

Innovative Finance for WASH services

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AND SANITATION
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Impact of climate change on WASH



Floods impact drinking water access



Women walking to collect water



Droughts impacting water access

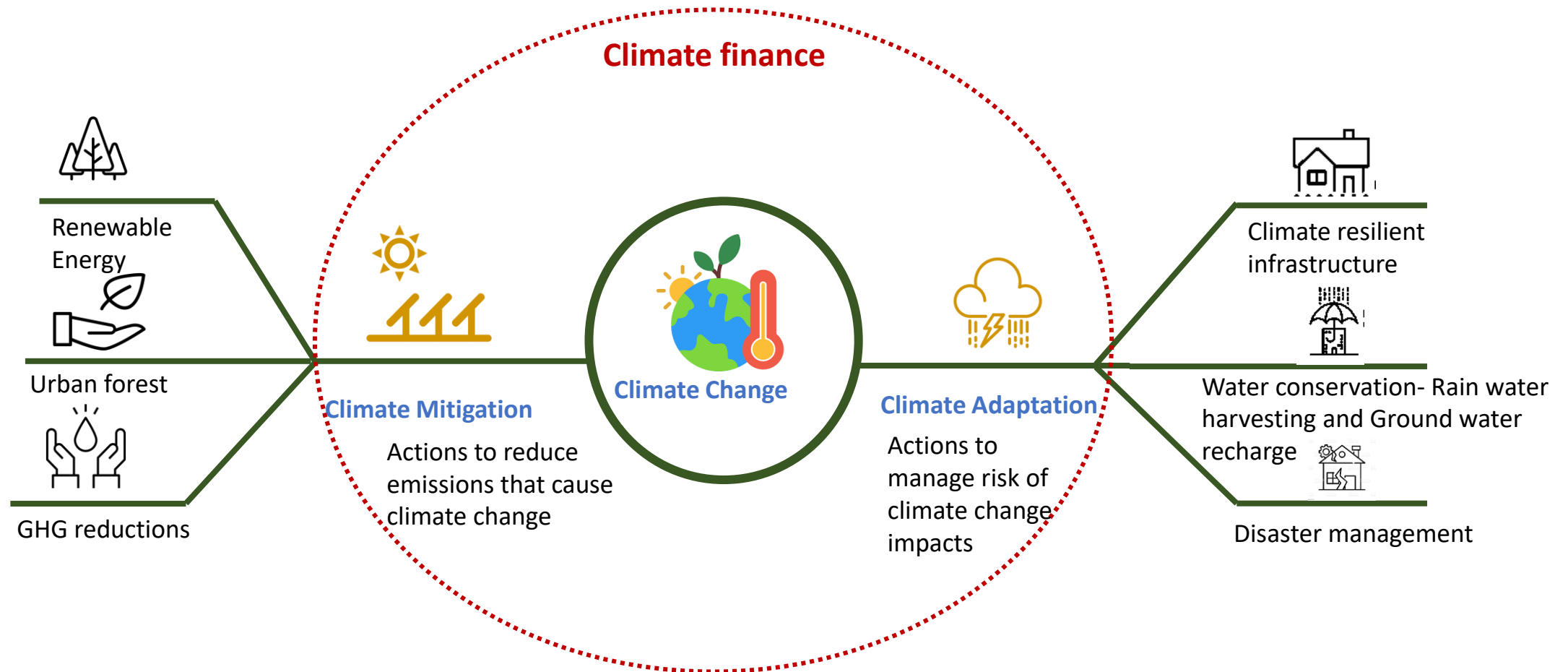


Increase in pollutants load

- ✓ Acute **shortage of clean drinking water** during disasters
- ✓ Open drains > Impact on **quality of water supplied**
- ✓ Increase in **water borne diseases**- Diarrhea and cholera
- ✓ Impact **sanitation and hygiene practices**

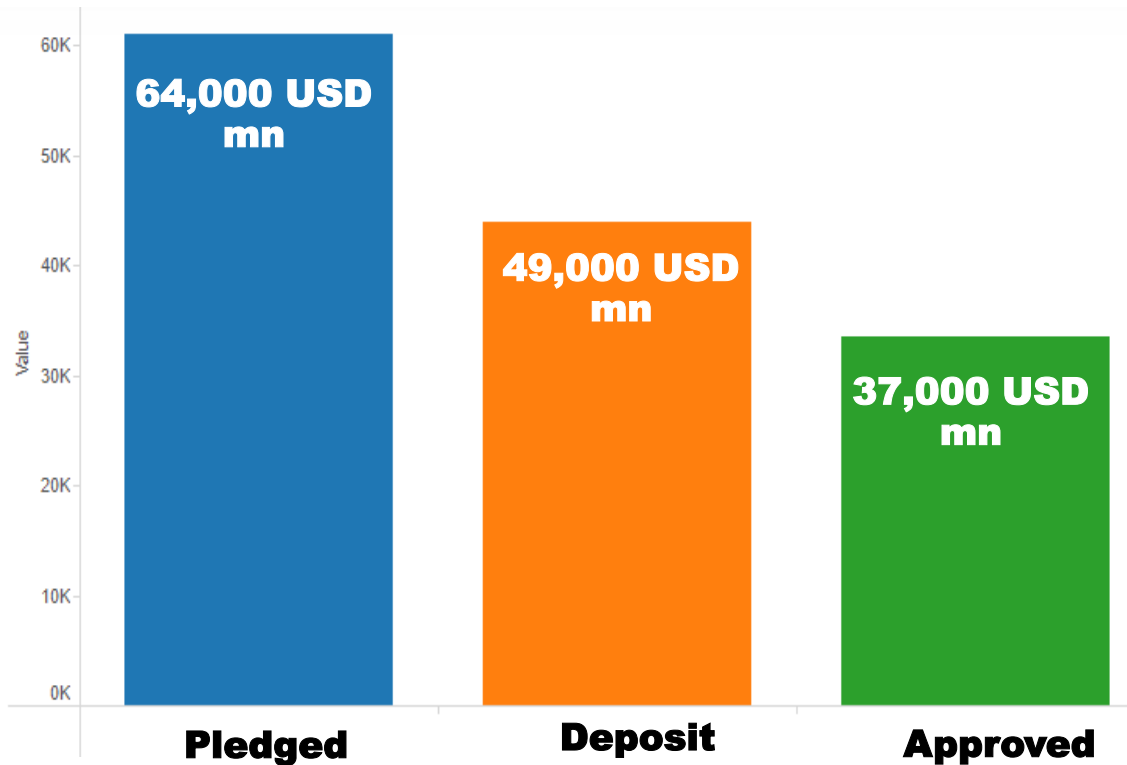
The impacts of climate change on the water supply and sanitation infrastructure are long-lasting and irreversible.

Climate finance is key for Mitigation and Adaption measures for climate change

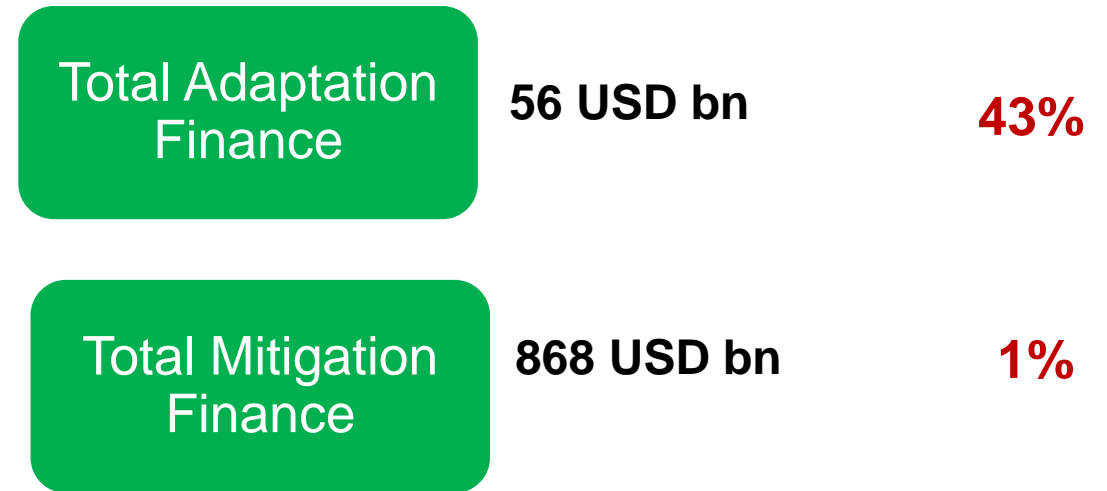


Climate finance refers to local, national or transnational financing drawn from public, private and alternative sources of financing that seeks to support mitigation and adaptation actions that will address climate change.

Globally, Climate finance commitments aren't enough... Disbursements versus approval are even slow



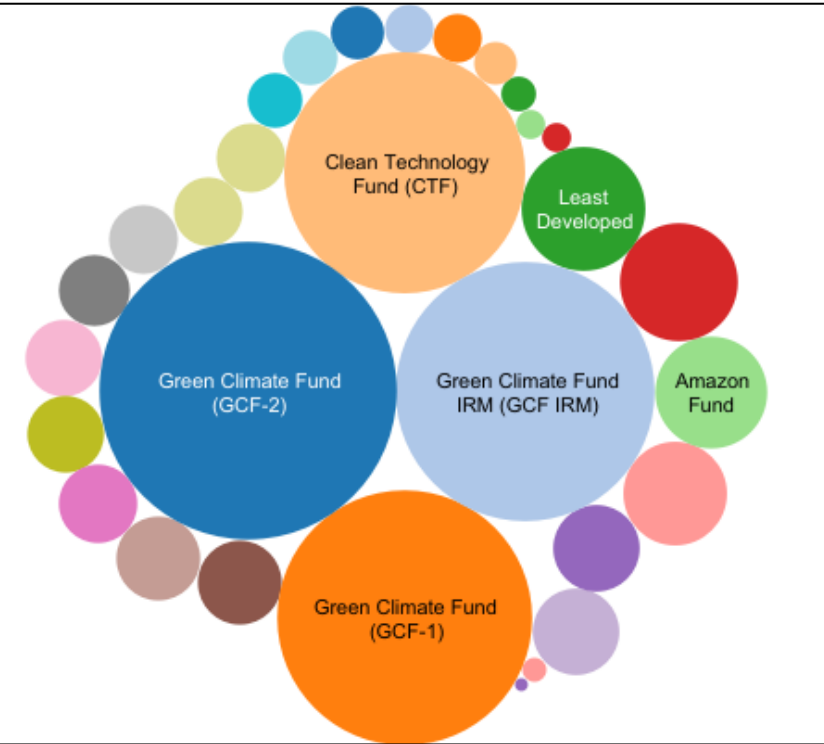
Water & wastewater



WASH finance is generally adaptation finance which is very low as compared to other sectors. Only 1% of mitigation finance is WASH.

Source: <https://climatefundsupdate.org/data-dashboard/regions/>

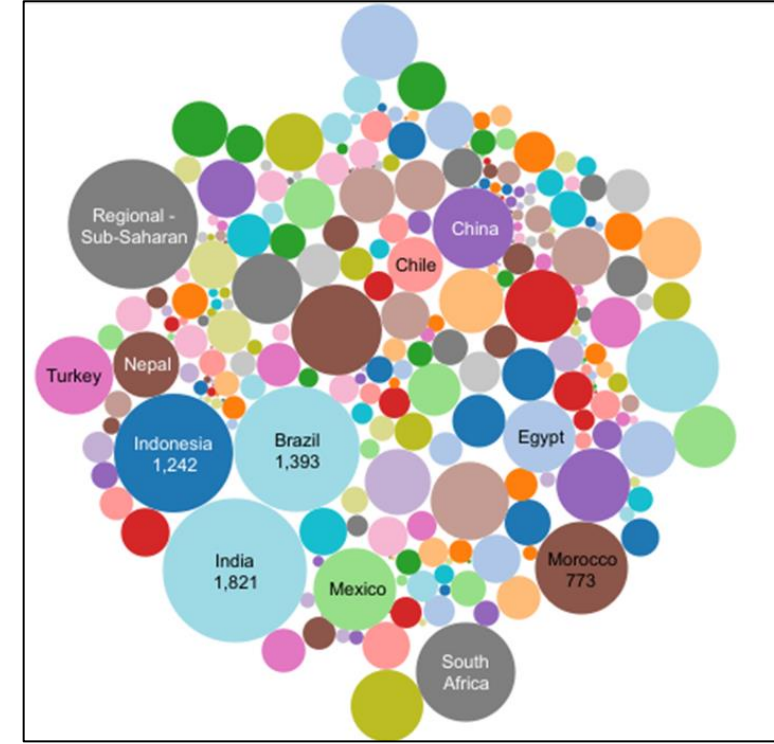
Largest contributors and recipients of climate funds



Climate funds by size



Contributors



Recipients

Landscape review of potential sources for WASH

International Arrangements

- Green Climate Fund (GCF)
- Global Environment Facility (GEF)
- Climate Investment Funds (CIF)
- Adaptation Fund
- Loss and Damage Fund
- Multilateral and bilateral development banks

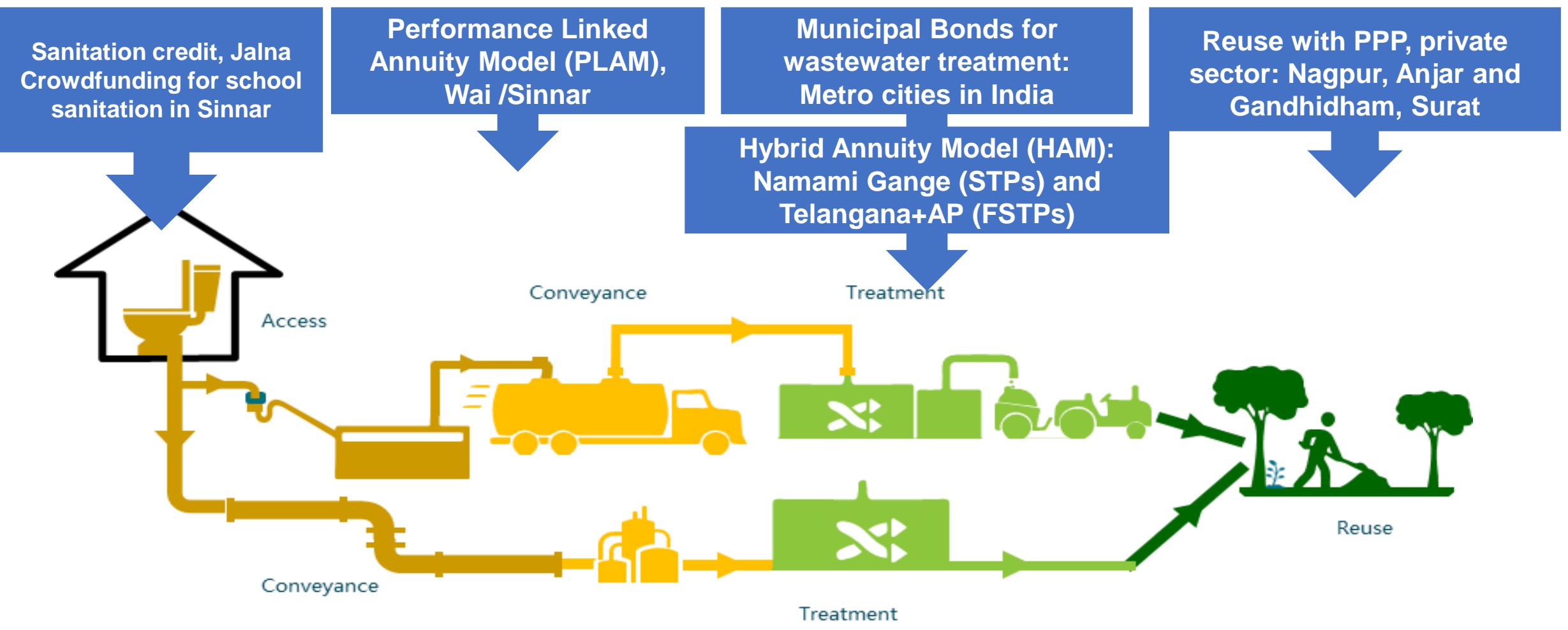
Domestic Public finance

- National programs- JJM, SBM, AMRUT, smart cities
- State programs- Eg: Maji Vasundhara
- LG own sources through local budget
- National or State funds- NaBFID, UIDF, NABARD's Climate Adaptation Fund and National Adaptation Fund For Climate Change

Innovative finance

- Green bonds and sovereign green bonds
- Municipal bonds
- Carbon credit
- Blended finance/ PPP
- Corporate Social Responsibility
- Philanthropic funds
- Green and water credits

Blended Finance: examples of commercial finance mobilized across the sanitation service chain in India



Make existing financing by the public sector, national programs, and PPP projects more climate-responsive.

Green Bonds for climate finance

What are Green bonds?



Raised capital for environmental and climate focused green projects



Fixed income debt instrument



SEBI guidelines for issuing Green Bonds

Sectors eligible for Green bonds



Renewable energy



Sustainable water and waste management



Pollution prevention



Clean transportation



Climate change projects

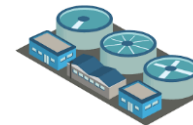
India's green bond market



The Government of India raised **USD 1 billion** the Sovereign Green Bonds January 2023



India's first green bond was raised in 2015 by Yes bank Ltd.



Ghaziabad raised first municipal green bond for water and sanitation treatment infrastructure



Indore raised a green bond to build largest solar plant - for pumping and supplying water from Narmada



INR 10 crore incentives by GoI on raising green bonds worth **INR 100 crore**

Sources: Author's literature review on green bonds ; India sets sights on record green bond issuance entering 2022 access at <https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/india-sets-sights-on-record-green-bond-issuance-entering-2022-67940627>

Green bonds may offer potential for cities to finance sustainable projects, but several key challenges persist. These include lack of awareness, limited creditworthiness, and difficulties developing bankable green initiatives, necessitating capacity building, credit enhancement mechanisms, and technical assistance.

Innovative approach of raising finance through carbon credits

Green Initiatives by GoI

Green Credit Scheme is environmental and climate friendly but needs **strong regulations** to work to avoid greenwashing.

Carbon Credit Trading Scheme to reduce GHG emissions with strong regulatory market to buy and sell carbon credits.

- Currently, there is a **voluntary carbon credit market in India**..GoI plans to develop the Indian Carbon Market (ICM) where a national framework will be established to decarbonize Indian economy by pricing GHG.
- Bureau of Energy Efficiency, Ministry of Power, along with Ministry of Environment, Forest & Climate Change are developing the **Carbon Credit Trading Scheme** for this purpose.

Carbon Credit Mechanism



Bundling of solar projects to obtain carbon credits



Verification and authorization through EKI (third party verification)

Selling of carbon credits worth INR 52 lakhs which is encashed for O&M of WASH solar project

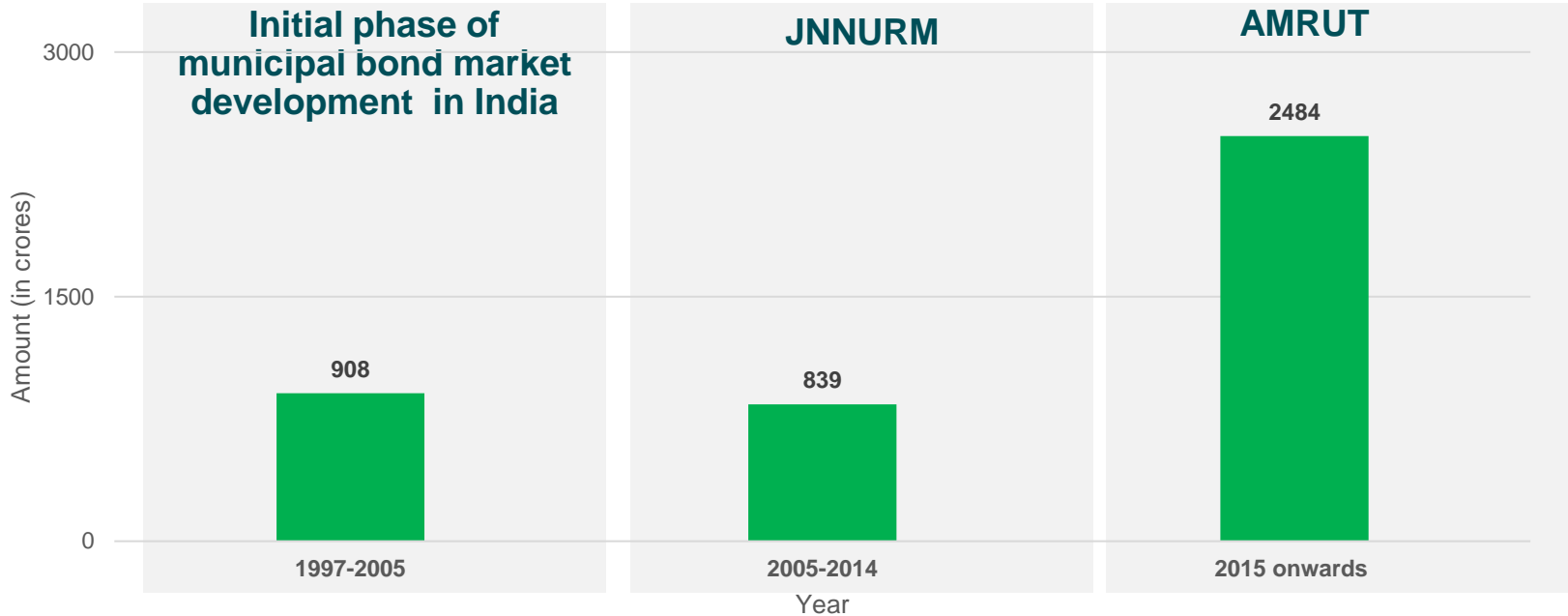


How can we avail carbon credits for our cities?

Carbon credit markets need to be expanded. Regulatory market, frameworks and standardized guidelines, methodologies need to be created. Bundling of projects to avail carbon credits.

Municipal bonds

Issuance of Municipal and Pooled Bonds worth INR 4,231 crore in India (1997-2024)



- Under AMRUT reform, in 2017, Gol started offering incentives worth **INR 13 crore on INR 100 crore bond amount**. This gave a push to the municipal bond market in India. With this, the municipal and pooled bond market size increased by **five folds**, with **mobilization of INR 2,484 crores through bond market**.

There is an increasing recognition of the need to mobilise infrastructure investments through borrowings

Source: www.sebi.gov.in, www.mohua.gov.in, 2018, AMRUT 2.0 operational guidelines, MoHUA, 2021, Discussions with CFAs of Gujarat and Maharashtra, 2023

Cities first need to be creditworthy!!!

Benefits of Creditworthiness Assessment



Improved access to capital



Lower borrowing costs



Investor confidence & economic development



Less time-consuming process



Reliance of publicly available datasets



Cost effective

Parameters of Creditworthiness Assessment



Enhanced financial management



Enhanced service delivery



Long-term planning & sustainability

Source: Based on report by CWAS –Creditworthiness Assessment of Indian Cities

Our approach to develop a simple creditworthiness assessment framework

Creditworthiness Assessment

Framework for cities

Cities can use a **creditworthiness self-assessment tool** before approaching a Credit Rating Agency for a formal credit rating

Our Framework uses both **financial performance indicators and service level indicators**

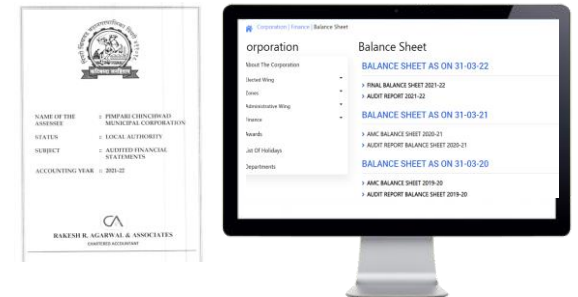
It uses **publicly available datasets** which are annually updated and accessible on web-based portals



Less time-consuming process



WASH and administrative Data – Performance Assessment System (www.pas.org)

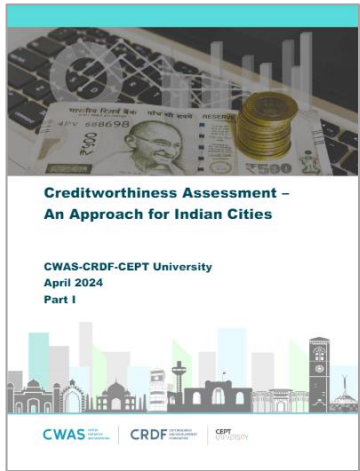


Balance sheets, Audited account statements and City Budgets can be obtained from cityfinance.in and [city own websites](http://cityownwebsites)

Source: Based on forthcoming report by CWAS –Creditworthiness Assessment of Indian Cities

Creditworthiness Assessment for Indian cities

Creditworthiness Report



Approach and framework for 30 Indian Cities

Report sent to various stakeholders

Scale up



Online Meeting with Ms. D Thara, MoHUA to discuss Creditworthiness Assessment Framework and Tool

Round-Table Meeting at MoHUA

- CWAS Team
- MoHUA Team
- Municipal Commissioner
- Sector Experts
- Credit Rating Agencies
- Financial and Multi-lateral agencies

Stakeholders



CWAS, CEPT presented Creditworthiness Assessment framework in a round-table meeting

Source: Based on report by CWAS –Creditworthiness Assessment of Indian Cities

Accessing impact finance - Exploring ESG ratings for Indian Cities



ESG Assessments, disclosures and investing

Measuring sustainability and societal impact to better determine future performance

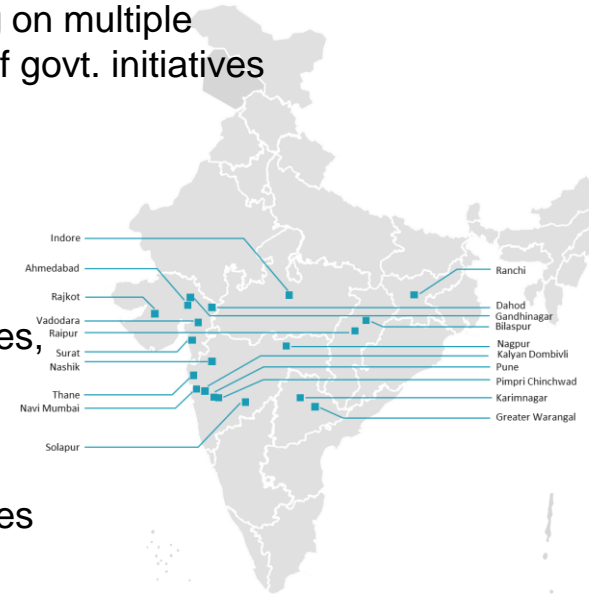
Popular in corporate but city governments are also adopting

Access new markets for development funds
Build credibility for investors

ESG for Indian cities



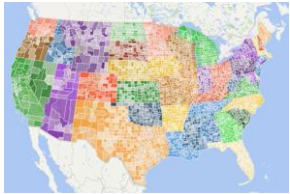
Indian cities already reporting on multiple ESG relevant topics as part of govt. initiatives – publicly available data



Framework by CWAS and PwC India

19 themes, 62 indicators - City mandates, service performance, Laws and policy, National commitments/ programs

Tested on **20 cities** - ESG ratings, profiles



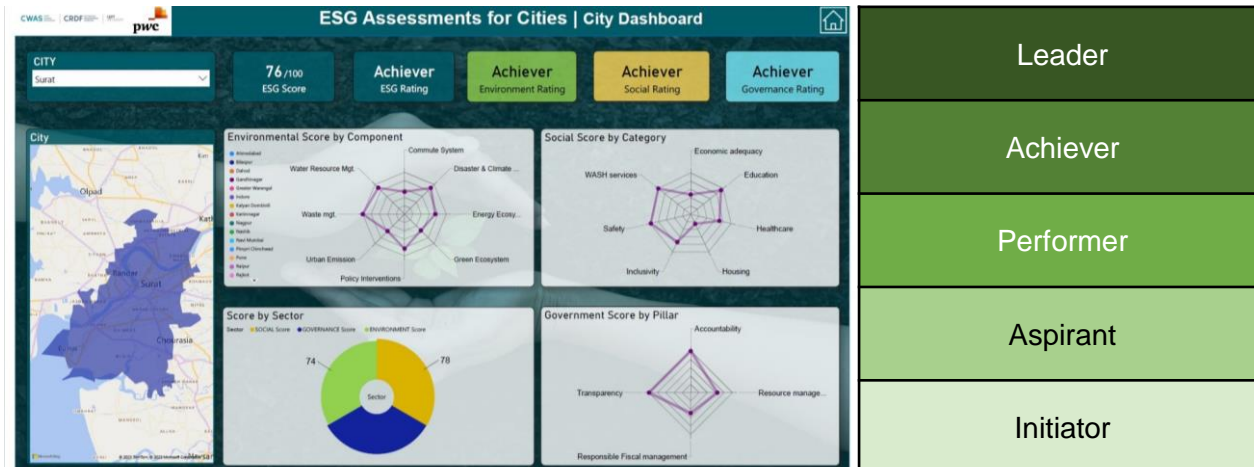
US Municipal Bond marketplace - ISS ESG Muni QualityScore (formerly ACRE Data) maintains ratings and data for all cities



Toronto's Debt Issuance Program linked to strategic ESG outcomes and reporting



Vancouver, Montreal adopting TCFD recommendations in financial reporting



Leader
Achiever
Performer
Aspirant
Initiator

Source: Based on report by CWAS –ESG Assessment of Indian Cities

Next steps for Creditworthiness and ESG assessments

Scaling up creditworthiness assessment through capacity building



Creditworthiness assessment framework can be scaled across Indian cities by capacity building of city government officials.

Collaboration with cities



- **Deep dive creditworthiness** assessment with a few cities.
- **Identify measures to improve creditworthiness of cities** and assess feasible borrowing options from the market.

Explore use of the Tool with potential lenders



Explore with other potential lenders such as commercial banks, NHB - Urban Infrastructure Development Fund (UIDF), NABFID, HUDCO etc.

Key Findings

- Accessing **international funding portfolios** is long term and remains a **challenging process**. Eg: GCF requires accredited institutions to prepare project proposals to access funding.
- International funding is a **combination of grants, concessional funding, co-financing, loans** etc. Climate finance in this form not directly accessible by local governments.
- There is **very little international focus** of climate finance in **WASH** sector. GCF has recently added Sanitation in their annex.
- Make **existing financing by the public sector**, national programs, and multilateral development banks more **climate-responsive**.
- **Carbon credit markets need to be expanded**. Regulatory market, frameworks and standardized guidelines, methodologies need to be created. Bundling of projects to avail carbon credits.

Summary

Important to recognize and tap the **new sources of funds** such as from social investors and from the domestic lenders and capital markets.

Training and capacity building of local and state government officials to access climate funding through workshops, round-table meetings etc.

Ensure that **climate finance is distributed equitably, with a focus on reaching the most vulnerable, exposed and underserved communities.**

Need to make cities **creditworthy and ESG ready**

Partner Session – Resilient Water Accelerator

Scaling Water Utilities Performance and Creditworthiness

21st Feb, 2025 | Room: CFP 203 | Time: 17:45 - 19:15



Rachel Cardone
(CEO, Resilient
Water Accelerator)



Meera Mehta
(CWAS, CRDF - CEPT
University)



Dinesh Mehta
(CWAS,
CRDF - CEPT University)



Chetan Vaidya
Independent Urban Advisor



Amit Nakhra
(Municipal Finance Expert,
GUDM)

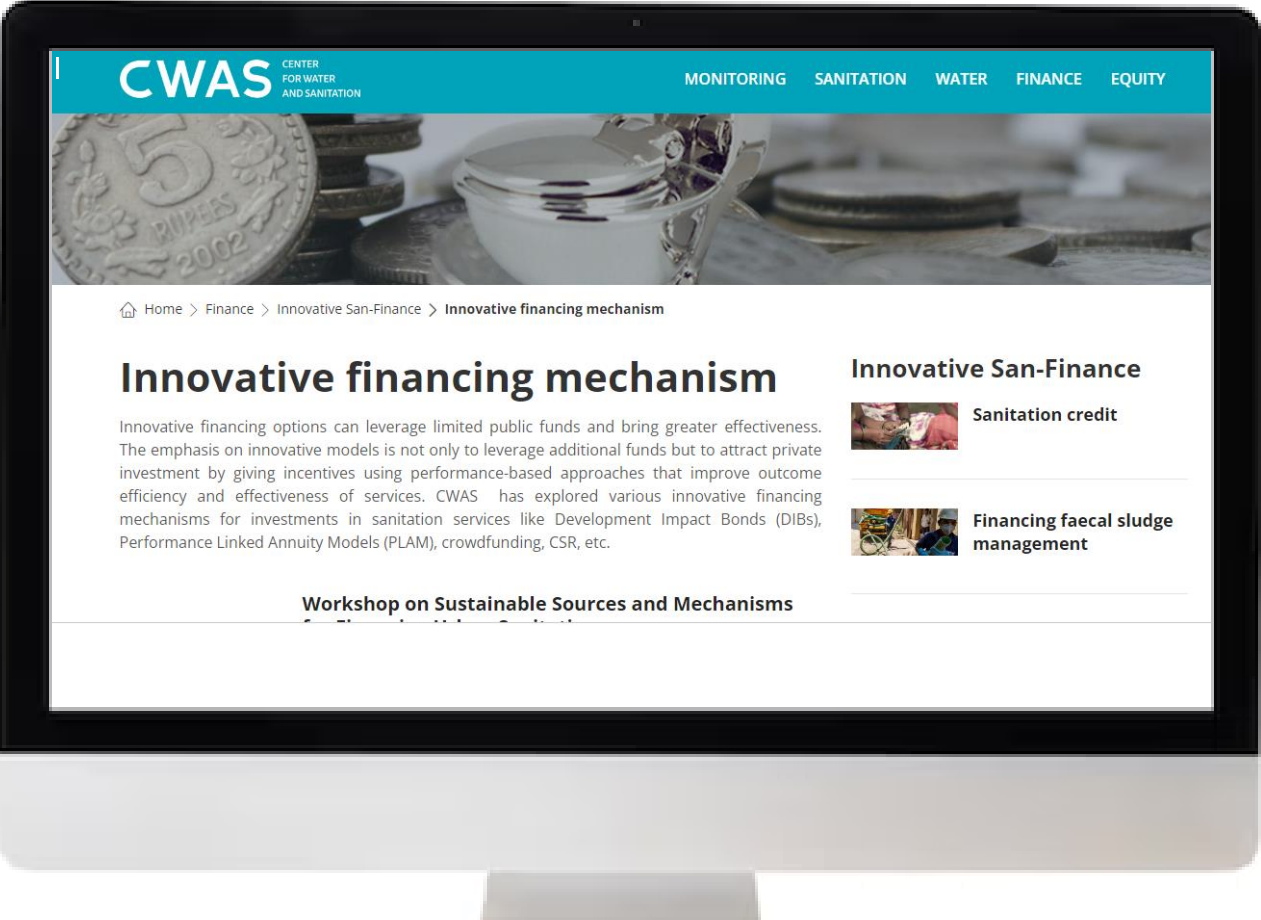


Vida Dhuti
(Country Director, IEC Ghana)



Sujatha Srikumar
(Director, Powertech)

Visit us at www.cwas.org.in to know more on Innovative financing...



<https://cwas.org.in/theme/finance/innovative-san-finance/innovative-financing-mechanism>

Thank You

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