IWA SANITATION AND WATER MANAGEMENT IN DEVELOPING COUNTRIES

WORLD BANK GROUP

the international water association

The Global Sanitation Crisis – Pathways to Urgent Action

DIALOGUE

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DIALOGUE INFORMATION

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DIALOGUE INFORMATION

- **'Chat' box**: please use this for general requests and for interactive activities.
- **'Q&A' box**: please use this to send questions to the panelists. (We will answer these during the discussions)

Please Note: *Attendees' microphones are muted. We cannot respond to 'Raise Hand'.*

MODERATOR & SPEAKERS

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WSUP
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Kate Medlicott
WHO
Switzerland

Maria Angelica Sotomayor
World Bank
Singapore

AGENDA

- Welcome & housekeeping (3 mins)
  Florence Laker, IWA
- Welcome Remarks from World Bank (2 mins)
  Yogita Mumssen, World Bank
- Poll 1 (5 mins)
  Martin Gambrill (Moderator)
- Presentation of Report (20 mins)
  Sanyu Lutalo, World Bank
- Expert Reflections (35 mins)
  All panelists and moderator
- Poll 2 (5 mins)
  Martin Gambrill (Moderator)
- Audience Q&A (10 mins)
  Presenter, Panelists and Moderator
- Reflections (5 mins)
  Maria Angelica Sotomayor, World Bank
- Key Messages and Close (5 mins)
  François Bernard Brikke, IWA

WELCOME REMARKS

Yogita Mumssen
World Bank
USA

POLL 1

MODERATOR: MARTIN GAMBRILL

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FRAMING PRESENTATION

Sanyu Lutalo
World Bank
USA

the international water association

SANITATION DIALOGUE
THE GLOBAL SANITATION CRISIS
PATHWAYS TO URGENT ACTION

SANYU LUTALO, WORLD BANK GROUP

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The Global Sanitation Crisis

Pathways to Urgent Action

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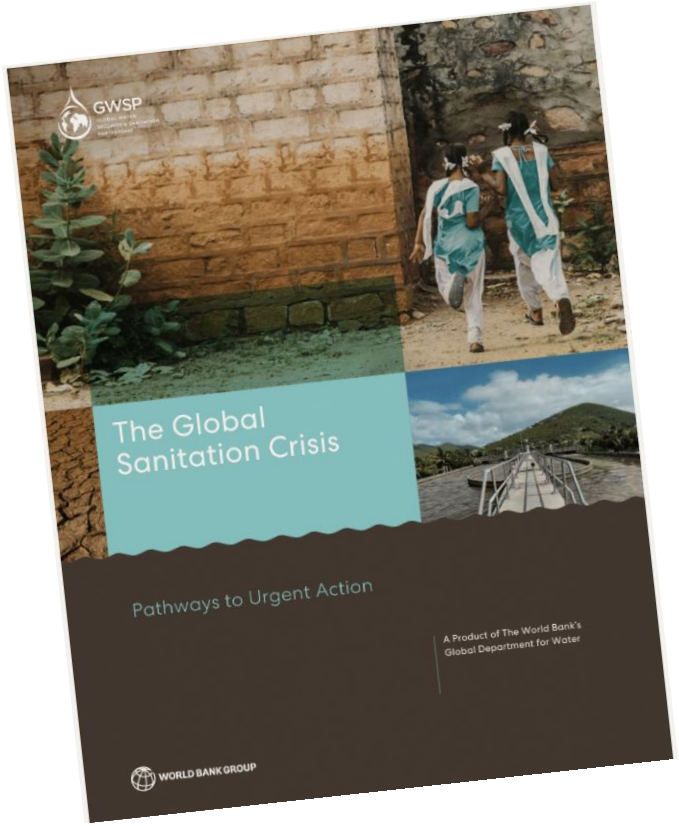
Objectives of the report



1. Highlights benefits of investing in **resilient, safely managed sanitation** for people, economic growth, and the planet.
2. Highlight the **link between urban sanitation and climate change**.
3. Rethink urban sanitation systems to **support urban water security** and **citywide climate resilience**.
4. Provide a suite of **strategic policy, institutional, regulatory, and financing guidance** to accelerate universal access to climate-resilient sanitation.
5. **Present actionable pathways** for countries and cities to scale up resilient sanitation solutions and align them with adaptation and mitigation goals.

Linkages between sanitation and climate

- Climate hazards such as extreme weather, floods, and sea level rise can damage sanitation infrastructure and disrupt services, causing severe environmental and public health risks.
- The sanitation sector contributes to GHG emissions through **direct and indirect** sources.
- **Direct emissions** are linked to wastewater treatment processes and untreated waste, while **indirect emissions are** linked to energy and auxiliary activities such as transportation of faecal sludge.

Comparative GHG estimates per sector

Why climate-resilient urban sanitation matters

Sanitation is fundamental to sustainable and inclusive socioeconomic development

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Urban sanitation is a public good: the lack of it affects everyone, rich and poor alike

Inadequate sanitation worsens environmental pollution and the spread of disease, limits education, and reduces economic opportunities

Improving sanitation services can help address gender inequalities and reduce vulnerability

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What is climate-resilient sanitation?

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Climate-resilient sanitation is safely managed sanitation in a more hostile climate

Climate-resilient sanitation services **anticipate, respond to, cope with, recover from, adapt to, or transform from** climate-related events, trends, and disturbances while striving to **achieve and maintain universal access to safely managed services**, even **in the face of an unstable climate**, paying **special attention to the most exposed vulnerable groups** and, where possible and appropriate, **minimizing emissions.**

Climate change is worsening the sanitation crisis

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Globally,

3.5 billion people

lack access to safely managed sanitation

About

one third

of urban populations in low- and middle-income countries face the

‘triple burden’

of poverty, climate hazards, and inadequate sanitation

The world must accelerate progress

six-fold

to achieve universal safely managed sanitation by 2030

Climate change is intensifying the challenge: water scarcity, flooding, rising sea levels, and extreme temperatures are straining already fragile urban sanitation systems

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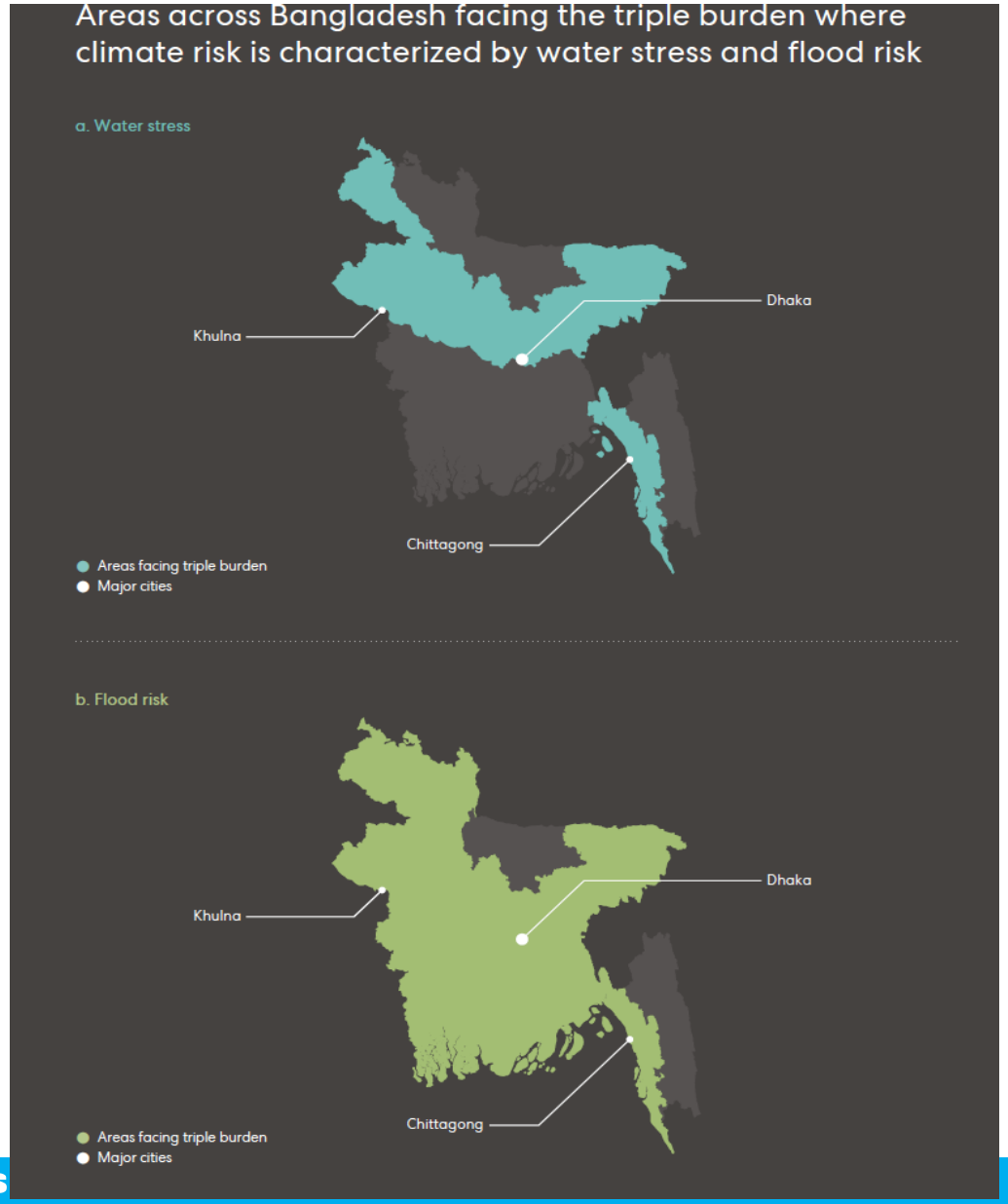
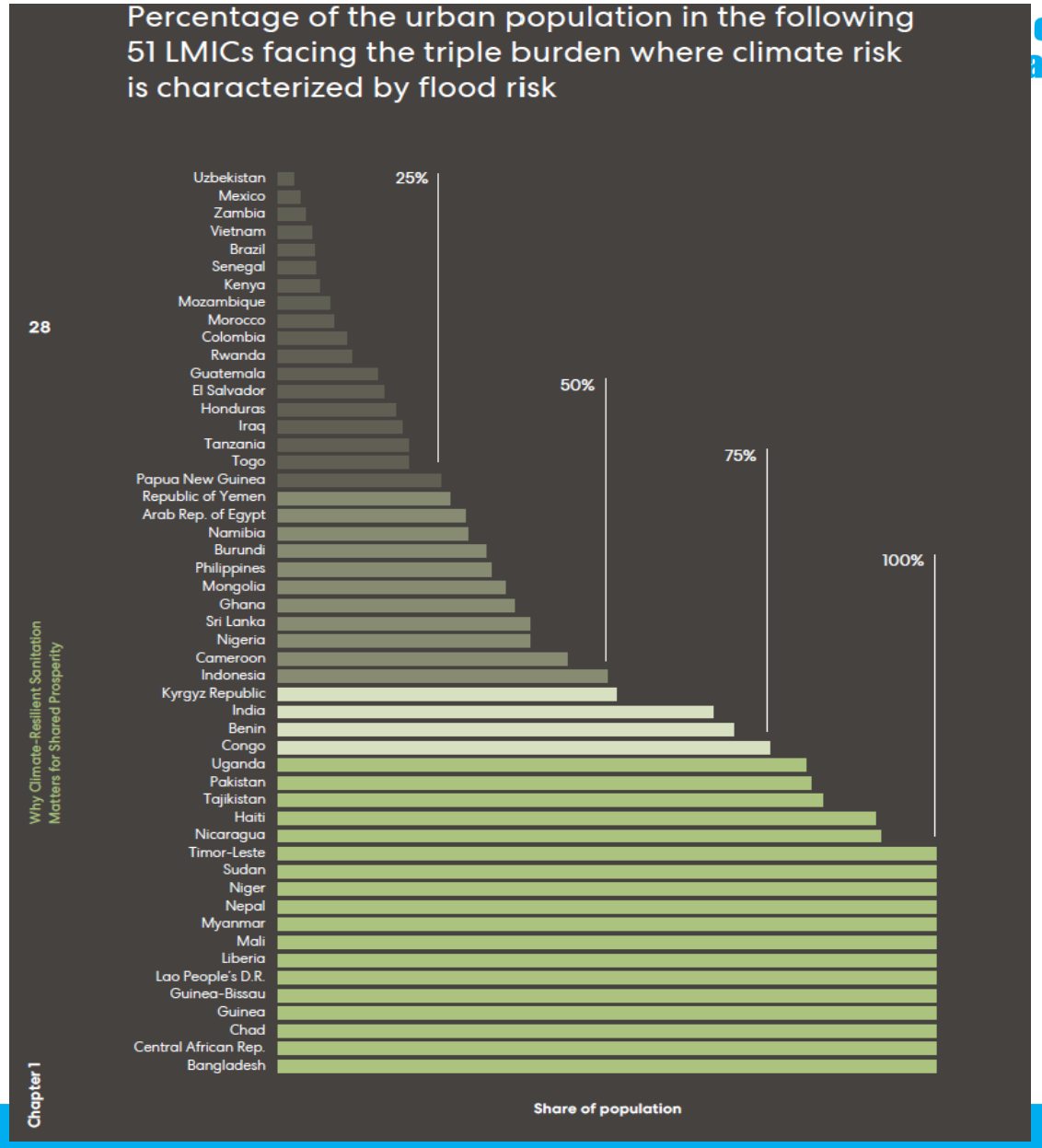
MANY AREAS FACE A TRIPLE BURDEN OF INADEQUATE SANITATION, CLIMATE HAZARDS AND POVERTY



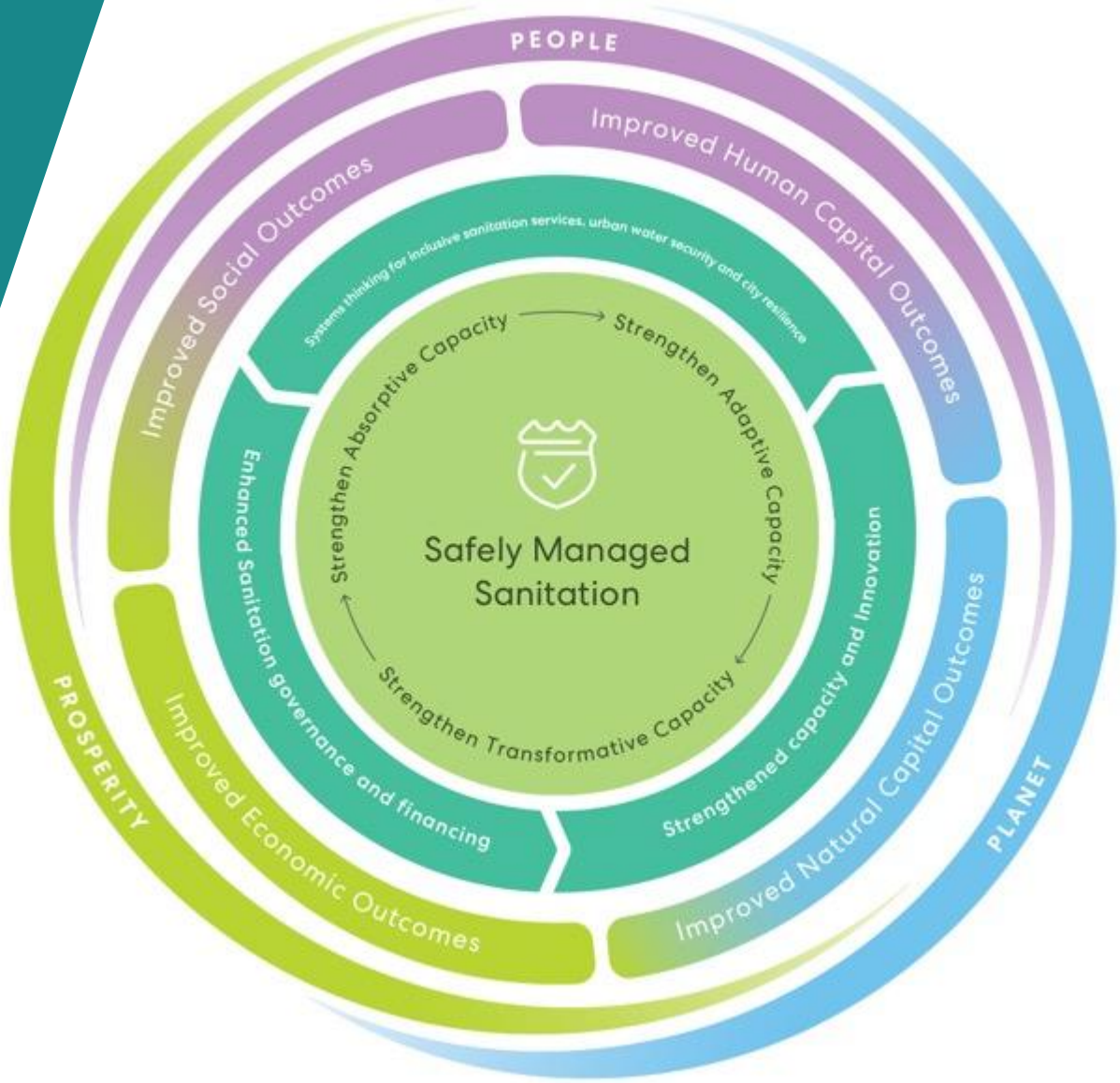


Building urban resilience to climate change

Climate-resilient sanitation:

- Includes **sewered and non-sewered systems** designed to minimize environmental pollution, reduce greenhouse gas emissions, and improve public health.
- Supports **transformative adaptation** by **integrating sanitation into the broader urban water cycle** to concurrently address water scarcity, the impacts of climate change on wastewater and stormwater systems.
- Involves fostering **inclusive and equitable citywide sanitation services** and enhancing the capacities needed to manage them.

Climate-resilient safely managed sanitation is essential for people, shared prosperity, and a livable planet



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Climate-resilient sanitation **and people**

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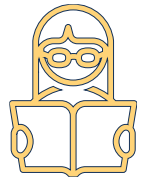
In crowded urban informal settlements, **flooding spreads pathogens** from inadequate sanitation systems, **increasing public health risks.**

Climate hazards **worsen cholera outbreaks,** which are compounded by poverty and conflict. **Marginalized populations** – including women, girls, and people with disabilities – **face the greatest health risks**.



Failure of sanitation infrastructure caused by climate hazards can **increase school absenteeism, particularly among girls managing menstruation.**

Ensuring equitable access to safe, resilient sanitation services for all reduces health disparities and enhances social welfare, including school attendance, especially for girls.

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Climate-resilient sanitation **and shared prosperity**

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Downstream **environmental pollution is estimated to reduce GDP growth by up to one third**.

Coastal ecosystems provide global services of about US$25 billion per year, protecting shorelines, storing carbon, and supporting tourism.

Droughts and floods **interrupt school attendance** and damage critical infrastructure, especially **affecting the income of the poor and limiting their children's future earning potential**

Jobs can be created directly through building, adapting, retrofitting, managing, and maintaining sanitation systems in response to climate change.

Investing in climate-resilient sanitation protects ecosystems from pollution, enhances livelihood opportunities, and creates jobs.

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Jobs Across the Sanitation Service Chain

Climate-resilient sanitation **and the planet**

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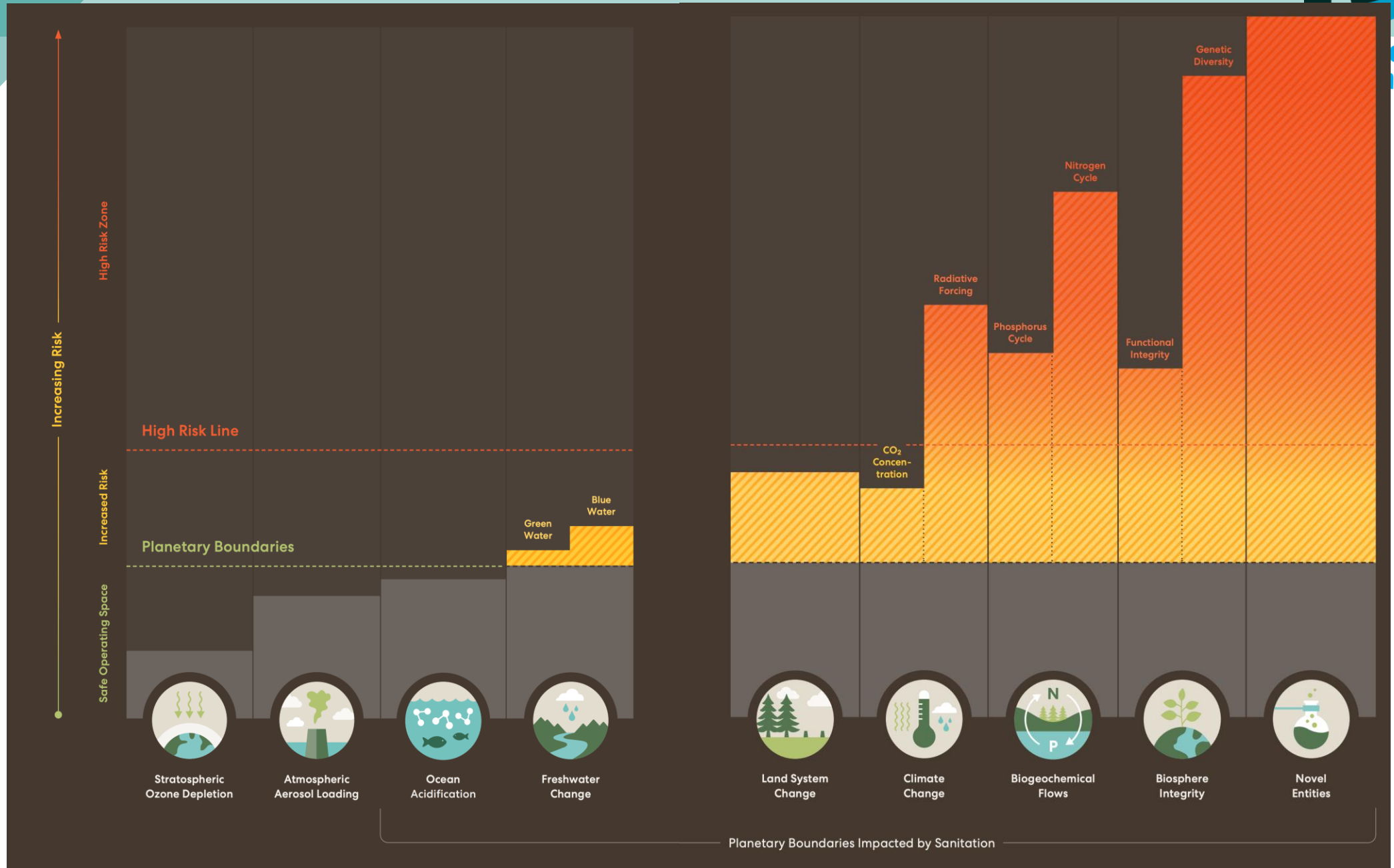
Globally, large volumes of untreated or inadequately treated wastewater **contaminate freshwater and marine ecosystems.** This is worsened by climate change impacts, such as extreme rainfall and resulting **sewer overflows**.

Greenhouse gas emissions from sanitation systems contribute to global warming.

High residual loads of **phosphorous and nitrogen,** associated with untreated or poorly treated wastewater, **harm biodiversity and water ecosystems.**

Sustainable sanitation practices – treating and reusing wastewater and fecal sludge – can prevent water pollution, reduce GHG emissions, and maintain the balance of environmental systems.

Sanitation and the Planetary Boundaries



Turning climate risks into opportunities

Water-related challenges are prompting cities to rethink their sanitation systems

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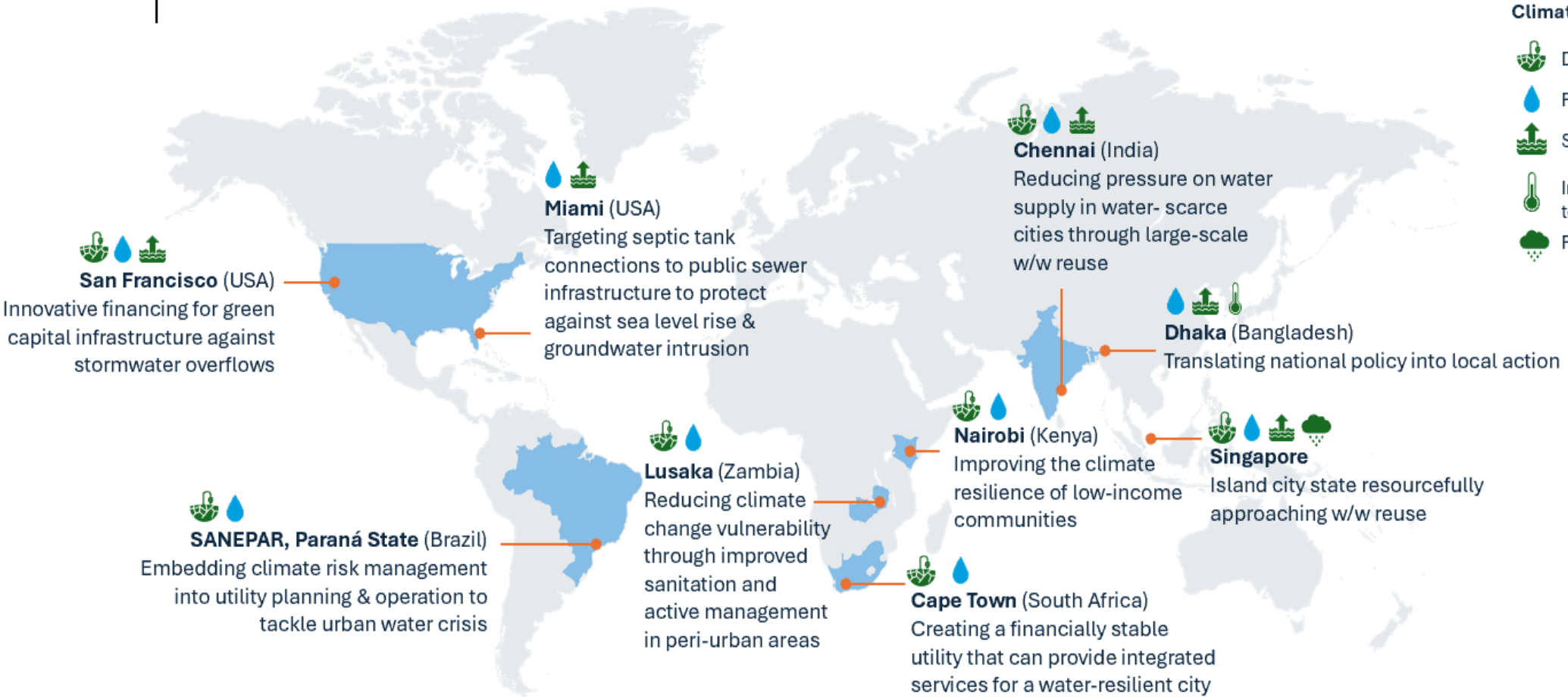

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Rethinking urban sanitation in the face of climate change

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- Cities are struggling **with too much, too little, and too polluted water** as a result of climate-induced hazards.
- An **integrated, systems-wide** approach to sanitation planning and programming is necessary. A **citywide inclusive sanitation approach** involves tackling structural inequities in service provision and striving to provide universal, equitable, and sustainable services.
- **Circular economy** approaches can enhance the climate resilience of urban sanitation, protect the environment, and yield financial benefits.
- A **robust enabling environment, strong governance, and effective financing mechanisms** are vital for implementing resilient sanitation systems.

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Equitable, inclusive sanitation is key for citywide resilience

CWIS is a key pillar of urban climate resilience.

CWIS is a systems-based framework for equitable, sustainable, flexible, and outcome-oriented approaches to urban sanitation service delivery.

CWIS sees sanitation as an integral component of a well-functioning city, along with other interconnected urban services. Climate-resilient CWIS goes beyond merely 'climate-proofing' infrastructure to address structural inequities in service provision.

The health benefits of sanitation depend on community-wide and full-service chain approaches for excreta management: a small reduction in sanitation coverage – for example from sanitation systems failing due to climate hazards – can affect public health outcomes across an entire city.

The transformative potential of circular climate-resilient sanitation systems

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- Maximize water-use efficiency
- Enhance water security
- Recycle nutrients and soil conditioners
- Diversify urban water sources
- Restore ecosystems
- Generate energy and reduce emissions
- Reduce costs and create income potential

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A robust enabling environment and effective governance are crucial

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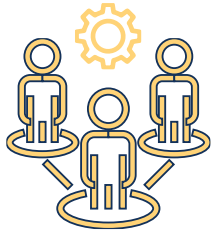

Achieving climate-resilient urban sanitation requires **concerted stakeholder engagement across sectors and different levels of governance.**

Effective partnerships are key for ensuring coordinated action. Successful outcomes require **clearly assigned responsibilities, strong accountability mechanisms, and alignment of incentives, funding, monitoring systems, and regulations.**

Strong political leadership is vital for **integrating climate change considerations into sanitation policies and sanitation into climate action**, as well as for **translating policies into action**.

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The costs of climate-resilient sanitation

Substantial investments are needed to incorporate climate resilience into sanitation systems, but **costs of inaction will be higher**.

USD 105 Billion/year needed to achieve SDG 6, excluding costs of maintenance.

Many **national budgets overlook the financial impact of climate hazards on sanitation**.

Financing solutions include:

- Integrating service provision to capitalize on economies of scope & scale
- Implementing well-designed cross-subsidies
- Accessing climate, green and blue finance
- Creating opportunities for private-sector investment.

Setting policies for climate-resilient sanitation

Policy objectives

1

Improve sanitation governance and increase financing to support a systems approach to transformative adaptation and climate resilience.

2

Rethink urban sanitation and implement systems thinking that emphasizes inclusive sanitation services, urban water security, and climate resilience.

3

Enhance capacity building and skills development and adopt innovative technologies and practices to create adaptive, resilient, and sustainable sanitation systems.

Policy Objective 1

Improve sanitation governance and increase financing to support a systems approach to transformative adaptation and climate resilience

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Actions

1. Adopt flexible planning, financing, management, and regulatory frameworks to support adaptation and mitigation efforts of service providers.
2. Integrate circular economy approaches into sanitation policy, institutional, and regulatory frameworks.
3. Prepare service providers and governments for multiple revenue streams and to incentivize private-sector engagement in service delivery and resource recovery.
4. Incorporate costs of climate-resilient sanitation into project-financing mechanisms to balance financial viability with affordability.
5. Incorporate sanitation in existing climate commitments across all levels of government.

Policy Objective 2

Rethink urban sanitation and implement systems thinking that emphasizes inclusive sanitation services, urban water security, and climate resilience.

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Actions

1. Focus on providing effective, universal sanitation services, integrating existing principles of CWIS with climate resilience.

2. Integrate sanitation with wider urban services and development processes.

3. Prioritize activities that emphasize adaptation while seizing opportunities for mitigation.

Policy Objective 3

Enhance capacity building and skills development, & adopt innovative technologies & practices, to create adaptive, resilient, & sustainable sanitation systems

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Actions

1. Develop capacity, knowledge, skills, and mechanisms for innovative and sustainable adaptation and mitigation in the sanitation and related sectors.

2. Enhance data collection and monitoring capacity to promote evidence-based climate-resilient sanitation services and financing, using innovative tools and technologies.

3. Strengthen local government and utility capacity to drive innovation for resilient sanitation systems, focused on reducing climate-induced failures and mitigating greenhouse gas emissions.

Putting plans into action

Implementation Pathways

Implementation plans & pathways in countries and cities will vary, depending on existing sanitation coverage, income levels, vulnerability to climate change, and related factors such as availability of funding, institutional capacity, and development priorities.

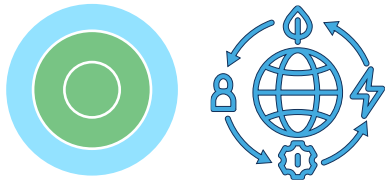
Systematic assessment and modeling of climate risks and impacts on sanitation systems can help identify appropriate interventions and ensure they are climate-smart.

Mapping poverty, climate risk, and low access to sanitation services is a useful way to prioritize areas at country, regional and city level in order to tailor investments and interventions.

Tailoring priorities to local context

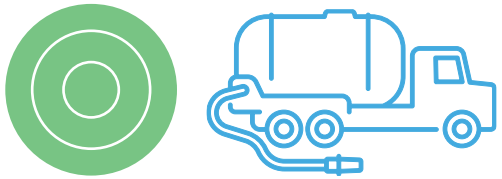
Cities with low sanitation coverage and limited resources

- Focus on safely managed sanitation for all and on reducing vulnerabilities



Cities with higher sanitation coverage

- Build resilience to withstand climate stresses and to reduce pollution and greenhouse gases

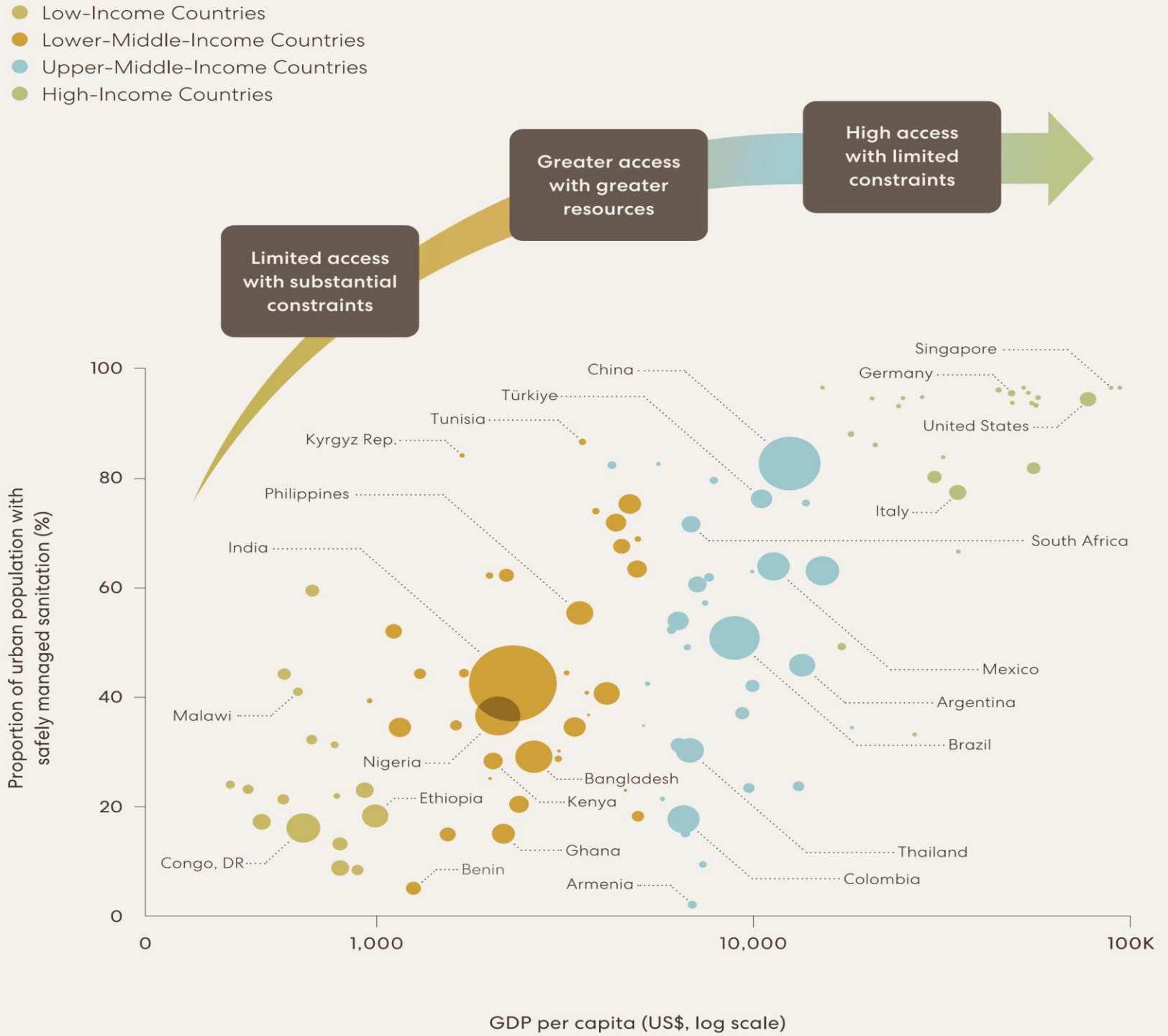


Cities with high sanitation coverage and adequate resources

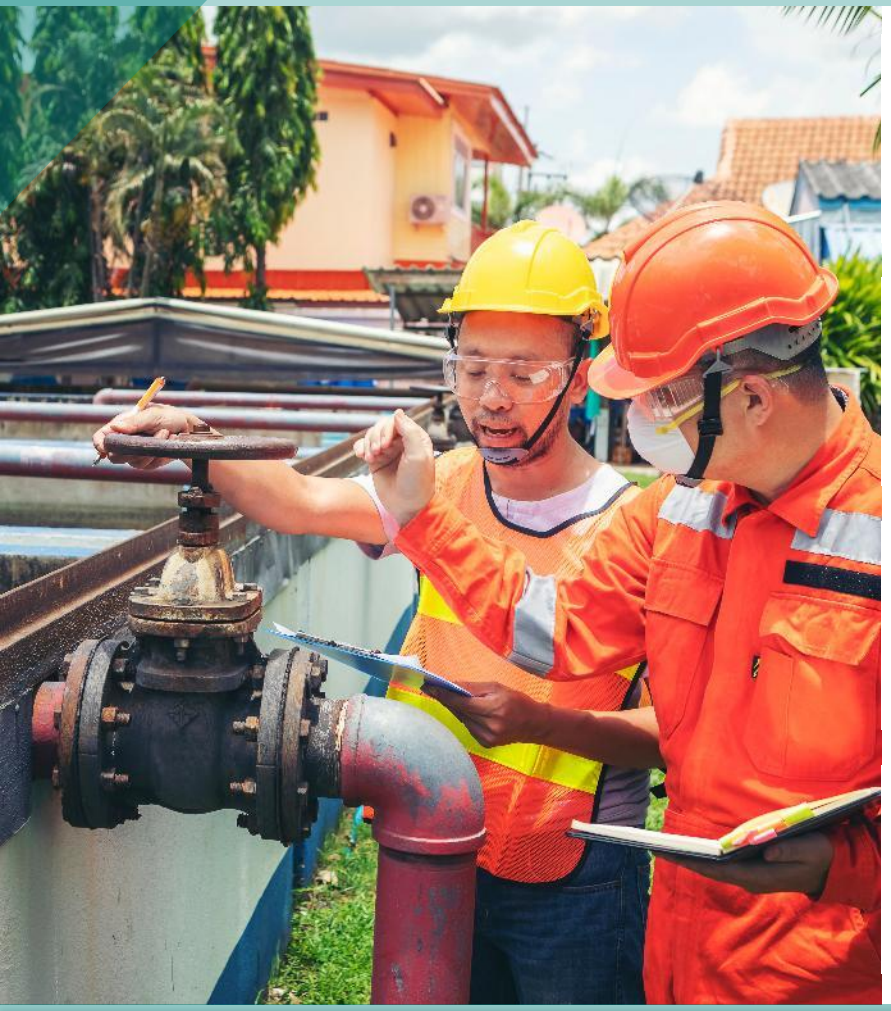
- Lead innovation in climate-smart service systems

Priority Action Pathways

- Countries need to tailor & prioritize action to achieve universal access based on context.
- The graphic shows countries' level of access to safely managed sanitation in relation to GDP.



The time to act is now!



There is an urgent need to shift to climate-resilient sanitation for all

Governments and utilities must rethink urban sanitation service provision beyond infrastructure and on a citywide scale

Coordinated action is particularly critical in rapidly growing cities in low- and middle-income countries

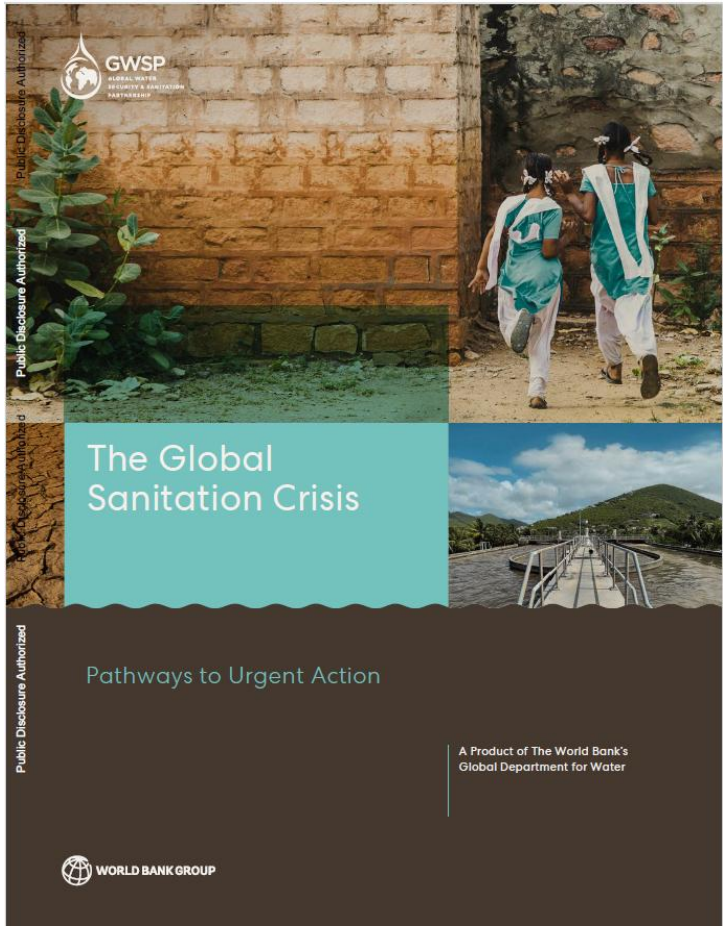
Building climate-resilient sanitation systems will enhance urban water security, boost prosperity, and make cities more livable

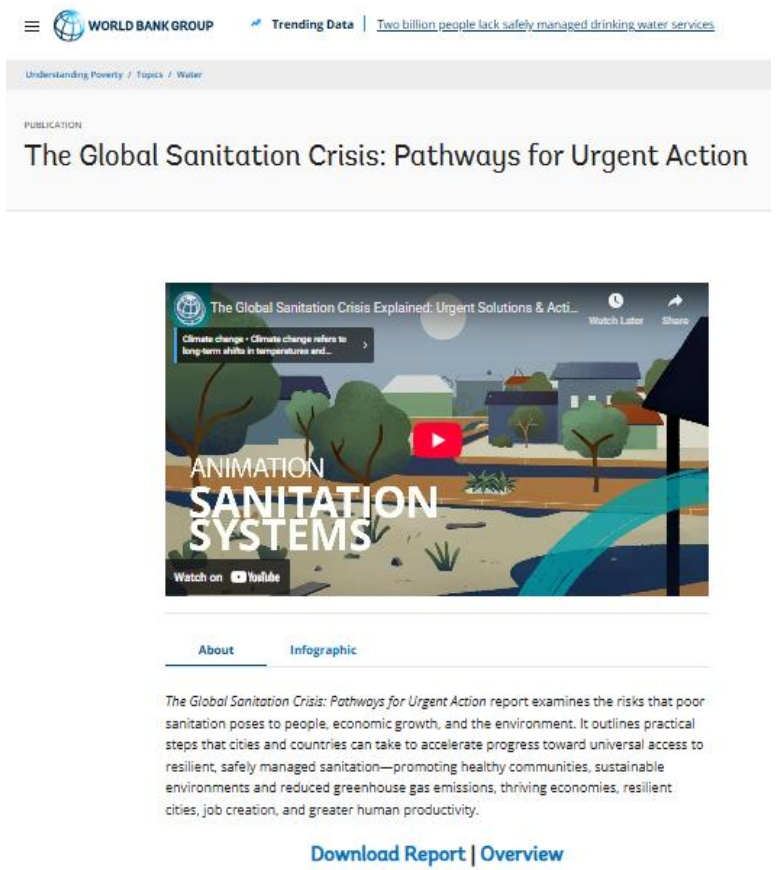
Scan to get the report:

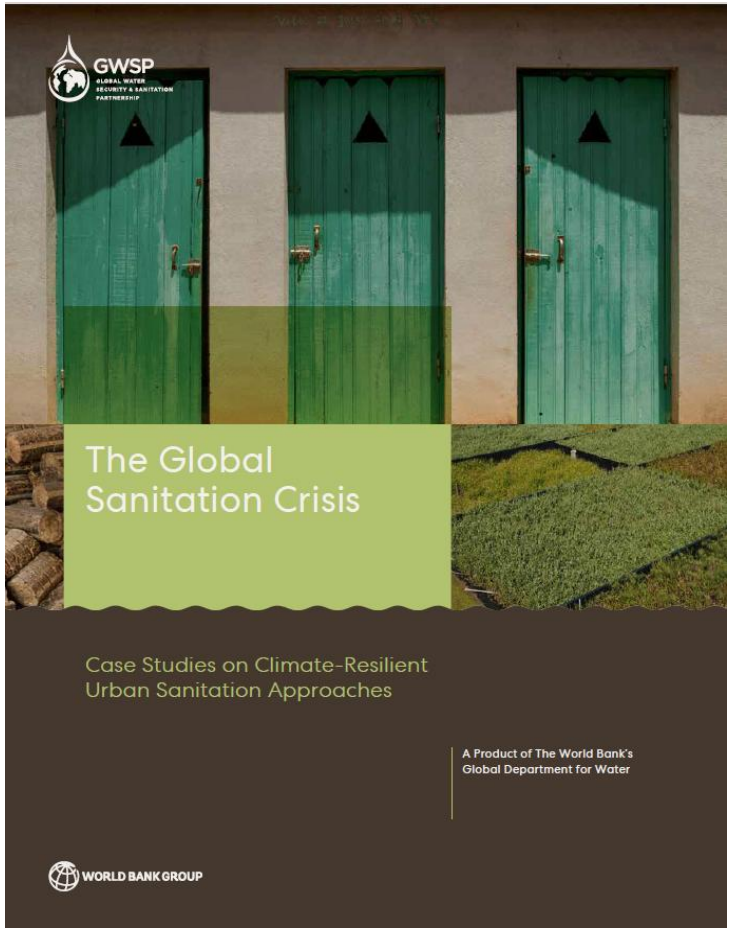
Building Sanitation Resilience to Climate Change

the international water association

https://www.worldbank.org/en/topic/water/publication/the-global-sanitation-crisis







Thank you

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EXPERT REFLECTIONS

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Australia

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AUDIENCE Q&A

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REFLECTIONS/ KEY MESSAGES

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