


URBAN RESILIENCE

“The ability of any urban system, with its inhabitants to maintain continuity through all shocks and stresses, while positively adapting and transforming toward sustainability”.

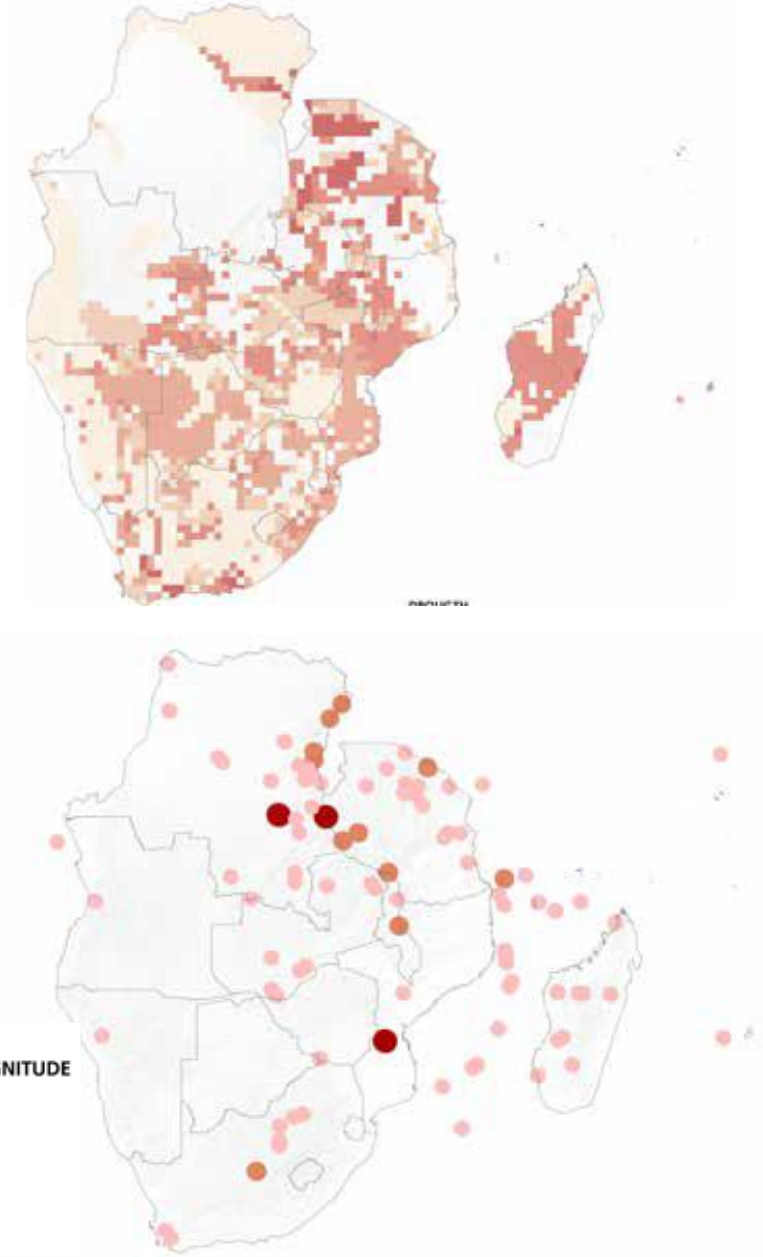
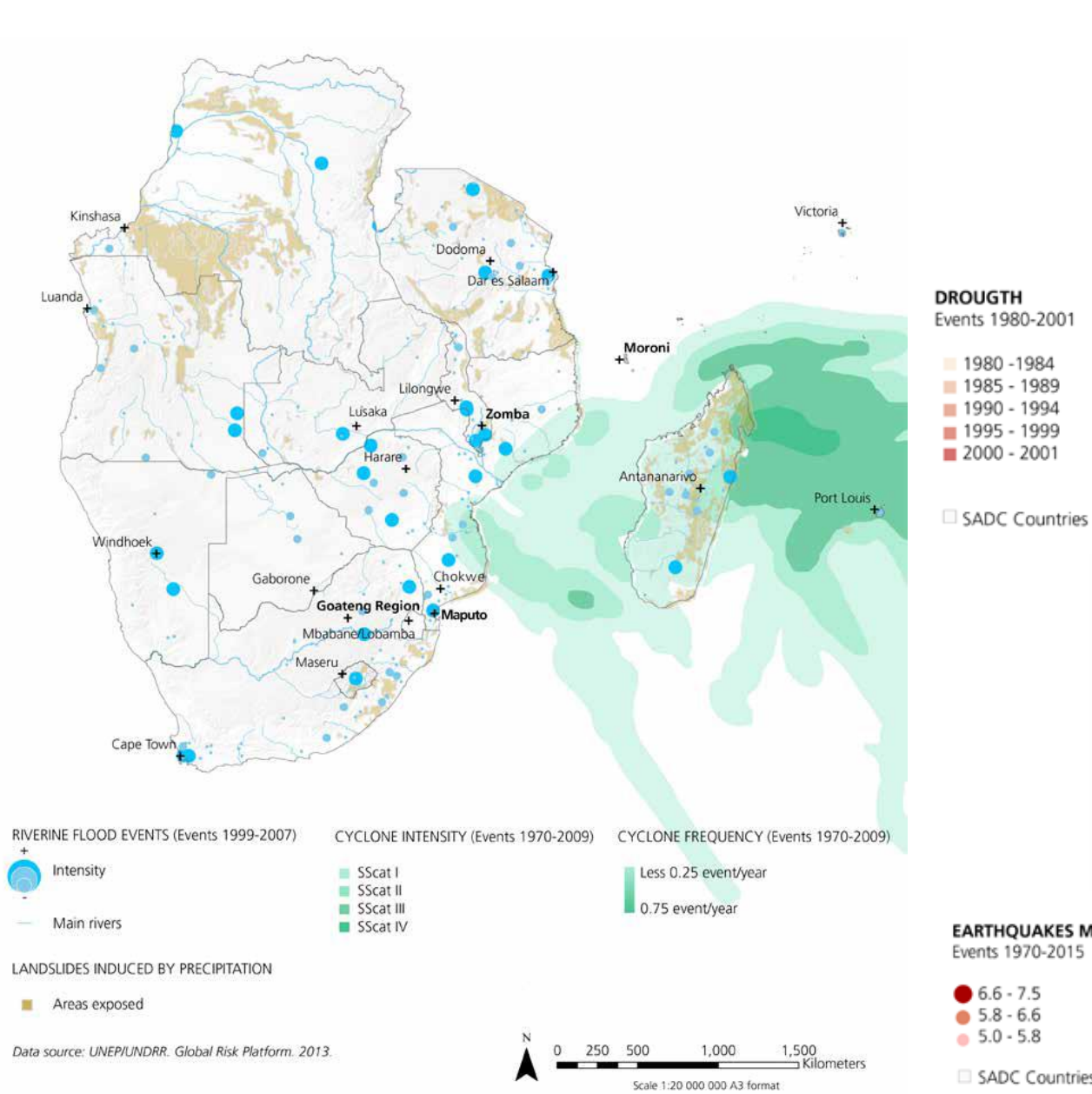
An aerial photograph showing a flooded urban area. In the foreground, several large, cylindrical industrial silos are partially submerged in brown floodwater. To the right, a dense residential area with small houses and trees is also inundated. The water appears to be quite deep, reaching up to the roofs of some buildings. The overall scene depicts a significant flood event in an urban setting.

Key challenges for building resilience

1. Lack of **technical capacity** and experience
2. Lack of **data and information**
3. Lack of **financial resources**

Existing tools are often too complex, data hungry and not adapted to the reality of some cities.

Natural hazards do not respect national boundaries



The DiMSUR initiative

In 2010...

...four countries with common vulnerabilities in southern Africa decided to join forces in 2010 initiating the process to establish the sub-regional **Technical Centre for Disaster Risk Management, Sustainability and Urban Resilience (DiMSUR)**



Mandate

to provide technical assistance and knowledge for:

- **Disaster Risk Reduction**
- **Climate Change Adaptation**
- **Urban Resilience**

in Southern Africa and the South-West Indian Ocean.

Status

non-profit, autonomous, regional organization, international in status and non-political in management, staffing and operations.

Founding members

- **Madagascar**
- **Malawi**
- **Mozambique**
- **Union of Comoros**

Headquarters

Maputo, Mozambique with sub-units in each Member State.

Vision

Be an effective catalyst and major partner for disaster risk management and climate change adaptation in southern Africa contributing to building a more resilient region based on safe and prosperous cities and towns.

Strategic priorities for the first 10 years

**Enhancing the
identification and
understanding of risks at
local level**

**Strengthening national and
local capacities to manage
disaster risk and build
resilience**

**Building safer and more
resilient cities through the
provision of qualified
technical assistance**

**Establishing networks &
partnerships for better
knowledge management
and dissemination**

**Promoting a culture of
safety and resilience
through awareness raising,
disaster preparedness &
building back better**

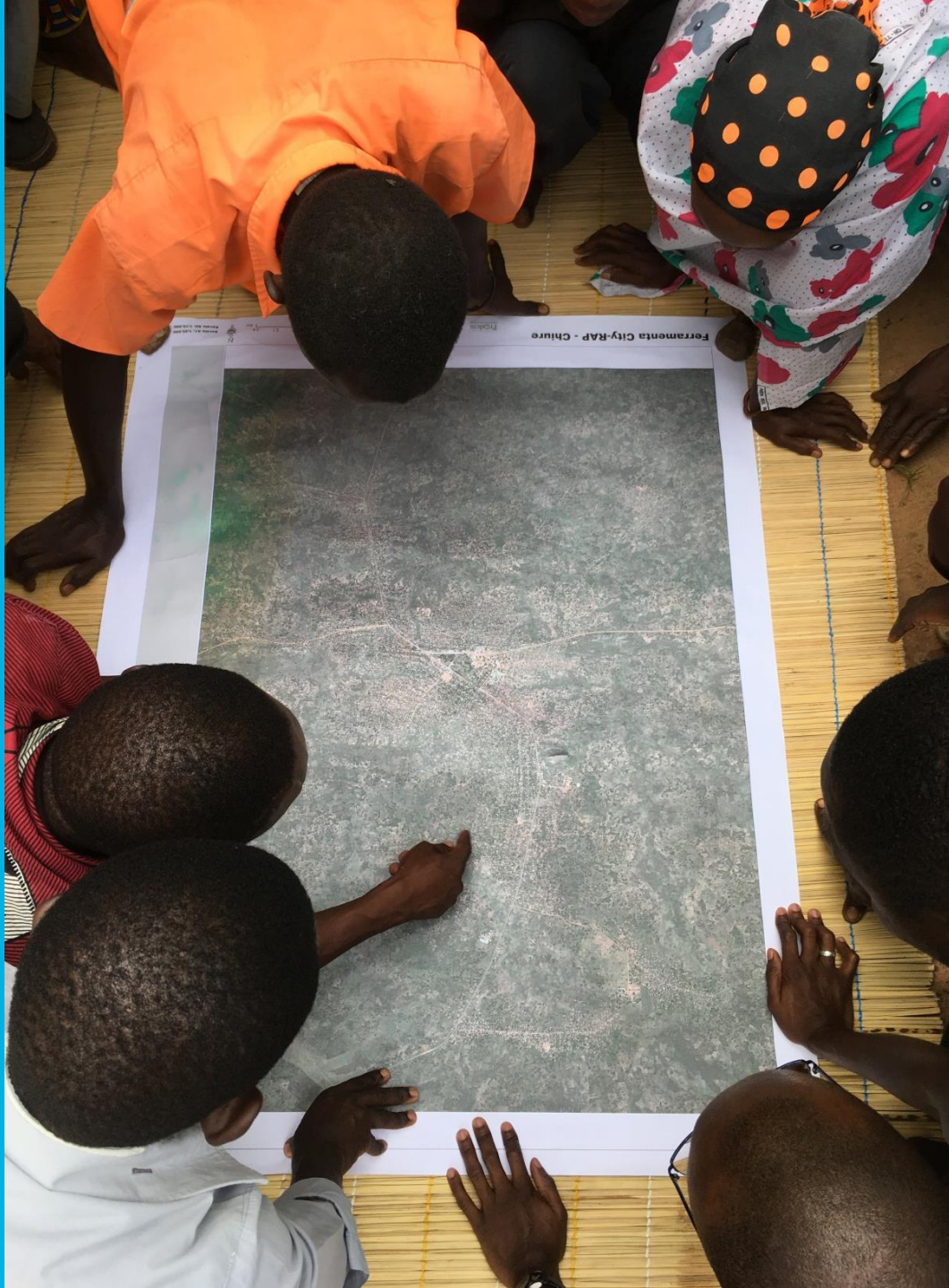
**Reinforcing the
institutional, managerial
and technical capacity of
DiMSUR**

What is CityRAP?

CityRAP features

*“It is built on
participatory methods
and consensus-
building techniques to
involve all concerned
stakeholders with the
aim to identify the
entry points to start
building the city’s
resilience with
minimal external
support”*

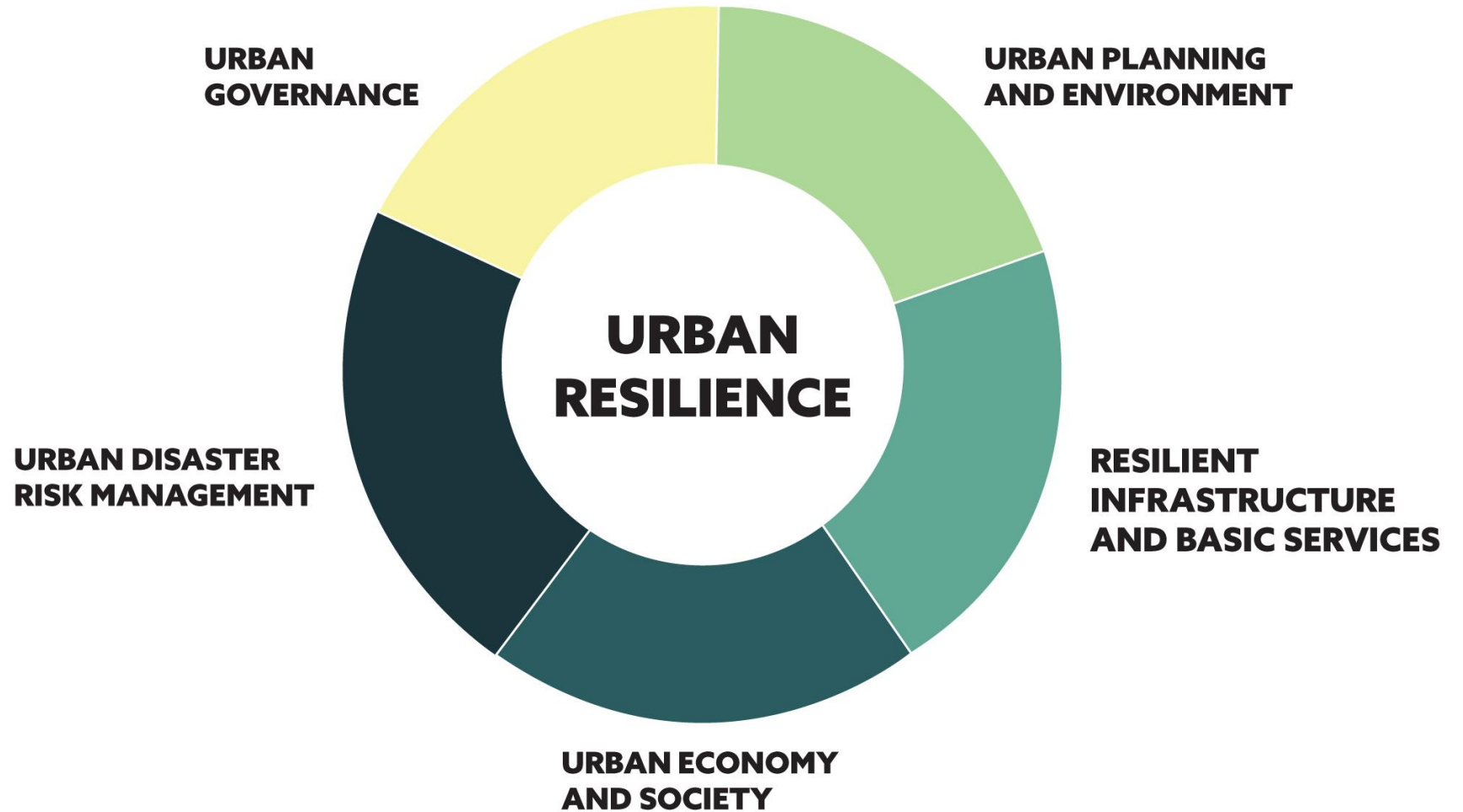
(Prof. Mark Pelling)



- CityRAP is **DiMSUR's** flagship product.
- It is a tool used for **training city managers and municipal technicians and to build their capacity to plan actions aimed at reducing risk and building resilience**
- Targets **small to intermediate cities, or municipal districts** within bigger cities (~250.000 people)
- The **municipality** is the **leader** of the process from day one
- Leverages **local knowledge** through a **participatory approach**
- Its final product is a ***Resilience Framework for Action*** for the city

CityRAP resilience pillars

A resilience framework with five inter-related pillars designed as a theoretical structure for data collection at the city level



CityRAP process

4 phases

200-300
people directly
participate

Local government

Public institutions

Community representatives

CSOs and NGOs

Media

Private sector

Academia

PREPARATORY PHASE

Preparatory meetings, Focal Points selection,
preliminary questionnaire, stakeholder analysis

PHASE 1 - CRASH COURSE

Workshops

PHASE 2 - PARTICIPATORY DATA COLLECTION AND ORGANISATION

Risk mapping, community consultations,
self-assessment

PHASE 3 - DATA ANALYSIS AND PRIORITISATION

Focus group discussions,
prioritisation
workshop

PHASE 4 - DEVELOPMENT OF THE CITY RESILIENCE FRAMEWORK FOR ACTION

Technical workshops

3-4 MONTHS

CityRAP in Africa



CityRAP Tool implemented in:

Burkina Faso
Cabo Verde
Ethiopia
Guinea-Bissau
Madagascar
Malawi
Mozambique
Sao Tome e Principe
Union of Comoros
Zambia
Zimbabwe



Training of Trainers delivered in:

Burkina Faso (delivered to representatives from the 8 countries of the West African Economic and Monetary Union UEMOA)
Cabo Verde
Ethiopia
Guinea-Bissau
Sao Tome e Principe
South Africa

**30 cities
in Africa
reached**



How does CityRAP works?

Preparatory phase

Phase 1

Phase 2

Phase 3

Phase 4

First approach with the municipality

Team of experts

Team of experts on-site delivery

Municipal Focal Points lead the process

Team of experts on-site support

Team of experts on-site support

Crash course

Municipal self-assessment

Participatory planning

Data compilation

Focus group discussions

Prioritisation workshop

Baseline assessment

RFA formulation workshop

Draft RFA & validation

at least one month before

week 1

week 5

week 6

week 14

PROJECT KICK-OFF

Preparatory
phase

Phase 1

Phase 2

Phase 3

Phase 4



The target municipality or local government is fully informed and committed to the process, with a clear understanding that the City RFA is ultimately meant to serve the city to enhance its resilience.

Preparatory
phase

Phase 1

Phase 2

Phase 3

Phase 4



Main activities

- **Preparatory meeting** with the Mayor and city management
- **Selection** of Municipal Focal Points
- Completion of the **preliminary questionnaire**
- Completion of the preliminary **stakeholder analysis**



Responsible actors

- **Team of experts:** travel to the municipality
- **Municipal Focal Points:** selected and committed



Duration

At least one month
before Phase 1

Preparatory
phase

Phase 1

Phase 2

Phase 3

Phase 4

Introducing municipal staff and local stakeholders to key concepts of risk and resilience and to the tool's methodology.



Preparatory
phase

Phase 1

Phase 2

Phase 3

Phase 4



Main activities

- Crash course
- Training session for Municipal Focal Points

Responsible actors

- Team of experts: deliver Phase 1 on-site
- Municipal Focal Points (MFPs): trained by the team of experts

Duration

4-day crash course +
1-day training of MFPs

Preparatory
phase

Phase 1

Phase 2

Phase 3

Phase 4

Presentation of the CityRAP Tool and introduction to the key concepts of urban resilience and disaster risk



Preparatory
phase

Phase 1

Phase 2

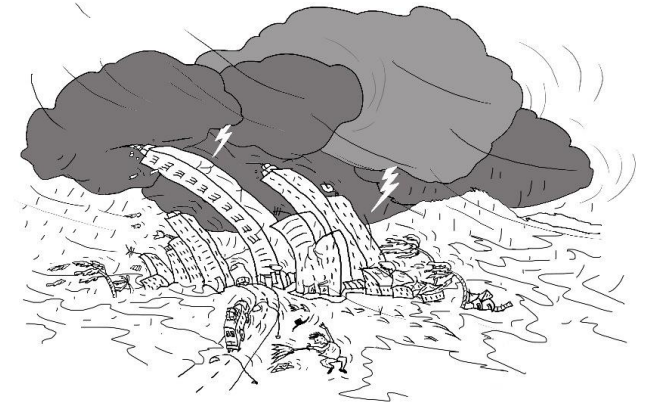
Phase 3

Phase 4

Use of a
language easy
to understand,
although
scientifically
rigorous, to
demystify
complexity



“The ability of any urban system,
with its inhabitants...



...to maintain continuity through
all shocks and stresses, ...



...while positively adapting
and transforming...



...toward sustainability”.

Preparatory
phase

Phase 1

Phase 2

Phase 3

Phase 4



Crash course: participatory mapping at the city level

- Identify the main risks that affect the city.
- Collectively choose neighborhoods that will be targeted in the next phases.

Preparatory
phase

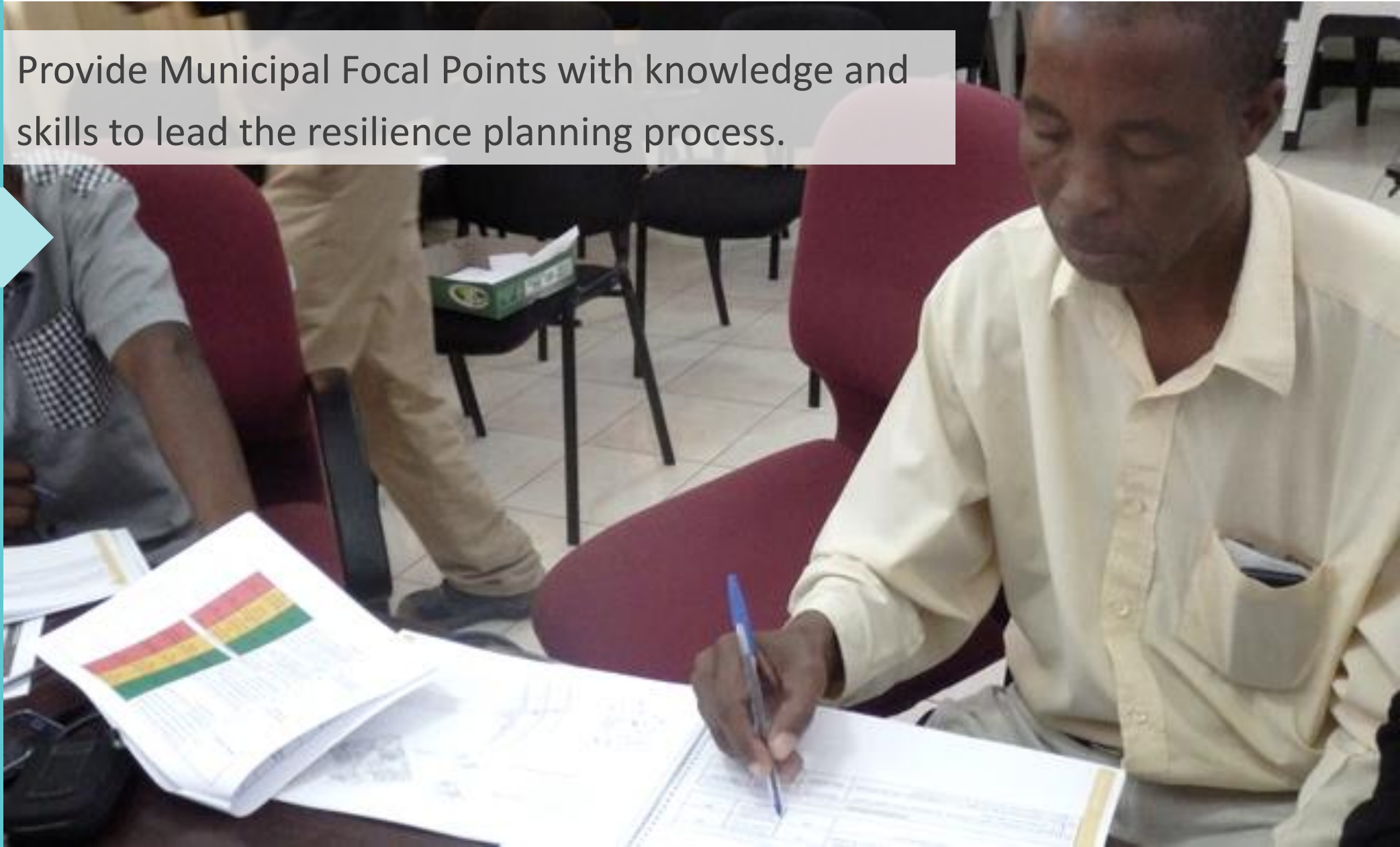
Phase 1

Phase 2

Phase 3

Phase 4

Provide Municipal Focal Points with knowledge and skills to lead the resilience planning process.



Preparatory
phase

Phase 1

Phase 2

Phase 3

Phase 4



Expected results

- Participants understand key concepts related to **urban risk and resilience**.
- The **participatory planning simulation** identifies the vulnerable neighbourhoods to be targeted in Phase 2, and prepares Focal Points to apply the same methodology at community level.
- Municipal Focal Points are trained to carry out Phase 2.

Preparatory
phase

Phase 1

Phase 2

Phase 3

Phase 4



Collecting data from municipal departments and at community level in vulnerable neighbourhoods.

Preparatory
phase

Phase 1

Phase 2

Phase 3

Phase 4



Main activities

- Municipal **self-assessment**
- **Participatory planning** at the neighbourhood level
- Data compilation and organisation



Responsible actors

- **Municipal Focal Points**



Duration

3-4 weeks

Preparatory
phase

Phase 1

Phase 2

Phase 3

Phase 4



- Assess the state of the city's resilience through the knowledge, opinions and perceptions of municipal staff.
- Raise awareness about urban resilience.

Preparatory
phase

Phase 1

Phase 2

Phase 3

Phase 4

PILLAR 1: URBAN GOVERNANCE

THEME	N°	QUESTIONS	ANSWERS				COMMENTS
			4	3	2	1	
ORGANISATIONAL CAPACITY	1	Does your municipal department have enough staff to carry out its daily responsibility?	Yes, the staff have the required skills to carry out their daily responsibilities	The majority of the staff have the required skills	Less than half of the staff have the required skills	The department has only few skilled staff	
	2	Does your municipal department have staff with understanding or knowledge of issues related to climate change and/or risk management?	Yes, the staff do understand and have knowledge of issues related to climate change and/or risk management	Yes, the department has some staff with that kind of understanding or knowledge	Yes, the department has at least one staff with that kind of understanding or knowledge	No, nobody in our department has the staff has this kind of understanding or knowledge	

- 75 questions divided by the 5 resilience pillars
- 4 possible answers for each question and a column for comments
- To be submitted to each municipal department in the municipality

Preparatory
phase

Phase 1

Phase 2

Phase 3

Phase 4

Participatory planning at neighbourhood level

- Prioritisation of risk reduction and resilience building actions at neighbourhood level.
- List of potential and feasible solutions/measures.
- Use of satellite images of the specific neighbourhood to ensure participation of the communities.



Preparatory
phase

Phase 1

Phase 2

Phase 3

Phase 4

- Filling the **Results Matrix.**
- Summarizing the comments from the municipal self-assessment.
- Harmonizing the priority issues identified at the community level.

PILLAR 1: URBAN GOVERNANCE

THEME	N° QUESTIONS	ANSWERS				MUNICIPAL DEPARTMENTS							TOTAL
		4	3	2	1	URBAN PLANNING	HUMAN RESOURCES	FINANCE	BASIC SERVICES	NATURAL RESOURCES	ECONOMY	CIVIL DEFENCE	
GOVERNANCE STRUCTURE	7 Do you believe that the current municipal structure allows each department to effectively carry out its work?	Yes, the current structure is good and allows each department to effectively carry out its work	The current structure requires some improvements for effective delivery	The current structure is not good enough for that purpose	No, the current structure is weak and needs major improvements	1	1	1	1	3	2	3	12
	8 How well is the municipality cooperating and coordinating with externals such as government, private sector, civil society, etc.?	The municipality has established strong cooperation and coordination mechanisms with a number of external partners and institutions	The cooperation and coordination of the municipality with externals is overall good but could be further improved	The municipality's cooperation and coordination with externals is not good enough	The municipality has poor cooperation and coordination mechanisms with externals	2	3	4	4	4	2	4	23
	9 Do you think that coordination and cooperation among the different municipal departments is efficient?	Yes, mechanisms are in place to ensure efficient coordination and cooperation among the different municipal departments	The coordination and cooperation among the departments is overall good but could be further improved	Coordination and cooperation mechanisms among the departments is not good enough	The municipality has poor coordination and cooperation mechanisms among its departments	1	3	4	2	4	1	4	19
Average for Governance Structure													18

Preparatory
phase

Phase 1

Phase 2

Phase 3

Phase 4



Expected results

- All the **municipal departments** are engaged and assessed.
- **Communities** are actively involved in the process.
- The collected **information** is **harmonised** and ready for the analysis in Phase 3.

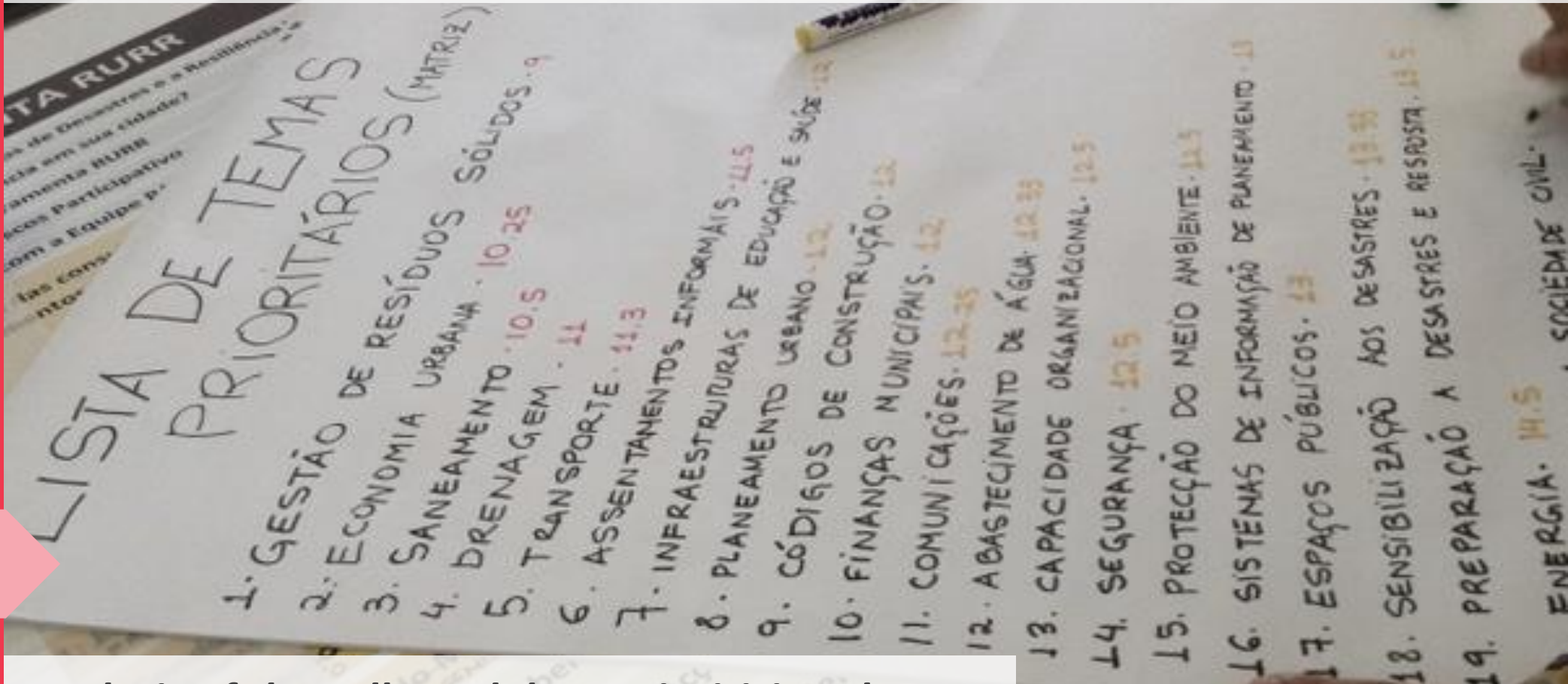
Preparatory
phase

Phase 1

Phase 2

Phase 3

Phase 4



Analysis of the collected data prioritising the issues that constitute entry-points to progressively building the city's resilience.

Preparatory
phase

Phase 1

Phase 2

Phase 3

Phase 4



Main activities

- Focus group discussions
- Prioritisation workshop
- Training session for Municipal Focal Points



Responsible actors

- Team of experts: providing on-site support
- Municipal Focal Points (MFPs): leading the process



Duration

5 days

Preparatory
phase

Phase 1

Phase 2

Phase 3

Phase 4



Focus group discussion for each resilience pillar

- Thematic focus groups for each pillar of resilience analyse the data collected previously and discuss the main shortcomings and priorities.
- Representatives from municipality, community, NGOs, CSOs and other relevant stakeholders

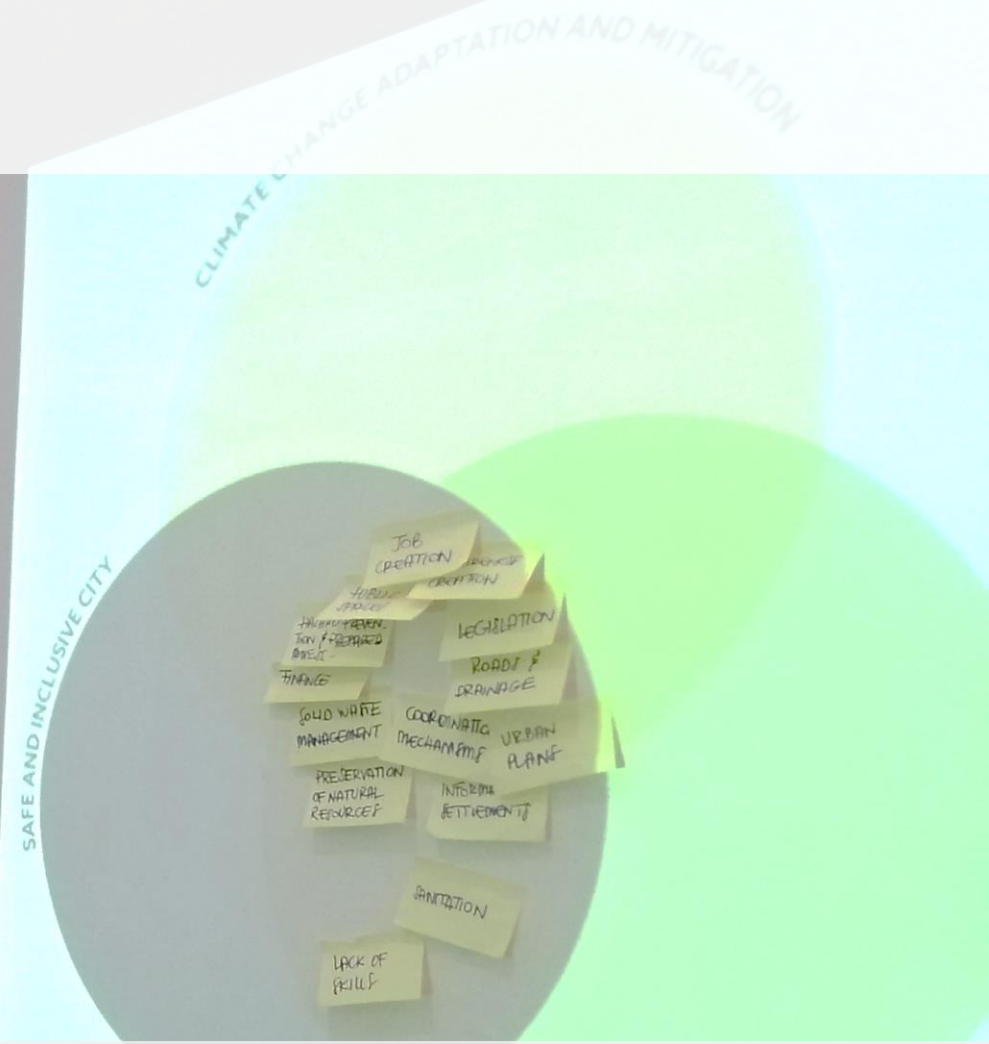
Preparatory
phase

Phase 1

Phase 2

Phase 3

Phase 4



Key local stakeholders convene to discuss and decide upon priorities to build urban resilience based on the results of municipal self-assessment, community consultations and focus group discussions.

Preparatory
phase

Phase 1

Phase 2

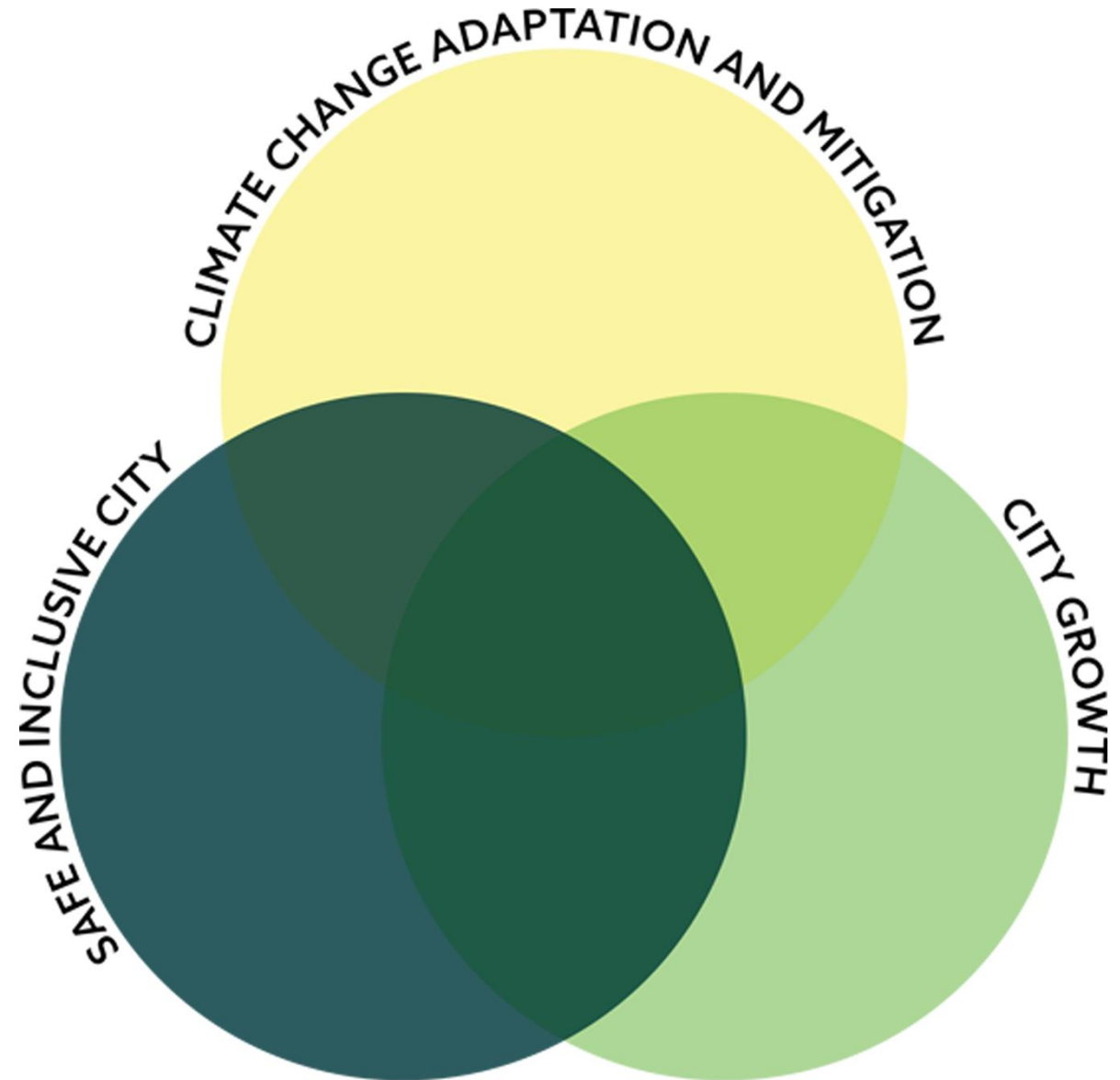
Phase 3

Phase 4

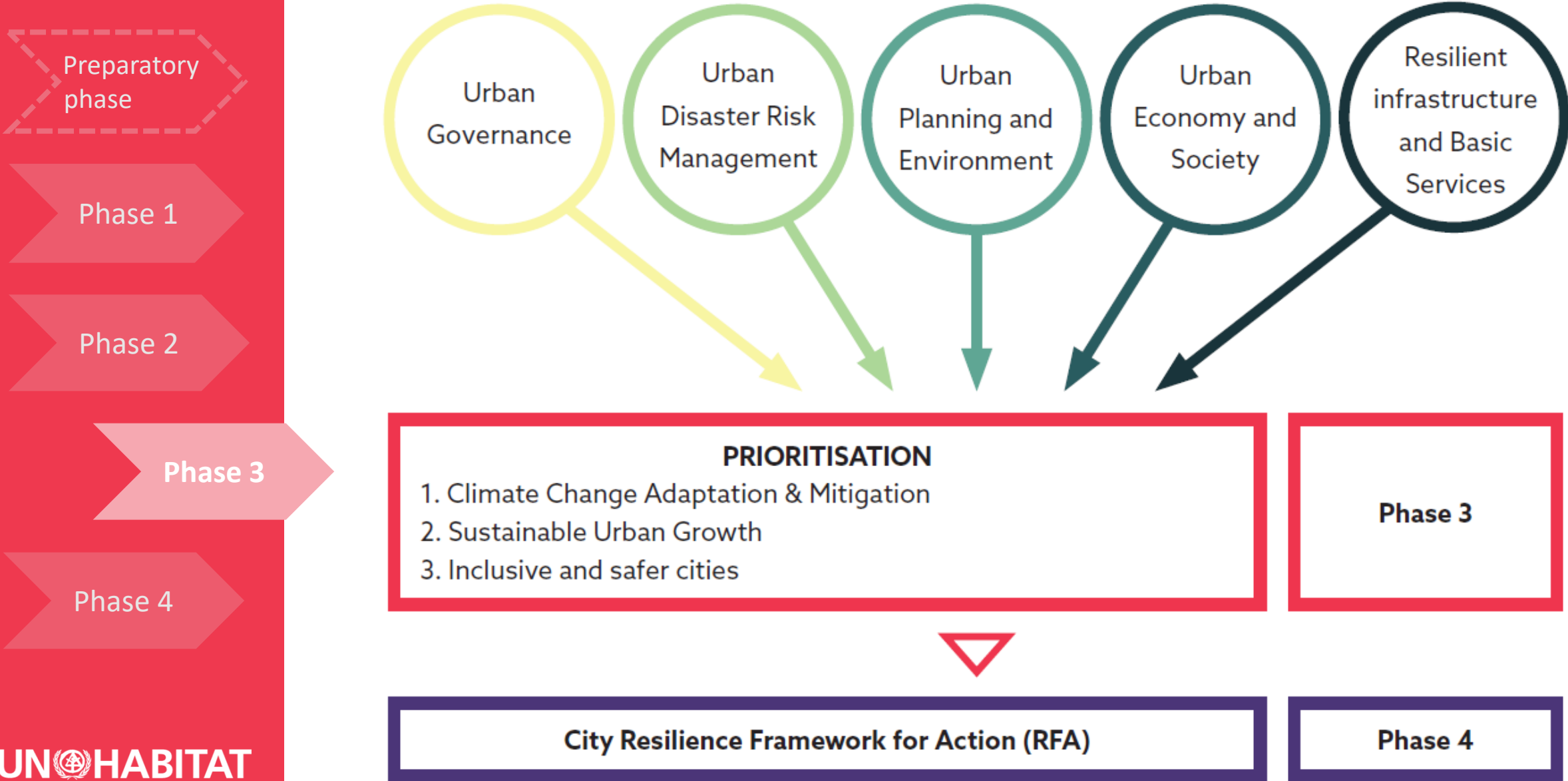
The resilience diagramme

Filtering the common priorities identified during the focus group discussions through three **cross-cutting issues of urban resilience**.

From now on, the process could also be channeled through just one of these three lenses, resulting in a more specific final document.



The funnelling process to prioritise and plan



Preparatory
phase

Phase 1

Phase 2

Phase 3

Phase 4



Expected results

- The most pressing issues are **prioritised in a consensual manner** to define where to start in progressively building the city's resilience and why.
- Maximum **six priority issues** are selected as entry points.
- Municipal Focal Points are trained to carry out Phase 4.

Preparatory
phase

Phase 1

Phase 2

Phase 3

Phase 4



*Final steps towards the drafting of the
City Resilience Framework for Action (RFA)*

Preparatory
phase

Phase 1

Phase 2

Phase 3

Phase 4



Main activities

- Baseline assessment
- RFA formulation workshop
- Finalisation of the city RFA



Responsible actors

- Team of experts: on-site and remote support
- Municipal Focal Points (MFPs): leading the process



Duration

7-8 weeks

The baseline assessment

Preparatory phase

Phase 1

Phase 2

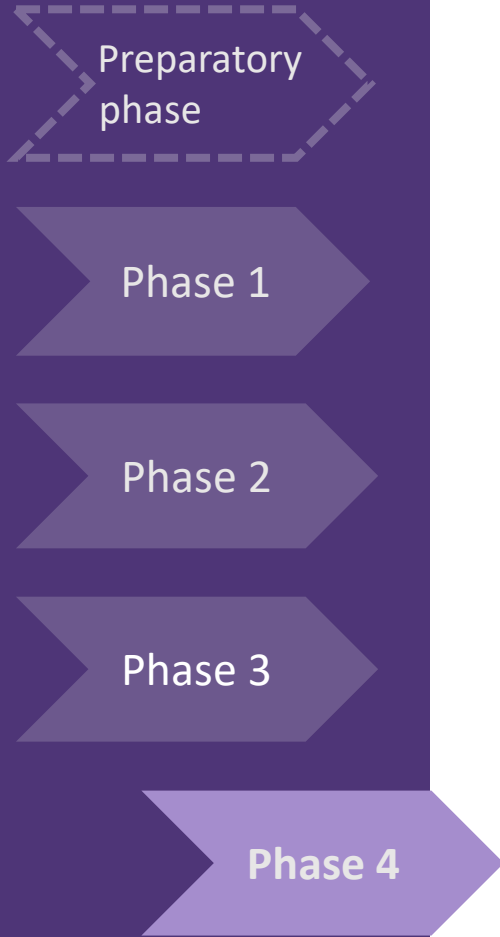
Phase 3

Phase 4

PRIORITY ISSUES	RFA COMPONENTS				
	POLICIES AND LEGISLATION	URBAN PLANS	INSTITUTIONAL SET-UP	FINANCE	INTERVENTIONS
ROADS AND DRAINAGE	1	1	2	1	1
SOLID WASTE	2	1	2	1	2
HEALTH AND EDUCATION FACILITIES	3	3	2	2	2
EARLY WARNING AND DISASTER RESPONSE	2	1	1	1	2
PROTECTION OF NATURAL RESOURCES	2	1	2	1	1
WATER AND SANITATION	2	1	2	3	2

- Municipal Focal Points collect information, and consult experts and local stakeholders, to assess the state of the selected priority issues in relation to a particular RFA component.
- Then they collectively decide on a score using a scale from 1 to 3.

The baseline assessment



PRIORITY ISSUES	RFA COMPONENTS					
	POLICIES AND LEGISLATION	URBAN PLANS	INSTITUTIONAL SET-UP	FINANCE	INTERVENTIONS	
ROADS AND DRAINAGE	1	1	2	1	1	PRIORITY ACTION 3
SOLID WASTE	2	1	2	1	2	
HEALTH AND EDUCATION FACILITIES	3	3	2	2	2	
EARLY WARNING SYSTEMS	2	1	1	1	2	PRIORITY ACTION 4
PROTECTION OF NATURAL RESOURCES	2	1	2	1	1	PRIORITY ACTION 5
WATER AND SANITATION	2	1	2	3	2	
		PRIORITY ACTION 1		PRIORITY ACTION 2		

- The baseline assessment table can be read both horizontally, following the priority issues, and vertically, following the RFA components.
- Based on the scores, maximum six priority actions are selected.

Preparatory
phase

Phase 1

Phase 2

Phase 3

Phase 4

RFA formulation workshop

- Priority actions are reviewed and validated in plenary
- In focus groups these are broken down into activities assigning one responsible office/entity to each.
- Milestones are identified to structure the RFA in the short (0-2 years), medium (3-5) and long (6-10) term.



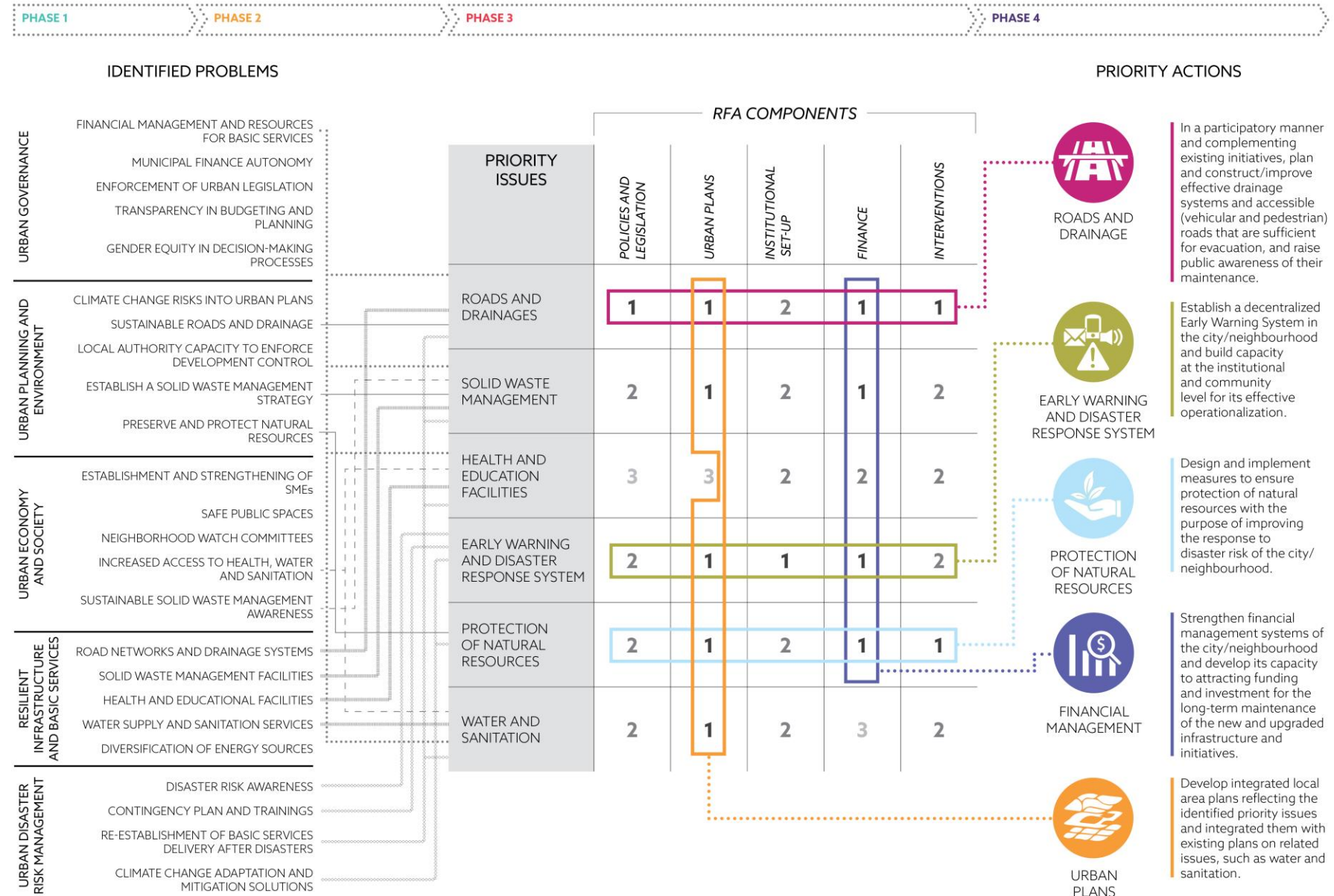
Preparatory phase

Phase 1

Phase 2

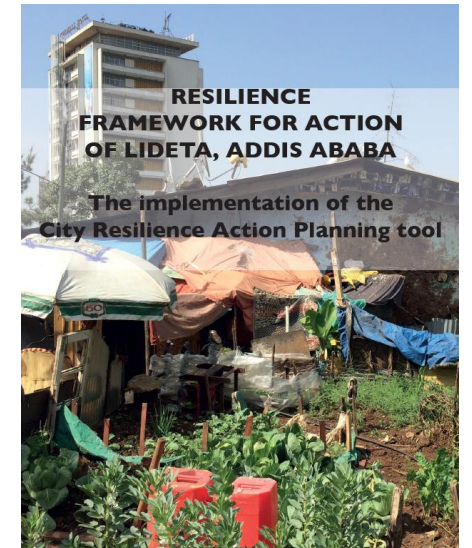
Phase 3

Phase 4



The document includes:

- **Introduction/Background**
- **Rapid city risk profile**, using the preliminary questionnaire and the updated city risk map
- **The CityRAP Tool process**, which includes details of the different implementation stages
- **Overview of the city RFA** (including priority actions and activities)
- **Priority actions sheets** (listing activities and responsible entities)
- **Concept notes** of bankable projects
- **Monitoring and evaluation** framework
- **Conclusions** and way forward



Preparatory
phase

Phase 1

Phase 2

Phase 3

Phase 4

Monitoring and evaluation framework

- An external/independent body/consultant should be responsible for monitoring the progress made in implementing the City RFA **every two years**.
- The **RFA is updated** based on the recommendations derived from the 2-years evaluation report.

Preparatory
phase

Phase 1

Phase 2

Phase 3

Phase 4



- Half-day workshop to submit the City RFA to relevant authorities, potential donors, key partners and media.
- The validated and edited City RFA should be formally endorsed by the municipal authorities according to their own procedures.
- Roadmap for dissemination, financing and implementation.

Preparatory
phase

Phase 1

Phase 2

Phase 3

Phase 4



Expected results

- Maximum six **priority actions** are selected and validated.
- The final city RFA document is completed, validated, endorsed and disseminated.

Where did we start?

Key challenges for building resilience: **CityRAP response**

1. Lack of **technical capacity** and experience

- Transfer **skills and tools** to municipal technicians (trainings, on-the-job exercises and group activities)

2. Lack of **data and information**

- Leverage **local knowledge** and information to kickstart processes
- Identify **key gaps** for future action through the RFA

3. Lack of **financial resources**

- RFA can be a powerful tool for **mobilising and channelling resources**





Thank you!