

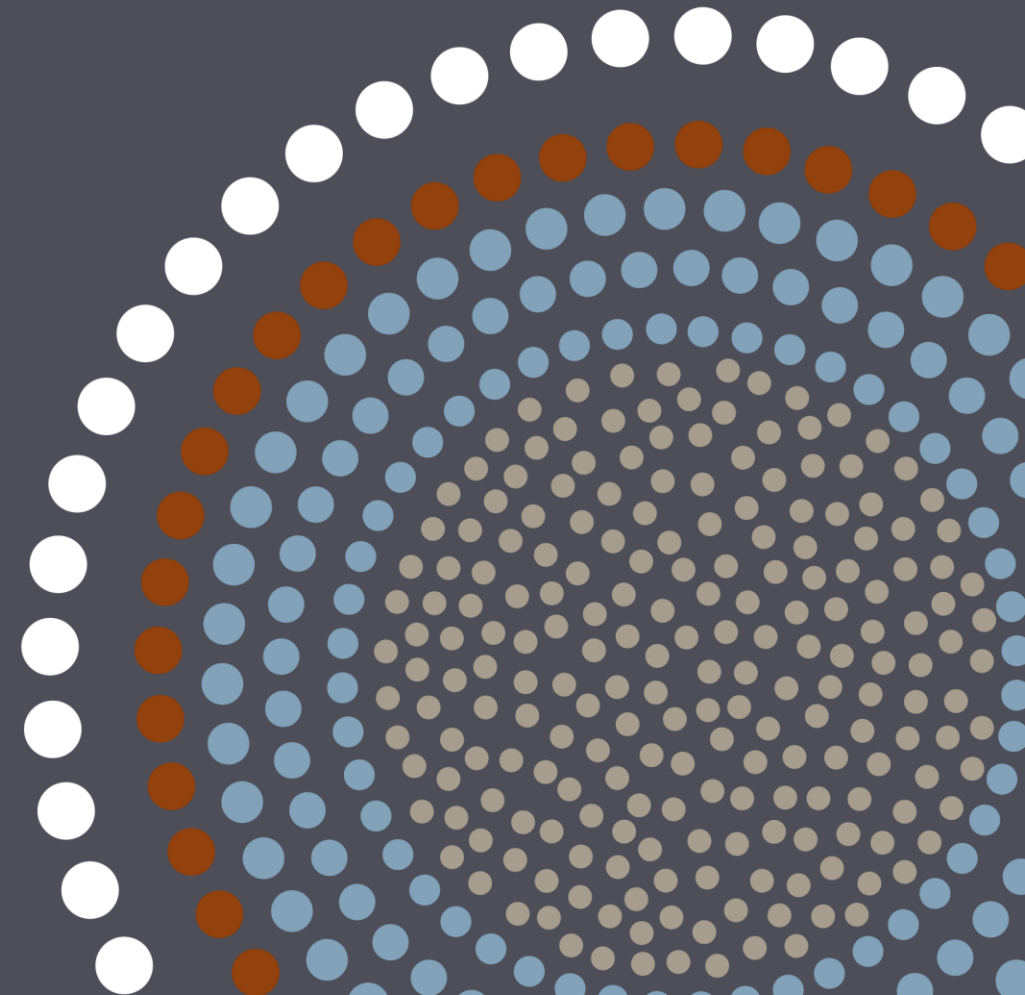
# Results-Based Financing Forum 2023



## Community-led Climate Action in Informal Settlements (CCAIS)

Opportunities for RBF

*Swati Sachdeva, Urban Specialist, GPRBA*



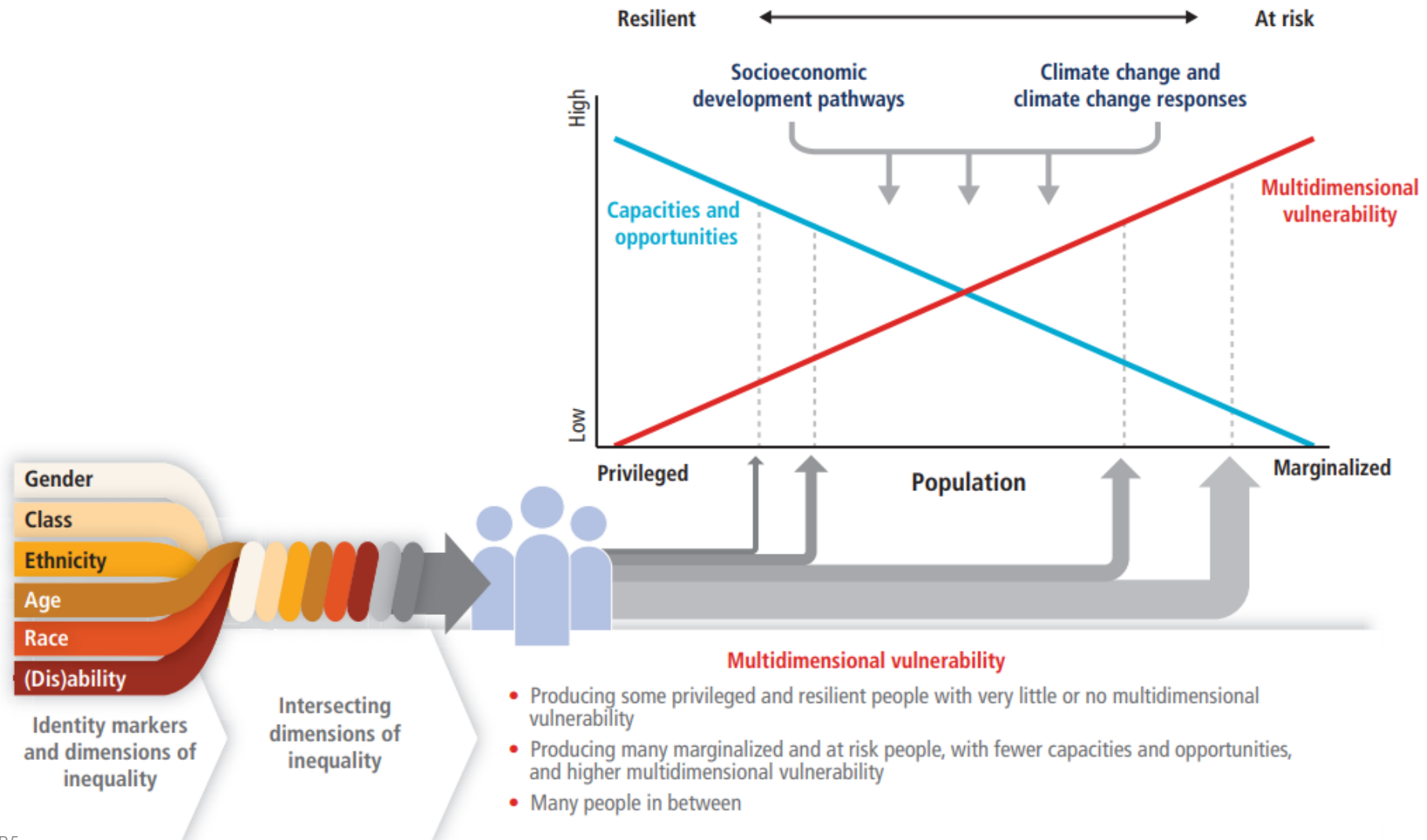
# Climate change and multiple crises: Defining challenge for cities today

# people:

Urban poor and those living in informal settlements—while least responsible for greenhouse gas emissions— bear a **disproportionate burden** of the consequences of climate change.



# Compounded risk and vulnerability

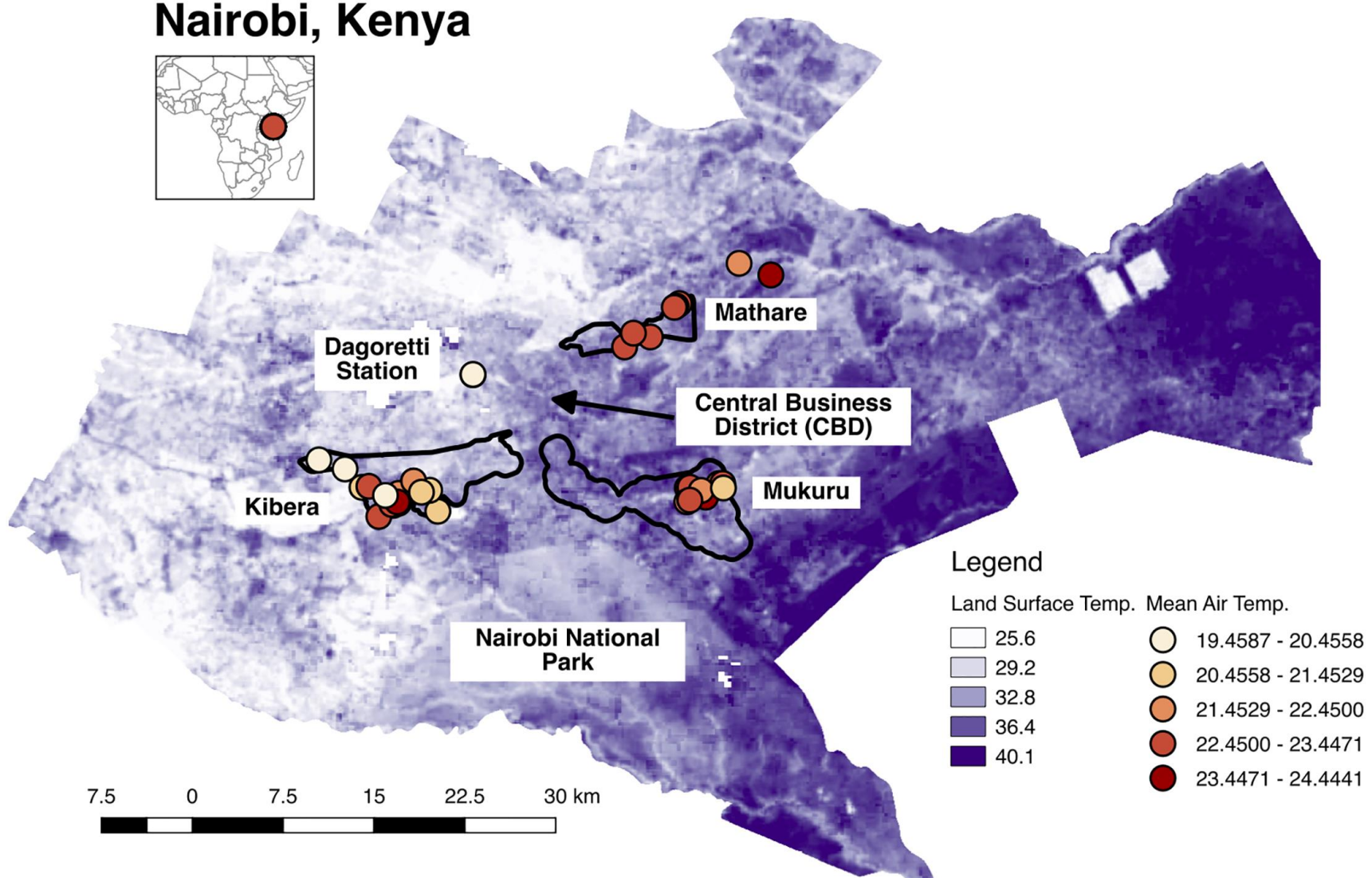


# place

Informal urban settlements **lack access** to basic services and are often located in low-lying, environmentally degraded and at-risk areas.

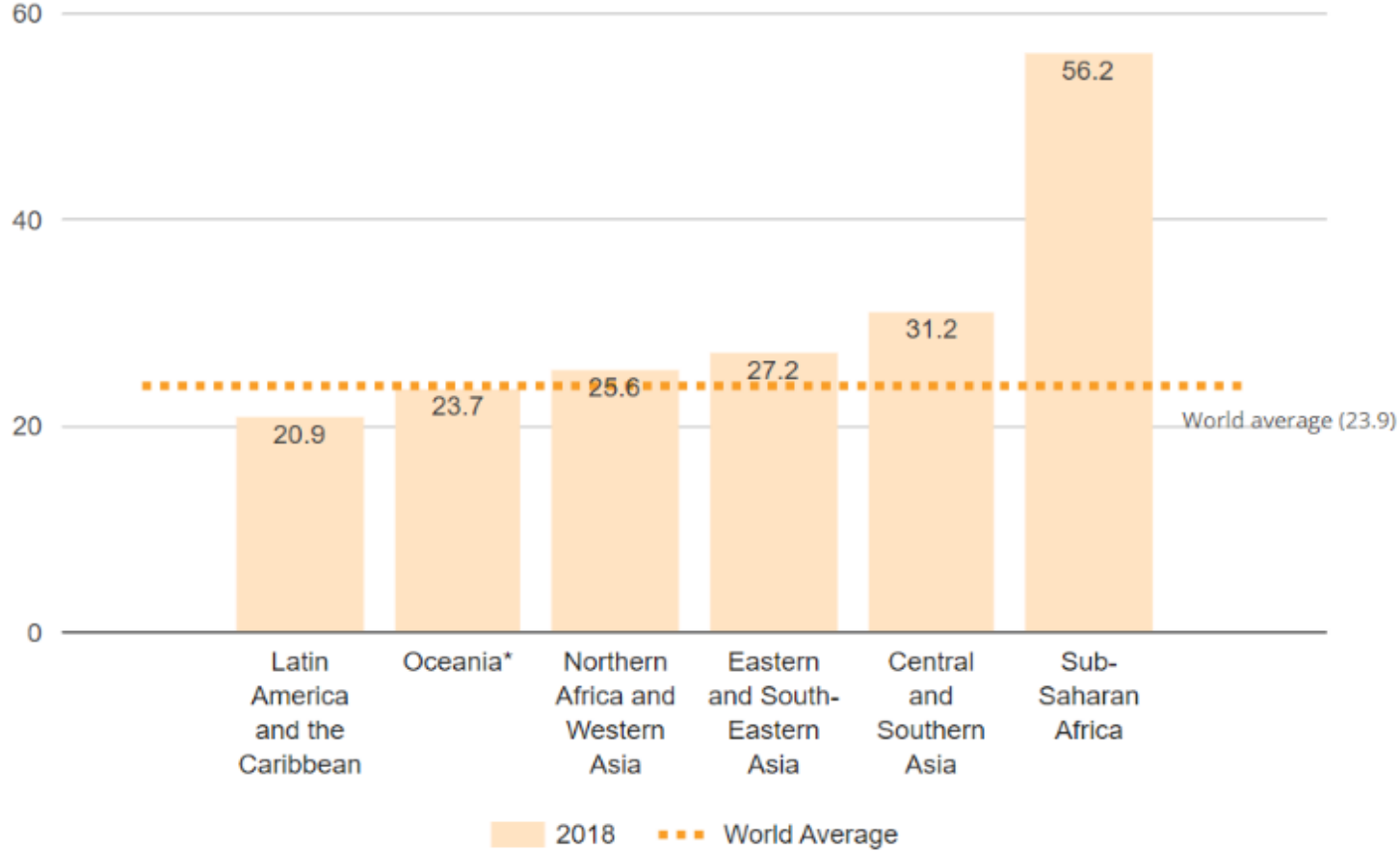


# Disproportionate Climate impacts in informal settlements



Source: Scott AA, Misiani H, Okoth J, Jordan A, Gohlke J, et al. (2017) Temperature and heat in informal settlements in Nairobi. PLOS ONE 12(11): e0187300. <https://doi.org/10.1371/journal.pone.0187300>

# Informal settlements are growing at rapid rates



\* Excludes Australia and New Zealand.

# Informal settlements, informal economy, and climate

**LIVE** – Informal settlements are overcrowded, have poor or shared access to basic services, deplorable living condition, poor accessibility, inadequate waste management, and so forth that makes them risk hotspots.

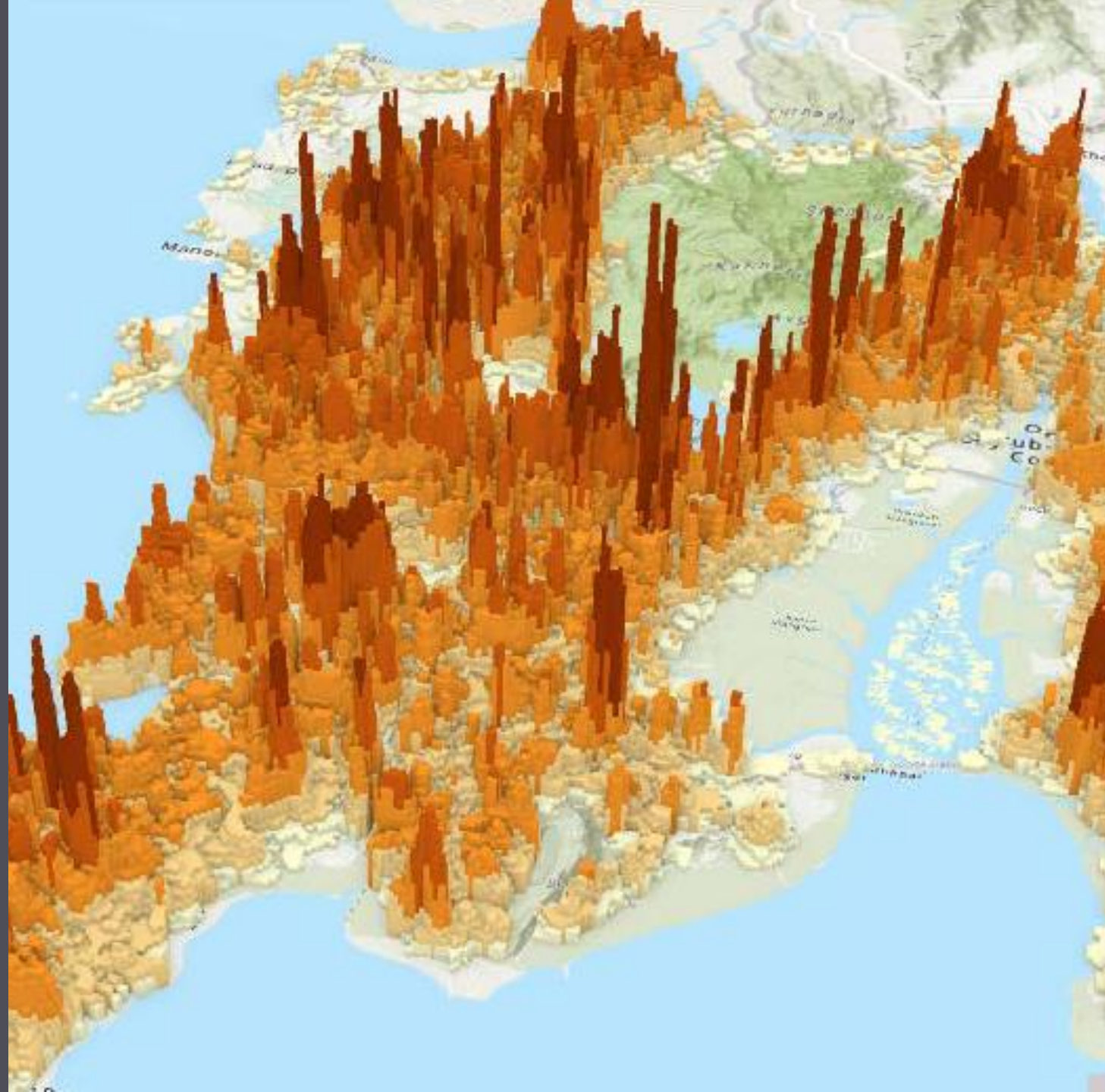
**WORK** – Most informal workers are essential workers (waste pickers, food delivery, domestic workers etc.) or daily wage earners with irregular income and insecure jobs that expose them to higher risk.

**URBAN  
POOR**



# planning

Adaptation decisions are made far away from local contexts, missing vital insights and innovation, and **risking maladaptive solutions** that waste money, resources and time.



**There needs to be a significant shift in local people's agency to decide on their own adaptation.**

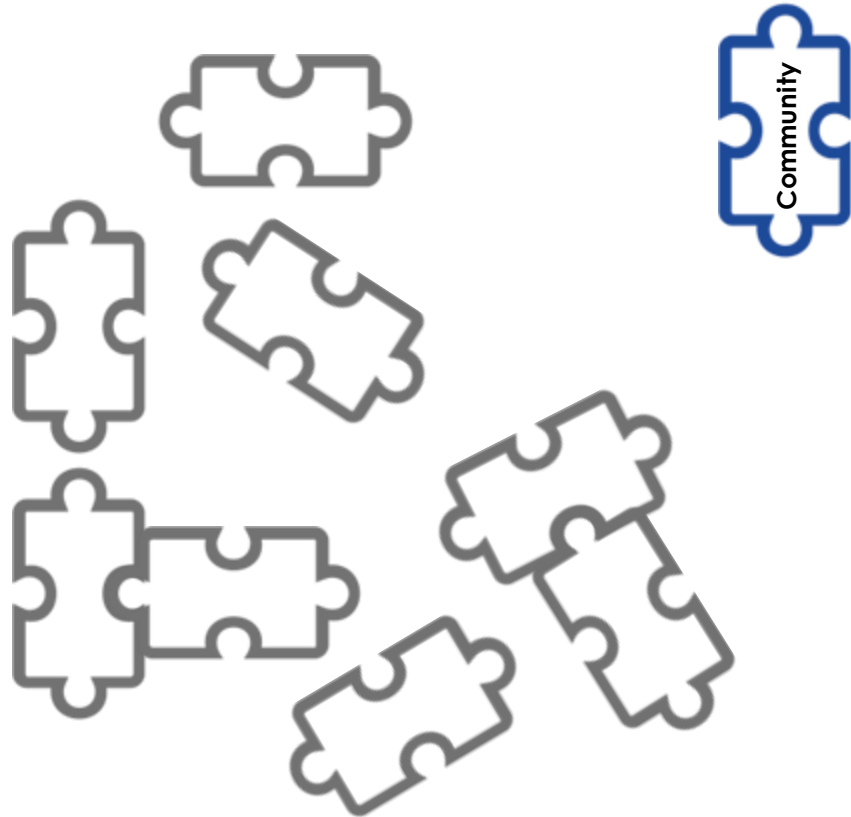
- Households in Bangladesh spend more than US\$2 billion a year on climate change adaptation and disaster recovery. That is more than double government and 11 times donor spending, yet they are often excluded from making decisions over their own adaptation<sup>1</sup>, that directly impact their lives and livelihoods.

<sup>1</sup>Eskander, S and Steele, P (2019) Bearing the Climate burden: how households in Bangladesh are spending too much. IIED, London. See <http://pubs.iied.org/16643IIED>

To prevent maladaptation, avoid reversing the development gains of last few decades, and to effectively cope with the extreme climate events, **bottom-up and inclusive approach to climate adaptation is not a matter of choice but an absolute necessity.**

# BUA planning processes.

Top-down approach



National level NDC targets; single-siloed approach, international experts make most decisions away from local reality. Although, some countries slowly transitioning to city-level action plans, yet local data and local communities are often excluded.

# People-centered planning

Bottom-up approach



Community are not just "passive " participants, but involved in design, prioritization, managing, monitoring and implementing adaptation solutions.

Given the right resources, partnerships, information, voice and agency, local people offer huge untapped resilience-building potential to deliver more context-specific, coherent, accountable, democratic, agile, diverse, and cost-effective climate adaptation solutions.



# COMMUNITIES: FRONT LINE RESPONDERS & CHANGE AGENTS

Local communities and grassroots organizations were pivotal in pandemic response.

## DHAKA



Credit: Saikat Majumder

Community-based organisations served as mediators, to identify vulnerable groups, fairly distribute aid and food, organize and provide hygiene and safety services.

## PHILIPPINES



Credit: Asian Coalition for Housing Rights

Homeless People's Federation, identified most vulnerable families during pandemic; collaborated with local governments to use community-based health monitors to track infections and distribute aid and information; planted community vegetable gardens and; launched livelihood projects to help those who have lost their jobs.

Residents with approval from provincial and municipal government, started a 4.8-hectare community farm on a former garbage dump.



Credit: Chiang Mai Urban Farm

## CHIANG MAI

Lessons from Ebola crisis helped to quickly activate community-based volunteer groups work directly with local government on relief and recovery. For e.g., local communities pooled financial resources together to provide drinking water during lockdown, contributed to the city council's response plans and strategies, establish community kitchen, support livelihood opportunities etc.

## FREETOWN



Credit: Yirah Conteh

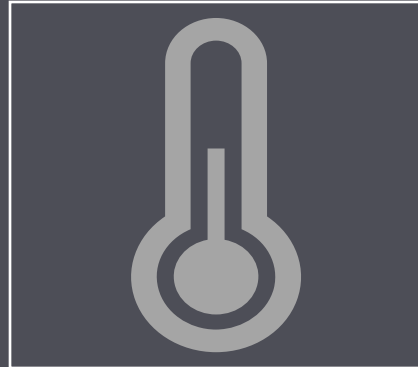
- The **Community Climate Change Project in Bangladesh**, funded by the Bangladesh Climate Change Resilience Fund, had a budget of approx. US\$12.5 million.
- It aimed to enhance the resilience of poor and ultra-poor communities residing in areas affected by salinity, floods, and rainfall scarcity.
- Approximately US\$10.4 million was dedicated to competitive grants for NGOs to implement community-driven adaptation strategies in response to climate change.
- The project prioritized locally led solutions by leveraging indigenous knowledge and identifying community-specific needs, such as resilient infrastructure, livelihood support, water supply, and homestead raising to mitigate the risks posed by climate change. It drew upon Bangladesh's experience in working with civil society and local communities to create a functioning financing and community mechanisms to help vulnerable communities increase their resilience to climate change
- The project surpassed its target of adopting adaptation practices by the communities by 122%. Over 32% of beneficiaries in flood and salinity zones **adopted household plinth raising, an indigenous practice improved by the project to cope with the impacts of climate change.**



# But crucial data is missing



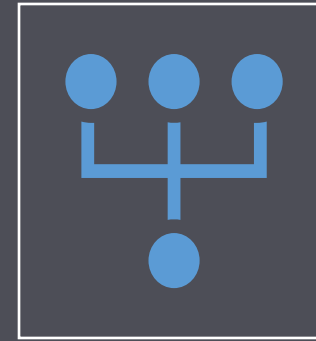
where are the  
urban poor  
located?



what are their  
existing and  
projected  
climate risks?



how have recent  
climate events  
affected them?



how are they  
organized,  
where do they  
work, what are  
their immediate  
and priority  
needs?



how are they  
adapting to the  
changing  
climate?



Potential solutions

# Community-led data collection is a starting point



# Partnership with communities for collecting data

For example, Mahila Milan and SPARC (during COVID-19 second wave) collected data on 105 informal settlements in Mumbai, Pune and Bhubaneswar.

Federation of Urban and Rural Poor & Center of Dialogue on Human Settlement and Poverty Alleviation collected data on 59 informal settlements incl. 1276 service points in Freetown.

Ghana Federation of Urban Poor and People's Dialogue collected data on 4 priority informal settlements with 5000 service data points, and digitized data for remaining settlements in Accra



- To fill data gap, World Bank partnered with Slum Dwellers International (SDI) in end of 2020 to collect data for most vulnerable settlements in 8 cities.
- In six months, SDI local affiliates could collect geospatial data for 208 informal settlements (> 1.6 million people), 11,000+ service delivery points, qualitative data on impacts and priority needs of community etc.

Mumbai Accra Kampala Kisumu Pune Nairobi Freetown Bhubaneswar



THE WORLD BANK  
IBRD • IDA | WORLD BANK GROUP

# Data on priority needs and impacts is essential



Poor access to services



Unemployment



Increased Crime



Child marriage



Domestic Abuse



School dropout



Increased debt



Eviction



Food insecurity



Business shutdown



No safety net

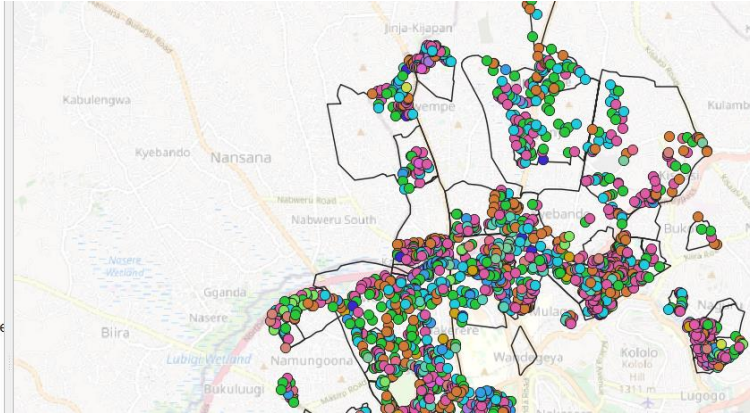


Lower HH income

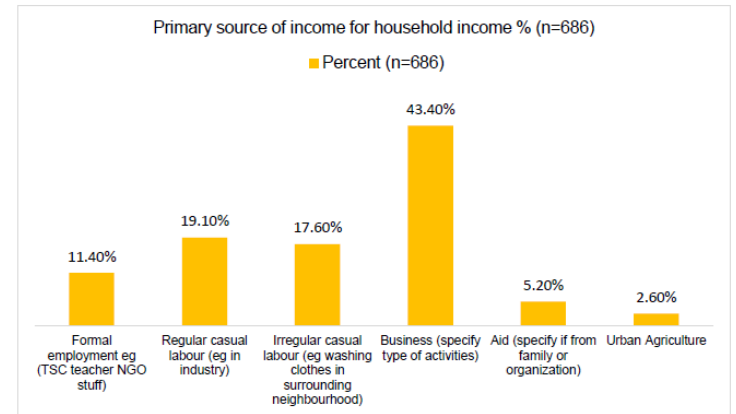
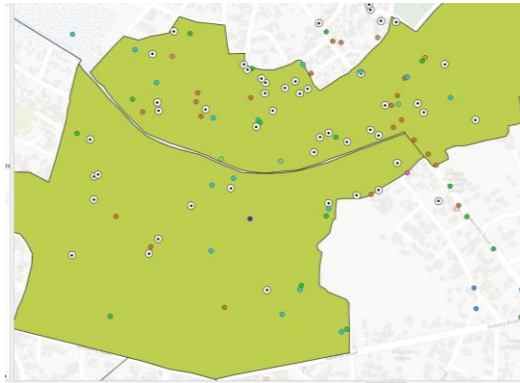
Qualitative data collected by local affiliates of SDI in eight cities provided additional insights on negative coping strategies adopted by informal settlement residents to cope up with socio-economic impacts of pandemic; its protracted after-effects; social capital within communities and priority needs of the community.

# Sample GIS data collected by SDI team

- ✓ Community Kitchen
- ✓ Education Facility
- ✓ Flood light
- ✓ Garage
- ✓ Handwashing Facility
- ✓ Health facility
- ✓ Local Administrative Office
- ✓ Local Organization/NGO office
- ✓ Market
- ✓ Open Space
- ✓ Others
- ✓ Police Station
- ✓ Religious institution
- ✓ Social Hall/Community Centre/Resource Centre
- ✓ Toilet Facility
- ✓ Waste Collection Bin/Open Dumping Area
- ✓ Water point



Facility_T	Type_of_wa	Source_of_	Water_cost	Facilities	Functional	Function_1	Status	Managing_a
Water point	Individual water...	Main Water Network (NWSC)	100 Ugx	NA	Yes	Yes - Always fun...	Good	Individual (e.g. ...)
Water point	Water kiosk	Main Water Network (NWSC)	200 Ugx	None	Yes	Yes - Always fun...	Good	Individual (e.g. ...)
Water point	Public water tap	Main Water Network (NWSC)	100 Ugx	N/A	Yes	Yes - Always fun...	Fair	Government
Water point	Individual water...	Main Water Network (NWSC)	100 Ugx	None	Yes	Yes - Always fun...	Fair	Individual (e.g. ...)
Water point	Individual water...	Main Water Network (NWSC)	200 Ugx	Clinic	Yes	Very rarely funct...	Fair	Individual (e.g. ...)
Water point	Individual water...	Main Water Network (NWSC)	100 Ugx	Not applicable	No	No - has not fu...	Dilapidated	Individual (e.g. ...)
Water point	Borehole	Private Borehole/Well	Free Water	Non	Yes	Yes - Always fun...	Good	NGO
Water point	Public water tap	Main Water Network (NWSC)	200 Ugx	N/A	Yes	Yes - Always fun...	Good	Individual (e.g. ...)
Water point	Individual water...	Main Water Network (NWSC)	200 Ugx	Spare parts	Yes	Yes - Always fun...	Good	Individual (e.g. ...)
Water point	Individual water...	Main Water Network (NWSC)	200 Ugx	Motorcycle spar...	Yes	Yes - Always fun...	Fair	Individual (e.g. ...)
Water point	Public water tap	Main Water Network (NWSC)	100 Ugx	N/A	Yes	Yes - Always fun...	Good	Private Compan
Water point	Public water tap	Main Water Network (NWSC)	200 Ugx	Health center	Yes	Yes - Always fun...	Good	Community Gr
Water point	Individual water...	Main Water Network (NWSC)	Free Water	Church Great mi...	Yes	Yes - Always fun...	Dilapidated	Individual (e.g. ...)
Water point	Public water tap	Main Water Network (NWSC)	100 Ugx	NA	No	Rarely functions...	Dilapidated	Community Gr
Water point	Public water tap	Main Water Network (NWSC)	200 Ugx	NA	Yes	Yes - Always fun...	Good	Individual (e.g. ...)
Water point	Public water tap	Main Water Network (NWSC)	200 Ugx	NA	Yes	Yes - Always fun...	Good	Individual (e.g. ...)
Water point	Public water tap	Main Water Network (NWSC)	200 Ugx	NA	Yes	Yes - Always fun...	Good	Individual (e.g. ...)



Rank	List the communities 5 most important priorities. What are the most important problems you wish to solve as a community?	Count
Rank 1	Drainage/ Transportation	53
Rank 2	Sanitation/ Sewerage	47
Rank 3	Livelihoods	45
Rank 4	Security/ Peace and Order	40
Rank 5	Water	34
Rank 6	Electricity	20
Rank 7	Housing/ Land tenure	16
Rank 8	Garbage management	5
Rank 9	Health Issues	5
Rank 10	Education	3
Rank 11	Community Hall	2
Rank 12	Street Lights	1

When was the settlement Established?	Land Tenure?	Has the settlement ever faced eviction?	Is the Settlement Currently under the threat of eviction?	What is the Settlement size (Acres)?	How many Households live in the Settlement?	Estimate Number of People living in the Settlement	relation to the Settlements Location, Poses a Risk to the Settlement	Why is the Settlement considered dangerous?	What are some of the Natural Disasters experienced in the Settlement in the past?	ity faced any Social Problems in the last 12	Concerns of the Community related to	Structures in the Settlement are used for Residential Purposes Only?	Structures in the Settlement are used for Business Only?	How many Structures in the Settlement are used for Business Only?	Other Structures are in the Settlement	Total Number of Structures in the Settlement	ment Connected to the Main Sewer	Public Toilets are in the Settlement?
1972	Community land	Yes	Yes	41.1	2245	11225	Road side, open	Insecurity.	-	Evictions, ri	Mugging, ro	828	7	70	293	1198	No	8
1945	Private land	Yes	Yes	143.88	3605	28840	Road side, area t	Floods	Floods, strong winds.	Crime, com	Mugging, hc	1087	9	123	497	1638	No	40
1945	Riparian reserve (80%), Pr	Yes	Yes	90.99	2476	19808	Sinking soil, water	Wild animals, flo	Floods, earthquakes.	Evictions, c	Drug abuse,	634	None	114	139	887	No	30
1962	Private owners	No	No	100.07	4533	18132	Water body,	Prone to attack	Fires (1984, 1996)	Crime	Mugging,	542	6	164	263	975	No	1
1960s	Community land	Yes	Yes	33.16	835	5010	Slope, garbage d	Insecurity.	-	Evictions, ri	Mugging, ro	208	None	51	133	392	No	-
1960s	Private land	No	No	56.33	1899	11394	-	Insecurity.	Fires (2014)	Crime	Mugging, ro	230	None	8	117	355	No	2



# COMMUNITY PARTNERSHIP FOR INCLUSIVE RECOVERY



“This partnership with World Bank in Freetown for COVID-19 hotspot mapping has helped trigger working groups in Freetown City Council (FCC) for informal settlement regeneration, and SDI work has become central in that discussion because of data and community engagement.”

– Francis Reffell, Founder & Director - Centre of Dialogue on Human Settlement and Poverty Alleviation

Although community-led climate adaptation planning provides a window of opportunity to recognize local communities as agents of change and partner with them for green, resilient, and inclusive cities, but **governments often lack the funding and incentives needed for agencies to address knowledge gaps, collaborate across silos, and implement innovative solutions for climate adaptation at community level**

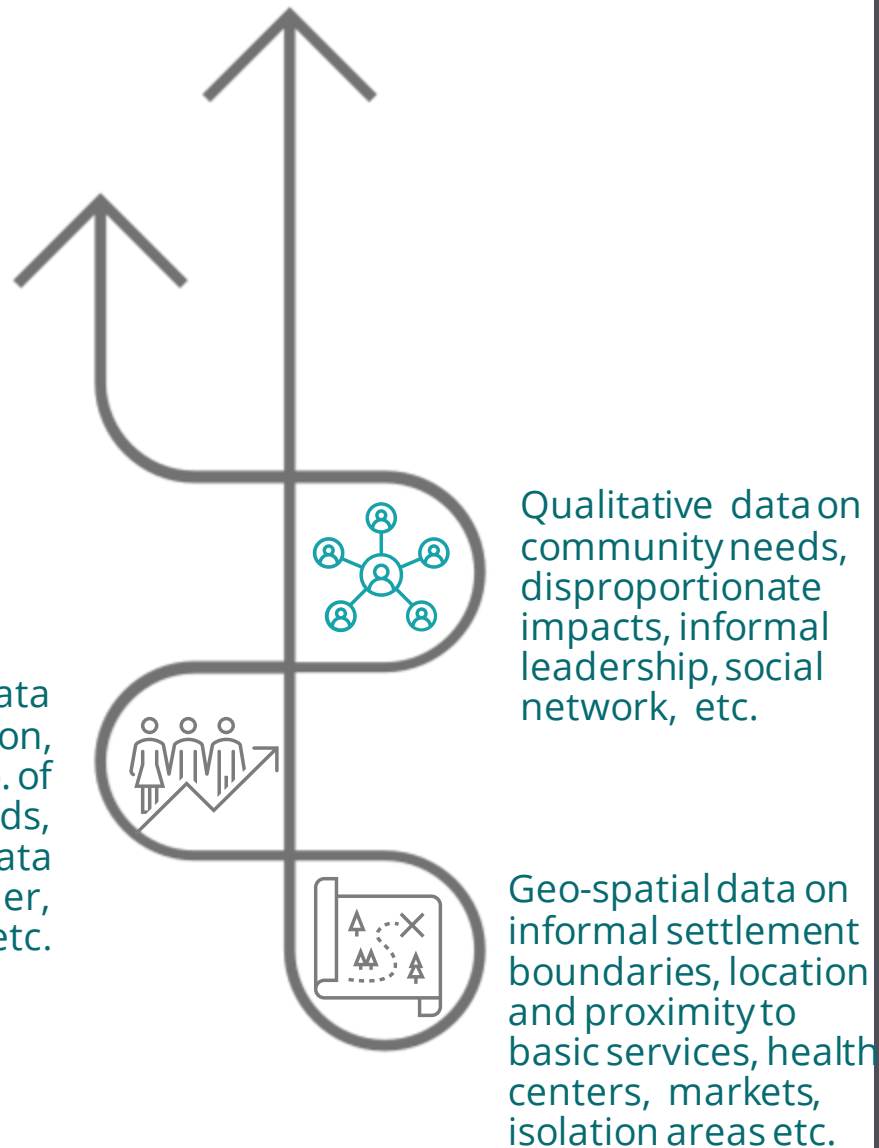
# Climate and Results-Based Financing (RBF)

RBF approach for community-led climate adaptation can:

- Encourage local authorities to engage with local actors living in informal settlements, to deliver more context-specific and cost-effective adaptation solutions.
- Lend itself to a range of interventions that address the needs of vulnerable groups to adapt to climate-change.
- Leverage the strength of non-state actors like not for profits and social enterprises already engaged in supporting climate adaptation.



# Food for thought: RBF's untapped potential



Results-Based finance is sector agnostic and moves the focus from activities to **what actually works**, and improve outcomes

Instead of specifying activities, it allows for **granular, bottom-up and more localized** solutions that target climate resilience and mitigation.

A menu of some options include:

- Payment against outcomes for evidence-based bottom-up participatory planning for climate adaptation (for e.g. community-led data collection).
- Improving waste management in informal settlements through financial incentives and community engagement (Cities Alliance, 2021).
- Payment against results for social enterprises to deliver basic services, improve infrastructure, and address complex risks facing residents in informal settlements (Bamu & Marchiori 2020; IIED 2020; Abers et al. 2021; Maitreyi et al. 2020).

# Other potential options for RBF



- Construction or improvement of drainage systems helping communities better manage water resources and mitigate the risks of flooding and water-related disasters;
- Incentives for the construction or retrofitting of structures with features such as reinforced foundations, flood-resistant design, improved insulation for extreme temperatures, or integration of renewable energy systems;
- Construction or upgrading of roads/pathways to withstand climate-related impacts, facilitating access to essential services, emergency response, and transportation of goods even during extreme weather events;
- Incentivize the deployment of renewable energy infrastructure and off-grid solutions at the local level. This is already a tried and tested area for GPRBA;
- Incentives for activities such as conducting vulnerability assessments, establishing early warning systems, implementing community-led evacuation plans, and promoting awareness and capacity-building programs on climate-related risks.

# RBF for climate mitigation in informal settlements



Source: Francklyn 2019

Microgrid in Kibera, Nairobi

- Slum upgrading is typically not a part of a city's climate action plan.
- In some cities, 30-40% of the population lives in slums.
- Low-carbon slum upgrading can have significant contributions to GHG reductions, as opposed to "business-as-usual" slum upgrading.
- Explicit financing mechanisms for low-carbon slum upgrading are hard to come by.

# GPRBA is well positioned to partner and lead CCAIS

GPRBA's experience in improving access to essential services for the poor and marginalized in urban areas and working with non-state actors



Households in Kayole-Soweto, an informal settlement in Nairobi, Kenya, received access to water, sewerage, and electricity connections – partly financed by GPRBA.

World Bank-funded infrastructure investments in roads, drainage, lighting, and the public realm as part of the Kenya Informal Settlement Improvement Project (US\$150 million)

Facilitate partnership with national & local governments to influence and institutionalize community participation and co-creating bottom-up solutions with communities.



# THEORY OF CHANGE

## What could be?

Climate adaptation—  
opportunity to move  
away from business –  
as-usual

Community-  
led data  
collection can  
be starting  
point

Empower  
communities and  
build skills for  
improved  
outcomes

Enable cities to  
actively partner  
with local  
communities to  
collect data

“Communities as equal  
partner and agents of  
change”

Spatial Inclusion

Economic Inclusion

Social Inclusion

Everyone had to adapt,  
during crisis but most  
vulnerable didn't have a  
choice or a voice

Lack of  
granular data  
hinder  
inclusive  
recovery.

Increasing  
climate  
vulnerability  
and exclusion

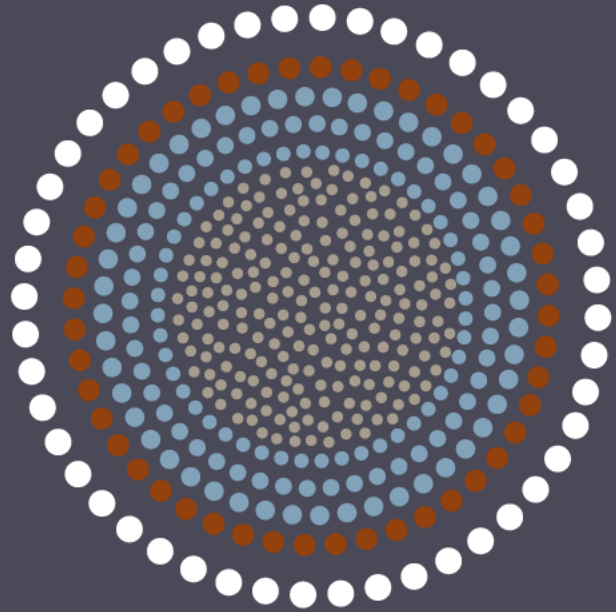
Cities and  
communities  
work on  
separate ends.

Comprehensive  
approach to  
inclusive  
development  
missing in most  
cities.

Existing urban  
challenges + Additional  
new challenges

## What is?

**Thank you!**



# Results-Based Financing Forum 2023

# CLIMATE CHANGE VULNERABILITY AND ADAPTATION

## MUKURU SPECIAL PLANNING AREA

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JANE WERU  
EXECUTIVE DIRECTOR  
AKIBA MASHINANI TRUST

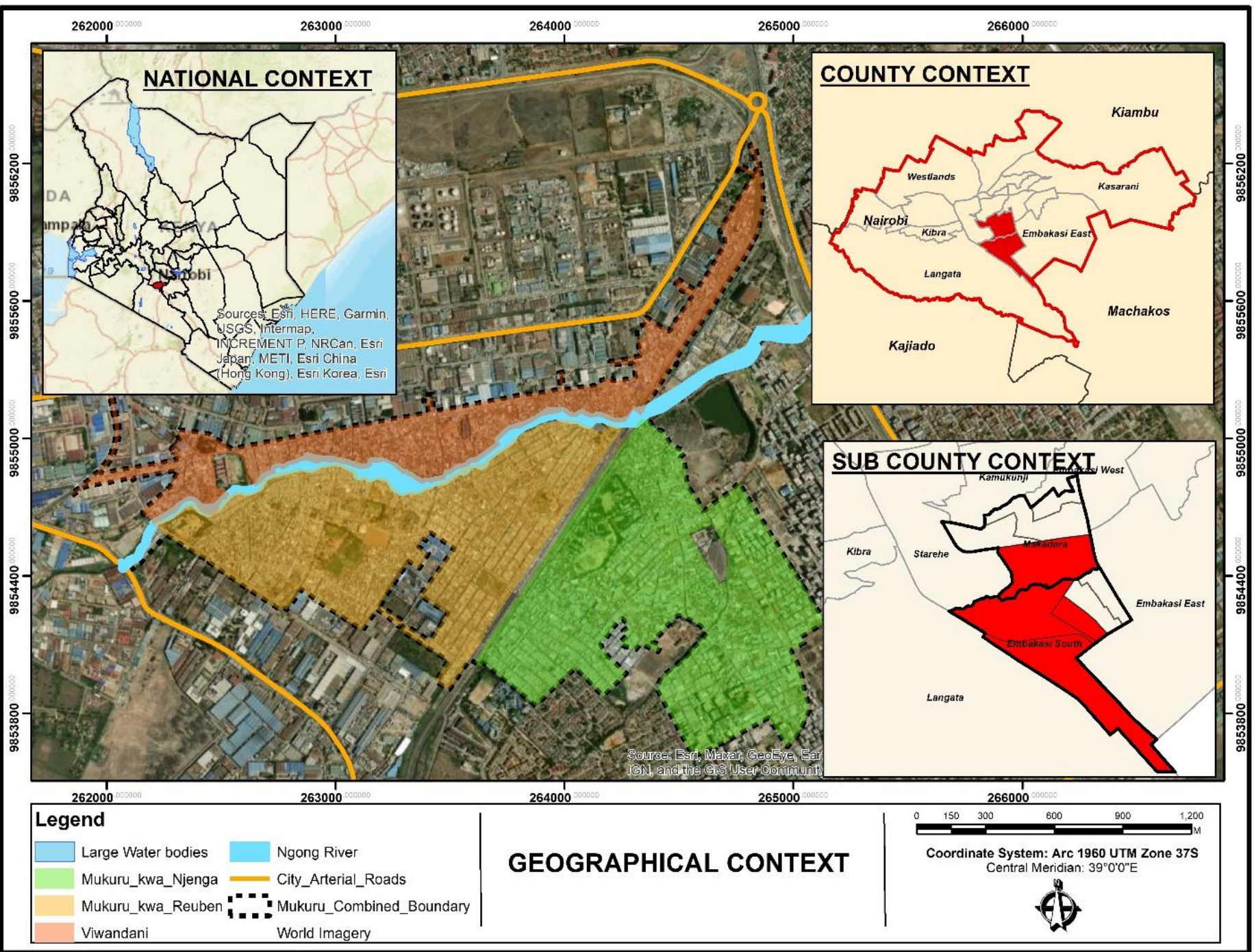


23<sup>RD</sup> MAY 2023



# BACKGROUND

- Area: **689 Acres**
- Population: **402,224**
- Households: **100,561**
- 3 Settlements
  - Mukuru Viwandani
  - Mukuru Kwa Njenga
  - Mukuru Kwa Reuben



## GEOGRAPHICAL CONTEXT

# CLIMATE CHANGE VULNERABILITY IN MUKURU

## Flooding

---

- Flooding is a major challenge in Mukuru and is mainly caused by lack of proper stormwater drainage systems and poor solid waste management
- Impact: loss of lives and livelihoods, disruption of the little available basic services, destruction of homes and increase in water- and vector-borne diseases such as malaria.



# Water Situation in Mukuru

- **Informal Service Providers** use flimsy spaghetti pipes prone to leakages and contamination hence spreading diseases. Annual Cholera outbreaks are common.
- **Poverty Penalty:** Informal service providers charge **172%** more than the formal connections
- **Sanitation challenge:** Mukuru has 3,863 toilets for over 400,000 people, most are pit latrines that are exhausted manually into open drains and the river.
- Leads to pollution of existing sources



# PLANNING CHALLENGE

- **Extremely dense and unplanned settlements with insufficient road network**
- **Consequently very difficult to lay water and sanitation infrastructure without planning and opening up of roads**

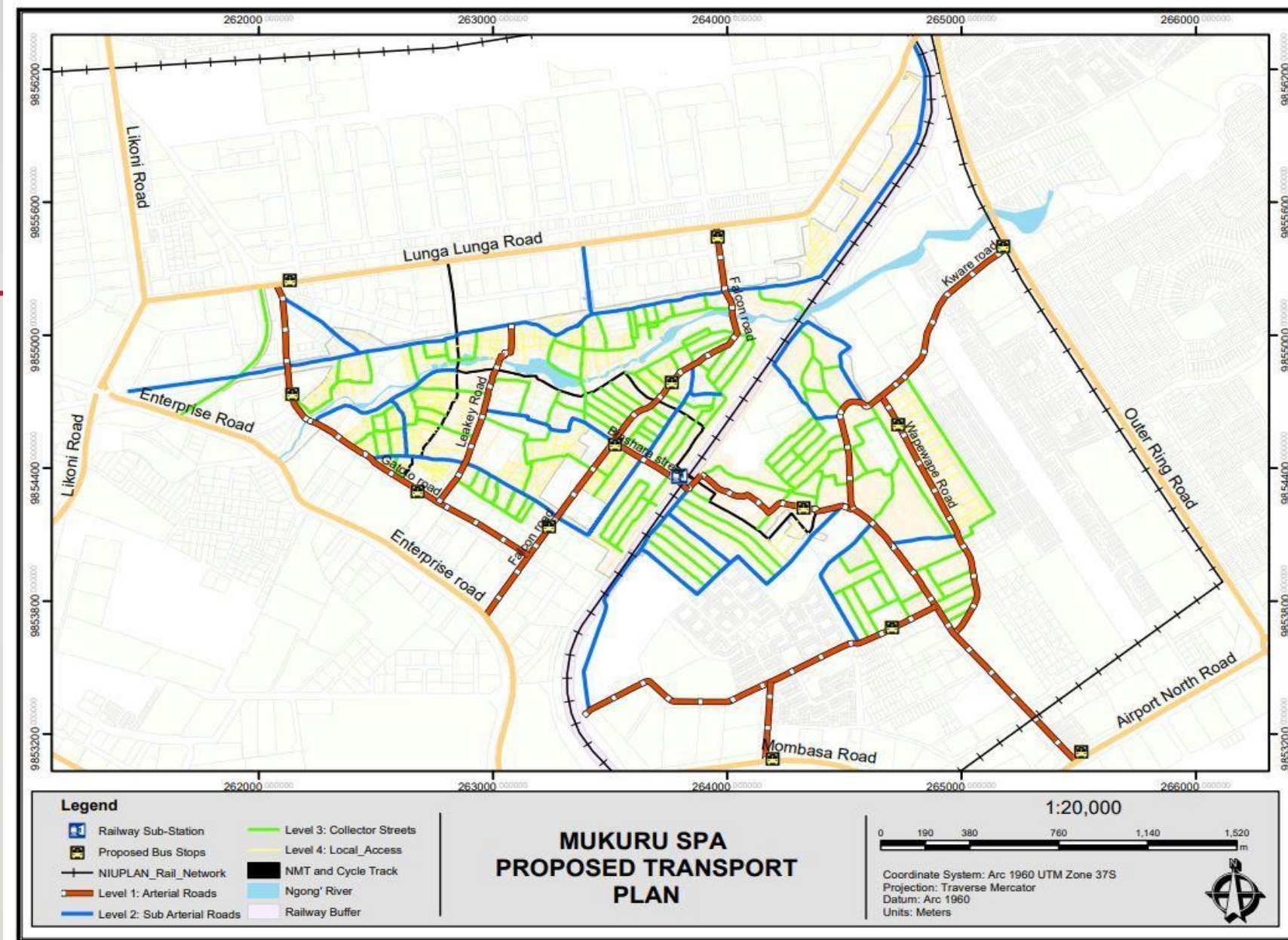


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# **HOW MUKURU SPA ADDRESSES THE CLIMATE CHANGE VULNERABILITY**

# TRANSPORT PLAN

- The plan proposes four classes of roads:
  - Arterial – 12m wide
  - Sub-arterial – 9m wide
  - Collector roads – 6m wide
  - Access roads – 3m wide
- The roads have proper storm water drainage system which drains into Ngong River
- So far, approximately 15Km of road has been constructed



# WATER

- Pre-paid water dispensers (PPDs)
  - Water ATMs at shared water kiosks
  - Dispense water at a lower cost
  - Minimizes wastage of water
  - Increases social impact
  - IPPD serves approximately 100 households
  - The plan proposes construction of 100 PPD yearly
- So far, 10 boreholes have been sunk, 16.4 Km of water reticulation system has been done and 35 PPDs have been constructed serving a population of approximately 3500 households



# SANITATION

- Simplified sewer systems (SSS)
  - i. They don't require to follow the road infrastructure, apart from areas where gravity permits
  - ii. They occupy minimal spaces/ widths, hence they do not displace people
  - iii. Shallow depths are required to install them - allows small access chambers to be used
  - iv. After installation, light infrastructure/ construction can be laid
- So far, 19Km of sewer have been laid and approximately 700 plots have been connected to sewer



*sewer route excavation*



*construction of inspection chambers*



*sewer pipe lying*



*Upgrading of toilet*



# CONCLUSION

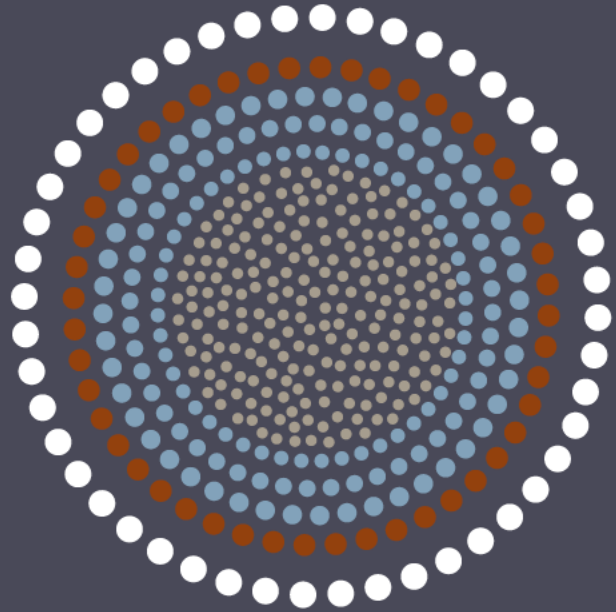
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- Climate change adaptation and disaster risk reduction can be best addressed and sustained over time through integration with existing urban planning and management practices

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**THANK YOU!**





# Results-Based Financing Forum 2023



# Locally led climate action in urban settings

what can be delivered through results based finance

Clare Shakya May23



# The Principles for Locally led Adaptation



A few of the over 100 have endorsed since the Climate Adaptation Summit.

Commitment to be part of a shared learning journey: effectiveness of climate action

# 8 Principles for Locally Led Adaptation: AKA locally led action on climate, nature and poverty



(1) Devolving decision making to the lowest appropriate level



(5) Building a robust understanding of climate risk & uncertainty



(2) Addressing structural inequalities faced by women, youth, children, disabled, displaced, Indigenous Peoples & marginalised ethnic groups



(6) Flexible programming & learning



(3) Providing patient & predictable funding that can be accessed more easily



(7) Ensure transparency & accountability



(4) Investing in local capabilities to leave an institutional legacy



(8) Collaborative action & investment

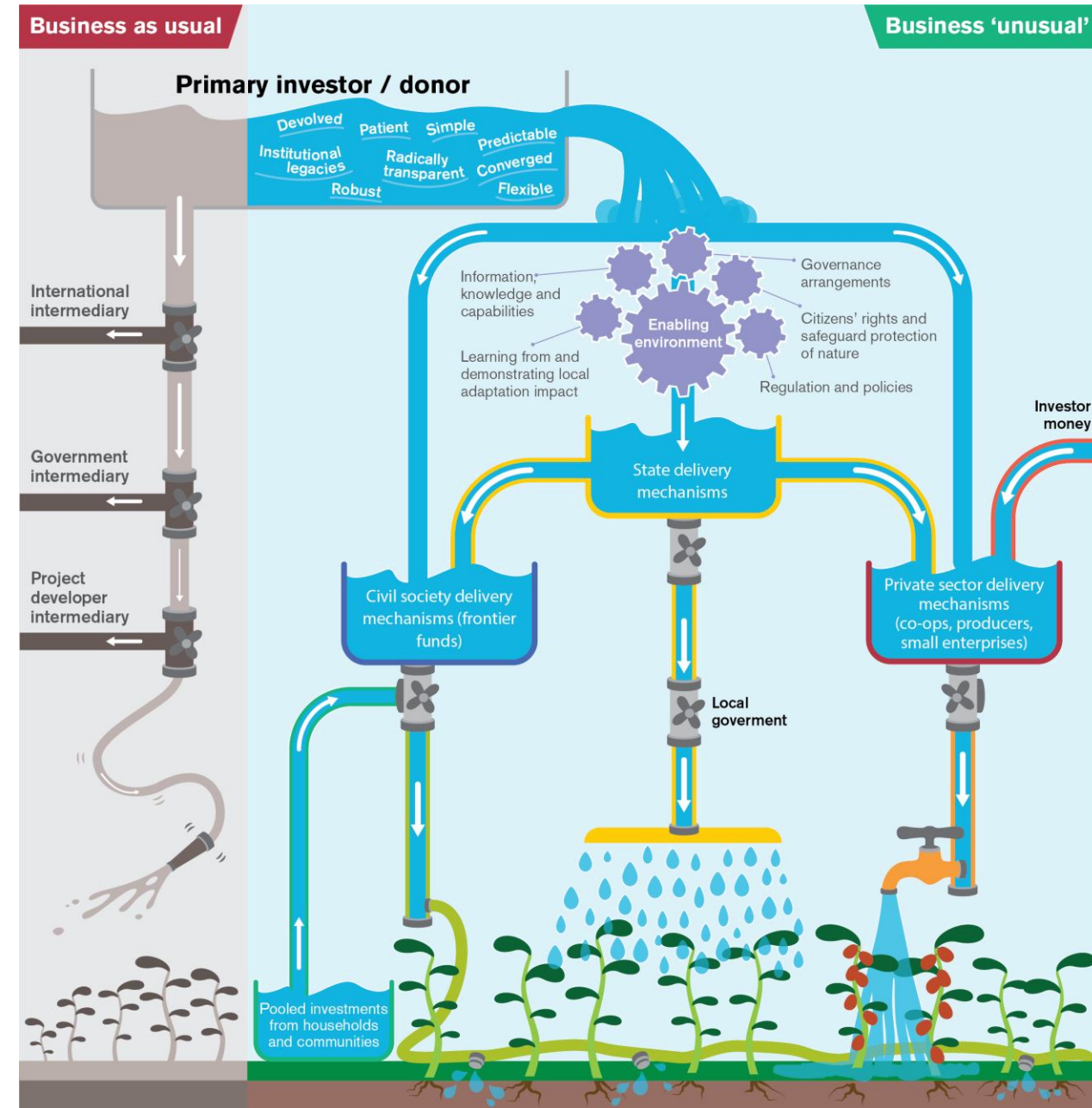
# The delivery mechanism

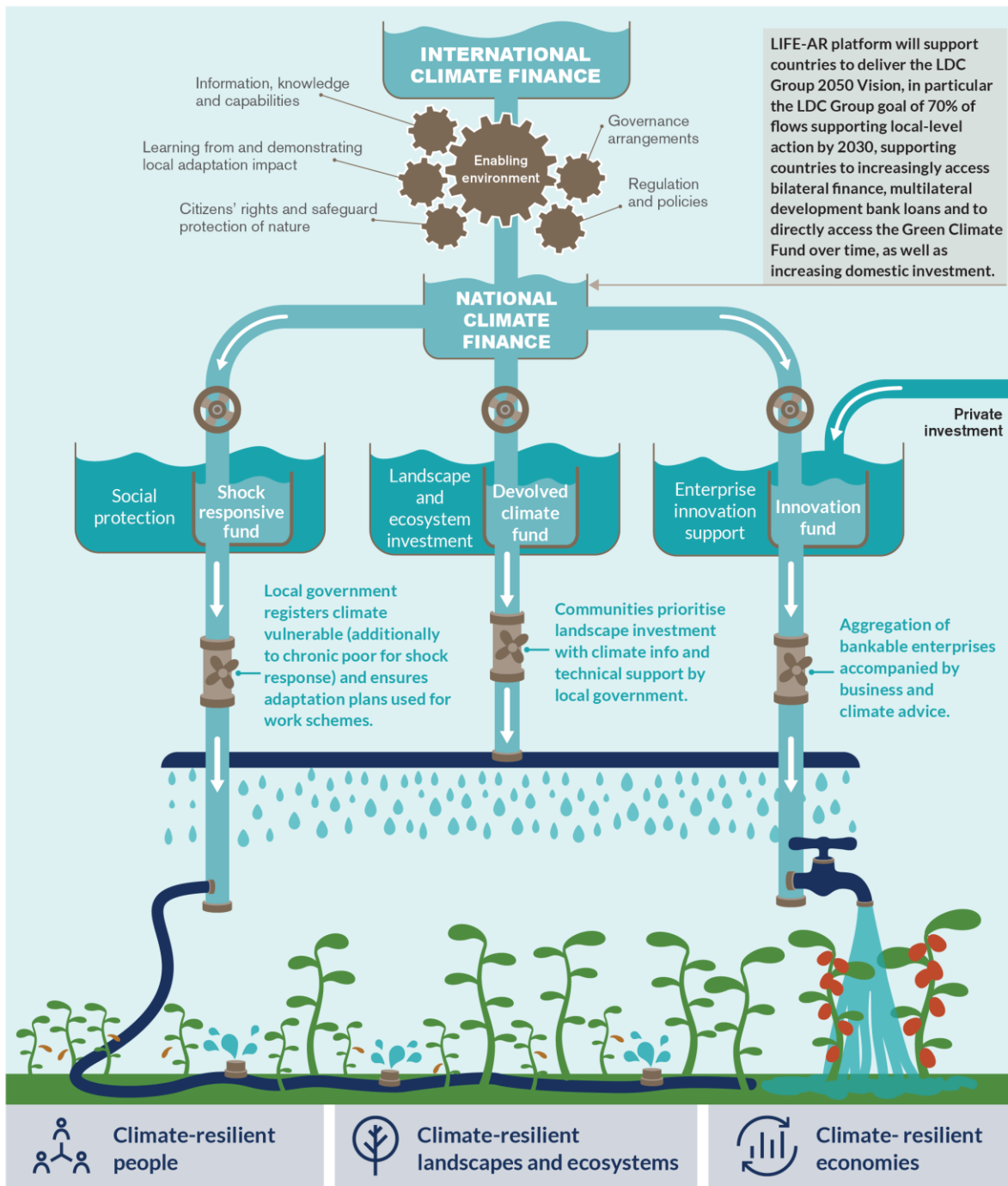
## Solving the aggregation challenge

Delivery mechanisms provide climate finance and other support behind the climate priorities of local people and organisations.

To be effective they must

- **access and manage finance** (direct access)
- enable **inclusive governance** (representation of stakeholders to resolve trade offs, identify synergies)
- provide **climate informed advice**
- enable **rapid learning** (test and evolve)
- be embedded in an **institution** (agile, flex)





LIFE-AR platform will support countries to deliver the LDC Group 2050 Vision, in particular the LDC Group goal of 70% of flows supporting local-level action by 2030, supporting countries to increasingly access bilateral finance, multilateral development bank loans and to directly access the Green Climate Fund over time, as well as increasing domestic investment.

# LIFE-AR: business unusual in delivery

- Coherent national architecture to tackle poverty, climate & nature crises
- 70% finance devolved & invested behind locally led adaptation priorities
- Home grown skills & systems
- Flexible, responsive support that adjusts with learning
- Inclusive delivery mechanisms with radical transparency



# Defining resilience in results

1. Local govt capabilities: agile, responsive, learn & adjust
2. Resilience of service provision: continuity
3. Last mile service delivery: inclusion
4. Upgrading for resilient informal settlements: climate impacts

# Local government capabilities: agility

Defining functions that local govts & municipalities need to be agile, flexible and responsive:

- Climate Coordination Units for cross sectoral investment and collaboration with shared budgets (climate finance)
- Citizen engagement through active ward committees
- Citizen awareness of disaster protocols (co-created)
- Community & local govt joint data collection to monitor outcomes
  - Reflect, Learn, Adjust

# Resilience of service provision

- Continuity of services as an indicator of resilient systems
- Initial investment in systems for redundancy, modularity, & flexibility
- Numbers of days of down time:
  - Post climate impact (flooding, cyclone/winds)
  - Through climate impacts (heat, drought)

# Final mile delivery: inclusion

- Citizen engagement to define results based on needs in different localities (locally led)
- Services delivered through citizen governed interventions for responsiveness:
  - Collective action by organised communities (eg SDI members)
  - Social enterprise

# Upgrading for resilience

- Drainage: tackling blocked drains, refuse collection
- Flood protection: household and community design, raising core assets on plinths, storage of critical assets
- Drought: water storage
- Heat protection & wind resistance: roofing, shelter

**Thank you!**