DARAJA

DEVELOPING RISK AWARENESS
THROUGH JOINT ACTION

31ST OF AUGUST 2018

DAR ES SALAAM, TANZANIA

UKaid
from the British people

Met Office

WISER
Weather and Climate Information Services for Africa

RESURGENCE.

KDI

CENTER FOR COMMUNITY INITIATIVES

Our Objectives for the Day

- Verify together a major challenge

- Expose ourselves to relevant initiatives and tools

- Identify who needs to be involved and what we can build on/ reinforce

- Identify together the value - added of working together

Style & Tone

Informal

Interactive

Inclusive

Purposeful

RESURGENCE URBAN RESILIENCE TRUST

DESIGN. DATA. COMMUNICATION.

Resurgence Urban Resilience Trust

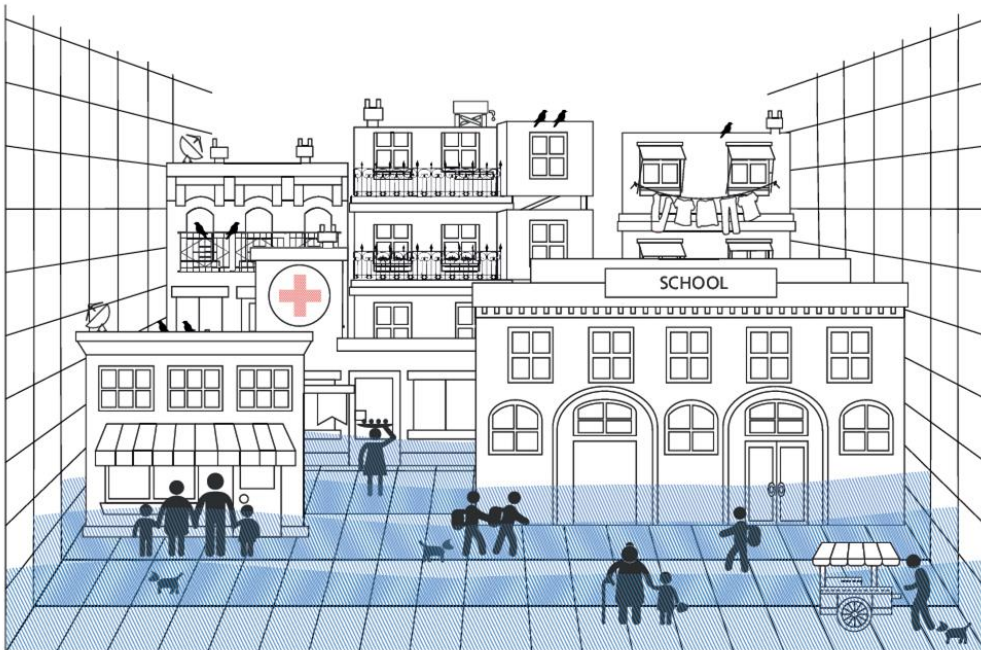Design. Data. Communication.
For City Climate Resilience.

Our Work on Open Data for Resilience

OPEN DATA INFRASTRUCTURE FOR CITY RESILIENCE A ROADMAP SHOWCASE AND GUIDE
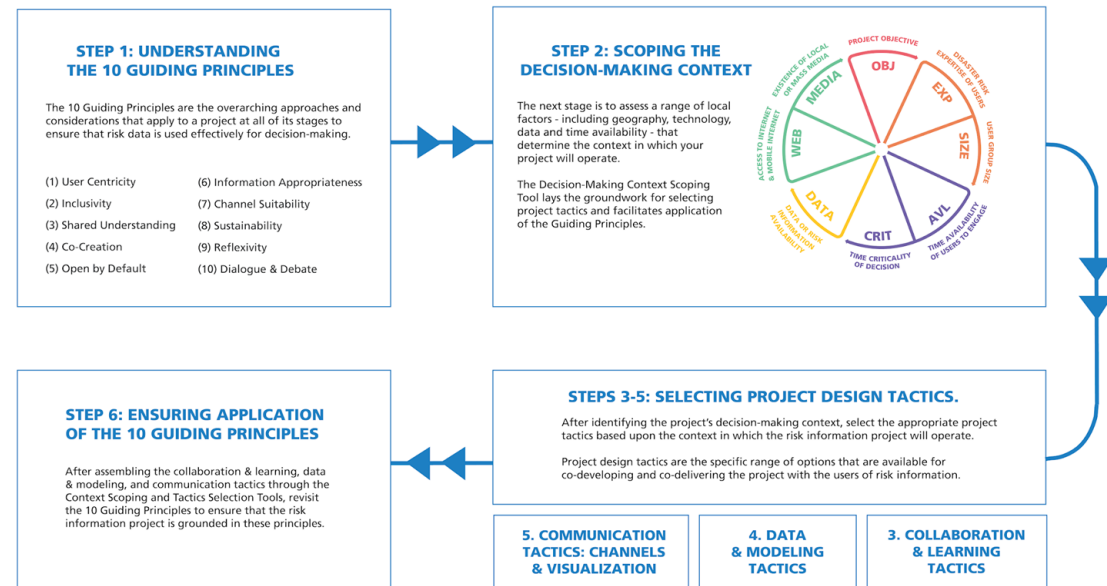
Our Work on Risk Communication
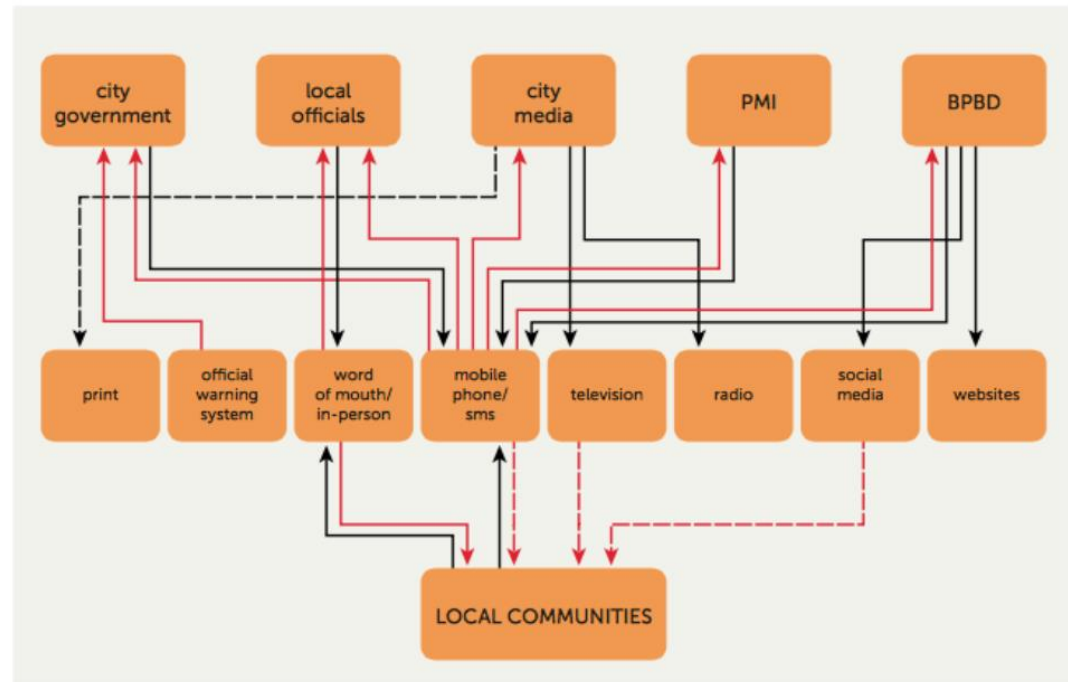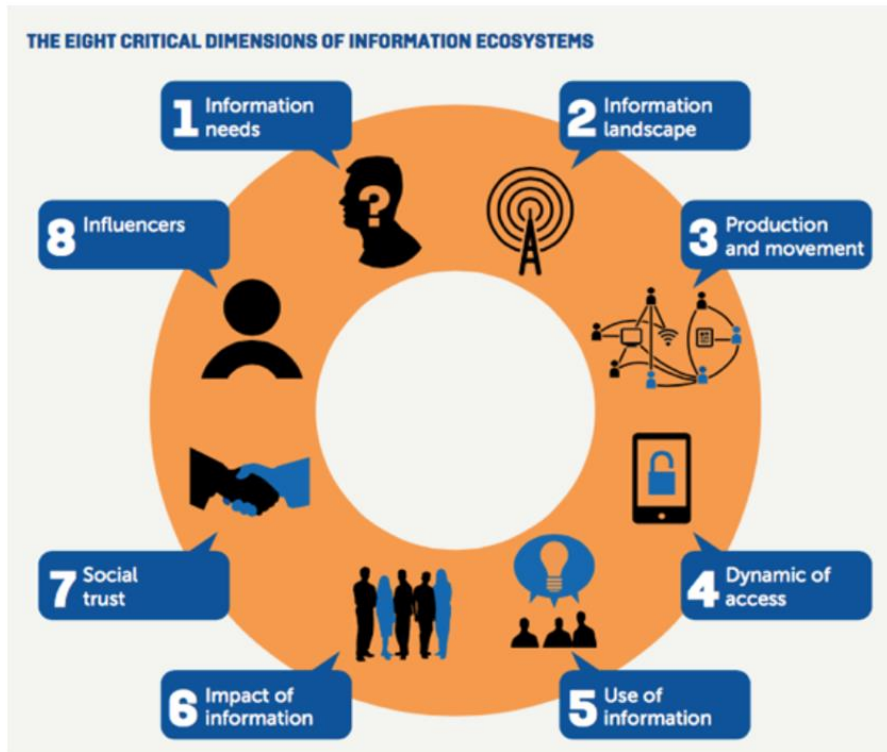## Design for Impact Framework

THE DESIGN FOR IMPACT FRAMEWORK

Integrating Open Data and Risk Communication for Decision Making

STEP 1: UNDERSTANDING THE 10 GUIDING PRINCIPLES

The 10 Guiding Principles are the overarching approaches and considerations that apply to a project at all of its stages to ensure that risk data is used effectively for decision-making.

(1) User Centricity
(2) Inclusivity
(3) Shared Understanding
(4) Co-Creation
(5) Open by Default
(6) Information Appropriateness
(7) Channel Suitability
(8) Sustainability
(9) Reflexivity
(10) Dialogue & Debate

STEP 2: SCOPING THE DECISION-MAKING CONTEXT

The next stage is to assess a range of local factors - including geography, technology, data and time availability - that determine the context in which your project will operate.

The Decision-Making Context Scoping Tool lays the groundwork for selecting project tactics and facilitates application of the Guiding Principles.

STEP 6: ENSURING APPLICATION OF THE 10 GUIDING PRINCIPLES

After assembling the collaboration & learning, data & modeling, and communication tactics through the Context Scoping and Tactics Selection Tools, revisit the 10 Guiding Principles to ensure that the risk information project is grounded in these principles.

STEPS 3-5: SELECTING PROJECT DESIGN TACTICS.

After identifying the project's decision-making context, select the appropriate project tactics based upon the context in which the risk information project will operate.

Project design tactics are the specific range of options that are available for co-developing and co-delivering the project with the users of risk information.

5. COMMUNICATION TACTICS: CHANNELS & VISUALIZATION

4. DATA & MODELING TACTICS

3. COLLABORATION & LEARNING TACTICS

GFDRR — Global Facility for Disaster Reduction and Recovery

OPEN DRI — Open Data for Resilience Initiative

RESURGENCE.

vizonomy

Our Work on Risk Communication
Information Ecosystems Mapping

CENTRE FOR COMMUNITY INITIATIVES (CCI)

APPROACHES FOR ENHANCING COMMUNITY RESILIENCE

Background

- Vision of **supporting organisation of the local communities** to address poverty

- Currently working in Dar-es-Salaam, Morogoro, Dodoma, Mwanza, Arusha, Tanga, Zanzibar and Musoma **urban centres**

- Have **763 savings groups** with **savings of more than US $252,535** which are being used as loans for their livelihood

- CCI works in **partnerships with LGA at different levels** from Mtaa (settlements), Ward, Municipality and central Government, Academic Institutions and a number of private sector organisations

- CCI supports community with **appropriate and affordable solutions** on water, sanitation, affordable housing, and has been integrating aspects of climate change and resilience

Approaches

- Community organisation through savings and not only keeping of money

- Collection of information through settlement profiles and enumerations

- Transfer of knowledge and capacity building through exchanges visits

- Develop advocacy committees within each settlements to address issues generated from enumeration and socio-economic surveys

- Implementation of Precedence Projects which are initiated and managed by community with support from communities and local governments.

Examples of solutions implemented by CCI

AFFORDABLE HOUSING SOLUTIONS

AFFORDABLE HOUSING SOLUTIONS

Examples of solutions implemented by CCI

SANITATION SOLUTIONS

SANITATION SOLUTIONS

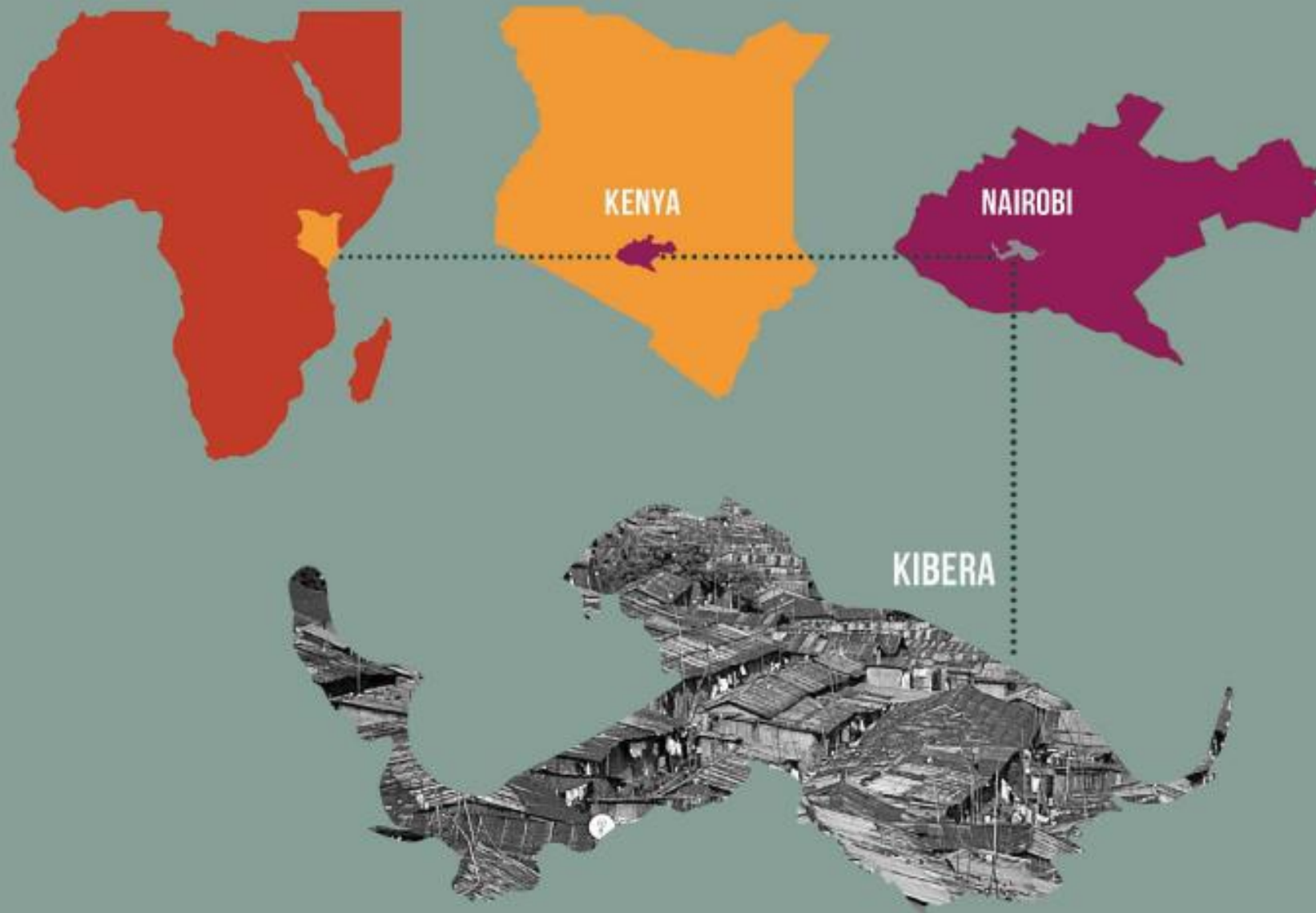# Examples of solutions implemented by CCI

SOLID WASTE SOLUTIONS

WATER SUPPLY SOLUTIONS

Kounkuey
Design Initiative

KENYA

NAIROBI

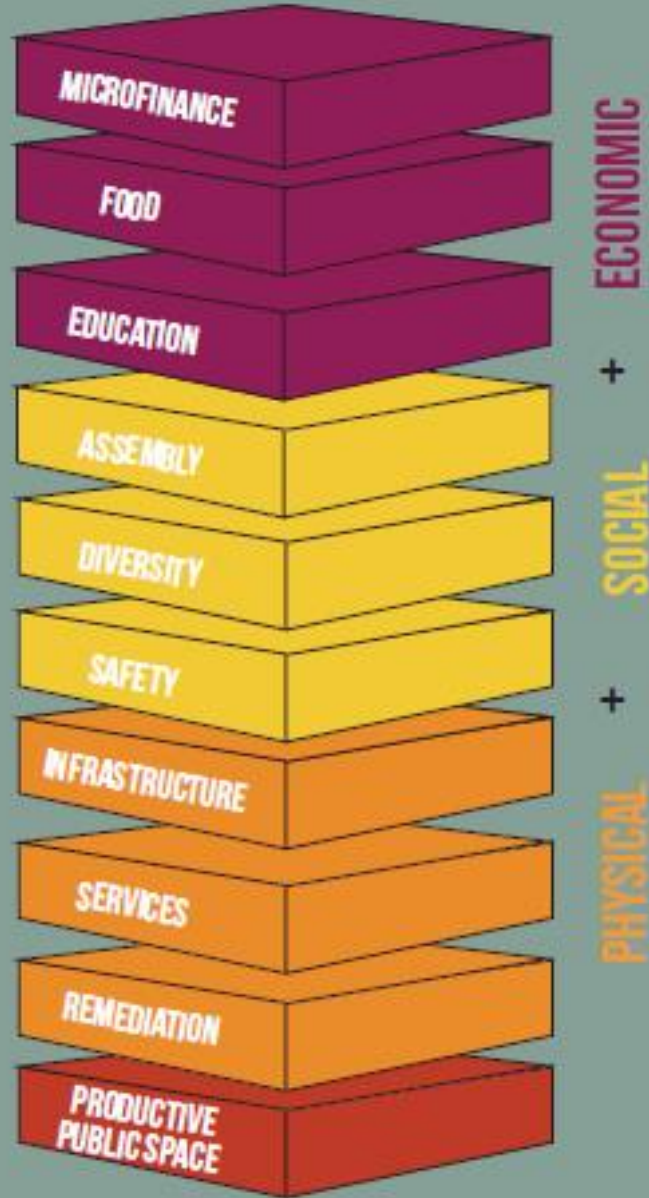KIBERA

Kounkuey **D**esign **I**nitiative

KDI is a non-profit design and community development organisation.

We partner with under-resourced communities to advance equity and activate the unrealised potential in neighbourhoods and cities.

We advance our mission through advocacy, research, planning, and built works.

PRODUCTIVE PUBLIC SPACE :

MICROFINANCE

FOOD

EDUCATION

ASSEMBLY

DIVERSITY

SAFETY

INFRASTRUCTURE

SERVICES

REMEDIATION

PRODUCTIVE PUBLIC SPACE

ECONOMIC

+

SOCIAL

+

PHYSICAL

PHYSICAL

1. Bridge
2. Multi-purpose hall
3. Playground
4. Office
5. Garden+Greenhouse
6. Sundries kiosk
7. Park
8. Acess road

SOCIAL
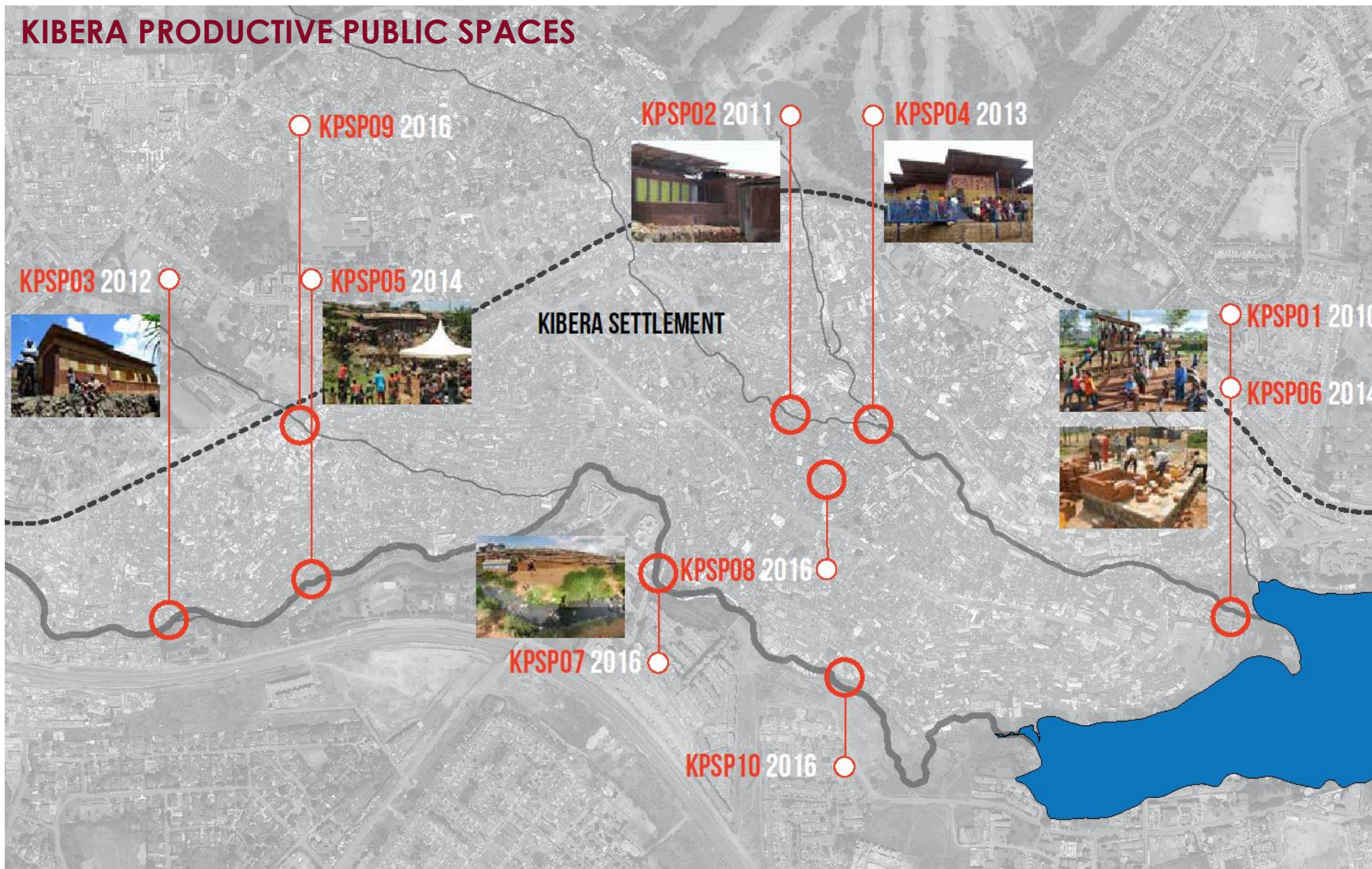
2. Community Programming
   School, Church
4. Management Training
   Skills Training

ECONOMIC

2. Community Hall Rental
   Watertap
4. Savings and Loan Program
   Basket Weaving Cooperative
5. Vegetable Business
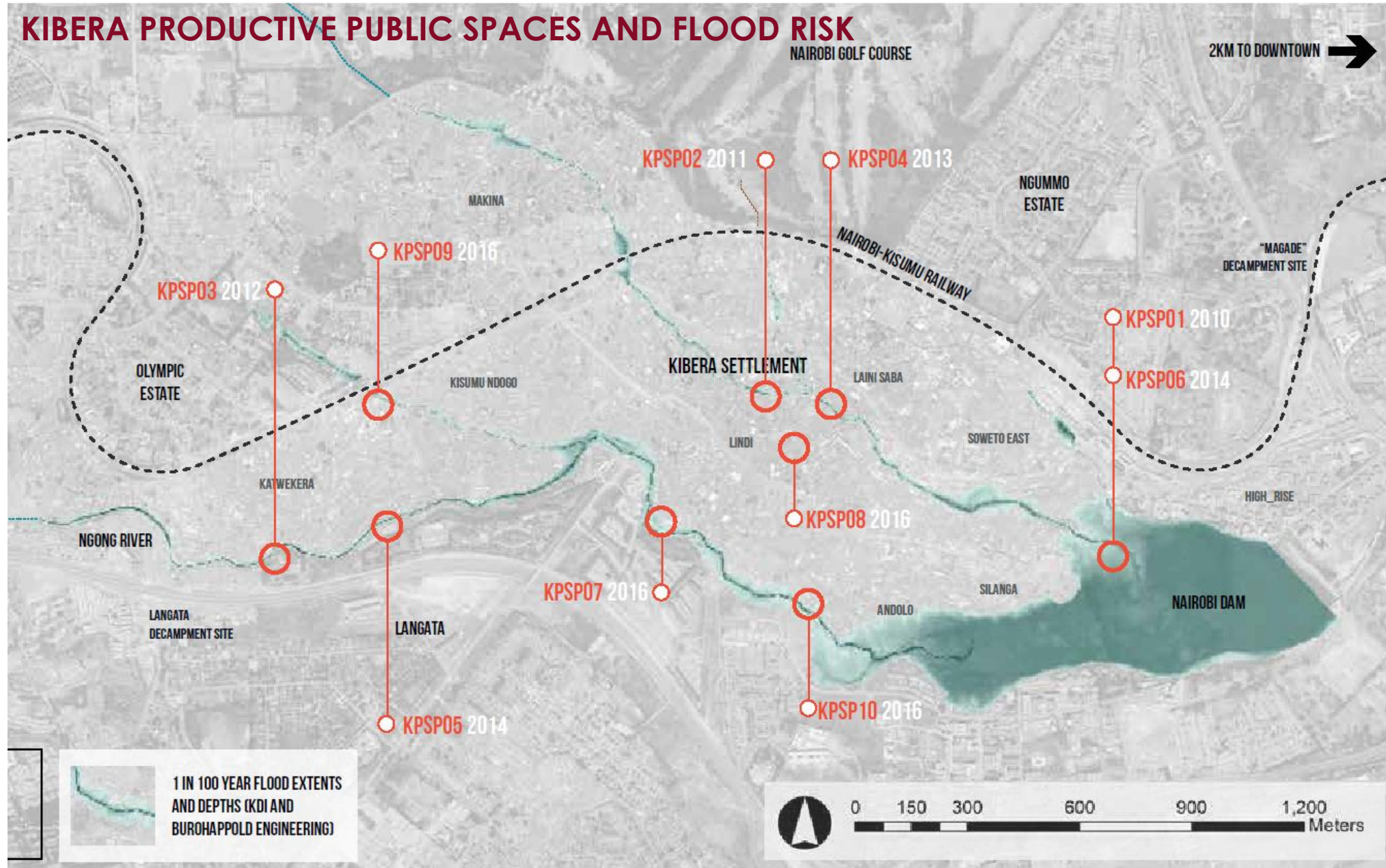   Compost Farm

KIBERA PRODUCTIVE PUBLIC SPACES

KPSP09 2016

KPSP02 2011

KPSP04 2013

KPSP03 2012

KPSP05 2014

KIBERA SETTLEMENT

KPSP01 2010

KPSP06 2014

KPSP08 2016

KPSP07 2016

KPSP10 2016

KIBERA PRODUCTIVE PUBLIC SPACES AND FLOOD RISK

NAIROBI GOLF COURSE

2KM TO DOWNTOWN →

KPSP02 2011

KPSP04 2013

NGUMMO ESTATE

MAKINA

KPSP09 2016

"MAGADE" DECAMPMENT SITE

KPSP03 2012

NAIROBI-KISUMU RAILWAY

KPSP01 2010

OLYMPIC ESTATE

KISUMU NDOGO

KIBERA SETTLEMENT

LAINI SABA

KPSP06 2014

LINDI

SOWETO EAST

KATWEKERA

HIGH_RISE

NGONG RIVER

KPSP08 2016

KPSP07 2016

SILANGA

NAIROBI DAM

LANGATA DECAMPMENT SITE

LANGATA

ANDOLO

KPSP05 2014

KPSP10 2016

1 IN 100 YEAR FLOOD EXTENTS AND DEPTHS (KDI AND BUROHAPPOLD ENGINEERING)

0   150   300   600   900   1,200 Meters

KISUMU NGOGO

MASHIMONI

LAINI SABA

N 36% / Y 64%

N 41% / Y 59%

N 57% / Y 43%

N 41% / Y 59%

N 64% / Y 36%

SOWETO EAST

MSF [LINDI]

LINDI

CONTROL AREA [LINDI]

SILANGA

LANGATA

ANDOLO [LINDI]

NAIROBI DAM

Legend

☐ Buildings

— Rivers

---- Streams

— Roads

1 in 100 Year Flood Extents

Value

High : 4.681

Low : 0

✚ Households Reporting Flooding (June 2015)

✚ Households Reporting No Flooding (June 2015)

"Building Urban Flood Resilience – Intergating Community Perspectives" is a two-year program designed by KDI and supported by the Swiss Re Foundation. Flood extents mapping was produced by BuroHappold Engineering and KDI based on January 2015 LiDAR data and field data collected in 2015. Household survey designed and implemented by KDI with support from Stockholm University and International Alert.

SCALE @ A3 = 1:1000

0   50   100   200   300   400   Meters

COMMUNTY DRIVEN RISK COMMUNICATION

DARAJA

DEVELOPING RISK AWARENESS THROUGH JOINT ACTION

DARAJA | Our Opening Proposition

- ▶ Residents of informal settlements are in the cross hairs of climate change/extreme weather impacts

- ▶ Climate Risk Information remains inaccessible, inappropriate, unactioned

- ▶ Met Services – in common with others – are struggling to reach most vulnerable/those with formal responsibility for them

DARAJA | Concept and Our Goals

Brokerage and co-design of Weather and Climate Services with Urban Stakeholders

▶ *With Intention of:*

- ▶ Improving access to and enhance use of relevant weather and climate information

- ▶ Enabling residents to be more resilient, better prepared, enabled to take adaptive measures

- ▶ Enabling city authorities to make better climate/extreme weather informed decisions in relation to informal settlements

DARAJA | Core Approaches

1) **User Centricity** – user-centric, context-based, targeted design

2) Inclusivity – design that meets the decision-making needs of people across social groups

3) **Shared Understanding** – between various users of risk information

4) Co-Creation – with the users of risk information

5) Open by Default – policy for data sharing, coding and innovation processes

6) **Information Appropriateness** – cultural, cognitive and psychological appropriateness of risk information

7) Channel Suitability – selection of communication channels on the basis of trust, interactivity, scalability and resilience

8) Sustainability – of risk information initiatives requires a viable business model and support to local capacities and networks

9) Reflexivity – critical self-reflection and ongoing review

10) **Dialogue & Debate** – degree to which it generates dialogue and debate between users of risk information

DARAJA | Key Activities

1) Initial scoping and analysis

2) Understanding and mapping the **information ecosystems** at city-wide and settlement level

3) Deployment of 4 prototype projects (1 at settlement level ; 1 city-wide per city)

4) Sharing emerging learning and assessing potential for **scale-up**

DARAJA | Possible Pilot Types

Community / Resident Decision-Making	City Authority Decision-Making
River Flood Early Warning (EW) Systems	Dynamic Flood Hazard Maps
Flash Flood EW Systems	Utility and Infrastructure Chain Failure
Peer-to -Peer Preparedness/ Adaptation Campaigns	Mapping / Management Platforms

⟵————————————⟶

Initiatives that support both sets of groups

External Real World Pilots

Community

City Authority +

Community + City Authority

AMRAI PARI

Hazur

FUNES

Picture Credit: BBC Media Action

Rain when **FUNES** could have triggered early action

INNOVATION:
ED FINANCING
PREPAREDNESS

MAXIMUM RETENTIO
OVERSPILL POSSIB

EARLY WARNING

EARLY ACTION (PRE-FUNDED)

EXTREME EVENT

LESS SUFFERING

LESS FUNDS NEEDED FOR RESPONSE
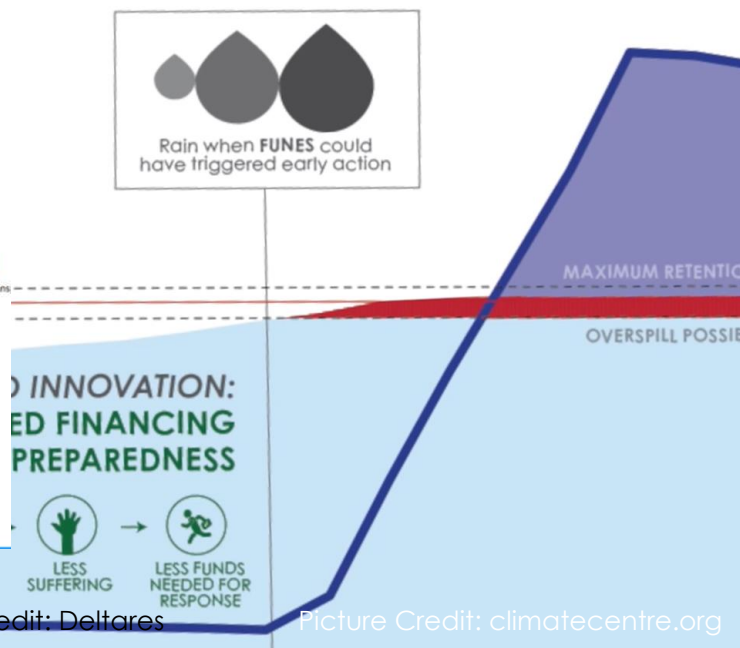
Picture Credit: Deltares

Picture Credit: climatecentre.org

DARAJA | Constraints and Opportunities

Constraints

► Modest budget

► Timeline versus process

► Small organisations

► Stakeholders working at full capacity

Opportunities

► Strong international networks

► Support from WISER team

► Advice/ leverage/ brain trust of participants today