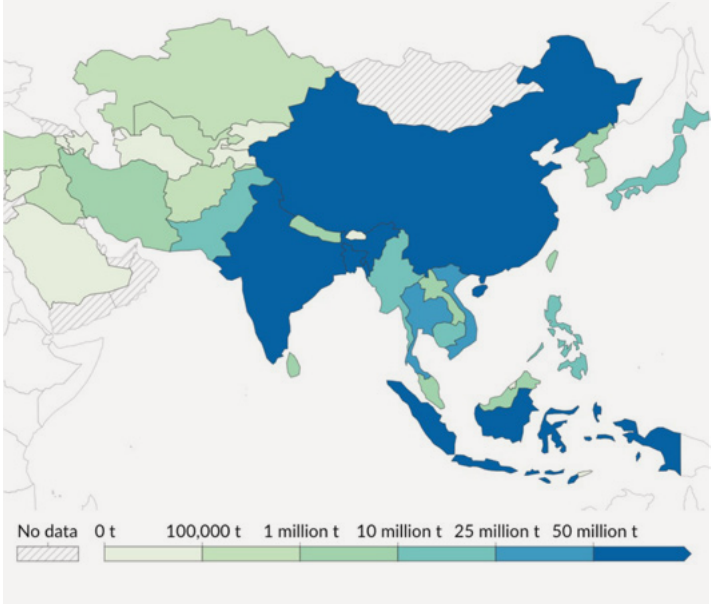
4. SCALE SOLUTIONS. Proven solutions will be scaled by expanding in-country programs, with the support of additional financing, and replicating programs across regions and globally. 2030 WRG will link successful initiatives with finance through the World Bank, other development finance institutions, and the private sector, under the umbrella of the World Bank's Global Challenge Program: Fast Track Water Security and Climate Adaptation, which aims to accelerate impact on water and climate outcomes through targeted investments and greater involvement of the private sector.

FUTURE FOCUS AREAS: 2030 WRG will replicate the successful Uttar Pradesh Accelerator PRAGATI in other states in India and in the South and East Asia regions, with an initial focus on climate-smart rice production.

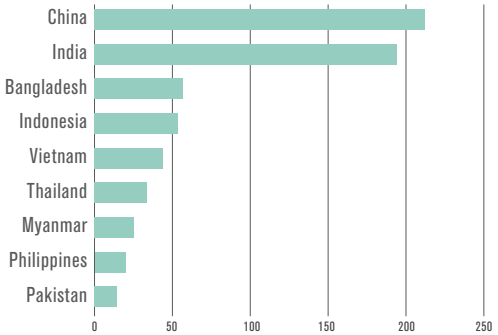
RICE PRODUCTION



RICE PRODUCTION - ASIA



TOP 9 IN ASIA	million tons
China	213
India	195
Bangladesh	57
Indonesia	54
Vietnam	44
Thailand	33
Myanmar	25
Philippines	20
Pakistan	14



Source: https://ourworldindata.org/grapher/rice-production

PARTNERSHIPS IN ACTION

BOX 1 | Improving water security in Mongolia

TSENGEL TSEGMID,
State Secretary, Ministry of Environment and Tourism, Government of Mongolia, Chairperson of 2030 WRG Mongolia steering board

"2030 WRG has been instrumental in establishing the first-of-its-kind public, private, and civil society partnership in the Mongolian water sector. This collaboration has significantly contributed to achieving various initiatives to address the country's water challenges and we are collectively working to creatively leverage this partnership further."

FRAMING. Economic activity is concentrated in Mongolia's capital, Ulaanbaatar, which accounts for about 70 percent of total potable water consumption in the country. Limited water supplies were heavily polluted by industrial discharge. The hydro-economic analysis conducted by 2030 WRG identified that ensuring adequate treatment of wastewater and recycling effluent discharged from the central wastewater treatment plant in Ulaanbaatar was the most cost-efficient solution to close the demand gap.

CHANGING INCENTIVES. The analysis also highlighted that there was no regulatory provision to allow for reuse of treated wastewater, nor were there incentives or revenues for treating and reusing wastewater. To enable higher levels of wastewater treatment and reuse, a change in the laws and new incentives were required. 2030 WRG worked with stakeholders to explore alternatives. Based on a review of international best practices, a simpler model for determining water pollution fees was proposed and adopted after consultation into a new Water Pollution Fee Law. The law supports better monitoring of effluent, includes a clear methodology for estimating pollution levels, and provides economic incentives for industry to treat and reuse treated wastewater before discharging it into the central sewerage network. The law has reduced the volume of discharge, increased revenues to operate the treatment works, and increased levels of reuse, thereby reducing reliance on freshwater.

UNLOCKING FINANCE. 2030 WRG also facilitated a multi-stakeholder process that led to the development and adoption of national standards for reusing treated wastewater for different uses in Mongolia. Inspired by international best practices, the guiding principle behind the standards is ensuring cost-effectiveness through fit-for-purpose treatment of wastewater. These standards, together with an assessment of the wastewater reuse potential, unlocked $98 million from the Millennium Challenge Corporation to invest in water reuse.

RESULTS. Construction of a major water recycling plant in Ulaanbaatar began in 2022. Local industrial users across eight industrial sectors are developing water efficiency and wastewater management projects in the South Gobi and Ulaanbaatar regions. The collection of water pollution fees is providing revenues for the operation of the central wastewater treatment plant in Ulaanbaatar. In addition, 11 mining companies in the South Gobi region have adopted a voluntary code of practice for water management. This program has reached maturity and 2030 WRG is not currently active in Mongolia.

BOX 2 | Reducing water pollution in Bangladesh

"With regard to water, an economic zone should ensure the use of zero or near to zero water discharge technologies through rainwater harvesting, sustainable and circular water use, efficiency improvement and effluent treatment, and it should improve the resilience of the water supply system, which was not previously addressed. Economic zones are expected to responsibly source water, considering local water scarcity issues and sensitive water reservoirs."

PABAN CHOWDHURY, Executive Chairperson, Bangladesh Economic Zones Authority

FRAMING. Untreated wastewater in industrial areas is polluting the country's surface water, posing a severe health risk to surrounding communities. These challenges are exacerbated by legislative gaps, policy overlaps, and lack of institutional capacity The overall costs associated with water pollution in Bangladesh are estimated to be about $2.8 billion annually. Untreated wastewater from the textile sector is a major source of pollution.

COMMITMENT. The Bangladesh Water Multi-Stakeholder Partnership was formed in 2015 and formalized through a notification in the government gazette, giving it a quasi-legal status. The overall goal of the partnership is to develop a fact-based, analytical approach to address water security challenges at national and local levels for economic development and a healthy ecosystem. The partnership is governed by the National Steering Board, which is chaired by the Cabinet Secretary, the country's highest-ranking civil servant. The National Steering Board meets twice a year and resolutions, signed off by the Cabinet Secretary, explicitly inform the country's water agenda.

CHANGING INCENTIVES. Consultations facilitated through the multi-stakeholder platform have resulted in the approval of rules and regulations for the Bangladesh Water Act, a green economic zone guideline, approval of a national framework on incentivizing water-resilient production practices for the textile and apparel sector, real-time monitoring and reporting on river water quality, and potential local application of a global handbook for implementing tradable wastewater reuse certificates.

UNLOCKING FINANCE. The water pollution management accelerator program supports the implementation of the government's Bangladesh Delta Plan 2100 with strategic interventions to mainstream water pollution management by mobilizing private sector capital and expertise. The accelerator program aims to mobilize $300 million in public finance and $100 million in private finance for wastewater management by 2025, reach about 20 million people with wastewater management services, and treat more than 65 million cubic meters of wastewater by establishing central effluent treatment plants and sewage treatment plants in economic zones and city corporations.

RESULTS. 2030 WRG, in collaboration with the World Bank and the International Finance Corporation, is developing the first-ever replicable model of public-private partnership (PPP) financing for municipal wastewater management in Bangladesh, for the Gazipur City Corporation (GCC).

GCC, north of capital city Dhaka, is the largest city corporation in Bangladesh, and home to 2.5 million people. GCC has no municipal wastewater management facility and is one of the cities that is most severely affected by surface water pollution.

The Ministry of Local Government has also asked 2030 WRG to initiate a PPP-based municipal wastewater management project in the Cumilla City Corporation, which is home to 1 million people and many industrial activities, but lacks a wastewater management facility.

In addition, 2030 WRG is working with the Bangabandhu Sheikh Mujib Shilpa Nagar Economic Zone in Mirsarai, the largest economic zone in Bangladesh, to develop a hybrid annuity PPP model for the first central effluent treatment plant in an industrial zone in the country. Based on this work, the Bangladesh Economic Zones Authority has asked 2030 WRG to develop PPPs for central effluent treatment plants and solid waste management systems in two additional economic zones (Jamalpur and Srihatta).

BOX 3 | Accelerating the transition to sustainable rice production in India

FRAMING. Rice accounts for about 30 percent of freshwater use worldwide and contributes to 12 percent of global anthropogenic methane generation. India is the second-largest rice producer globally, and the state of Uttar Pradesh, with a population of 250 million, is the second-largest rice producer in the country. Uttar Pradesh is also the second-poorest state with 23 million economically marginal smallholder farmers. Smallholder farms in the state are characterized by low productivity and low water-use efficiency, and contribute significantly to greenhouse gas emissions.

COMMITMENT. In 2022, Uttar Pradesh's Cabinet approved a program to reach 1 million smallholder farmers over five years, increasing the area under micro-irrigation fivefold, increasing the area under direct seeded rice tenfold, and reducing greenhouse gas emissions by 60 percent.

CREATING MARKETS. The Uttar Pradesh multi-stakeholder platform, facilitated by 2030 WRG and working with 26 private sector partners, launched the Uttar Pradesh Accelerator PRAGATI program (which means progress in Sanskrit) as a special purpose vehicle. The special purpose vehicle created a micro-irrigation platform that increases farmer uptake by reducing farmer costs and risks through standardized prices and contracts with quality assurance, and by reducing supplier risks through partial upfront payments together with escrow-facilitated payments on completion. The special purpose vehicle is also facilitating higher uptake of mechanization, and improving productivity and farmer incomes. This transition will be supported by creating a digital platform to support farm equipment rentals, aggregating demand and supply, making credit more accessible, and expanding capacity-building initiatives with a focus on women.

UNLOCKING FINANCE. The model of climate-smart agriculture adopted by 2030 WRG's Uttar Pradesh program is being scaled through a new World Bank operation titled "Uttar Pradesh Agriculture Growth and Rural Enterprise Ecosystem Strengthening Project" (UP AGREES), with financing of $350 million. 2030 WRG is also working with the World Bank's Climate Warehouse to support voluntary carbon markets through the use of digital tools and platforms, to create scalable solutions that can be implemented regionally and globally.

RESULTS. The launch of the micro-irrigation project has already resulted in significant economic gains for farmers by reducing unit costs by between 30 percent and 40 percent and speeding up delivery timelines by 50 percent on average.

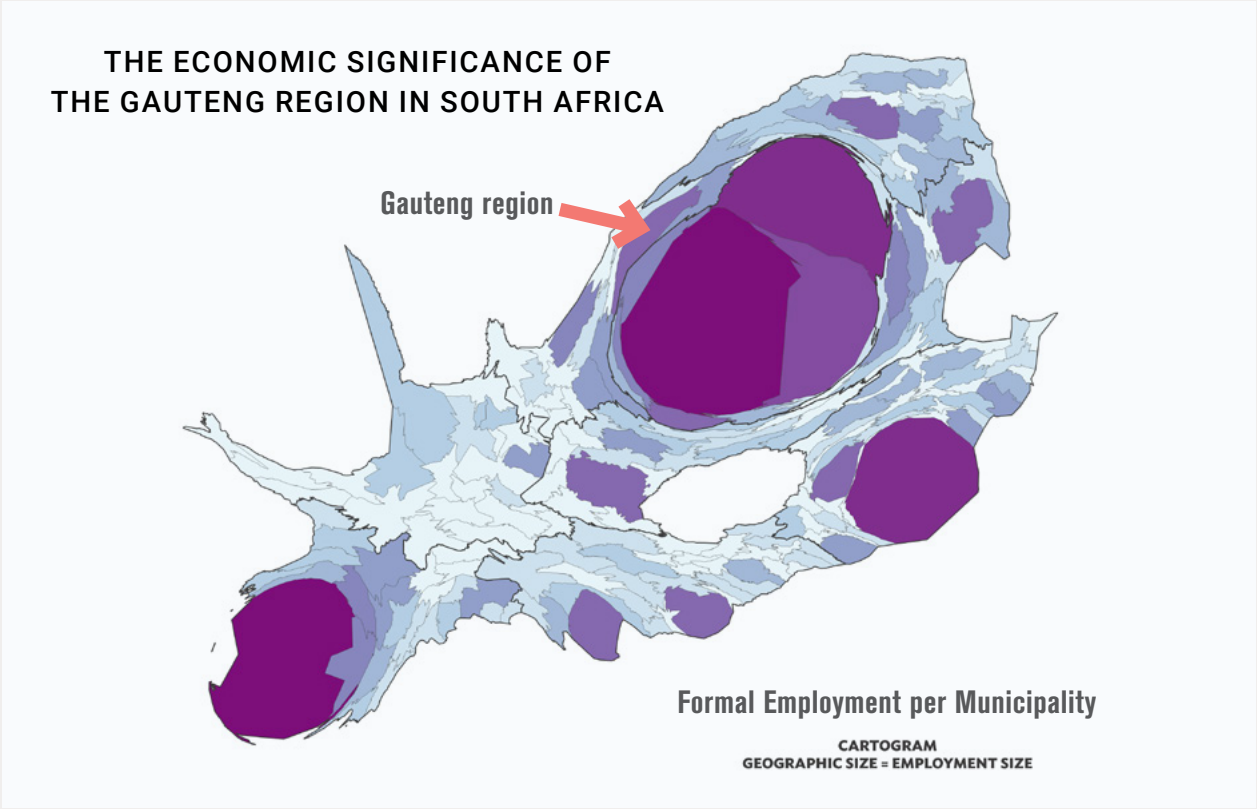
Photo by Siva Guru on Unsplash

BOX 4 Partnering for a water-secure city region in Gauteng, South Africa

FRAMING. The Gauteng city region, which accounts for about one-third of South Africa's GDP and is home to a quarter of its population, is water insecure. The current gap between actual use and reliable supply is about 400 million liters per day, representing 20 percent of the region's total water use. Failure of the water supply system would have a catastrophic impact on the region and South Africa as a whole. A collaborative effort between public institutions (government, the regional bulk water provider, and local governments), the private sector, and various other users is needed to both increase supply and reduce demand.

COMMITMENT. The director-general of the national water department asked 2030 WRG to establish the Gauteng Water Security Partnership, a multi-stakeholder platform comprising government, the private sector, and civil society, to strengthen capability to implement interventions to improve the region's water security. Participants will agree on priority actions, based on robust analysis, and report on progress, increasing accountability and building trust. The platform will pilot new ways of working and will identify meaningful contributions by the private sector and civil society.

UNLOCKING FINANCE. While the short-term investments needed for reducing demand are relatively modest, the partnership will seek to unlock innovative financing mechanisms, with a focus on incentives and results. In the medium term, investments will be needed to expand and upgrade wastewater treatment and to invest in reuse. Underlying institutional and financial weaknesses across the water supply system need to be addressed to secure financing.



Source: https://www.gcro.ac.za/outputs/map-of-the-month/detail/significance-cities-jobs/

BOX 5 Rehabilitating the Ganga River through innovative financing

FRAMING. The Ganga River basin is home to more than 600 million Indians and accounts for over 40 percent of the country's GDP. The main river runs through 50 major Indian cities, which generate about 3 billion liters of sewage every day, only a fraction of which is treated, with far-reaching impacts on human and environmental health.

UNLOCKING FINANCE. In a significant step toward revitalizing the Ganga River basin, the Indian government, in collaboration with 2030 WRG and the World Bank Group, pioneered the country's first PPPs for municipal wastewater treatment and reuse in 2015. The partnership incubated a pilot project in the cities of Mathura and Vrindavan using an innovative hybrid annuity model, where the government paid for 40 percent of the project construction costs as milestones were met. The remaining 60 percent is being paid to the private concessionaire over 15 years, along with operation and maintenance expenses, based on performance targets. Importantly, the structure builds in accountability and incentives for performance over the life of the project.

RESULTS. The hybrid annuity model allows for scaling because the government does not have to pay all costs up front. Moreover, it provides incentives for the private sector to deliver by linking payments with the achievement of defined, measurable results. By 2017, PPPs had launched in three towns (Mathura-Vrindavan, Varanasi, and Haridwar), expanding in 2019 to 13 towns in the Ganga basin. To date, contracts worth more than $1.5 billion have been launched under this program, with over $650 million mobilized from the private sector.

Photo by Shiv Prasad on Unsplash

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