

GLOBAL KNOWLEDGE EXCHANGE ON URBAN CLIMATE RISK ASSESSMENTS

Monday, 13th February, 15:00-17:00 CET

RESILIENT
CITIES
NETWORK



GLOBAL
CENTER ON
ADAPTATION

Event Knowledge Kit

Knowledge Kit Content

- Background
- **Presentation:** Impacts of extreme weather on water and sanitation services
- **Presentation:** Beyond Slum Upgrading, Dignifying Family's Livelihood
- **Presentation:** Mukuru Special Planning Area
- **Presentation:** Évaluer les risques dans les zones informelles
- Related Links
- Stay Connected

Background

As the need to understand urban climate vulnerabilities increases, the uptake of climate risk assessments among urban planners, city managers, and development professionals is growing and spreading across the world. Given the proliferation of different assessment approaches, there is ample opportunity to share best practices and advice on overcoming commonly encountered challenges among city leaders and practitioners to promote effectiveness, efficiencies, and applications of findings. The event brought together local implementers that have participated in the Rapid Climate Risk Assessment (RCRA) process, city officials interested in learning about the RCRA process, Global Center on Adaptation colleagues and consultant firms that carried out the RCRA's, Members of the Resilient Cities Network and other risk assessment practitioners. The outcomes were:

- Enhanced insights, through peer learning, into the benefits, challenges, and opportunities of Rapid Climate Risk Assessments
- Strengthened knowledge of conducting climate risk assessments in cities where data is often scarce and there is a large informal sector
- Increased awareness and knowledge of climate adaptation challenges and ambitions in African cities
- Increased insight on how cities are utilizing risk assessments to drive implementation of climate adaptation solutions locally

Speakers:

- [Sara Márquez Martín](#), Coordinator, Maputo Arquitectura sin Fronteras
- [Gerard Olivier Rakotomanana](#) Ministry of Territorial Planning and Land Services
- [Carmen Sing Sang](#), Project Manager for Beira, Mozambique at Water and Sanitation for the Urban Poor
- [Patrick Njoroge](#) Program Manager, Akiba Mashinani Trust
- [Lucky Andrianirina](#), Climate Change Consultant. In Antananarivo
- [Leon Kapetas](#), Lead for Programs and Climate Resilience for the Resilient Cities Network in Europe and Middle East
- [Anaïs-Marie De Keijser](#), Urban Development and Climate Adaptation Expert, SWECO Group – Architecture and Engineering Consultancy.
- [Christopher Chung](#), Global Centre on Adaptation, Water & Urban, Senior Urban Specialist

[Watch the recordings here.](#)

Impacts of extreme weather on water and sanitation services

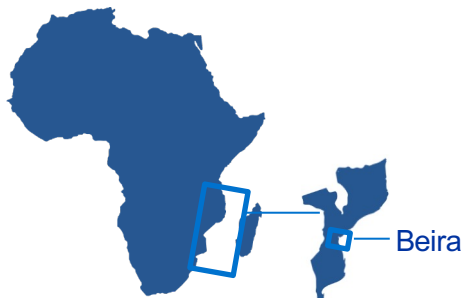
Cyclone Idai in Beira, Mozambique

Presented by
Carmen Sing Sang

13th February 2023



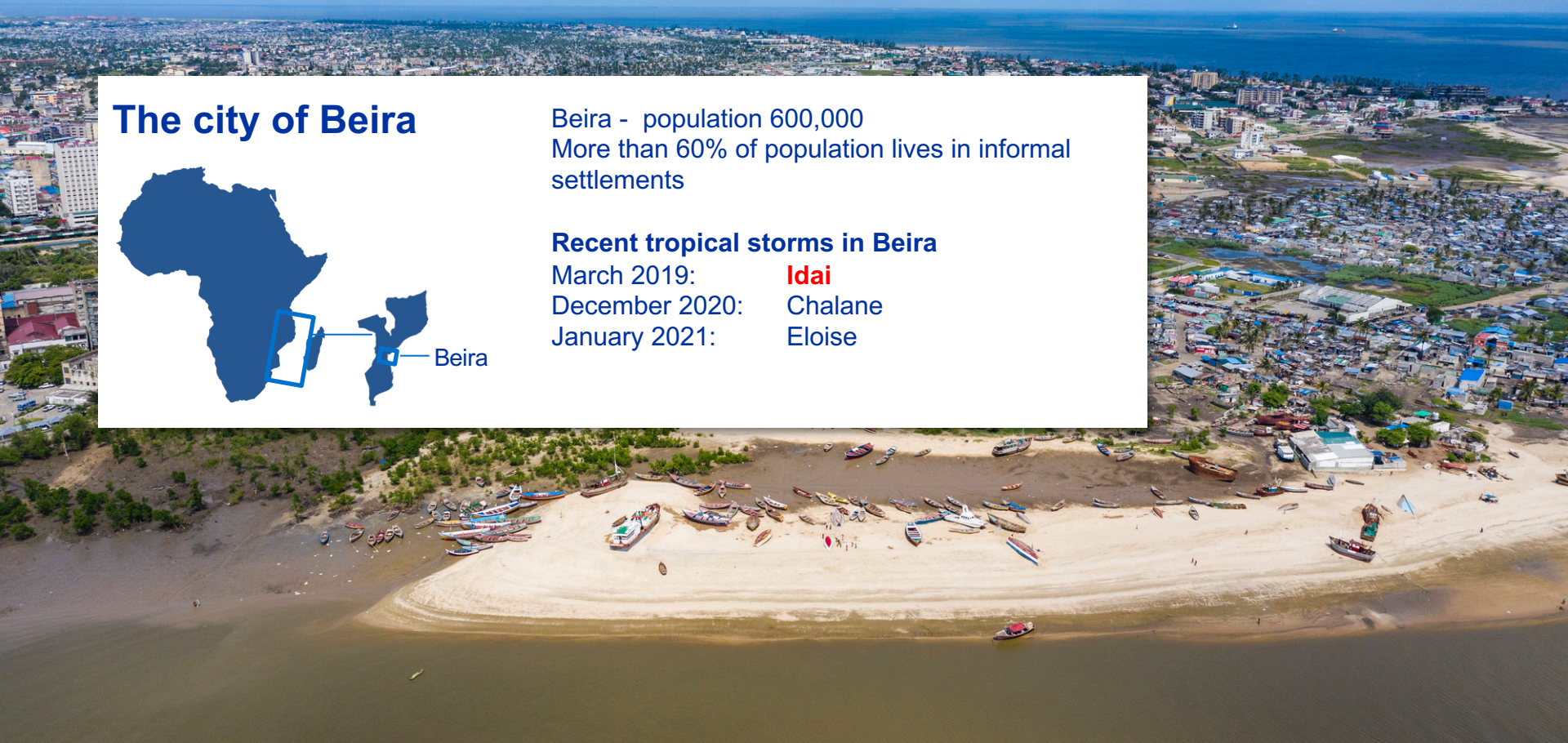
The city of Beira



Beira - population 600,000
More than 60% of population lives in informal settlements

Recent tropical storms in Beira

March 2019: **Idai**
December 2020: Chalane
January 2021: Eloise



Citywide flooding caused by Cyclone Idai

Vila Massana

Chingussura

Mungassa

Inhamizua

Ndunda

Inhaconjo

Nhangau

Alto da Manga

Vaz



Manga Mascarenhas

Munhava Central

Muave

Maraza

Key

-  Area flooded
-  Community supported by WSUP

Pioneiros

Mananga

Chota

Esturro

Matacuane

Macuti

Chaimite

Macurungo

Ponta-Gea

Climate changes impact on clean water and safe sanitation

Immediate impacts

- Water system out of action for at least a week, compounded by loss of power. Parts of system seriously damaged.
- Drainage and sewer system overwhelmed – raw sewage mixed with floodwater caused public health risk

Longer term response

- Lack of disaster response strategy from institutions responsible for water and sanitation
- Highlighted vulnerability of water network, and lack of safely managed sanitation for 90% of population
- Drainage a critical issue – importance of improved solid waste management

How to improve?

1. Beira sanitation authority now looking beyond the sewer network – need on investments over awareness and infrastructures improvements.
 - toilets, septic tanks etc – that can withstand flooding risk.
2. Need for improved citywide sanitation waste collection services to reduce public health risk when areas do flood.
3. Not just about WASH – importance of solid waste management.
4. Better constructions standards for all public services.
5. Definition of strategic responses for natural disasters.



What have we been doing?

Immediate actions

- Financial and technical assistance to water and sanitation local authorities and stakeholders on recovering from the storm.
- Technical assistance to both water and sanitation authorities on improving the construction features of their assets on expansion projects.
- Financial support to the public services on being technically better prepared for project planning considering climate change.
- Support on creating a strong partnership in between stakeholders.



Any questions?

OBRIGADO!

THANK YOU!

Hábitat Chamanculo C:

Beyond Slum Upgrading, Dignifying Family's Livelihood



geographical & social context



Africa



Mozambique
189 HDI
PIB \$447



Maputo, Chamanculo C

Peri-urban Neighbourhood
 Selfbuilt - Informal with no sewage system
 Human Settlement.

HABITAT CHAMANCULO C PROJECT- MAPUTO , MOZAMBIQUE 2022

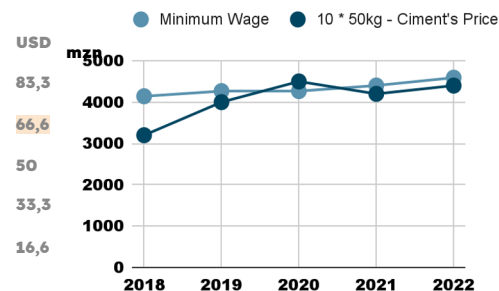
22.602 

Young &
 Unemployed or with informal
 economic activities population

15.695 hab/km²

3.327  plots

minimum wage - cost of cement



\$ 67
 =
1 wage
 =
10 * 50kg



2016 people-street focused 2022 urban planning solution



Safer Public Space

public Lighting



waste management



Traditional Ceremonies



dignified funeral ceremonies



potential improved water supply system

up-grading
555 USD/M

BEFORE

AFTER

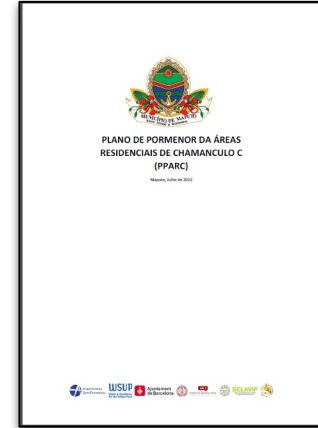
HABITAT CHAMANCULO C PROJECT- MAPUTO , MOZAMBIQUE 2022



autonomous sanitation system 4

2016
 2022
 solution

Access to DUAT, housing & infraestructura METHOD



27th of August 2022

The Detail Plan PPARC was approved including this method

2016
2022
results

UOPG-Pilot & A
748 659
2597 m
USD 1.28 M

2023
2024
goals

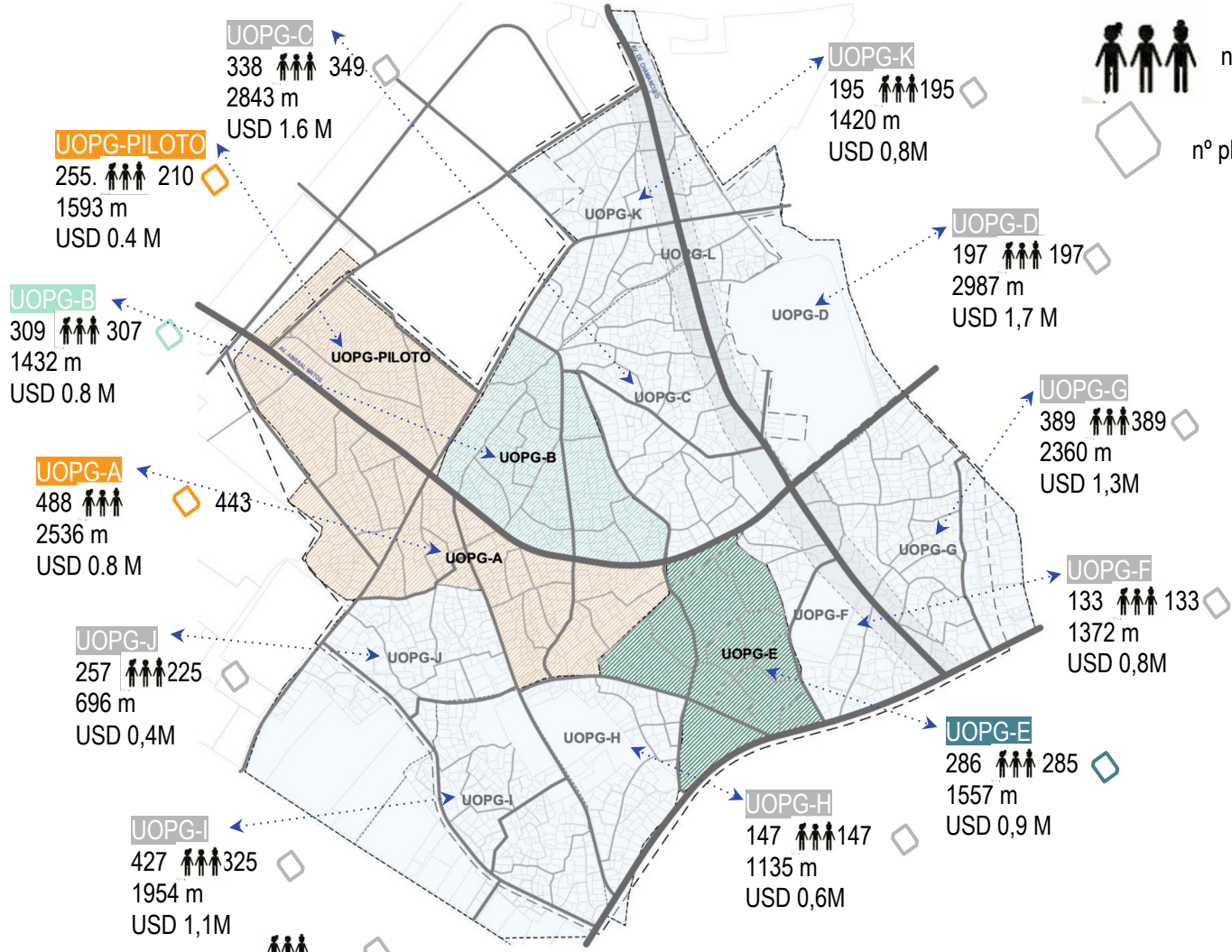
UOPG-B
309 307
1432 m
USD 0.7M

2024
2025
goals

UOPG-H
159 157
1135 m
USD 0.6 M

2026
2030
goals

UOPG-C-D-F-G-K-J-I
2.593 2481
16621 m
USD 9.2 M





MUKURU

SPECIAL PLANNING AREA

PRESENTATION BY: PATRICK NJOROGE

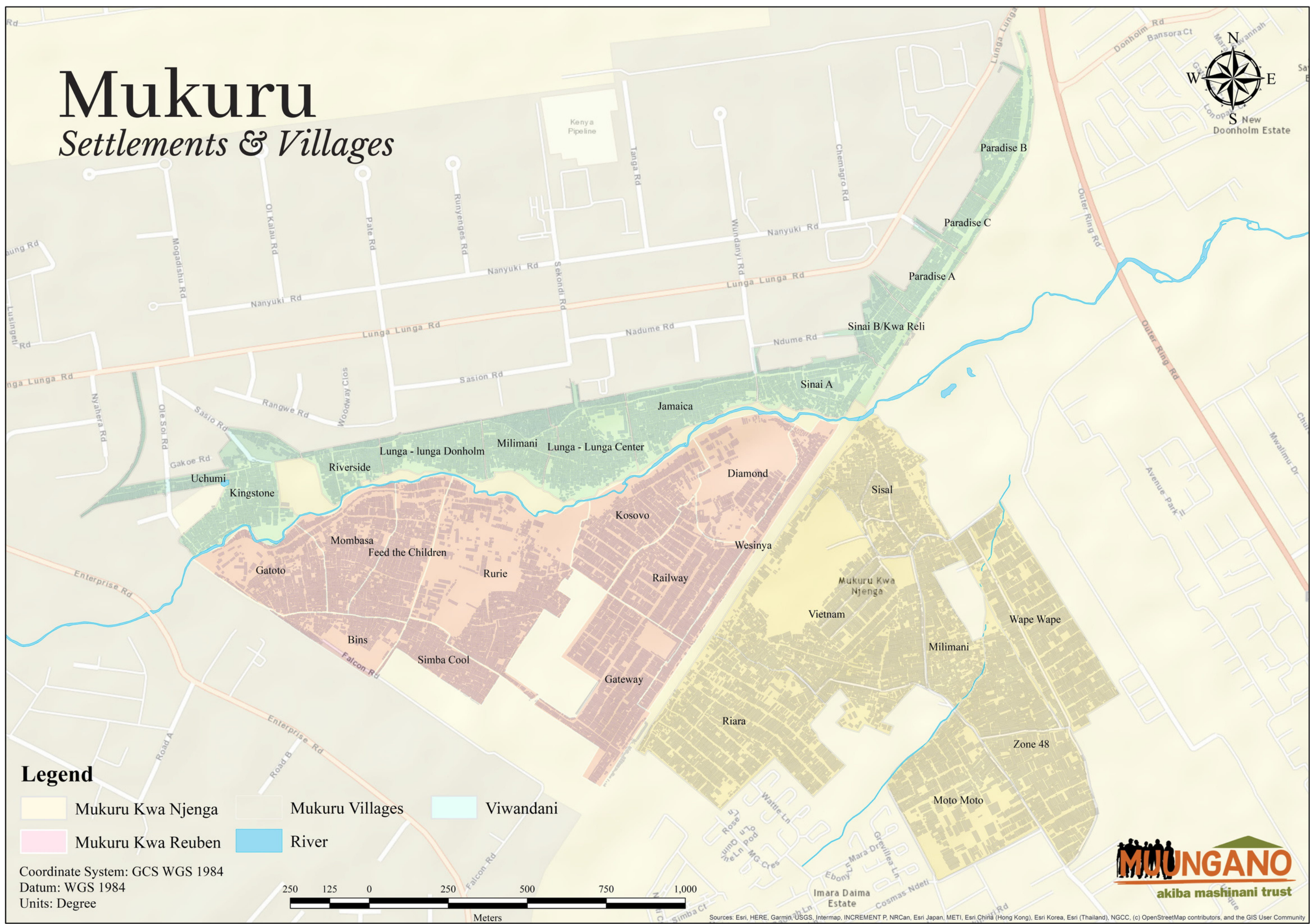


Mukuru

Settlements & Villages

Mukuru Land

Area: 689 Acres
 Population: 402,224
 Households: 100,561
 3 Settlements:
 Mukuru kwa
 Njenga, kwa Ruben
 and Viwandani
 sitting on both
 private and public
 land





Declaration of SPA & Consortia

Clustered into 8 Thematic Areas



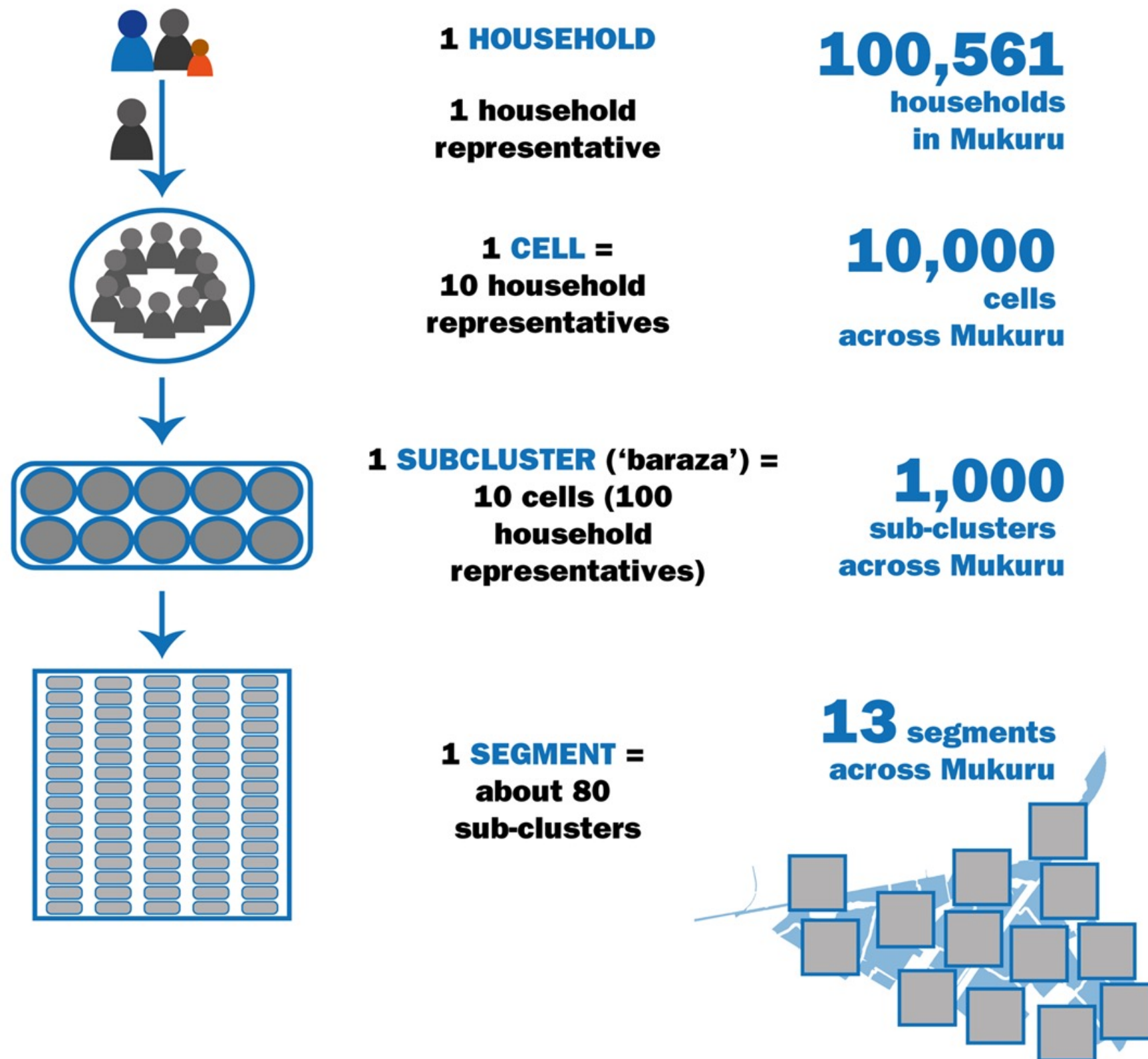
- 41 Local and International organizations (civil society, academia and private Sector)

Approaches:

- Integrated Planning
- Multidisciplinary
- Participatory

Mukuru SPA

Structure of the Community Participation Process



117

Direct Community Consultations Meetings

250+

Baraza's & Community Preparatory meetings



SPA planned the construction of 52kms of road in Mukuru, about 25kms have so far been built.





THANK YOU



Related Links

- [Antananarivo, Madagascar - Rapid Climate Risk Assessment](#)
- [GCA's City Adaptation Accelerator](#)
- [GCA blog: Assessing Climate Risk for Resilience Planning: Five Lessons from African Cities](#)
- [Post-event Insights Report](#)
- [Event Recordings](#)

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<p>https://communities.adaptationportal.gca.org/</p>	<p>https://gca.org/gca-events/</p>	<p>https://www.linkedin.com/groups/14262070/</p>	<p>https://gca.us7.list-manage.com/subscribe?u=6dfa0ea942c9f12e85f30d962&id=70f1cb250c</p>



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