

# Group Meeting

## Field Trip Update

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PDF presentation

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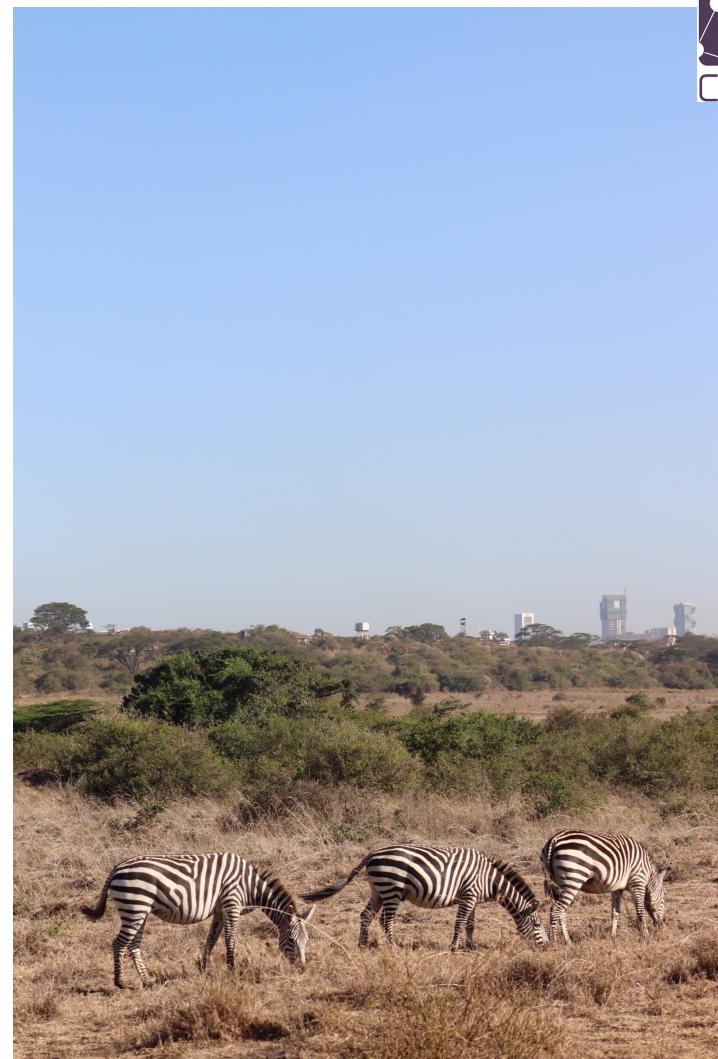
Background

Fieldtrip Plan

Observation

Data Collected

Reflection



# Background - Context

## Flood Risk Assessment

### Exposure Analysis

Building  
Informality

Land Use

### Flooding Hazards

Elevation

Flood  
Intensity

Flood  
Frequency

### Vulnerability Assessment

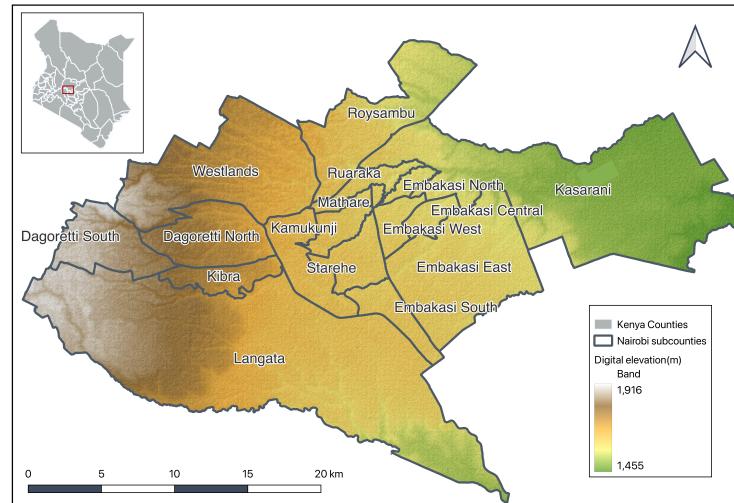
Governance

Health  
System  
Accessibility

Improving  
data  
justice  
with small  
datasets

- Improving Data Justice for Flood Risk Assessment in Nairobi, Kenya

# Background - Case study



## Nairobi, Kenya

- Rainy season
  - Longer rainy season: April to June
  - shorter rainy season: November to mid-December
- Drought season
  - July to October
  - December to March

# Fieldtrip Plan

## Timeline

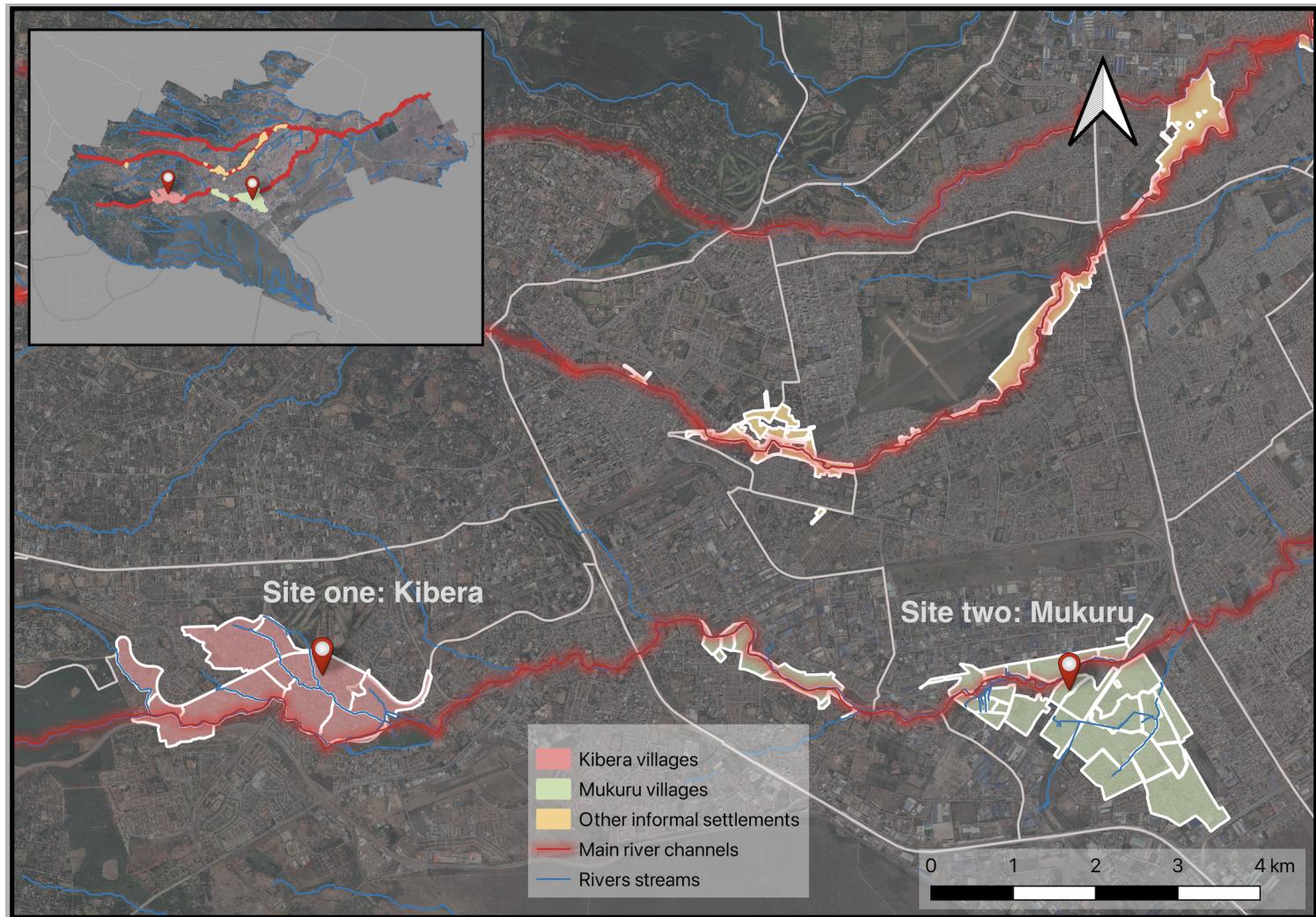
### Local collaborator

- Kounkuey Design Initiative
  - a community development and design NGO
  - Slum upgrading
  -

### Spontaneous meetup

- UN-Habitat
- Technical University of Kenya

# Observations - 2 Informal Settlements



# Observations - Rivers drought season



Kibera



Mukuru

# Observations - Trust transects

## Flood Prevention

- Individual: Clean waste in the drainage, sack bags and soil, dig drainage
- Community: WhatsApp message, Facebook post, Clean waste in the drainage
- NGO: Set flag for information exchange, upgrading projects, Posters
- International Organisation: upgrading projects
- Government: minimal weather prediction (people don't believe)

## Response

- Individual: people move , elevation, steps in front of door
- Community: WhatsApp message Facebook post,
- NGO: KDI – fundraising and Material support
- International Organisation: red cross
- Government:

# Observations - Trust transects

## Rescue

- Individual: act, phone call
- Community: community level
- NGO:
- International Organisation:
- Government:

## Reduction

- Individual:
- Community:
- NGO: awareness workshop
- International Organisation:
- Government: no implementation, corruption, slow , and reluctant

# Observations - Upgrading Projects from KDI



## Public Space Project

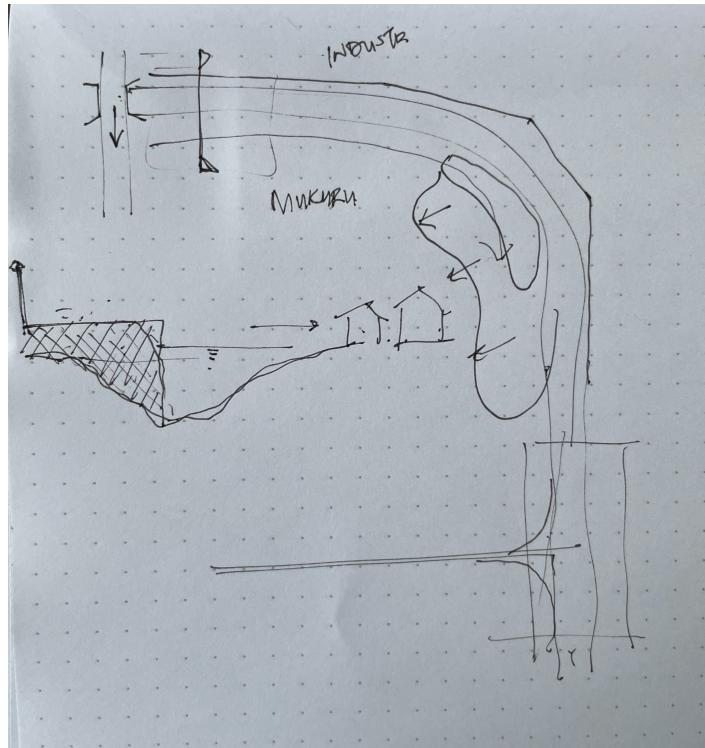
- sanitize facility
- shared washing area
- public space



## School Upgrading

- refurbishing classroom
- planting
- residents lifting

# Observations - Flooding cause



Public Space Project

Industry

Illegal dumping

Government ignorance

# Reflections

## 1. City, river and informal settlements scale analysis

- City: green space
- River: distance to the river
- Informal settlements: public space
- Generic: elevation, awareness, access to health facility

## 2. Flood identification

- RS: satellite image, drone image
- SVI: damaged building, drainage,
- Social media posts: flood, rain, waste, river traffic, bridge, flag, gabion, cholera
- Hydraulic data: Precipitation, ground water level

## 3. Informal settlements identification

- Open Building/OSM: building footprint

## 4. Flood cause

- Rain flood
- River flood

# Data Collected

- City Raster: Flood Risk, Precipitation, SRTM, Vegetation Cover
- City Vector: Building Footprint, Dumpsites, Informal Settlements, Landuse, River&Channel, Neighborhoods, Parks, Population, Railway, Roads, Schools, Sewer
- River 500m Buffer Vector: Universities, Rural Agriculture, Population, Ongoing Projects, Landuse, informal settlements, Dumpsites etc
- Informal Settlements Raster: Orthomosaic, Flood Extent
- Informal Settlements Vector: TBC

# Field trip suggestion

Keep a daily diary

Know what you want and where  
to get

Plan ahead



