

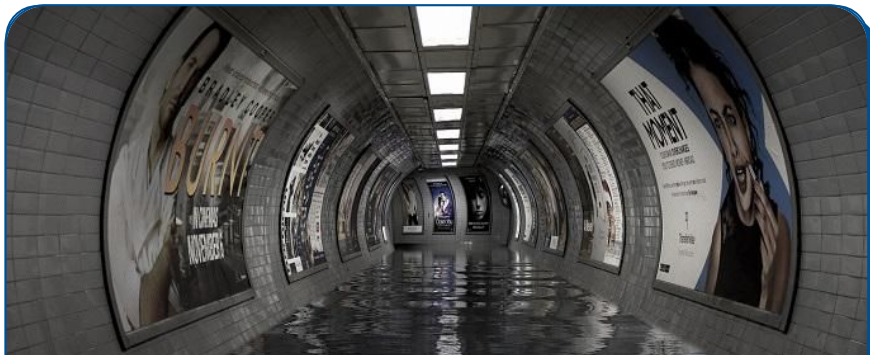
# Bankability of Climate Action: Enabling cities' access to climate finance - approaches and lessons

September 15, 2022, New Delhi  
Mehul Patwari, Director, Sustainable Finance

# Cities both contribute to and are vulnerable to Climate Change..



**75\*** per cent of the global GHGs emissions attributable to cities



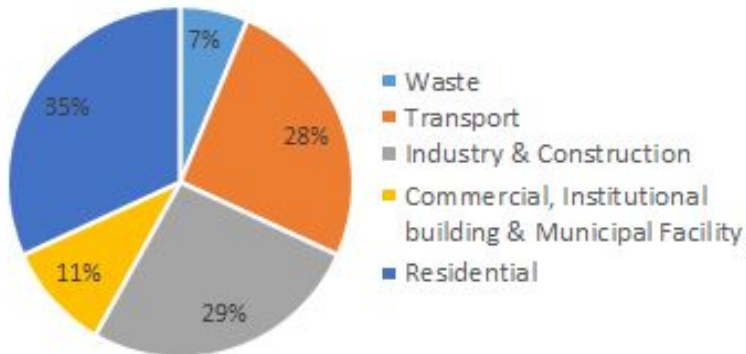
**30-55%** of infra assets in jeopardy due to climate change vulnerability

~**USD 2.3 tn** cumulative investment required- South Asian Cities till 2030 towards development of climate resilient infrastructure

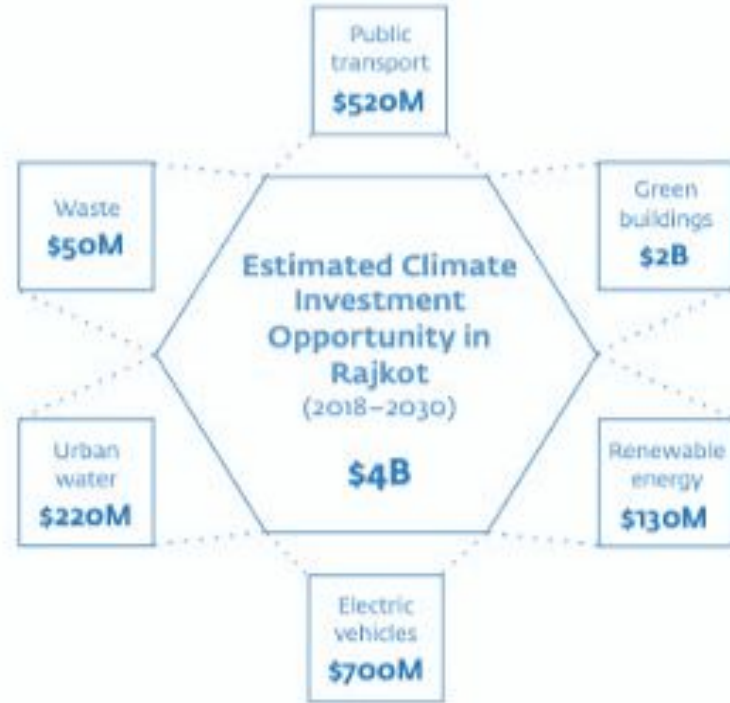
# Rajkot- a secondary city in India would require ~\$4B investment towards climate action

City	Rajkot
Population	1.4 million
GDP (per capita)	\$1,710
Current GHG emissions	2.2 million tCO <sub>2</sub> e
GHG reduction target	426,095 million tCO <sub>2</sub> e

GHG Emission by Sector in Rajkot



Considering data from year 2015 – 16 as baseline  
Source: Climate Resilient City Action Plan (CRCAP), 2019 & IFC Assessment, 2020



# ..but mobilizing infrastructure finance is a major challenge for cities due to:



Lack of upfront public capital



Lack of pipeline of bankable climate resilient infrastructure projects

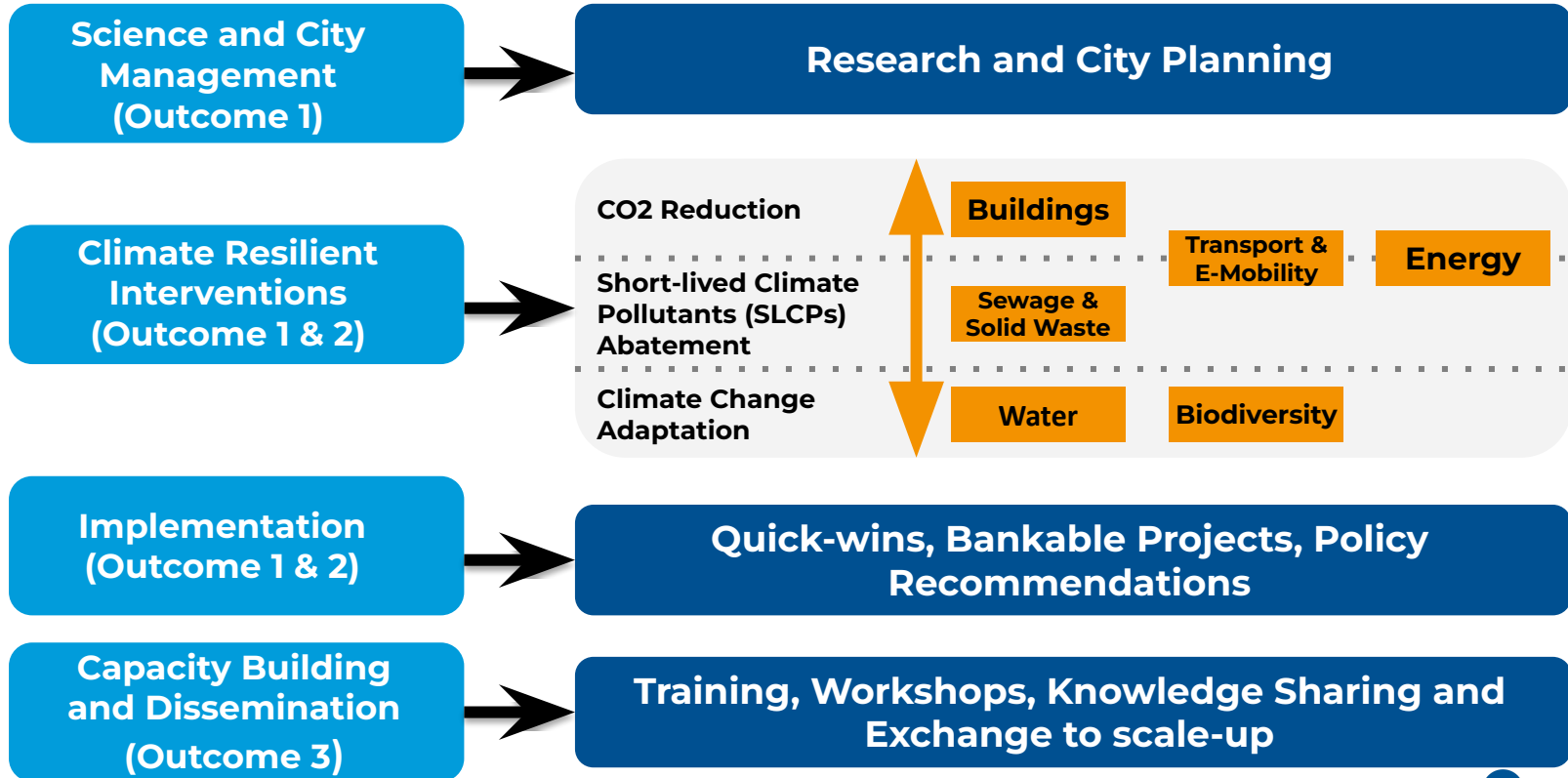


Limited knowledge and access to sources of urban climate finance



Additional perceived costs and unquantified benefits of “sustainable” projects

# CapaCITIES Framework



# Holistic approach towards climate resilient urban development



**Towards Inclusive & Sustainable Cities**

**Capabilities Approach**



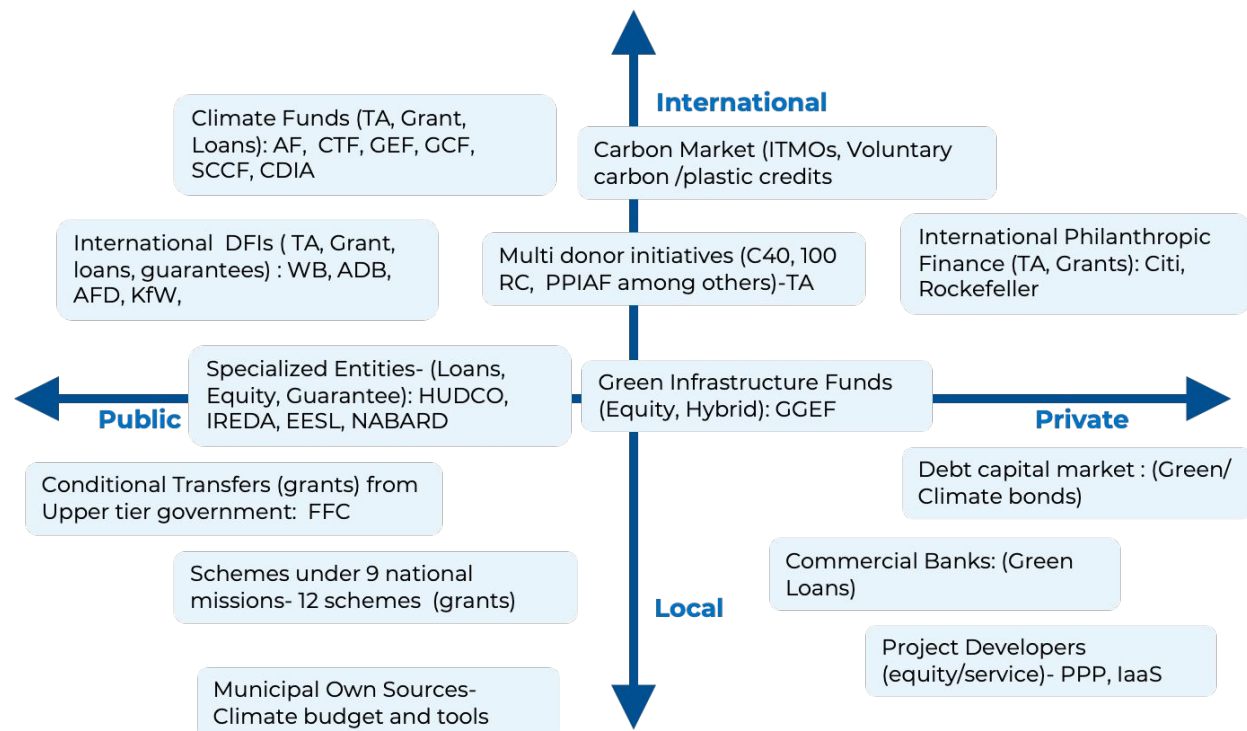
**Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation**



**Make cities and human settlements inclusive, safe, resilient and sustainable**



# Sources of Urban Climate Finance



Abbreviations: FFC: Fifteenth Finance Commission; HUDCO: Housing and Urban Development Corporation; NABARD: National Agriculture Bank and Rural Development; IREDA: India Renewable Energy Development Authority; EESL: Energy Efficiency Services Limited; WB: World Bank; ADB: Asian Development Bank; KfW: German Development Bank; AFD: French Development Bank; AF: Adaptation Fund; CTF: Clean Technology Fund; GEF: Green Environment Facility; SCCF: Special Climate Change Fund; CDIA: City Development Initiative of Asia; ITMO: Internationally Transferred Mitigation Outcomes; 100 RC: 100 Resilient Cities; PPIAF: Public Private Infrastructure Advisory Facility

# Public Sources:

## Ministries and Government Agencies

- Conditional Transfers (FFC)
- Government Schemes (9 National missions)
- Specialized financial institutions (EESL, IREDA, NABARD, HUDCO)

Grants, Concessional loans, guarantees, credit enhancements

## Municipal Own Sources

- User Charges
- Development Charges
- Taxes
- Other Sources

Integrating into climate budget/  
used for O&M

## Development Finance Institutions and Climate Funds

- Multilateral Development Banks (MDB)
- Bilateral Financial Institutions
- Climate Funds

Technical assistance, financial instruments & specialized knowledge

## Other International Public Climate Finance

- Country Partnerships
- Carbon Markets
- RECs

Technical assistance, pilots & monetizing carbon



# Private Sources:

## Commercial Finance Institution

- Scheduled Commercial Banks- Green lending
- International Development Finance Institutions
- Institutional Investors- Insurance cos, pension funds

Loans and Guarantees

## Debt Capital Market Investors

- Municipal Bonds
- Green/ Climate Bonds

Loans with bullet payment

## Equity Investors

- Private Equity Investors (through SPV)
- Infrastructure Funds
- Project Developers (under various PPP formats)
- IaaS- Infrastructure as a service
- InvTs/ REITs

Investment against returns

## Other Private Climate Finance sources

- (Inter)national philanthropic finance
- Voluntary Carbon Markets
- Impact Funds

Grants, Guarantees, Concessional lending and financing

# Climate Finance Instruments



# Annex 1: CapaCITIES: Case Studies

More details can be found on <https://capacitiesindia.org>





# Captive Solar Plant, Rajkot

## Supporting cities in designing replicable and scalable projects



### Goal and Challenge

Rajkot Municipal Corporation - pledged to reduce its carbon emissions by 18% by 2023.

Own electricity consumption is amongst the largest contributor to institutional emissions of RMC and revenue expenditure of RMC.



### Solution

South Pole conceptualised development of captive solar plant projects (self financed through potential savings) at centralised location and recommended implementation alternatives along with project structuring, financing alternatives and bankability assessment.



### Impact

The project is under implementation and financing for the project has been approved through city budget. The implementation of the project would result in mobilizing CHF 2 mio of climate finance, carbon sequestration of ~155,000 tco2e/year for 25 years and average annual savings of CHF 150,000 for RMC.- High potential of replication.

# Waste to bio CNG, Coimbatore

## Supporting cities in designing replicable and scalable project



### Goal and Challenge

Coimbatore Municipal Corporation - pledged to reduce its carbon emissions by 33% by 2022-23

Non-scientific disposal of solid waste is amongst the largest contributor of carbon emissions



### Solution

South Pole team conceptualised development of a bankable 200 tons waste to bio CNG plant on public private partnership on the principle of circular economy. The team is now supporting city in detailed bankability assessment and implementation of the project.



### Impact

The project is approved and under implementation. It would result in mobilizing CHF 8.75 mio of private capital towards waste management and is anticipated to result in carbon sequestration of ~560,000 tCO<sub>2</sub>e over the project lifetime of 15 years. - State level scale up is under consideration.

# Green Mobility Zone Program, Udaipur

## Supporting cities in designing replicable and scalable project



### Goal and Challenge

Udaipur Municipal Corporation - pledged to reduce its carbon emissions by 28% by 2023.

On road transport sector responsible: ~28% of the total GHG emissions- Walled city- the major economic and tourism hub - dual problem of congestion and local air pollution



### Solution

South Pole conceptualised development of a program to transition walled city into Green Mobility Zone (EV only) in 3 phases (1) 3W (2) 2W (3) RE enabled charging of batteries. The team is supporting city in designing policy and forging partnerships.



### Impact

The project is under implementation and has received interest from multiple private sector agencies. Once implemented the project in expected to mobilize CHF 2 mio of private investment and emission reduction of 2000 tCO<sub>2</sub>e/year while significantly improving local congestion and air pollution impact.



# Thank You



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