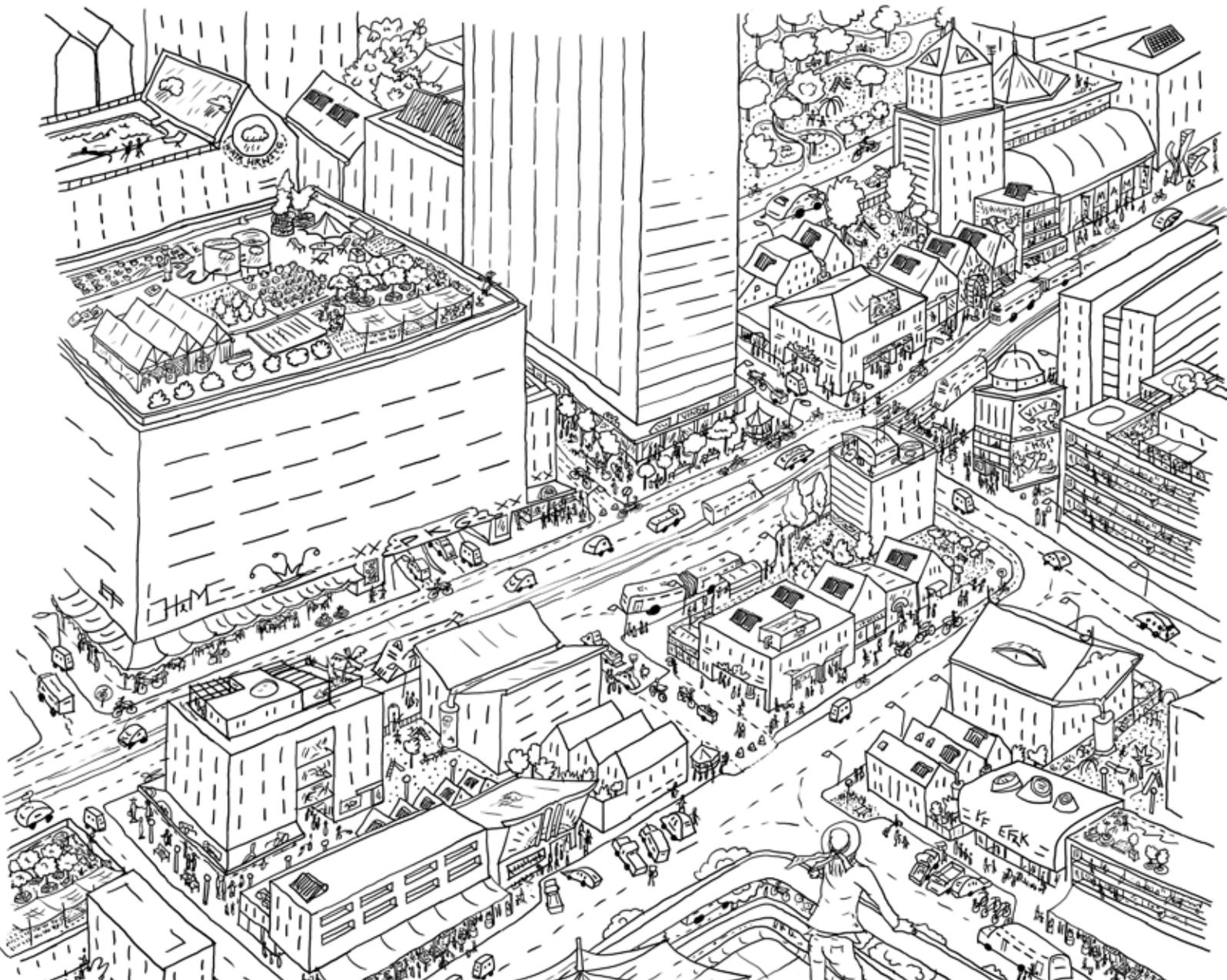


CityRAP Tool

# CITY RESILIENCE

## ACTION PLANNING TOOL





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United Nations Human Settlements Programme (UN-Habitat) 2018  
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## Acknowledgements

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The conceptualization of the City Resilience Action Planning (City RAP) Tool dates back to 2015. The first version of the tool was tested in twenty sub-Saharan African cities and led to the development of City Resilience Frameworks for Action. Lessons learned and feedback from reviewers were integrated in this second version of the tool.

UN-Habitat particularly thanks the city officials and municipal staff in cities where the CityRAP Tool was tested from 2015 to 2017, specifically: Chokwe, Vilankulo and Mocuba (Mozambique), Morondava (Madagascar), Zomba (Malawi), Lideta sub-city of Addis Ababa (Ethiopia), Moroni (Union of Comoros) and Ouagadougou (Burkina Faso).

Their valuable feedback has greatly contributed to improving the methodology. Special mention has to be made of Professor Mark Pelling, London Kings College, and Dr. Shona Paterson, Future Earth Coasts. As part of the Urban Africa Risk Knowledge (ARK) research programme, they provided important inputs to improving the CityRAP Tool.



IMAGE 1  
Aerial photo of Moroni, Comoros. Credit: Felix Volmann / UN-Habitat

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# INTRODUCTION

## URBANISATION AND VULNERABILITY

Sub-Saharan Africa is one of the fastest urbanising regions of the world today. The urban population growth is expected to triple in absolute numbers between 2015 and 2050. Small and intermediate sized cities house the largest portion of the urban population (54%), and will continue to do so in the decades to come (UNDESA). African cities are generally ill-prepared to cater for such an explosive population growth. Similar trends are witnessed in Asia and the rest of the developing world.

Much of the urban growth in least developed/fast developing countries is occurring spontaneously, i.e. not following official planning frameworks, even when they exist. As a result, large numbers of urban residents live in informal settlements that are oftentimes vulnerable to natural and man-made hazards. At the same time, climate change has increased the frequency and intensity of natural hazards, affecting millions of urban dwellers. Consequently, a range of urban risks are accumulating and there is an urgent need for developing the capacity of cities in the developing world regarding risk reduction and resilience planning.

In this context, the United Nations Human Settlements Programme (UN-Habitat) and the Technical Centre for Disaster Risk Management, Sustainability and Urban Resilience (DiMSUR) collaborated to develop a tool to strengthen the capacity of city managers and technicians in the developing world to build their city's resilience and effectively reduce urban risks.

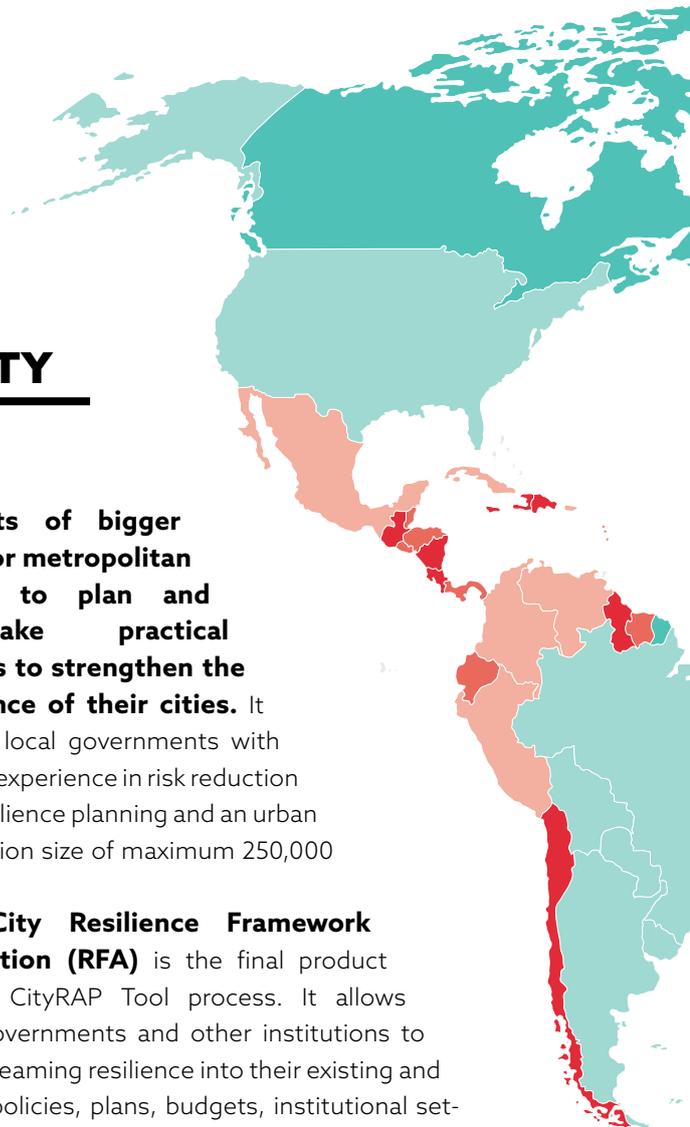
**The City Resilience Action Planning (CityRAP) Tool aims to enable local governments of small to intermediate sized cities, or neighbourhoods/**

**districts of bigger cities or metropolitan areas, to plan and undertake practical actions to strengthen the resilience of their cities.** It targets local governments with limited experience in risk reduction and resilience planning and an urban population size of maximum 250,000 people.

**The City Resilience Framework for Action (RFA)** is the final product of the CityRAP Tool process. It allows local governments and other institutions to mainstreaming resilience into their existing and future policies, plans, budgets, institutional set-ups and actions.

Importantly, **the CityRAP Tool puts local governments and urban stakeholders in the driver's seat of urban resilience planning from Day 1.** The tool is designed so that local governments can adapt and implement it with minimal intervention from outside technical experts, using practical methods to leverage local knowledge.

**A key principle of the tool is bottom-up planning.** Relevant stakeholders, communities and urban dwellers are engaged in the process through participatory risk mapping exercises, focus group discussions and cross-sectorial action planning.



<sup>1</sup> Founded by the Governments of Madagascar, Malawi, Mozambique and the Union of Comoros, DiMSUR aims to develop local, national and subnational capacities for vulnerability reduction and building resilience to natural disasters in the southern Africa region. The Centre performs a wide range of services towards disaster risk reduction, adaptation to climate change and urban resilience. For additional information, kindly visit: [www.dimsur.org](http://www.dimsur.org).

## WORLD RISK INDEX 2018 MAP

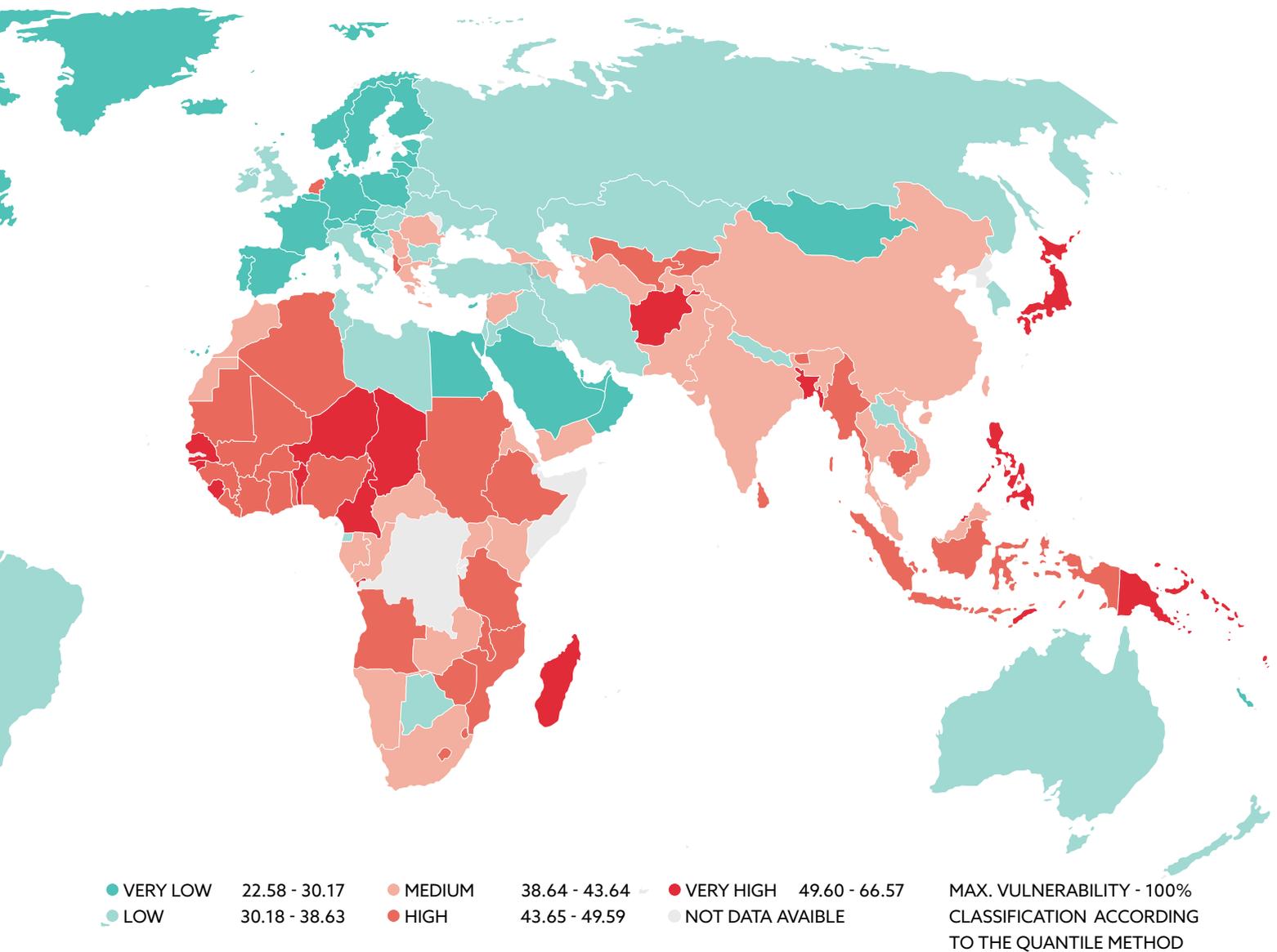


IMAGE 1  
Source: World Risk Index 2018

“

Capacity Development refers to the inherent capacity that exists in all countries, cities and communities stakeholders, which can be strengthened. The CityRAP Tool aims to support, facilitate, complement and deepen existing development processes and capacities to ensure that a city is able to reinforce its resiliency, as an endogenous process.

# URBAN RESILIENCE

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

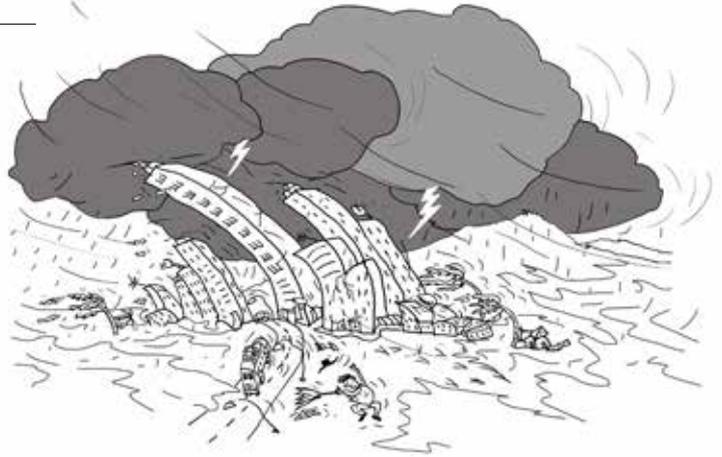


IMAGE 2  
Illustrations of urban resilience. Credit: Eduardo Feuerhake

## THE FIVE RESILIENCE PILLARS OF THE CITYRAP TOOL<sup>2</sup>

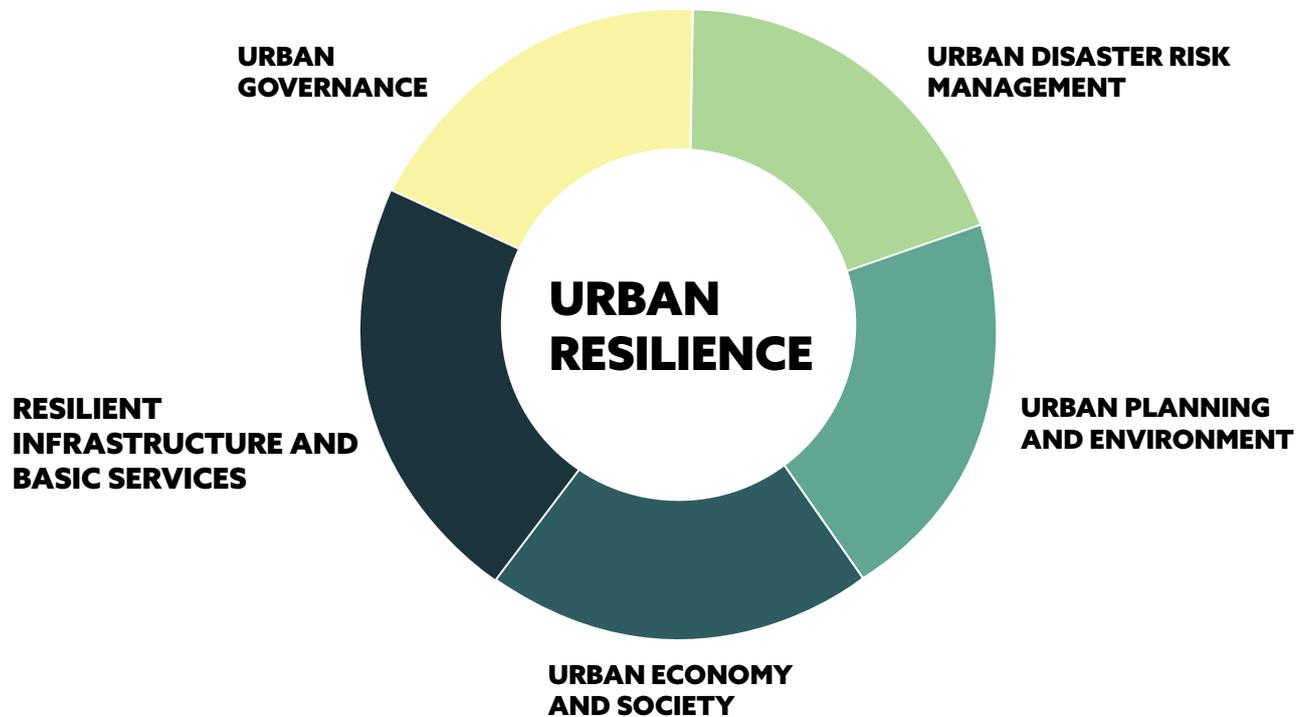


IMAGE 3  
The 5 pillars of urban resilience by DiMSUR

### URBAN GOVERNANCE

Urban governance refers to the processes and structures that allow all local actors participating in the decision-making process and influencing public policies and strategies for improved urban planning, management and development. This pillar focuses on the relationship between citizens and the local government, and requires adequate and efficient legal, policies, administrative and operational frameworks. Urban governance is the “software” that enables urban “hardware” to function.

### RESILIENT INFRASTRUCTURE AND BASIC SERVICES

Ensuring equal access to infrastructure and basic services is crucial to meet vital needs of the urban population and to allow a city to function and develop properly. This pillar refers to the urban “hardware” mentioned in the previous pillar and includes, among others: streets and roads, bridges, drainage, water and electricity supply, sanitation and solid waste management, hospitals, schools, etc. Considering the increasing number of shocks and stresses that affect cities around the world in recent years, it is essential that the design and management of

infrastructure and basic services fully integrate the concept of resilience.

### URBAN ECONOMY AND SOCIETY

This pillar refers to the processes, mechanisms and activities that allow cities to become drivers of socio-economic development in a country or region, by creating jobs, increasing households’ income, generating investments, reducing social tensions and crime, increasing equality and inclusion, promoting social mix, and enhancing security and safety, among other aspects.

### URBAN PLANNING AND ENVIRONMENT

This pillar includes all aspects related to planning and design of the urban space, the quality of the natural environment (air, water, soil), public/green spaces and climate change.

### URBAN DISASTER RISK MANAGEMENT

This refers to the ability of the local government and communities, in terms of capacity, knowledge, processes and systems in place, to prevent, anticipate, respond to, and recover rapidly from the impacts of natural or man-made threats in the city.

<sup>2</sup>The hereby-proposed resilience framework with five inter-related pillars is specific to the CityRAP Tool and does not intend to be fully comprehensive or to replace other existing frameworks in literature. The intention is just to define a theoretical structure to collect data at city level related to resilience. Other frameworks could be proposed.

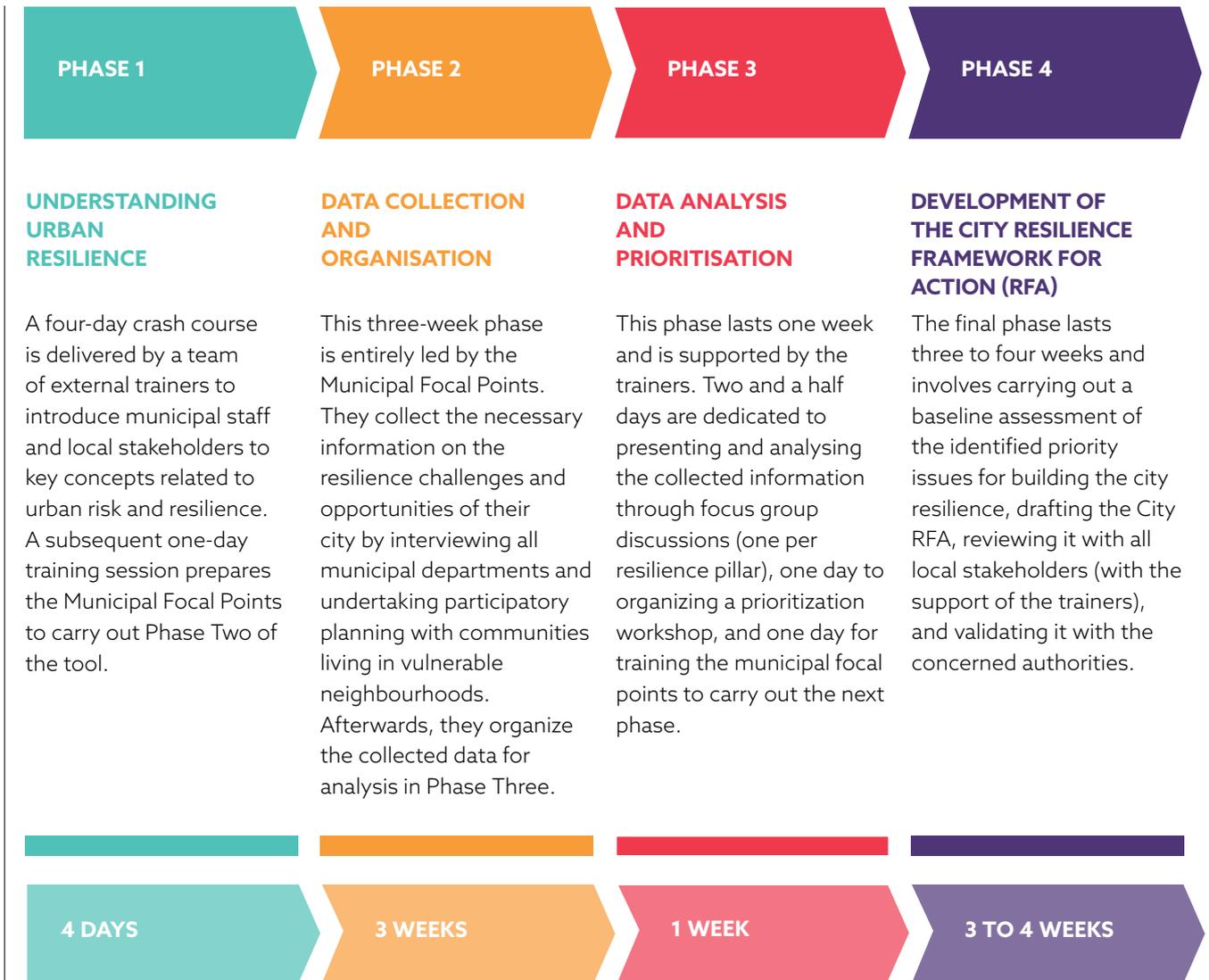
# OVERVIEW OF THE CITYRAP TOOL

The CityRAP Tool is a step-by-step participatory resilience planning methodology that includes a set of training exercises and activities targeting municipal authorities, communities and local stakeholders. The implementation of the tool lasts approximately two to three months that are divided into four phases, as described below. A team of external trainers kicks-off the process and supports it throughout each phase, at different levels- sometimes directly on-site and at other times by being available as

a remote resource. A small group of at least three people should be trained to lead the process at the city level, hereafter referred as the Municipal Focal Points. They play a very important role as they lead the CityRAP Tool roll-out process, thus collecting data, supporting data analysis, facilitating discussions, ensuring effective communication with partners/stakeholders, actively engaging with communities through participatory approach, and drafting the City RFA.

**PREPARATORY PHASE**

**DURATION**



# PREPARATORY PHASE

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Proper preparation is fundamental prior to the implementation of the CityRAP Tool. In particular, the target municipality or local government should be 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. The active engagement of the city government, especially through the designated Municipal Focal Points, is crucial to

ensuring a successful outcome.

During the Preparatory Phase, the training team providing support to the exercise collects general data about the city in order to adapt the CityRAP Tool process to the local context (see the detailed activities under this phase in the following table). It is recommended that contact with the target city is established at least one month prior to commencing Phase One.

ACTIVITY	DESCRIPTION
<b>Preparatory meeting with the Mayor and city management</b>	An initial meeting is held with the Mayor and his/her office to explain the CityRAP Tool process and ensure high-level engagement for its smooth implementation. The Mayor signs a Term of Commitment (annex 1) confirming the city's commitment to the CityRAP Tool exercise.
<b>Selection of Municipal Focal Points</b>	As mentioned earlier, the CityRAP Tool process is implemented mainly by the Municipal Focal Points, with support from the training team. The municipality selects a minimum of three staff members (at least one should be female) who will be responsible for leading all tasks from Phase Two to Phase Four. Alternates should be appointed to cover them when they are not available.
<b>Completion of the preparatory questionnaire</b>	A range of information is needed to contextualize the CityRAP Tool process to local conditions and to adequately prepare for its implementation. The municipality provides this information by completing the preparatory questionnaire (annex 2).
<b>Preliminary stakeholder analysis</b>	To identify the relevant individuals and entities to be part of the CityRAP Tool process, a stakeholder mapping and analysis is carried out (see methodology in annex 3). To ensure representation and inclusivity, these groups should be invited to the training and consultative workshops.

## DURATION

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5 days, including 4 days to deliver the Crash Course and one day to train the Municipal Focal Points.

## OBJECTIVE AND BRIEF DESCRIPTION

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A training team is mobilized to carry out a crash course targeting municipal and local stakeholders. The objective of the course is to reach a common basic understanding of urban risk and resilience concepts, focusing on demystifying their complexity. The course is organized as a series of interactive sessions which includes group exercises, games, audio-visual materials, debates, etc. The last day of Phase One is dedicated to training the Municipal Focal Points to prepare them to lead Phase Two.

## EXPECTED RESULTS

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- All participants of the crash course understand, and are comfortable using, key concepts related to urban risk and resilience;
- Participants are familiar with a wide range of issues and potential solutions for strengthening their city's resilience;
- Participants understand the logic of the CityRAP Tool process;
- Municipal Focal Points are prepared to autonomously lead Phase Two of the CityRAP Tool;
- A risk map of the city is produced in a participatory manner.

# PHASE ONE

## UNDERSTANDING URBAN RESILIENCE

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## ACTIVITY 1: KEY CONCEPTS OF URBAN RISK AND RESILIENCE

### By the end of the session, participants will:

- > Understand the concepts of risk probability, vulnerability, exposure, sensibility, coping and adaptive capacity;
- > Be aware of the different types of risks and their impacts on cities;
- > Obtain knowledge of urban trends in the region and in the country, as well as of main urban challenges and vulnerabilities.

1. A hazard (an extreme natural or man-made event) does not trigger a disaster by itself. Disasters occur when people and assets are exposed to hazards and are unable to cope with them.
2. Rapid and unplanned urbanization, as observed in developing countries, increases the level of vulnerability to hazards in cities.
3. The most vulnerable groups in a city are generally poor communities living in informal settlements, often located in high-risk areas prone to flooding, erosion, fire, landslides, etc.
4. Natural or human-made disasters can have wide-ranging implications in multiple areas, such as health, environment, infrastructure, society, economy, etc.
5. Climate change is increasing the frequency, severity and uncertainty of disasters. This poses serious challenges to cities, which, especially in the developing world, are often unprepared for these.

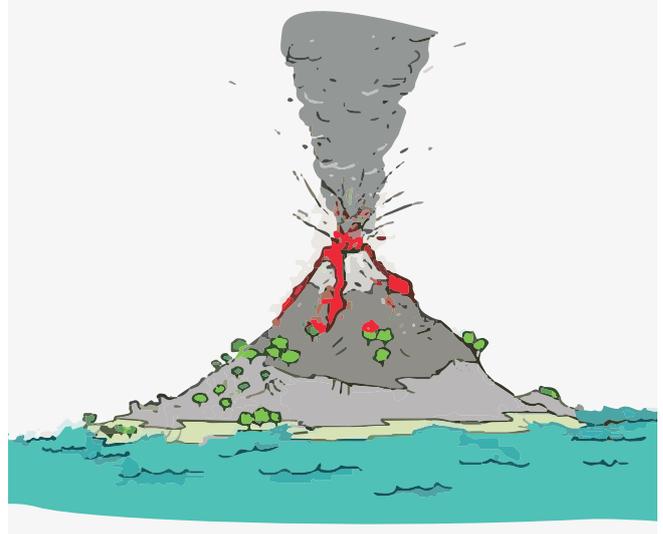


IMAGE 4A

The existence of an extreme threat or hazard is not enough to trigger a disaster. A volcanic eruption in an uninhabited island, for example, will not result in a disaster.

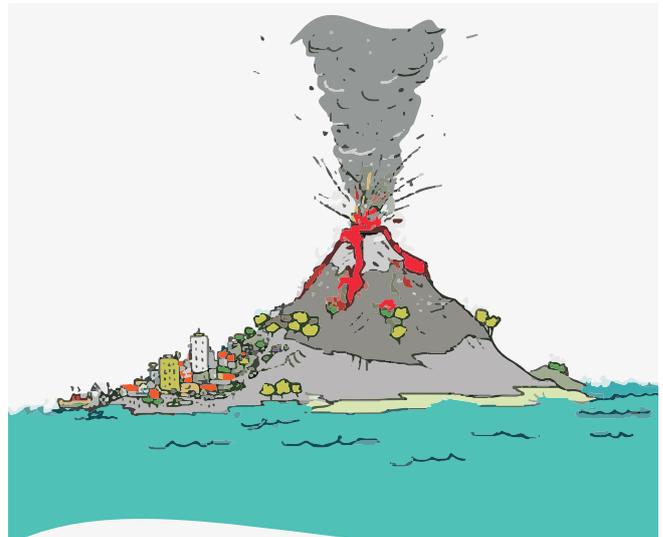


IMAGE 4B

Disasters occur when people and assets are exposed to threats and are unable/were not designed to cope with them. Hence, if the island is inhabited, there is a high risk of disaster.

**Screening of “The Change”** (<https://vimeo.com/75911282>), which is an educational cartoon without dialogues that explains the problems arising from climate change and possible solutions for communities to adapt to it. The aim is to raise awareness and stimulate debate about increasing climate risks on human settlements.

## ACTIVITY 2: PRESENTATION OF THE CITYRAP TOOL

During this session the four phases of the CityRAP Tool are presented from a methodological perspective, including the main principles governing the tool (see the presentation in annex 4).

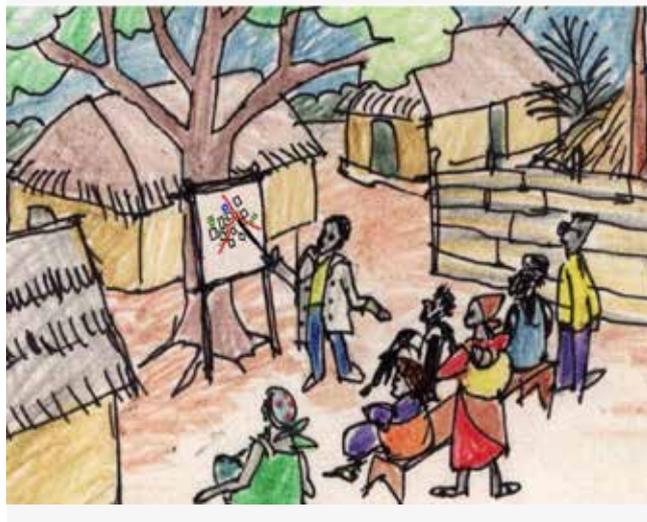


IMAGE 5  
The CityRAP Tool trainers introduce the main concepts to understand the tool. Participants are enabled to use the tool themselves. Credit: Eduardo Feuerhake

## ACTIVITY 3: PARTICIPATORY MAPPING AT CITY LEVEL

The trainers conducting the crash course deliver a presentation on the importance of participatory planning, and the role played by maps in the process.

The Team of Trainers then shows some printed satellite images of the city (e.g. extracted from Google Earth) to the participants. Some guidelines (see below) are provided to them on how to carry out the participatory mapping exercise in groups, following these steps:

- > **Baseline mapping:** Using the satellite image and different colours and symbols, participants classify it as much as possible in terms of: land use and land cover, location of main infrastructure and services, and other important urban features (see guidelines in the next table); a legend is prepared accordingly.
- > **Environmental & risk mapping:** as a second step, participants are supposed to identify environmentally sensitive areas prone to flooding, fire, landslides, erosion, etc.; other relevant socio-economic risks should also be mapped, such as areas with high-level of poverty, crime, etc.; safe areas/havens and evacuation routes need to be clearly marked.

### By the end of the session, participants will have:

- > Exchanged knowledge about their own territory and associated natural and socio-economic risks;
- > Produced a draft participatory risk map at the city level;
- > Selected at least two among the most vulnerable neighbourhoods as the locations for carrying out the community level participatory planning exercise during Phase Two.

## WHY ADOPTING PARTICIPATORY PLANNING?

Experience shows that adopting a participatory planning approach increases the chance of success of a project or initiative. Participatory planning means that all relevant stakeholder groups are involved from the very beginning of the process, with the objective of exchanging ideas with each other and taking consensual decisions. This approach improves social cohesion since it helps to build trust and solve potential conflicts among the different parties involved, ensuring transparency in decision-making. It is also a cost-effective method since it builds on existing local knowledge and ultimately facilitates the smooth implementation of planned activities. Participatory planning generates buy-in and alleviates resistance to the implementation of adopted decisions, as all concerned stakeholder groups are involved in decision-making from the beginning. Finally, this approach creates ownership among stakeholders, identifies clear responsibilities, and promotes the joint commitment of the parties involved.

For a successful participatory planning process to take place, fulfilling the following three conditions is of crucial importance:

- 1. Ensuring inclusive and relevant participation:** all pertinent stakeholder groups should be represented, including traditional and religious authorities; representatives of local, sub-national and central government authorities; local associations and non-

governmental organizations; the private sector; academic institutions, and the media (NB: this list is not exhaustive and should be adapted to each local context). For the city-wide risk mapping it is critical that community representatives from all neighbourhoods are present in order to gain a comprehensive understanding of the state of the city. Ensuring gender and age balance among the participants is essential in all activities.

- 2. Using high quality satellite images:** visually representing the different parts of the city and its communities gives the participants a more tangible and accurate picture of the existing situation in the studied area. Being able to recognize their own residential areas in the satellite images inspires participants to take active part in analysing problems and identifying solutions. The images play a pivotal role at the centre of the participatory planning process.

- 3. Selecting a good facilitator:** it is important to have a competent, neutral facilitator leading the participatory planning process. The facilitator should be respected by all parties and possess the required technical and communication skills. His/her main role is to ensure a productive dialogue among the local stakeholders, to help them understand and locate themselves in the satellite image, to facilitate the identification of problems and viable solutions for the areas being studied, and to support participants in prioritising actions



IMAGE 6. Participants lead the participatory mapping at city level in Guinea Bissau. Credit: DiMSUR/ UN-Habitat

## GUIDELINES FOR CARRYING OUT PARTICIPATORY RISK MAPPING AT CITY LEVEL

Trainers present printed satellite images of the city (e.g. extracted from Google Earth) to participants. The guidelines (below) are provided for carrying out the participatory mapping exercise in groups, following the steps:

> **Baseline mapping:** First, using the satellite images and different colours and symbols, participants classify the map contents as much as possible in terms of: land use and land cover, location of main infrastructure and services,

and other important urban features (see guidelines in the next table). A legend is prepared accordingly.

> **Environmental & risk mapping:** Next, participants identify environmentally sensitive areas prone to flooding, fire, landslides, erosion, etc. Other relevant socioeconomic risks should also be mapped and clearly marked, such as areas with high-levels of poverty or crime, safe havens, and evacuation routes.

PILLAR	GUIDELINES
<b>URBAN GOVERNANCE</b>	Locate the various administrative/government buildings in your city, including at the neighbourhood level, as applicable.
<b>RESILIENT INFRASTRUCTURE AND BASIC SERVICES</b>	<p>Locate the following services/infrastructure in your city:</p> <ul style="list-style-type: none"> <li>&gt; Communication: radio/TV station, cell phone towers and existing telecommunication infrastructure;</li> <li>&gt; Security services: fire services, police stations , etc.;</li> <li>&gt; Water, sanitation and energy: primary drainage network, main water tanks/water storage facilities, waste water treatment infrastructure, etc.;</li> <li>&gt; Transportation: main roads, bus station, airport, train station &amp; rail tracks, etc.;</li> <li>&gt; Main public facilities: university, schools, health centres, markets, etc.</li> </ul>
<b>URBAN PLANNING AND ENVIRONMENT</b>	Distinguish planned from unplanned areas; then identify, as appropriate: industrial areas, agricultural areas, environmentally-sensitive areas, main public spaces (e.g. public squares, parks, sport and recreation facilities, etc.), other relevant land uses.
<b>URBAN DISASTER RISK MANAGEMENT</b>	<p>Map the areas of your city that were affected by natural hazards in the past, such as floods, strong winds, fire, erosion, landslides, etc.</p> <p>Identify also the safe places/havens and the evacuation routes.</p>
<b>URBAN SOCIETY AND ECONOMY</b>	<p>Identify the poorest areas of the city, as well as areas where there were outbreaks of epidemics/diseases (e.g. cholera, malaria, etc.) or where high levels of crime are observed.</p> <p>Identify the location of important economic facilities (banks, business centres, shopping malls, markets, etc.).</p>

While conducting the city risk mapping, at least two among the most vulnerable neighbourhoods are selected according to pre-defined environmental and socio-economic criteria. For that purpose, participants are split into groups and are tasked to reply to the following questions:

**1.** What areas of the city are most affected by natural hazards (for example: floods, fire, strong winds, erosion, landslides, among others)?

**2.** What are the neighbourhoods where higher levels of criminality and social discontent are registered, lacking of basic services or where key infrastructure is missing?

The groups will then explain the rationale they have followed for selecting the priority neighbourhoods. In a subsequent plenary discussion, consensus is reached among all participants on which vulnerable neighbourhoods are being considered for collecting data during Phase Two.

## ACTIVITY 4:

### HOW TO BUILD THE RESILIENCY OF YOUR CITY?

During this session, the five pillars of urban resilience are presented. Examples of actions within each resilience pillar are presented in the table below. This session also

includes exercises, games and interactive activities to facilitate productive discussions on issues related to urban risk and resilience and apply its key concepts.

**By the end of this session, the participants will have acquired knowledge of concepts and best practices for each resilience pillar of the CityRAP Tool:** Urban governance; Resilient infrastructure and basic services; Urban economy and society; Urban disaster risk management; and Urban planning and environment.

RESILIENCE PILLAR	EXAMPLES OF GOOD PRACTICES
<b>URBAN GOVERNANCE</b>	<ul style="list-style-type: none"> <li>&gt; Increase the organisational capacity of the different stakeholders (city council, community, civil society organizations, etc.)</li> <li>&gt; Guarantee participation during key decision-making processes</li> <li>&gt; Set up functioning municipal finance systems</li> <li>&gt; Critically review/enforce municipal by-laws</li> </ul>
<b>URBAN PLANNING AND ENVIRONMENT</b>	<ul style="list-style-type: none"> <li>&gt; Generate data and establish effective information systems for planning</li> <li>&gt; Promote participatory planning, especially for upgrading informal settlements in-situ</li> <li>&gt; Improve/disseminate/enforce building codes</li> <li>&gt; Design and create safe public spaces</li> <li>&gt; Take environmental care/protection under serious consideration while planning for the future city's growth</li> </ul>
<b>RESILIENT INFRASTRUCTURE AND BASIC SERVICES</b>	<ul style="list-style-type: none"> <li>&gt; Improve access to basic/social services, such as water, sanitation, schools and health services, especially targeting underserved areas of the city</li> <li>&gt; Design, build and maintain adequate drainage conditions</li> <li>&gt; Promote the 3 R (reduce, re-use and re-cycle) for solid waste management, as well as access to clean/renewable energy</li> <li>&gt; Ensure more efficient mobility in the city by re-thinking the road network and promoting public transport services</li> </ul>
<b>URBAN ECONOMY AND SOCIETY</b>	<ul style="list-style-type: none"> <li>&gt; Create employment/income generation opportunities in the city, suiting different profiles including non-skilled/trained labour</li> <li>&gt; Promote social inclusion and cohesion through social mix in the city, i.e. different social categories living in the same neighbourhood</li> <li>&gt; Improve urban safety and women empowerment through awareness raising, proper design of public spaces, better public lightning and promotion of community policing</li> <li>&gt; Promote peri-urban agriculture to establish a solid basis for strengthening food security in the city</li> </ul>
<b>URBAN DISASTER RISK MANAGEMENT</b>	<ul style="list-style-type: none"> <li>&gt; Raise awareness about the different types of urban risks at community level, as well as the identification of feasible solutions for disaster prevention and preparedness</li> <li>&gt; Promote the culture of building back better</li> </ul>

## EXERCISES, GAMES AND INTERACTIVE ACTIVITIES

### 1. Aligning the resilience of your city with global agendas

In groups of 4-5 people, using the seven global targets of the Sendai Framework and the SDG targets 11.5, 11.b and 13.1 and their indicators, select the most relevant ones to propose a 10-years vision of your resilient city.

## EXERCISES, GAMES AND INTERACTIVE ACTIVITIES

### 2. The Equation Game

The exercise aims at understanding different concepts related to disaster resilience by examining their mathematic equation.

#### HOW TO REDUCE EXPOSURE TO HAZARDS, SHOCKS AND STRESSES?

$$\frac{\text{EXPOSURE} \times \text{SENSITIVE}}{\text{CAPACITY}} = \text{VULNERABILITY} \times \text{HAZZARD PROBABILITY} = \frac{\text{DISASTER RISK}}{\text{URBAN RESILIENCE}}$$

#### HOW TO INCREASE CAPACITY?

$$\frac{\text{EXPOSURE} \times \text{SENSITIVE}}{\text{CAPACITY}} = \text{VULNERABILITY} \times \text{HAZZARD PROBABILITY} = \frac{\text{DISASTER RISK}}{\text{URBAN RESILIENCE}}$$

### 3. The Resilient City Game

During this exercise participants will put what have been learned into practice. Each group will have to define what are the priority actions to be undertaken to build the resilience of their city depending on its specific risk profile.

## ACTIVITY 5:

### TRAINING OF THE MUNICIPAL FOCAL POINTS FOR PHASE TWO

**By the end of this one-day training session, the Municipal Focal Points selected to lead the implementation of the CityRAP Tool process are prepared to autonomously carry out the tasks of Phase Two.**

This training session equips the Municipal Focal Points to implement Phase Two by simulating the tasks that will be performed:

- > In Activity 1 of Phase Two, the Municipal Focal Points will interview the different municipal departments and complete the self-assessment questionnaire. During the simulation, the trainers stress the importance of explaining to each municipal department the four available options when answering each question and the need for selecting a single answer per question. The trainers support the Municipal Focal Points in organizing their agenda to carry out the interviews the following week.

### 4. Provoking the debate

Look at the following drawing and try to answer the question. Let's have a fruitful discussion on key issues related to urban risk and resilience.

#### WE SEE THIS HAPPENING EVERY DAY, MORE AND MORE. WHY IS THIS HAPPENING?



IMAGE 7.  
Didactic illustrations are used for the discussions. Credit: Eduardo Feuerhake

- > Activity 2 of Phase Two concerns participatory planning at the level of the vulnerable neighbourhoods selected in Phase One. The key principles highlighted during the training on participatory mapping at city level should be repeated. In particular, the trainers reaffirm the importance of gender-balanced participation and of mediating the community's opinions until consensus is reached on the priority issues to be considered. Ideally, if time allows, the trainers should accompany the Municipal Focal Points to one of the selected neighbourhoods and contact the community leaders in preparation for the participatory planning session to be carried out.
- > As concerns Activity 3 of Phase Two, the Municipal Focal Points are trained on how to compile the data resulting from the simulation using the self-assessment questionnaire (Activity 1 of Phase Two) and from a hypothetical participatory planning session at the community level, in preparation for Phase Three.

## DURATION

3-4 weeks

## OBJECTIVE AND BRIEF DESCRIPTION

Collect and organise the necessary data and information on:

- The status of the city's resilience as perceived by the different municipal departments
- The priorities of communities for strengthening the resilience of their neighbourhoods.

The methodology for gathering data includes implementing a self-assessment questionnaire, using satellite images to carry out the participatory planning sessions at the community level, and developing a matrix of results.

## EXPECTED RESULTS

- All municipal departments have completed the self-assessment questionnaire, and the responses have been compiled in an answer sheet;
- Communities from at least two vulnerable neighbourhoods are actively involved in the process through participatory planning;
- All collected information is compiled in a matrix of results and as list of priority issues per neighbourhood.

# PHASE TWO

## DATA COLLECTION AND ORGANISATION

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# ACTIVITY 1: MUNICIPAL SELF-ASSESSMENT

The objective is to collect data from the different municipal departments on the status of the city's resilience, using a self-assessment questionnaire. The questionnaire includes a set of four optional answers for which only one is to be selected per department.

The Municipal Focal Points make appointments with each municipal department and explain the objective of the activity, i.e. to solicit their perceptions on the status of the city's resilience. At least two representatives should be present per department, with enough time available to respond to all questions. Consensus should be reached in selecting only one answer out of the four available options for each question. The Municipal Focal Points fill in the answer sheet for each municipal department, including adding comments in case important issues are to be noted, which will then further be discussed during Phase Three



IMAGE 8. Participatory planning builds trust between local authorities and communities; it ensures ownership. Communities that own their neighborhood development are more likely to ensure that interventions are well maintained. Credit: Eduardo Feuerhake

## EXAMPLE OF HOW TO FILL THE ANSWER SHEET

Name of the interviewed municipal department

Possible answers for each question. Circle one answer that has been agreed upon by the municipal staff

In case of disagreements between the consulted department staff on a specific answer, comments should be detailed here

MUNICIPAL SECTOR:  
OFFICE OF THE MAYOR

### 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?	<b>Yes, the staff have the required skills</b> 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 <b>few</b> skilled staff	
	2	Does your municipal department have staff with understanding or knowledge of issues related to climate change and/or risk management?	<b>Yes, the staff do understand and have knowledge</b> of issues related to climate change and/or risk management	Yes, the department has <b>some staff</b> with that kind of understanding or knowledge	Yes, the department has <b>at least one staff</b> with that kind of understanding or knowledge	No, <b>nobody in our department</b> has the staff has this kind of understanding or knowledge	

IMAGE 9  
How to fill in the answer sheet

## SELF-ASSESSMENT QUESTIONNAIRE

**PILLAR 1: URBAN GOVERNANCE**

THEMES	N°	QUESTIONS	ANSWERS				COMMENTS
			4	3	2	1	
	1	Does your municipal department have enough skilled staff to carry out its daily responsibilities?	<b>Yes, the staff has the required skills</b> to carry out the daily responsibilities	<b>The majority</b> of the staff has the required skills	<b>Less than half</b> of the staff has the required skills	The department has only <b>few</b> skilled staff	
	2	Does your municipal department have staff with understanding or knowledge of issues related to climate change and/or disaster risk management?	<b>Yes, the staff do understand and have knowledge</b> of issues related to climate change and/or risk management	Yes, the department has <b>some staff</b> with that kind of understanding or knowledge	Yes, the department has <b>at least one staff</b> with that kind of understanding or knowledge	No, <b>nobody</b> in our department has this kind of understanding or knowledge	
	3	Does your municipal department have the required equipment to carry out its work?	<b>Yes, the department has the required equipment</b> to carry out its work	The department has <b>most of the required equipment</b>	The department has <b>some</b> of the required equipment	The department has <b>not enough</b> equipment to carry out its work	
<b>ORGANISATIONAL CAPACITY</b>	4	Do you feel that there is support from the municipality's management for staff who want to enhance their skills?	Yes, there is a <b>strong support</b> from management for such a purpose	Yes, there is <b>some support</b> from management	The management <b>does not oppose</b> to it but also <b>does not actively encourage</b> it	So far, there is <b>no policy</b> in place by management for such a purpose	
	5	Is there a maintenance plan for basic services and infrastructure in the city, such as those related to water, sanitation, education, health, waste management, roads, drainage, electricity, etc.?	Yes, there are effective mechanisms in place for ensuring a good maintenance and functioning of most basic services/infrastructure <b>in all parts of the city</b>	There are effective maintenance mechanisms for most basic services and infrastructure in place <b>in the majority of the city</b>	There are mechanisms in place to maintain some basic services and infrastructure but not necessarily <b>covering the whole city</b>	There are <b>almost no mechanisms in place</b> to effectively maintain basic services and infrastructure in the city	
	6	Does your municipality have the capacity to enforce urban legislation (e.g. urban plans, building codes, etc.)?	Yes, there is <b>good capacity</b> in the municipality to enforce urban legislation	The municipality has <b>moderate capacity</b> to enforce urban legislation	There is <b>little enforcement capacity</b>	The enforcement capacity is <b>very weak</b>	

GOVERNANCE STRUCTURE	7	Do you believe that the current municipal structure allows each department to effectively carry out its work?	<b>Yes, the current structure is good</b> and allows each department to effectively carry out its work	The current structure <b>requires some improvements</b> for effective delivery	The current structure <b>is not good enough</b> for that purpose	No, the current structure is weak and <b>needs major improvements</b>
	8	How well is the municipality cooperating and coordinating with externals such as government, private sector, civil society, etc.?	The municipality has established <b>strong</b> cooperation and coordination mechanisms with a number of external partners and institutions	The cooperation and coordination of the municipality with externals is <b>overall good but could be further improved</b>	The municipality's cooperation and coordination with externals is <b>not good enough</b>	The municipality has <b>poor</b> cooperation and coordination mechanisms with externals
	9	Do you think that coordination and cooperation among the different municipal departments is efficient?	Yes, mechanisms are in place to ensure <b>efficient coordination and cooperation</b> among the different municipal departments	The coordination and cooperation among the departments is <b>overall good but could be further improved</b>	Coordination and cooperation mechanisms among the departments is <b>not good enough</b>	The municipality has <b>poor</b> coordination and cooperation mechanisms among its departments
MUNICIPAL FINANCE	10	In your opinion, in case of a cut in central government transfers, could the municipality ensure the delivery of its basic functions/responsibilities solely based on local revenue?	<b>Yes, the municipality would be able to deliver</b> its basic functions/responsibilities	Yes it could, but <b>not for all its basic functions/responsibilities</b>	Not for all its basic functions/responsibilities, and <b>for a very limited time</b>	No, <b>that is not possible</b>
	11	How predictable are the municipal financial resources for the coming year?	<b>Very predictable</b>	<b>Sufficiently predictable</b>	<b>Not sufficiently predictable</b>	<b>Unpredictable</b>
PARTICIPATION & CIVIL SOCIETY (CONT.)	12	Do you believe your department has sufficient financial resources to carry out its tasks?	The department's budget is <b>sufficient to efficiently carry out all tasks</b> and caters for contingency reserves	The department's budget is <b>sufficient to carry out almost all necessary tasks</b>	The department's budget <b>allows the department to carry out only the most basic tasks</b>	The department's budget is very limited and it is often <b>not sufficient to carry out the most basic tasks</b>
	13	To what extent does the municipality undertake participatory planning processes where residents are consulted on their needs and ideas?	Participatory planning is <b>systematically</b> undertaken; the public is frequently consulted on its needs and ideas for planning purposes	The public is <b>often</b> consulted on its needs and ideas for planning purposes	The public is <b>rarely</b> consulted on its needs and ideas for planning purposes	There is <b>no policy in place</b> for participatory planning

<b>PARTICIPATION &amp; CIVIL SOCIETY</b>	<b>14</b>	Is up to date information about planning and budgeting available and accessible to city residents?	Yes, the city residents are <b>regularly informed and can easily access</b> this kind of information	Yes, <b>most</b> of this information is available and accessible	This kind of information is available, but <b>not easily accessible</b> to the public	This kind of information is <b>rarely available/ accessible</b>
	<b>15</b>	Does the municipality ensure gender-balance in decision-making processes?	Yes, there are <b>mechanisms in place</b> which ensure systematic gender-balance in decision-making processes	Gender-balance is ensured <b>most of the times</b> in decision-making processes	Gender-balance is only <b>occasionally</b> taken into consideration in these processes	There are <b>no specific mechanisms in place</b> to ensure gender-balance in decision-making processes

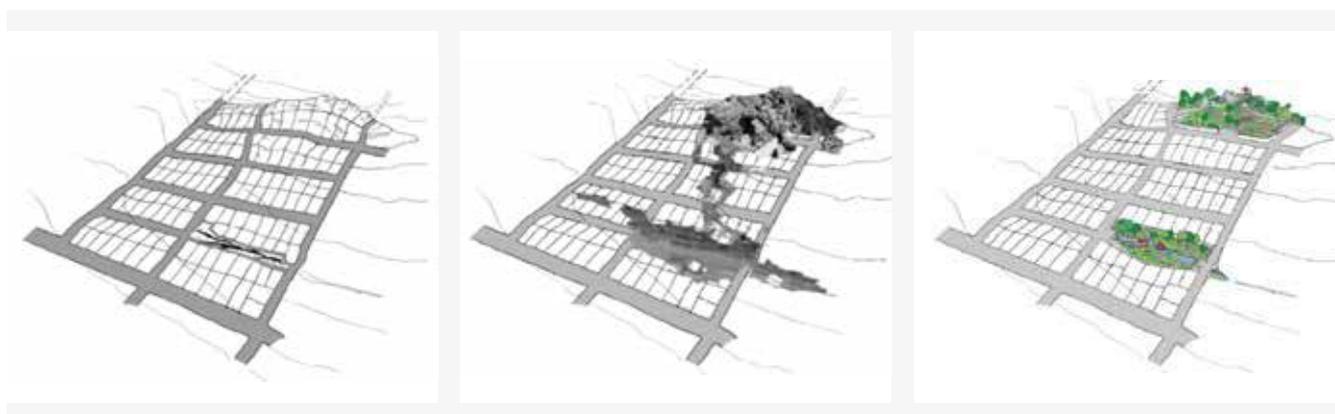


IMAGE 10. There are severe consequences to people when urban planning does not take into account the geographical conditions and topography to allocate plots. Fatalities are prevented by a plot demarcation that respects the geographical conditions. Risk areas transformed to recreational places (i.e. public spaces) add value to plots. Credit: Eduardo Feuerhake

## PILLAR 2: URBAN PLANNING AND ENVIRONMENT

THEMES	N°	QUESTIONS	ANSWERS				COMMENTS
			1	2	3	4	
<b>PLANNING INFORMATION SYSTEMS</b>	<b>16</b>	Does your department efficiently gather information for planning purposes?	Yes, a large amount of disaggregated information is <b>systematically</b> being collected for planning purposes	Yes, data is collected on various issues but not systematically and not always disaggregated (as separate data for women and men, different age groups, etc.)	<b>Some</b> data is collected when specific needs for planning arise	No, <b>very little</b> information for planning purposes is collected	
	<b>17</b>	Does your municipal department make use of maps for planning purposes?	Yes, maps are <b>systematically</b> used for planning purposes	Yes, maps are used for <b>most</b> planning purposes	Maps are <b>occasionally</b> used for planning purposes	No, maps are <b>rarely</b> used for planning purposes	
<b>URBAN PLANNING AND LAND MANAGEMENT</b>	<b>18</b>	Do you think that existing urban plans take into consideration future city growth and identify expansion areas?	Yes, urban growth is <b>fully</b> taken into account in existing urban plans	Urban growth is <b>mostly</b> being taken into account in existing urban plans	Urban growth is <b>not enough</b> taken into account in existing urban plans	No, it is <b>not</b> taken into consideration/ urban plans do not exist	

	<b>19</b>	Do you think that your department takes into account data on natural hazards and the effects of climate change in planning processes?	Yes, data on natural hazards/effects of climate change is fully integrated in planning processes	Yes, such data is <b>frequently used</b> in planning processes	This kind of data is <b>occasionally used</b> in planning processes	No, this kind of data is <b>not available or not used</b> for planning purposes
	<b>20</b>	Are sensitive areas (e.g. flood plains, coastline, erosion-prone areas, etc.) considered as protected (i.e. no construction allowed) in urban plans?	Yes, <b>all</b> sensitive areas are considered as protected	<b>Most</b> sensitive areas are identified as protected	A <b>few</b> sensitive areas are considered as protected	No, sensitive areas are <b>not</b> taken into account/ urban plans do not exist
	<b>21</b>	How effectively are urban plans implemented in your city?	<b>All</b> plans are effectively implemented	<b>Most</b> urban plans are effectively implemented	<b>Only some</b> plans are implemented	Urban plans are <b>poorly</b> implemented/ urban plans are not existing
<b>BUILDING CODES</b>	<b>22</b>	If you consider the quality of existing housing in your city, how vulnerable is it to natural hazards such as floods, cyclones, earthquakes, etc.?	<b>Not vulnerable</b> , as housing is built to withstand natural hazards	<b>Moderately vulnerable</b>	<b>Vulnerable</b>	<b>Very vulnerable</b>
	<b>23</b>	Are building codes designed to address the most probable and most severe risks that the city is exposed to?	Yes, building codes take into account <b>all probable risks</b> that the city is exposed to	Yes, building codes take into account <b>most of the risks</b>	Building codes take into account <b>some risks</b>	Building codes do <b>not sufficiently</b> take into account the risks
	<b>24</b>	Do existing building codes take into account eco-friendly techniques and/ or the use of local/renewable material?	Yes, building codes take the use of eco-friendly techniques and/or local/ renewable materials <b>fully into account</b>	Yes, building codes <b>mostly mention</b> these aspects	Building codes do <b>not sufficiently mention</b> these aspects	Building codes <b>do not take into account</b> these aspects
<b>PUBLIC SPACES</b>	<b>25</b>	Do you think that the city has enough public spaces to ensure adequate quality of life, circulation of people and vehicles, access to services and recreational activities, etc.?	Yes, the city has <b>sufficient</b> public spaces	The city <b>has public spaces</b> but there should be some more to ensure adequate quality of life, etc.	The city has <b>few public spaces</b> and major efforts are needed to improve the situation	The city has <b>almost no public spaces</b>
	<b>26</b>	Do you think existing public spaces in the city are spatially well-distributed so citizens have equal access to them?	Yes, <b>sufficient</b> public spaces are present in all neighbourhoods in a balanced way	Public spaces are <b>available in most of the neighbourhoods</b> , but they are lacking in some informal areas	Some public spaces are <b>available in the city, but only in formal/ urbanised neighbourhoods</b>	The only public spaces <b>available are located in the city centre</b>

	27	Are existing public spaces adequately maintained?	Yes, maintenance is carried out <b>regularly</b> in all public spaces	Maintenance of public spaces is carried out with <b>most of the times</b>	Maintenance of public spaces is <b>occasional</b> and concerns <b>only in some areas</b>	There is <b>almost no maintenance</b> of existing public spaces in the city
	28	In your estimation, what is the proportion of population living in informal settlements in your city?	<b>Less than 25%</b>	<b>Between 25% and 50%</b>	<b>Between 50 and 75%</b>	<b>More than 75%</b>
INFORMAL SETTLEMENTS	29	How efficient are the strategies and/or activities undertaken by the municipality for upgrading informal settlements?	Upgrading strategies/ activities are <b>efficient</b> as they have substantially improved the living conditions in informal settlements, especially in terms of access to basic services/ infrastructure and security of tenure	Strategies and activities are <b>moderately efficient</b>	Strategies and activities are <b>not efficient enough</b> to substantially improve the life of slum dwellers	There are <b>no such strategies/ activities</b> in place
	30	How efficient are the strategies and/or activities undertaken by the municipality for preventing the formation of new informal settlements?	Strategies and activities are <b>rather efficient</b> and have effectively prevented the formation of new informal settlements	Strategies and activities in place are <b>moderately efficient</b> as new informal settlements are still forming, although at a slower pace than before	Strategies and activities are <b>not efficient enough</b> , as informal settlements are continuously forming at a fast pace	There are <b>no such strategies/ activities</b> in place
	31	In your estimation, how vulnerable are informal settlements to natural hazards due to their specific location?	Informal settlements in the city <b>are not</b> exposed to natural hazards	<b>Only few</b> informal settlements are located in areas exposed to natural hazards	<b>Most of the</b> informal settlements are located in areas exposed to natural hazards	<b>All</b> informal settlements are located in areas exposed to natural hazards
	32	Does upgrading of informal settlements result in security of tenure?	Yes, once informal settlements are upgraded, <b>all residents</b> get a land title/ leasehold	Yes, once informal settlements are upgraded, <b>the majority of the residents</b> get a land title/ leasehold	Once informal settlements are upgraded, <b>only few residents</b> get a land title/ leasehold	There is no in-situ upgrading of informal settlements in the city, only urban renewal activities that push away the urban poor
ENVIRONMENTAL MANAGEMENT	33	Is the municipality undertaking any efforts for greening the city?	Yes, the municipality undertakes greening activities <b>throughout the city</b>	Yes, the municipality undertakes <b>some</b> greening activities in specific areas of the city	The municipality undertakes <b>few</b> greening activities	The municipality <b>does not undertake any</b> greening activities
	34	To your knowledge, is the municipality implementing activities and/or projects to preserve natural resources?	Yes, the municipality has a <b>long-term</b> strategy and implements <b>various</b> projects/ activities to preserve natural resources	Yes, the municipality has <b>some</b> activities for the preservation of natural resources	The municipality <b>only occasionally</b> engages in such initiatives	<b>There are no such initiatives</b>

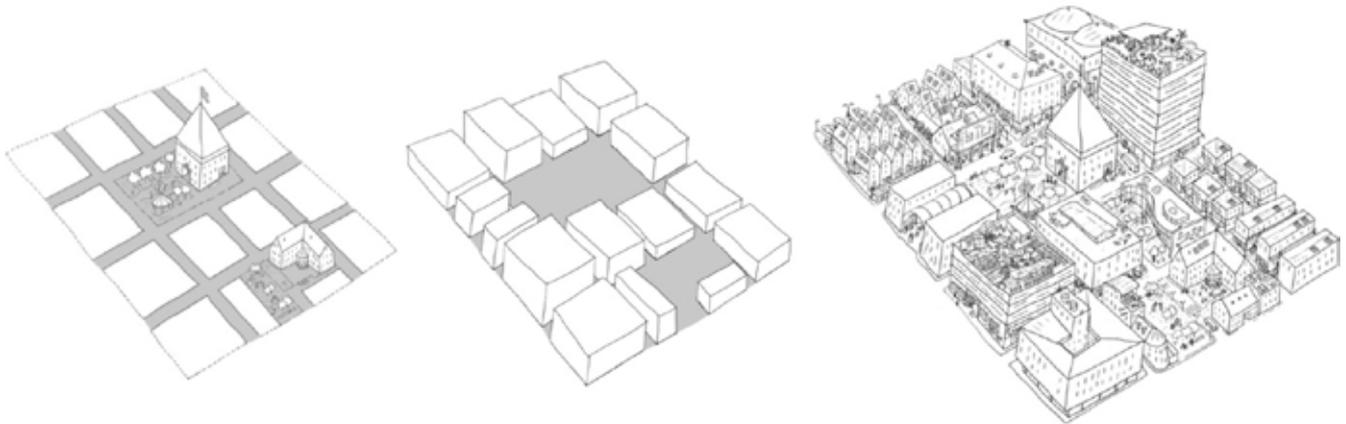


IMAGE 11. A city can tackle inequality through the provision of inclusive, safe and accessible public spaces. Streets and public spaces are important drivers of economic development; they revitalize urban areas and increase land and properties values. Credit: Eduardo Feuerhake



IMAGE 12. Upgrading informal settlements is an important contribution to city resilience.

UN-Habitat defines informal settlements as: i) Residential areas where a group of housing units has been constructed on land to which the occupants have no legal claim, or which they occupy illegally; ii) Unplanned settlements and areas where housing is not in compliance with current planning and building regulations (unauthorized housing).

### PILLAR 3: RESILIENT INFRASTRUCTURE AND BASIC SERVICES

THEMES	N° QUESTIONS	ANSWERS				COMMENTS
		1	2	3	4	
HEALTH AND EDUCATION FACILITIES	35 Do health and education facilities in the city have enough qualified personnel?	Yes, all health and education facilities <b>have enough</b> qualified personnel	The majority of the health and education facilities <b>have enough</b> qualified personnel	Few health and education facilities <b>have enough</b> qualified personnel	Most of the health and education facilities <b>do not have enough</b> qualified personnel	
	36 Are health and education facilities designed according to the principles of adaptive architecture, and as such adequately built and prepared to withstand the impacts of natural hazards (flood, cyclone, earthquake, etc.)?	Yes, all of them are designed according to principles of adaptive architecture	Most of them are designed according to principles of adaptive architecture	Few of them are designed according to principles of adaptive architecture	There is almost <b>no consideration</b> of the principles of adaptive architecture in the design of these facilities	

	37	Are health and education facilities strategically used as safe havens in case of a natural hazard?	<b>Yes</b> , these facilities are used as safe havens in case of a natural hazard, as part of existing disaster risk management strategies	<b>Some</b> of these facilities are used as safe havens, but there is room for improvement	<b>Very few</b> facilities are used as safe havens	There is still <b>no strategy in place</b> for using these facilities as safe havens in case of a natural hazard
	38	Do you think health and education facilities are organised to ensure continuity of their services in case of a disaster?	<b>Yes</b> , there are contingency mechanisms in place which efficiently ensure the continuity of their functions in case of an emergency	There are <b>some</b> mechanisms in place to that effect, but they do not always work effectively in case of a disaster	There are <b>very few</b> facilities which would be able to continue functioning in case of a disaster	There are still <b>no mechanisms in place</b> to that effect in the city
	39	To your knowledge, are there enough water storage facilities which are safe in case of an emergency?	<b>Yes, there are enough water storage facilities</b> to withstand the period of a flood or drought, and they are safely located (e.g. elevated, withstanding strong storms, etc.)	There are <b>some</b> water storage facilities that provide the majority of the population with drinking water and that are safe in case of an emergency	There are <b>few</b> safe water storage facilities in the city	There are <b>almost no</b> safe water storage facilities in case of an emergency
<b>WATER, DRAINAGE AND SANITATION</b>	40	To your knowledge, are existing drainage and sanitation facilities (drainage channels, latrines, toilets, wastewater management facilities, sewerage system, etc.) adequately designed to withstand heavy rains or flooding?	<b>Yes, most of the city</b> is equipped with drainage and sanitation facilities that were designed for such a purpose, and <b>they work well</b> in case of heavy rains or flooding	There are <b>some neighbourhoods</b> of the city that are equipped with such drainage and sanitation facilities, and <b>they work reasonably well</b> in case of heavy rains or flooding	There are <b>few neighbourhoods</b> of the city that are equipped with such drainage and sanitation facilities, but <b>they cannot withstand</b> heavy rains or flooding	There are <b>almost no</b> drainage and sanitation facilities designed for such a purpose in the city
	41	Are there tax collection mechanisms in place in your city to finance basic services delivery (water, sanitation, solid waste management, etc.) and drainage/road maintenance?	<b>Yes, there are</b> effective tax collection mechanisms in place to <b>adequately finance</b> basic services delivery and drainage/road maintenance in <b>most parts of the city</b>	There are tax collection mechanisms in place which enable basic services delivery and drainage/road maintenance <b>in some parts of the city</b>	There are tax collection mechanisms in place but these only enable basic services delivery and drainage/road maintenance <b>in one or two neighbourhoods</b> of the city	There are <b>no effective tax collection mechanisms in place</b> for this purpose in the city
<b>WASTE MANAGEMENT (cont.)</b>	42	Do you think the solid waste disposal site of the city is well located, adequately designed and effectively managed?	<b>Yes</b> , the solid waste disposal site is <b>well located, adequately designed and effectively managed</b> , with minimal pollution impact	<b>Yes</b> , the solid waste disposal site is <b>well located and adequately designed but it could be better managed</b>	<b>Yes</b> , the solid waste disposal site is <b>well located</b> but there are air/water pollution impacts due to <b>poor design and management</b>	<b>No</b> , the solid waste disposal site is <b>neither well located, nor adequately designed</b> (e.g. affected by floods in case of rain, located in the middle of the city, etc.), nor effectively managed

<b>WASTE MANAGEMENT</b>	43	Is recycling part of waste management activities in your city?	Yes, the city has <b>proper waste recycling mechanisms</b> in place <b>benefiting all neighbourhoods</b>	Yes, there are <b>some recycling mechanisms</b> in place <b>benefiting the majority of the neighbourhoods</b>	Waste recycling <b>only benefits few parts of the city</b>	No, <b>waste recycling mechanisms are not yet in place</b> in the city
	44	How often do you experience power cuts?	<b>No more than once a month</b>	<b>Less than 5 times per month</b>	<b>At least twice a week</b>	<b>Almost every day</b>
<b>ENERGY</b>	45	Does the city have contingency mechanisms in place in case of major disruption of energy supply?	<b>Yes, energy can always and promptly be reestablished</b> in case of a disruption	Yes, there are <b>some</b> mechanisms in place and energy supply can <b>generally be re-established within a short period of time</b>	Yes, there are mechanisms in place but in general <b>power cuts can last for several hours</b>	The mechanisms in place are <b>not reliable</b>
	46	In your estimation, what proportion of city residents has access to radio or TV on a daily basis?	<b>More than 75%</b>	<b>Between 50% and 75%</b>	<b>Less than 50%</b>	<b>Less than 25%</b>
<b>TRANSPORT AND COMMUNICATION</b>	47	In your estimation, what proportion of city residents has access to a telephone (either through a land line or mobile phone)?	<b>More than 75%</b>	<b>Between 50% and 75%</b>	<b>Less than 50%</b>	<b>Less than 25%</b>
	48	In your estimation, what proportion of city residents has access to the internet?	<b>More than 75%</b>	<b>Between 50% and 75%</b>	<b>Less than 50%</b>	<b>Less than 25%</b>
	49	How would you qualify traffic flow in critical areas of the city?	<b>Smooth</b> , even during peak hours	<b>Moderately heavy</b> during peak hours	<b>Heavy</b> , especially during peak hours	<b>Very heavy</b> at day time
	50	Are existing roads in the city well-designed and flood proof?	<b>Yes, almost all the roads</b> of the city are well-designed and can withstand heavy rains and floods	<b>Yes, the majority of the roads</b> of the city are well-designed and flood proof	<b>Only some roads</b> of the city can withstand heavy rains and floods	The city has <b>no roads</b> that are designed to withstand heavy rains and floods
	51	Does the city have a well-functioning public transport system?	<b>Yes, there is a well-functioning, frequent and affordable public transport</b> system covering the <b>whole city</b>	Yes, there is a <b>well-functioning public transport</b> system covering <b>most of the city</b>	Yes, but such a system only <b>covers few neighbourhoods</b>	No, the public transport system in place <b>does not work well or is totally insufficient</b>

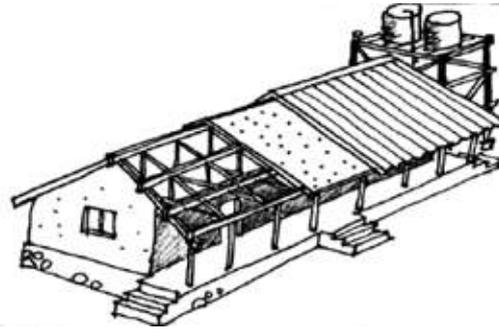


IMAGE 13 A, B. **Infrastructure of education.** Elevated school construction protects from flooding. Reinforced school roofs protect from cyclones.



IMAGE 14. **Rainwater and flooding.** Rainwater harvesting can be done by using jars and pots; they need to be covered afterwards to avoid mosquito larvae. Elevated latrines reduce the risk of water-borne diseases, and epidemics in times of floods.



IMAGE 15. **Sustainable means of transportation.** Bicycles are the main transportation used in the city of Quelimane, Mozambique.

IMAGE 16. **Solid waste and infrastructure.** The quality of roads is the key for solid waste management. Organized service provision like waste collection is crucial for a functional urban system.



IMAGE 17. **Clean drainage system to avoid floods.** Often drains are not maintained and become waste disposals. The system will not be able to evacuate rainwater if waste dumping is blocking natural drain pattern, hence, generating a disaster. Credit of all illustrations: Eduardo Feuerhake

## PILLAR 4: URBAN ECONOMY AND SOCIETY

THEMES	N° QUESTIONS	ANSWERS				COMMENTS
		1	2	3	4	
	52 Is the municipality supporting small and medium enterprises (SMEs) and microcredit mechanisms (i.e. the provision of small loans or microloans)?	Yes, there are <b>several initiatives</b> promoted by the municipality to support SMEs and microcredit mechanisms, targeting also women, the youth and the elderly	Yes, <b>the municipality does support some SMEs</b> and microcredit mechanisms <b>but there is room for improvement</b>	The municipalities <b>has developed a strategy</b> for supporting SMEs and microcredit mechanisms but it is <b>not yet being implemented</b>	There are <b>no such strategies/initiatives</b> in place yet	
URBAN ECONOMY	53 Is there a municipal strategy to create job opportunities and market activities?	Yes, there is <b>a municipal strategy</b> for creating job opportunities and market activities that <b>works well</b> and takes into account the specific needs of youth, elderly and women.	Yes, there is such a strategy in place and <b>some initiatives</b> are being promoted by the municipality but <b>it is not yet working so well</b>	There are <b>few initiatives</b> being promoted by the municipality for such a purpose, but <b>without significant results</b> so far	<b>No, there is no such a municipal strategy in place</b> , nor initiatives of this kind being promoted by the municipality	
	54 How diversified is the economy of your city in terms of actors and sectors?	The city's economy is <b>highly diversified</b> , involving several actors and sectors such as agriculture, industry and services, and citizens have several possible sources of livelihood	The city's economy is <b>diversified</b> , but more could be done to improve the overall situation	There are <b>very few economic sectors</b> in the city, and this generates some problems in terms of livelihood of the citizens	<b>A single sector dominates the economy of the city</b> , which reduces the possible sources of livelihood of the citizens	



IMAGE 18 . **A diversified economy is the basis for a city resilience to shocks and stresses.** Different economic outputs provide cities with the ability for sustainable growth because there is no reliance on one type of income only. Credit: Eduardo Feuerhake



IMAGE 19 . **Security situation marked in a neighborhood of Antananarivo, Madagascar.** Police station, bars, street lightening, drug consuming areas and other concern zones are marked. Community safety is a human right that determines well being.

	55	Which statement best describes the situation of your city in relation to crime and safety?	In general, <b>people feel safe</b> in the city at all times	There are <b>isolated pockets of crime</b> in the city and action is being taken to mitigate such risks	<b>Several neighbourhoods</b> can be characterised as <b>unsafe</b> due to crime	The city is <b>overall unsafe and dangerous</b> and crime is high
	56	Do you think that the municipality is doing enough to keep public spaces safe (including road safety)?	Yes, safety issues are <b>fully taken into account</b> by the municipality and <b>public spaces are safe</b> , with due consideration of women, children and minorities	Yes, safety is <b>taken into account</b> by the municipality, and the <b>majority</b> of the city's public spaces can be considered as <b>safe</b>	The municipality <b>is not yet taking sufficiently</b> into account; as a result, some crime incidents are reported in public spaces and road accidents occur regularly	The <b>majority</b> of the city's public spaces <b>are unsafe</b> , and there are <b>many roads accidents in the city</b>
URBAN SAFETY	57	How would you describe the police presence (including community policing) in your city?	Generally, police force is <b>present at all times in all parts</b> of the city	Police force is <b>present</b> in most parts of the city <b>but not at all times</b>	Overall, the police presence is <b>not sufficient</b> to ensure adequate security in the city	The police presence in the city is <b>very weak</b>
	58	What is being done in your city to prevent sexual violence?	There is a <b>municipal strategy in place</b> to prevent sexual violence in the city, which is <b>effectively being implemented</b> through various measures (e.g. awareness raising campaigns, hotlines, specific trainings, sensitive urban planning to safety issues, etc.)	<b>There are some measures in place</b> for such a purpose, <b>but improvements</b> are still required for ensuring their effective implementation	<b>There are few measures in place</b> for such a purpose, and most of the times they <b>are not carried out effectively</b>	<b>Overall, very little is being done</b> for such a purpose, and cases of sexual violence occur often
	59	How would you characterise access to food in your city?	Food is <b>available and affordable for all</b> , and there are effective food storage/supply mechanisms in place in case of a disaster/crisis	Overall, food is <b>available and is affordable for the majority</b> of the citizens, but there are <b>no mechanisms in place in case of a disaster/crisis</b>	Overall, food is <b>available</b> , but it is <b>not affordable for the majority</b> of the citizens	<b>There are food shortages</b> in the city, with <b>frequent peaks in prices</b> for some items
FOOD SECURITY	60	What is being done in the city to improve access to food for all?	<b>A lot is being done</b> to secure access to food in the city, e.g., by facilitating transport of food from the surroundings to the city and promoting peri-urban agriculture (i.e. in places on the fringes of urban areas)	<b>Some initiatives</b> are being carried out but <b>more needs to be done</b> to improve access to food for all citizens	<b>Very few initiatives</b> are being carried out for improving access to food in the city	<b>Nothing significant is currently being done</b> for improving access to food in the city

<b>PUBLIC HEALTH</b>	61	Does your city have a public health strategy?	Yes, the city has <b>comprehensive public health strategy</b> that includes health education, disease prevention and access to treatment, including for the most vulnerable	Yes, the city has a <b>public health strategy in place</b> , but it <b>is not yet being fully implemented</b>	No, the city has <b>no such a strategy in place</b> , but <b>some efforts are being made</b> to improve public health	No, the city has <b>no such a strategy in place</b> , and <b>very few activities</b> are being carried out to improve public health
	62	Is the municipality carrying out awareness raising activities on epidemics that can spread quickly in an urban environment (e.g. HIV/AIDS, Ebola, Yellow Fever, etc.)?	Yes, the municipality carries out <b>frequent</b> awareness raising activities to prevent disease outbreaks <b>in all neighbourhoods</b>	Yes, the municipality carries out <b>some</b> awareness raising activities on epidemics <b>in most parts of the city</b>	The municipality carries out this kind of activities <b>occasionally</b> , especially once epidemics break out	The municipality generally <b>does not carry out</b> this kind of activities

## PILLAR 5: URBAN DISASTER RISK MANAGEMENT

THEMES	N°	QUESTIONS	ANSWERS				COMMENTS
			1	2	3	4	
<b>RISK AWARENESS AND KNOWLEDGE</b>	63	In your opinion, how aware are residents of your city of the natural hazards and risks they are exposed to?	<b>All</b> residents are <b>well aware</b> of the risks they are exposed to	<b>The majority</b> of residents are <b>aware</b> of the risks they are exposed to, but the level of awareness could be improved	<b>The majority</b> of residents are <b>not aware</b> of the risks they are exposed to	<b>Only few</b> residents are <b>aware</b> of the risks they are exposed to	
	64	Are there any campaigns and activities in your city that inform and educate about disasters and the impact of climate change?	<b>Yes</b> , the municipality has a <b>strategy in place</b> and carries out <b>regular awareness raising activities</b> that ensures residents are informed and educated about disasters and climate change impact	<b>Yes</b> , the municipality <b>has a strategy</b> and carries out <b>some activities</b> in the city for increasing disaster/climate change impact awareness, but <b>not regularly</b>	The municipality carries out <b>only occasionally</b> activities for increasing disaster/ climate change impact awareness	Generally, the municipality <b>does not carry out</b> activities for increasing disaster/ climate change impact awareness	
	65	Does your municipality make use of vulnerability and risk assessments for city management and planning purposes?	Yes, the municipality <b>regularly</b> undertakes vulnerability and risk assessments, which are <b>systematically used</b> for city management and planning	The municipality undertakes <b>some</b> vulnerability and risk assessments that are used for city management and planning, but <b>improvements are required</b>	In general, the municipality has <b>little access</b> to vulnerability and risk assessments, and only <b>occasionally uses such information</b> for city management and planning purposes	The municipality has <b>no access</b> to vulnerability and risk assessments concerning the city	

<b>RISK AWARENESS AND KNOWLEDGE</b>	66	Is municipal staff trained in disaster risk management?	Yes, <b>all</b> municipal staff is well trained and prepared to manage disaster risks	<b>Most</b> municipal staff has received training for disaster risk management	<b>Only some</b> municipal staff has received training for disaster risk management	<b>Very few/no</b> municipal staff has received training for disaster risk management
	67	How well do early warning systems work in the city?	Early warning systems function <b>very well</b> and effectively reduce disaster risk	Early warning systems function <b>well but could be improved</b>	Early warning systems are <b>not working well</b>	There are <b>no early warning systems in place</b>
	68	How efficient are the coordination mechanisms of your municipality with other government institutions in preparing for and responding to disasters?	Coordination mechanisms are <b>very efficient</b> and increase disaster preparedness and response capacities	Coordination mechanisms are <b>operational but could be improved</b>	Coordination mechanisms in place <b>rarely lead to effective results</b> in terms of disaster preparedness/ response	There are <b>no coordination mechanisms in place</b> for such purposes
<b>PREPAREDNESS AND RESPONSE</b>	69	Does your municipality have a contingency plan that defines the role of each department and is efficiently implemented in times of disaster?	Yes, the municipality has <b>good contingency planning mechanisms</b> in place, which clearly define the role of each department and are efficiently implemented in times of disaster	Yes, the municipality has <b>a contingency plan in place</b> , but experience shows that its <b>implementation</b> in times of disaster <b>could be improved</b>	The municipality has <b>some kind</b> of contingency planning mechanisms in place, but <b>implementation has not been effective</b> so far	The municipality has <b>no contingency planning mechanisms in place</b>
	70	How capable is your city to re-establish basic service delivery in the aftermath of a disaster?	The municipality is well organised and is capable to ensure a <b>prompt re-establishment</b> of basic services delivery following a disaster <b>in all neighbourhoods</b>	Re-establishment of basic services delivery can be ensured <b>in the majority of neighbourhoods</b> and <b>within a reasonable time</b> after a disaster	The municipality is capable of re-establishing critical basic services delivery <b>only in few neighbourhoods</b> within a reasonable time	In general, the re-establishment of basic services delivery in the city can take <b>long periods of time</b> after a disaster
<b>RECOVERY AND RECONSTRUCTION</b>	71	To what extent is the municipal staff familiar with the building back better approach (i.e. to rebuild damaged infrastructure or construction in an improved way after a disaster, so that it can better resist/ withstand the next event)?	<b>All relevant municipal staff</b> has been <b>adequately trained and is capable</b> of applying the building back better approach when needed	Some of the relevant municipal staff has <b>knowledge and skills</b> regarding the building back better approach	Only <b>few</b> of the relevant municipal staff has <b>some knowledge</b> about the building back better approach, <b>but no practical skills</b> for applying it	In general, <b>none of the municipal staff is familiar</b> with the building back better approach

<p><b>PREVENTION</b></p>	<p><b>72</b> Does your municipality enforce any regulation (e.g. zoning law) that prevents the construction of housing and infrastructure in areas exposed to hazards?</p>	<p>Yes, the municipality is <b>capable to enforce regulations</b> that prevent constructions in all areas demarcated as vulnerable</p>	<p>The municipality is only capable of <b>partially</b> enforcing regulations that prevent constructions in vulnerable areas</p>	<p>The municipality has <b>very little capacity</b> to enforce regulations that prevent constructions in vulnerable areas</p>	<p>The municipality has <b>no capacity</b> to prevent constructions in vulnerable areas</p>
	<p><b>73</b> Does your city have protective infrastructure (e.g. dams, seawalls, avalanche barriers, etc.) in place that can prevent exposure to disasters?</p>	<p>Yes, the city has <b>enough and well-maintained</b> protective infrastructure in place that prevents the exposure to disasters</p>	<p>Yes, the city has <b>some</b> protective infrastructure in place but there could be more/ better maintenance of the same</p>	<p>The city has <b>little</b> protective infrastructure and/or it is poorly maintained</p>	<p>The city <b>does not have</b> protective infrastructure in place to prevent the exposure to disasters</p>
<p><b>ADAPTATION</b></p>	<p><b>74</b> Does your municipality promote built or non-built adaptation solutions (e.g. adaptive architecture, risk sensitive planning, etc.) that improve the capacity to cope with the effects of climate change?</p>	<p>Yes, the municipality <b>mainstreams</b> various adaptation solutions into all sectors of urban planning and management</p>	<p>Yes, the municipality promotes <b>some</b> climate change adaptation solutions in relevant sectors</p>	<p>The municipality has piloted <b>very few</b> climate change adaptation solutions</p>	<p>The municipality has <b>not yet</b> included climate change adaptation into its policies/ plans</p>
	<p><b>75</b> To your knowledge, is the municipality doing enough to reduce carbon emissions?</p>	<p>Yes, reduction of carbon emission is a <b>priority</b> and <b>various measures</b> are being implemented (e.g. LED lighting, carbon tax, vehicle inspections, industrial regulations, etc.)</p>	<p>The city implements <b>some</b> measures to reduce carbon emission, with various degrees of success</p>	<p>The city implements <b>few</b> measures to reduce carbon emission, and they are generally not very successful</p>	<p>The city has <b>no strategies in place</b> to reduce carbon emissions</p>
<p><b>MITIGATION</b></p>					

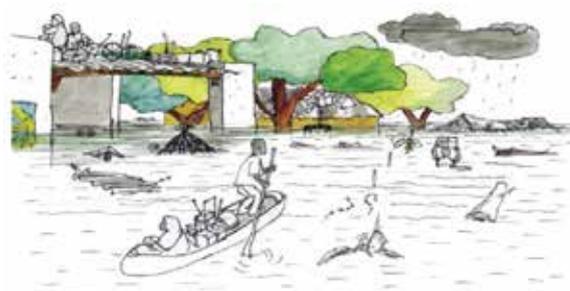


IMAGE 20 A, B. Flood marks help to keep the memory of the floods alive. Credit: Eduardo Feuerhake

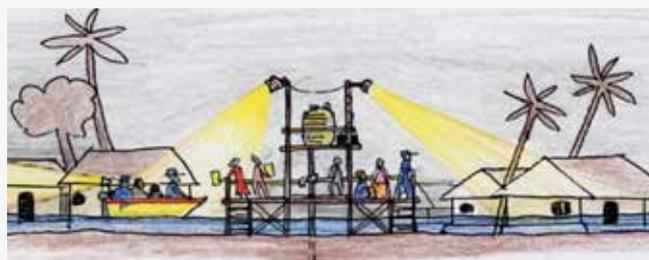


IMAGE 21 A, B. (Left) Early Warning Systems enable people, communities and organizations to act properly to reduce the impact of disasters. (Right) Street lighting improves security. Light poles must be elevated to stand floods. Credit: Eduardo Feuerhake

## ACTIVITY 2: PARTICIPATORY PLANNING AT NEIGHBOURHOOD LEVEL

Through this activity, participatory planning is implemented in the vulnerable neighbourhoods selected during Phase One (Activity 3) with the goals of: (i) collecting and mapping information on the potential risks affecting these neighbourhoods, based on the knowledge and experience of the communities, and listing them in order of priority; and (ii) discussing with the communities viable solutions for reducing the identified risks and building resilience.

This fundamental activity ensures that the most vulnerable communities are heard and participate actively in the resilience planning process of the city. This contributes to empowering these communities and ensuring that their needs and ideas are duly taken into consideration. It consists of three steps:

### Step 1. Preparation of the community consultation

Before consulting with the communities, the Municipal Focal Points should carry out the following tasks:

1. Print a large copy (ideally in A0 or A1 format) of a high-resolution satellite image (e.g. extracted from Google Earth) of the neighbourhood to serve as main geographical support during the participatory planning session. This satellite image will greatly help the consulted communities to recognise their territory (NB: it should be possible to easily distinguish single houses in it) and to purposefully contribute to the exercise.

#### FACILITATORS GUIDE: PARTICIPATORY PLANNING AT THE NEIGHBOURHOOD LEVEL

1. Using the satellite image of the neighbourhood, kindly ask the participants to identify the location where the consultative meeting is being held. Provide them with some key references, such as the main roads/avenues, religious buildings (e.g. church or market), markets, most important administrative buildings, schools or health facilities, public squares, etc. Once the participants will be able to locate themselves in the image and recognise their neighbourhood, they will be able to meaningfully contribute to the participatory planning exercise.
2. Complete the satellite image recognition exercise by identifying with the participants the main infrastructure/services of the neighbourhood, such as: (i) transport facilities (train station, bus terminal, rail tracks, main roads, etc.); (ii) communication services (radio station, cell phone towers, etc.); (iii) basic services (main water and sanitation facilities, like primary drainage channels, water reservoirs/stand pipes, wastewater treatment facilities, etc.; electrical power lines/facilities; etc.); (iv) other services/facilities (i.e. police station, fire brigade, education/health facilities, markets, etc.); as well as the main natural/

environmental features (e.g. river streams, wetlands, hills, green/forest areas, etc.).

3. Identify with the community members the main hazards and risks in the neighbourhood and, as much as possible, locate them in the satellite image and rank them according to their degree of importance. These could be: floods, strong winds, erosion, land slide, fire, criminality, unemployment, inadequacy of housing conditions, lack of access to basic services, among others.
4. Engage in an open discussion with the community to identify feasible risk mitigation/reduction measures. Try to use as much as possible the satellite image during the discussion. The following can serve as guiding questions:
  - What are the main problems arising from the identified hazards/risks?
  - How does the community usually cope with these hazards/risks?
  - What more could be done? What other potential and feasible solutions/measures would you suggest?
  - What would be your contribution to implement these solutions/measures?

2. Familiarise themselves with the self-assessment questionnaire (p.23) and adapt the relevant questions to the specific community consultation, as needed.
3. Meet with the community leaders of the targeted neighbourhood to adequately prepare for the exercise. In particular, all relevant local stakeholders (e.g. traditional and religious leaders, representatives from education, health, business sectors, etc.) who are supposed to participate in the consultation need to be identified, ensuring a proper gender-balance. For an effective discussion to take place, the total number of participants should not exceed 40 people, who will represent all groups and different interests within the community.

## Step 2. Implementation of the community consultation

The Municipal Focal Points are the main facilitators of the participatory planning session. Firstly, they present themselves and get acquainted with the identity and main representational function of all the meeting’s participants. Then they start the consultation by explaining the purpose and overall approach of the consultation, making sure that all participants, especially women and the most vulnerable people are given an opportunity to talk and express their needs and opinions.

The satellite image of the neighbourhood is presented and the Municipal Focal Points follow the methodology presented in the guiding questionnaire. In particular, the participants are encouraged to draw directly on the satellite image the information collected or discussed about the location of the main services and infrastructure, the different types of risks and hazards, and the potential solutions/ measures to be applied. For this purpose, different symbols and/or colours can be used, which are to be explained in a legend.

## Step 3. Prioritisation of risk reduction and resilience building actions at neighbourhood level

Based on the ranking of the identified risks as per the guiding questionnaire, and on the answers provided by the community, a list of potential and feasible solutions/ measures to reduce risk and strengthen the resiliency of the neighbourhood is prepared.

The Municipal Focal Points should mediate the discussions during the prioritisation exercise, making sure that community’s representatives of all the different groups and stakeholders have a say. Importantly, they need to insist on what is more feasible, based on their own knowledge and according to available financial and human resources in the neighbourhood, avoiding relying totally on the municipal authorities. In particular, attention should be paid to aspects related with sustainability, equality, and alignment to existing plans for that area of the city. The prioritised solutions/ measures (or risk reduction and resilience building actions) need to be mapped in the satellite image, as much as possible.

**It is essential that the list of priority actions and the maps elaborated in each consulted neighbourhood are effectively used during Phase Three** of the CityRAP Tool roll-out process, as they reflect the needs and opinions of the most vulnerable communities of the city. These should be taken into account while elaborating the City RFA during Phase Four.



IMAGE 22. Example of a neighborhood risk map.



IMAGE 23. Participatory planning exercise in Burkina Faso. Credit: Felix Vollmann/ UN-Habitat.

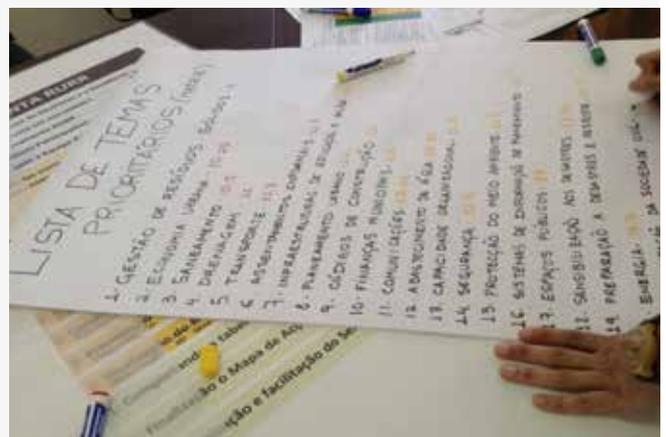


IMAGE 24. Community priority actions table made by the community in Mozambique. Credit: UN-Habitat.

## ACTIVITY 3: DATA COMPILATION AND ORGANISATION

The objective of this activity is to compile and organise all data and information collected during Activities 1 and 2 of Phase Two with the intention of presenting and analysing them during the focus group discussions in Phase Three.

The Results Matrix is filled in using the answer sheets from the self-assessment questionnaire, while the priority issues identified in the neighbourhoods where the participatory exercises were carried out are summarised and harmonised.

For this activity the following steps are undertaken:

### Step 1. Filling the Results Matrix

The Results Matrix is populated for each resilience pillar using the answer sheets from the self-assessment questionnaire

collected during Activity 1 for each municipal department. The matrix follows the same structure as the answer sheet. This is the procedure to be followed:

- > Using the Results Matrix template, the names of the municipal departments are written down in the area highlighted in blue (Image 25).
- > Using the answer sheets from each municipal department, all 75 rows of the Results Matrix are filled in with the corresponding scores (1, 2, 3 or 4) in the area highlighted in gray in Image 25. If the colour of the answer is green, the scoring is 4; if it is yellow, the scoring is 3; if it is orange, the scoring is 2; and if it is red, the scoring is 1.

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	

The corresponding score of the answers circled for the municipal department are transferred in Results Matrix .as in Image 25 below.

IMAGE 24. The self-assessment questionnaire filled during Activity 1 is used to complete the results matrix as in the exemple at Image 25.

PILLAR 1: URBAN GOVERNANCE											
THEME	N° QUESTIONS	ANSWERS				MUNICIPAL DEPARTMENTS				MUNICIPALITY AS A WHOLE	
		4	3	2	1	OFFICE OF THE MAYOR	FINANCE	URBAN PLANNING	ENERGY AND WATER		ALL OTHER DEPARTMENTS
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					
	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	1					

IMAGE 25. Results Matrix template.

- To be filled in with the names of all municipal departments
- To be filled in with the answers from the self assessment questionnaire

> Once all the rows of the matrix have been filled in, a total score for the “municipality as a whole” (i.e. all municipal departments together) is calculated for each question by summing up the different municipal departments’ scores reflected in the corresponding row. For example,

in Image 26, the total score for question number 1 is: 2 + 4 + 2 + 3 + 2 = 15; while the total score for question number 2 is: 1 + 2 + 1 + 2 + 2 + 2 = 10; and so on for all questions/rows.

PILLAR 1: URBAN GOVERNANCE											
THEME	N° QUESTIONS	ANSWERS				MUNICIPAL DEPARTMENTS					MUNICIPAL AS A WHOLE
		4	3	2	1	OFFICE OF THE MAYOR	FINANCE	URBAN PLANNING	ENERGY AND WATER	(ALL DEPARTMENTS)	
	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	4	2	3	2	15
ORGANISATIONAL CAPACITY	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	1	2	1	2	2	10
Average for Organizational Capacity										12.5	

IMAGE 26. Calculating the municipal average for each resilience theme.

> The minimum/maximum possible scores for the “Municipality as a whole” should also be indicated in the top of the column (see Image 26), as follows: the minimum score is equal to the number of municipal departments (for example: 6 departments, MIN. SCORE = 6); the maximum score is equal the number of municipal departments multiplied by 4 (for example: 6 departments, MAX. SCORE = 6 x 4 = 24).

> Calculate the average score for each of the themes of the questionnaire, to be inserted in the blue boxes of the last column entitled “Municipality as a whole” (see the blue highlights in Image 26). The average score for the theme is calculated by summing up the total scores in the last column for each question and dividing the sum by the number of questions for that particular theme. For example, in Image 26 the theme “Organizational Capacity” is composed of two questions totalising 15 (for question 1) and 10 (for question 2) in the last column. Therefore, the municipal average for this theme is the sum of these total scores (15 + 10 = 25) divided by 2 (25/2) = 12.5

> Once all the averages have been calculated, the Municipal Focal Points can colour in red the five or six lowest averages, in yellow and orange the intermediate ones, and in green the highest ones, for example. Colouring the matrix will facilitate the focus group discussions in Phase Three.

### Step 2. Summarising the comments

The Municipal Focal Points should elaborate a summary of all comments from the answer sheets per resilience pillar. These should then be used and further debated during the focus group discussions in Phase Three.

### Step 3. Harmonising the priority issues identified at the community level

The priority issues identified in the vulnerable neighbourhoods where the participatory planning sessions were carried out need to be harmonised into a single list, so that they can be taken in account during the discussions/debates in Phase Three.

## Step 4. Collecting additional information

Information from existing plans, strategies, policies or other key documents at the city level that is relevant to the decision-making/prioritisation process during Phase Three is collected.

## Step 5. Inviting the participants for the focus group discussions

The logistics for the focus group discussions to be held during the three first days of Phase 3 should be prepared one week in advance. In total, five focus group discussions will be held, one per resilience pillar. Each discussion should bring together a maximum of 15 participants who are knowledgeable of the topic/resilience pillar being discussed (see example in Image 27 a table regarding the pillar “Urban Governance”). The Municipal Focal Points will be responsible for identifying a (gender sensitive) list of participants for each session and sending the corresponding invitations. For such a purpose, the stakeholder analysis carried out during the preparatory phase should be used. Importantly, time slots for each session and the location of the discussions should be defined in advance.

### FOCUS GROUP I **URBAN GOVERNANCE**

TYPE	PARTICIPANTS (TOTAL MAXIMUM:15)
<b>MUNICIPAL STAFF</b>	1 representative from each of these offices (or similar): <ul style="list-style-type: none"> <li>&gt; Office of the Mayor</li> <li>&gt; Human resources office/capacity building</li> <li>&gt; Finance participation</li> <li>&gt; Urban Planning</li> <li>&gt; Urbanisation, Basic Services and Infrastructures or similar</li> </ul>
<b>COMMUNITY MEMBERS</b>	<b>2-4 community representatives</b> from vulnerable neighbourhoods
<b>OTHER LOCAL</b>	Representative from organisations linked to public governance, participation and inclusion, transparency or similar: <ul style="list-style-type: none"> <li>&gt; 1 representative from a NGO</li> <li>&gt; 1 representative from a CSO</li> <li>&gt; 1 or 2 representatives from the private sector</li> </ul>

IMAGE 27. Example on how to select participants for focus group discussion for the “Urban Governance” pillar.



IMAGE 28. Participatory planning in Vilankulo, Mozambique. Credit: UN-Habitat.

## DURATION

## OBJECTIVE AND BRIEF DESCRIPTION

## EXPECTED RESULTS

1 week

- Analyse and discuss the data collected during Phase Two through focus group discussions.
- Select the priority issues; that constitute entry-points to progressively building the city's resilience, by reaching consensus among all local stakeholders during the prioritization workshop;
- Develop a common 10-year vision of the resilient city.

- Five focus group discussions are held, one per resilience pillar. The results are summarized in presentations to be delivered on the morning of the prioritization workshop;
- Maximum six priority issues for building urban resilience are selected during the prioritization workshop;
- A 10-year vision for resilience is built with the city leaders;
- Municipal Focal Points are trained to carry out Phase Four, during which developing the City Resilience Framework for Action (RFA) will be developed based on the selected priority issues.

### SUGGESTED AGENDA FOR PHASE THREE

The agenda below indicates how all activities of Phase Three could be organised in a week.

HOURL	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
9:00-13:00	Debriefing and Preparation with Focal Points	<b>FOCUS GROUP 2</b> Resilient Infrastructure and Basic Services	<b>FOCUS GROUP 4</b> Urban Disaster Risk Management	<b>PRIORITISATION WORKSHOP</b>	<b>Training of Focal Points for action planning</b>  A 2-hour exercise to define the 10-year city vision based on existing global agendas
13:00-14:00	LUNCH	LUNCH	LUNCH		LUNCH
14:00-17:00	<b>FOCUS GROUP 1</b> Urban Governance	<b>FOCUS GROUP 3</b> Urban Economy and Society	<b>FOCUS GROUP 5</b> Urban Planning and Environment		<b>Municipal focal points training for Activity 1 (baseline assessment) of Phase 4</b>

# PHASE THREE

## DATA ANALYSIS AND PRIORITISATION

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## ACTIVITY 1: PREPARING THE FOCUS GROUP DISCUSSIONS

Before the focus group discussions, the Municipal Focal Points meet with the external Team of Trainers to review the information collected during Phase Two and ensure that it is organised in a proper way.

The preparation for the focus group discussions follows these steps:

### Step 1. Analysis of the Matrix of Results

The Matrix of Results is reviewed for each resilience pillar to ensure that the information collected through the municipal self-assessment is adequately reflected, calculations are correct and the colour coding is consistent and clear. The comments compiled in Step 2, Activity 3, Phase Two, are also reviewed; the most important ones to be reported during the focus group discussions are highlighted. If time permits, the Municipal Focal Points have a preliminary discussion on the matrix's main findings with the Team of Trainers.

### Step 2. Updating the city risk map

The maps at neighbourhood level prepared with the consulted communities during Phase 2 are analysed and compared with the map resulting from the participatory risk mapping at city level (Activity 3, Phase One). Therefore,

based on the single list of priority issues at community level compiled in Step 3, Activity 3, Phase Two, the city risk map is updated in a newly printed satellite image, including a legend (i.e. priority issues at community level), so that it can be used effectively during both the focus group discussions and the prioritisation workshop.

### Step 3. Preparation of additional documentation

Additionally, the Team of Trainers has to review the following information in preparation to the focus group discussions:

- > The preliminary questionnaire completed during the Preparatory Phase, from which relevant information for each resilience pillar is extracted;
- > Key information for decision-making/prioritisation purposes that was collected by the Municipal Focal Points in Step 4, Activity 3, Phase 2, from existing plans, strategies, policies and other relevant documents at the city level.

### Step 4. Double-check on logistics

The Team of Trainers reviews all logistical arrangements made by the Municipal Focal Points (see Step 5, Activity 3, Phase Two) for holding the focus group discussions.



IMAGE 29. Focus group discussion in Vilankulo, Mozambique. Credit: UN-Habitat.

## ACTIVITY 2: FOCUS GROUP DISCUSSIONS

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A total of five (5) focus group discussions are carried out, one for each resilience pillar, namely: (i) urban governance; (ii) urban planning and environment; (iii) resilient infrastructure and basic services; (iv) urban economy and society; and (v) urban disaster risk management. Each focus group discussion should last between 2 to 3 hours and be attended by no more than 15 participants. The latter should be as much as possible gender-balanced and composed by a mix of municipal technical staff, community representatives, NGO representatives, practitioners, academicians, private sector representatives, among other local stakeholders, who have a say/relevant experience regarding the resilience pillar topic to which they were invited as discussants.

The focus group discussions represent a key moment during the CityRAP Tool roll-out process for knowledgeable stakeholders to exchange views and analyse the data collected during previous phases. Importantly, based on these discussions, each group will propose key issues for each resilience pillar to be presented and reviewed during the prioritisation workshop.

The following steps are proposed for guiding the focus group discussions:

### Step 1. Introduction

- > All participants introduce themselves;
- > A focus group leader is elected. He/she will be responsible for presenting the outcomes of the discussion meeting during the prioritisation workshop. Another participant is selected as rapporteur. The latter has the important task to take extensive notes of the meeting;
- > The facilitator (ideally a Municipal Focal Point, supported as needed by a member of the Team of Trainers) needs to ensure proper interaction and participation throughout the meeting. He/she makes a short introduction by explaining quickly the CityRAP Tool roll-out process and the specific role played by the focus group discussion within the overall methodology;
- > The facilitator presents the methodology of the meeting (see following steps) and the material to be used for this purpose, which is relevant to the resilience pillar under discussion, namely:
  - > The Matrix of Results and the summarised list of comments;
  - > The updated city risk map and the list of priority issues from the consulted communities;
  - > Additional information extracted from the preliminary questionnaire and from any other key documentation (existing plans, strategies, policies, etc.) that was reviewed by the Team of Trainers.
- > Finally, the facilitator explains what is expected from the focus group discussion: a list of maximum five (5) key issues belonging to the pillar that need to be addressed to build the city's resiliency, which will be presented and debated during the prioritisation workshop.

### Step 2. Analysis of the Matrix of Results

- > First of all, the facilitator provides an overview of the Matrix of Results deriving from the municipal self-assessment for the respective pillar.
- > The scores and patterns of responses per municipal department are broadly analysed, theme by theme; the colour coding helps structuring the discussion starting from the questions within the themes showing the lowest score (red), for which more attention is needed to build the city's resiliency, to those showing the highest scores (green).
- > The following questions could guide the discussion:
  - > Do you agree that the questions with the lowest scores (coloured in red) correspond to the most pressing issues to be addressed?
  - > Is there one municipal department that tends to answer more positively or negatively than others? Can you think of a possible explanation?
- > A more in-depth discussion is then carried out for each theme under the resilience pillar being analysed. For example, in Image 30 in the next page, the first question to be discussed is number 7 (as it corresponds to the lowest score), followed by number 9 and number 8.

**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? <b>Yes, the current structure is good</b> and allows each department to effectively carry out its work	The current structure <b>requires some improvements</b> for effective delivery	The current structure is <b>not good enough</b> for that purpose	No, the current structure is weak and <b>needs major improvements</b>	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.? <b>The municipality has established strong cooperation</b> and coordination mechanisms with a number of external partners and institutions	The cooperation and coordination of the municipality with externals is <b>overall good but could be further improved</b>	The municipality's cooperation and coordination with externals is <b>not good enough</b>	The municipality has <b>poor</b> cooperation and coordination mechanisms with externals	1	2	4	4	4	2	4	23
	9	Do you think that coordination and cooperation among the different municipal departments is efficient? <b>Yes, mechanisms are in place to ensure efficient coordination and cooperation</b> among the different municipal departments	The coordination and cooperation among the departments is <b>overall good but could be further improved</b>	Coordination and cooperation mechanisms among the departments is <b>not good enough</b>	The municipality has <b>poor</b> coordination and cooperation mechanisms among its departments	1	3	4	2	4	1	4	19
<b>Total for Governance Structure</b>												<b>18</b>	

IMAGE 30. Example of matrix analysis.

In this particular case, as displayed in figure x above, the following guiding questions could be asked to the group:

- > In your opinion, what are the reasons for the municipal structure being assessed with a low score (question number 7)?
- > Why is a well-functioning municipal structure relevant for building the resiliency of your city?
- > Why does the issue of external relations and cooperation (number 9) score relatively better?
- > Based on this discussion, what is/are the main issue/s to be addressed for resilience building under this theme?
- > Importantly, when discussing each theme, the facilitator should also report to the group the compiled list of comments. This can lead to a more in-depth analysis. For instance, for the theme 'Urban Planning and Land Management' (see the example in Image 31 in the next page) under the pillar 'Urban Planning and Environment', there is a question that looks at the efficient implementation of urban plans. The facilitator should try to provoke more insight into what exactly hampers the implementation of these plans, such as the lack of qualified personnel, poor

planning standards, weak legal framework, etc. For this purpose, it could help looking at the compiled comments under this theme, as some of the main factors impacting the implementation of urban plans might be mentioned there.

**Step 3. Analysis of the city risk map and list of priority issues at community level**

Theme by theme, as applicable, the facilitator will draw attention to the spatial aspects of the issue under discussion using the updated city risk map, and refer to the list of priority issues resulting from the community consultations.

**Step 4. Analysis of relevant additional information collected during previous phases**

Last but not least, during the focus group discussion, the facilitator needs to refer to any other information collected during previous phases (i.e. preliminary questionnaire; existing plans, strategies or policies; etc.) that are relevant to the themes being analysed.

ORGANISATIONAL  
CAPACITY

6 Does your municipality have the capacity to enforce urban legislation (e.g. urban plans, building codes, etc.)?	Yes, there is <b>good capacity</b> in the municipality to enforce urban legislation	The municipality has <b>moderate capacity</b> to enforce urban legislation	There is <b>little enforcement capacity</b>	The enforcement <b>capacity is very weak</b>
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Example of list of comments under the theme 'Urban Planning and Land Management'.

## Step 5. Identification of key issues for the pillar and proposed solutions

Based on the discussion, participants will make a collective decision and select maximum five key issues belonging to the pillar that need to be addressed for building the city's resiliency. Once the key issues have been identified, participants should propose possible solutions for each of them. The following questions could guide this process:

- > How can this key issue be addressed to better contribute to the overall resiliency of the city?
- > What specific solutions can be proposed for this purpose?
- > How can these efficiently be implemented?

## Step 6. Preparation for the prioritisation workshop

Finally, once all proposed solutions have been proposed for the pillar being analysed, under the leadership of its representative and with the support of the rapporteur and the facilitator, each focus group prepares a brief presentation for the prioritisation workshop. The presentation should be no longer than five (5) slides using Power Point and focus on the key issues that were identified as well as the proposed solutions. The presentation should make a clear reference to the list of priority issues identified at the community level, and integrate any additional information (e.g. from the preliminary questionnaire or from existing plans, strategies or policies) deemed relevant. The leader of the group will present the slides in the prioritisation workshop.



IMAGE 31. Participants analyze the city risk map in Mozambique. Credit: UN-Habitat

## ACTIVITY 3: PRIORITISATION WORKSHOP

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Once all five focus group discussions have been held, the group leaders, rapporteurs and all relevant participants identified during the preparatory stakeholder analysis convene a one-day prioritisation workshop to collectively choose the priority issues that will serve as entry points for building the city's resiliency. To carry out an efficient workshop, all materials produced throughout the CityRAP Tool roll-out process so far should be clearly displayed, in particular the Matrix of Results, the updated city risk map, and the list of priority issues identified at community level.

The agenda of the prioritisation workshop is organised according to the following steps:

### Step 1. Presentation of the CityRAP Tool roll-out process so far and definition of the workshop's main objective (10 min)

- > The workshop facilitator, a member of the Team of Trainers, summarises all the activities carried out so far and presents quickly the materials produced so far, i.e. the Matrix of Results, the updated city risk map, and the list of priority issues identified at community level;
- > He/she should make clear that the main objective of the workshop is to identify in a consensual manner maximum six (6) priority issues that will constitute the entry points for building the city's resiliency.

### Step 2. Presentation and debate in plenary around the results of the focus group discussions (15 min x 5 focus groups)

- > The leader of each focus group uses maximum 10 min to present the key issues to be addressed for building the city's resiliency under each pillar, including the envisaged solutions;
- > After each group presentation, the workshop facilitator moderates a 5 min discussion in plenary; members of the focus group may assist their representative in replying to the questions/comments from the audience, as needed;
- > The workshop facilitator uses a flip chart and writes down the key issues to be addressed under each resilience pillar, the proposed solutions and even the relevant underlying issues.

### Step 3. Identifying common issues (30 min)

- > The workshop facilitator helps identifying and isolating issues (i.e. key issues to be addressed, proposed solutions or underlying issues) that are common to two or more resilience pillars, which have been mentioned repeatedly during the focus groups' presentations or follow-up debates;
- > The facilitator triggers a plenary discussion around the identified common issues, emphasising the linkages and inter-relations among the different resilience pillars. Thereby the pillar structure gradually fades away and is replaced by common issues that will serve as entry points for building the city's resiliency as a whole.

### Step 4. Presentation of the Resilience Diagramme (10 min.)

- > The facilitator introduces the Resilience Diagramme (Image 32) depicting three (3) cross-cutting themes (i.e. climate change adaptation and mitigation, city growth and safe and inclusive city) which underlie the entire urban resilience concept.
- > The three cross-cutting themes (and the way they intersect) are explained in detail, as they will serve as filters for refining the prioritisation exercise.

### Step 5. Placing the identified common issues into the Resilience Diagramme (20 min)

- > The workshop facilitator writes the identified common issues in different post-its/cards and leads the process of placing each of them in the Resilience Diagramme, through a plenary discussion;
- > Consensus should be found regarding the best location of the identified common issues within the Resilience Diagramme. It is clear that the post-its/cards placed at the intersection of the three cross-cutting themes, represent potential entry points for addressing the city's resiliency as a whole, and should therefore be prioritised.



IMAGE 32. Cross-cutting issues of urban resilience

**CLIMATE CHANGE ADAPTATION AND MITIGATION**

Climate change mitigation refers to strategies and interventions to reduce greenhouse gas emissions that are contributing to global warming, while climate change adaptation refers to the measures designed and applied for adapting to its impacts. Both can contribute to poverty reduction and sustainable development. It is critical that climate change is not approached as an isolated, stand-alone issue, but as part and parcel of the overall city planning and development process, thus it needs to be incorporated in the process of building resilience.

**CITY GROWTH**

This cross-cutting issue refers to both the spatial and economic development dimensions of the city, which absolutely need to be considered when strategizing for building urban resilience. Cities are centres of economic growth and need to be planned and managed adequately, with a clear vision of how they will develop in the future. For example, from a spatial perspective, if a city is expanding at a rapid pace, proper planned city extensions are required.

**SAFE AND INCLUSIVE CITY**

This crosscutting issue refers to urban safety, promotion of equality, citizen participation and the establishment of more inclusive urbanization processes. It is much related to good urban governance, but also includes access to basic services for all, reduced criminality and social cohesion, among other aspects. These are essential to be considered when planning for city resilience.

Priority Issues to be addresses by the RFA



IMAGE 33. Structure of the City RFA

## Step 6. Differentiating priority issues to be addressed from components (or enablers) of the City Resilience Framework for Action (20 min)

- > The facilitator projects a power point slide (or draws a table on the flip chart) that shows the structure of the City Resilience Framework for Action (RFA) (see Image 33). The table distinguishes priority issues to be addressed for building the city's resilience (the drivers) from the RFA components, which are the enabling means that the local administration can use to effectively manage the city. There are five RFA components (or enablers): (i) Policies and legislation; (ii) Urban plans (both spatial plans and development plans); (iii) Finance mechanisms (e.g. budgetary issues, funding availability); (iv) Institutional set-up (who does what?); and (v) Interventions (concrete projects and/or activities).
- > The facilitator then removes the prioritised post-its/cards related to the RFA components from the Resilience Diagramme and places them under the corresponding component.

- > Only the prioritised post-its/cards that are more thematic and can be addressed through the RFA components (i.e. through appropriate policies and legislation, urban plans, adequate finance mechanisms, improved institutional set-up, and concrete interventions) are to be considered for the next step.

## Step 7. Agreeing on the priority issues starting from which the city's resiliency will be progressively built (10 min)

- > The workshop facilitator carries out a plenary discussion to analyse one by one those prioritised post-its/cards to see if they can be interlinked through cause-effect relationships or joined under a broader heading (e.g. water and sanitation, or slum upgrading).
- > The post-its/cards within the different circles of the Resilience Diagramme are discussed to agree on the focus of the City RFA (NB: the latter could focus more on climate change, on city growth, or on inclusion/safety) and decide on the final list of priority issues (6 maximum) to be considered for Phase Four.

## ACTIVITY 4: DEFINING THE VISION OF THE RESILIENT CITY

The vision of the resilient city is built based on the identified priority issues, taking as reference global agendas such as: the Sendai Framework for Disaster Risk Reduction 2015-2030, the United Nations 2030 Agenda for Sustainable Development and the New Urban Agenda (which is valid until 2036). The exercise is carried out in one morning with the city leaders in collaboration with the Municipal Focal Points and under the guidance of the team of trainers. This activity allows:

- > Articulating the priority issues in a 10-year/long-

term roadmap in line with international agendas and considering national and municipal development plans;

- > Identifying milestones to structure the City RFA in the short (0-2 years), medium (3-5 years) and long-term (6-10 years);
- > Supporting the definition of the City RFA monitoring & evaluation framework.

By the end of the exercise a shared vision for the resilience of the city is forged.

## ACTIVITY 5: TRAINING THE MUNICIPAL FOCAL POINTS FOR ACTIVITY 1 OF PHASE PHASE FOUR

Finally, the trainers organize a half-day afternoon training session with the Municipal Focal Points to prepare them for carrying out the baseline assessment during Phase Four. During the session, the instructions of Activity 1,

Phase Four, are explained by the trainers, and clarifications provided as needed. Notably, the Municipal Focal Points elaborate a calendar of activities to carry out Phase Four, and individual responsibilities are assigned.



IMAGE 34. Focal point training in Burkina Faso. Credit: Felix Volmann/ UN-Habitat

## DURATION

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3-4 weeks

## OBJECTIVE AND BRIEF DESCRIPTION

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The objective of this phase is to elaborate the draft City Resilience Framework for Action (RFA) based on the results of the prioritization workshop, and to prepare a final version by integrating the feedback received during a review workshop, which is then validated by the relevant authorities.

The City RFA is the final product of the CityRAP Tool process. The City RFA provides a reference framework for gradually building a city's resilience, in which existing and future policies, plans, financial and institutional arrangements and concrete interventions (i.e. the RFA components) can fit. The City RFA is composed of priority actions to be implemented through concrete activities (short-term), implementable projects (medium-term), and guiding principles (long-term), according to a shared resilient city's vision.

## EXPECTED RESULTS

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- A baseline assessment of the identified priority issues is carried out;
- A list of priority actions is validated during a review workshop;
- The priority actions are broken down into activities, projects and guiding principles in the short- (0-2 years), medium- (3-5 years) and long-term (6-10 years) respectively and indicated on a synthetic city map when applicable;
- A monitoring and evaluation mechanism is set up;
- The final City RFA document is completed and validated.

# PHASE FOUR

**DEVELOPMENT OF THE CITY  
RESILIENCE FRAMEWORK FOR  
ACTION (RFA)**

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## ACTIVITY 1: BASELINE ASSESSMENT

A baseline assessment is carried out for each priority issue selected during the prioritization workshop. The assessment indicates how well the priority issue is currently performing (baseline), on a scale from 1 (lowest score) to 3 (highest score), vis-à-vis the five RFA components/enablers, i.e. policies/legislation, urban plans, institutional set-up, finance, and interventions. This will allow for gaps to be identified, which will inform the formulation of priority actions. This activity is implemented through two steps:

### Step 1. Research and compilation of information

The Municipal Focal Points collect all necessary information and consult experts and local stakeholders (e.g. concerned governmental institutions, service providers, the academia, NGOs, etc.) to assess the state of the priority issues selected during the prioritisation workshop in relation to

each RFA component. For instance, in case “drainage” was chosen as one of the priority issues, information is gathered concerning policies and legislation, plans, institutional set-up, financial structure and interventions relevant to the drainage conditions in the city. The list below outlines the information to be collected for each RFA component in relation to “informal settlements”.

The Municipal Focal Points organize themselves to collect all the information needed for carrying out the baseline assessment. For instance, one Municipal Focal Point could be responsible for researching and compiling information/data regarding all five RFA components related to one specific priority issue. Alternatively, he/she could be responsible for collecting information for all priority issues in relation to one specific RFA component (e.g. if there is someone from the financial department in the team of Municipal Focal Points, that person could be responsible for investigating the finance component of the RFA).

RFA COMPONENTS	INFORMATION NEEDED	EXAMPLE: “INFORMAL SETTLEMENTS”
<b>POLICIES AND LEGISLATION</b>	<ul style="list-style-type: none"> <li>&gt; What are the policies at national, sub-national and local levels that are related to this priority issue?</li> <li>&gt; Which relevant legislation/regulations do define how to deal with this priority issue?</li> </ul>	<p><b>National Level:</b></p> <ul style="list-style-type: none"> <li>&gt; Relevant policies/strategies: National Urban or Housing Policy, National Development Strategy or Plan, National Informal Settlements Upgrading Strategy, etc.</li> <li>&gt; Legislation regarding land tenure, adequate housing conditions, access to basic services, human rights, building codes, minimum urban development standards, etc.</li> </ul> <p><b>Local level:</b></p> <ul style="list-style-type: none"> <li>&gt; City by-laws on land use planning, management and regularisation;</li> <li>&gt; City-wide informal settlements upgrading strategy;</li> </ul>
<b>URBAN PLANS</b>	<ul style="list-style-type: none"> <li>&gt; Is this priority issue addressed in any of the existing urban plans (city master plan, detailed urban plans, etc.) or city development strategies?</li> </ul>	<ul style="list-style-type: none"> <li>&gt; How informal settlements are taken into account in existing urban plans?</li> <li>&gt; Is there a specific city development plan/strategy for upgrading informal settlements?</li> </ul>
<b>INSTITUTIONAL SET-UP</b>	<ul style="list-style-type: none"> <li>&gt; Is there a municipal department, unit or a focal point responsible for tackling this priority issue within the city administration?</li> <li>&gt; Which other municipal or central government departments play a role in addressing this issue?</li> <li>&gt; What is their current level of capacity?</li> <li>&gt; Are there other governance mechanisms at the community level or within civil society dealing with this issue?</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Relevant municipal departments dealing with informal settlements related aspects, e.g. Urban Planning, Environment, Infrastructure/Basic Services, Finance and Administration, etc.</li> <li>&gt; Existing institutional mechanism, task force group, unit or dedicated municipal staff working on informal settlements upgrading; what is there capacity?</li> <li>&gt; What are the mechanisms in place at the community level to deal with informal settlements?</li> </ul>

<b>FINANCE</b>	<ul style="list-style-type: none"> <li>&gt; What is the current budget dedicated to this priority issue?</li> <li>&gt; What are the relevant financial mechanisms in place?</li> <li>&gt; What are the strategies to mobilise resources for addressing this issue?</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Budget spent for informal settlement upgrading in the last fiscal year</li> <li>&gt; Are there specific financial mechanisms in place for addressing informal settlements (e.g. taxes, municipal revenues, financial transfer from central government, revolving fund)?</li> </ul>
<b>INTERVENTIONS</b>	<ul style="list-style-type: none"> <li>&gt; What concrete physical interventions have been carried out lately to address this priority issue?</li> <li>&gt; What results have been achieved through relevant projects?</li> </ul>	<ul style="list-style-type: none"> <li>&gt; List of informal settlements upgrading interventions/projects (e.g. improving security of tenure, opening of roads in informal settlements, increasing access to water and sanitation, etc.)</li> <li>&gt; Analysis of impact.</li> </ul>

IMAGE 35. Information required for the baseline assessment.

## Step 2. Filling in the baseline assessment table

Once all needed information/data have been retrieved, the

Municipal Focal Points will collectively decide on a score qualifying how well each priority issue performs in relation to a particular RFA component, using a scale from 1 (weak performance) to 3 (good performance) (Image 36).

<b>RFA COMPONENTS</b>	<b>SCORE = 1</b>	<b>SCORE = 2</b>	<b>SCORE = 3</b>
<b>POLICY AND LEGISLATION</b>	There are some relevant policies, strategies or by-laws regulating this issue, but they are rather insufficient.	This issue is taken into account, but the relevant policies and legislation should be improved.	There are policies and laws in place that adequately regulate this issue.
<b>URBAN PLANS</b>	<ul style="list-style-type: none"> <li>&gt; This issue is not sufficiently considered in existing urban spatial or development plan;</li> <li>&gt; There are currently no valid urban plans for the city.</li> </ul>	The existing urban plans take some aspects related to this issue into account; however, improvements are needed.	This issue is sufficiently incorporated in key urban spatial/ development plans of the city.
<b>INSTITUTIONAL SET-UP</b>	There is no department, specialized institution or focal person clearly assigned to manage this issue at the municipal/ local level.	The available budget to deal with this issue exists, but it is not clear how it is spent and the financial mechanisms in place are still weak.	Roles/responsibilities of different departments/ institutions are clearly defined for dealing with this issue at city level, with enough capacity.
<b>FINANCE</b>	There is very little budget allocated for managing this issue at the local level, and financial mechanisms in place are clearly insufficient.	The available budget to deal with this issue exists, but it is not clear how it is spent and the financial mechanisms in place are still weak.	The available budget allocated for this issue is sufficient and there are adequate financial mechanisms in place.
<b>INTERVENTIONS</b>	Very little is currently being implemented to address this issue.	There are few projects/ interventions that tackle this issue, but there is need for more.	There are sufficient/ adequate projects/ interventions planned or on-going to address this issue.

IMAGE 36. Grading scale for the baseline assessment

Therefore, the Municipal Focal Points fill in the baseline assessment table, as depicted in Image 37 (next page). It is clear that the City RFA will then focus mainly on the

lowest scores to define Priority Actions in order to build progressively the city's resiliency.

RFA COMPONENTS	POLICIES AND LEGISLATION	URBAN PLANS	INSTITUTIONAL SET-UP	FINANCE	INTERVENTIONS
<b>PRIORITY ISSUES</b>					
SOLID WASTE MANAGEMENT	1	1	2	2	2
WATER, SANITATION AND DRAINAGE	2	1	2	1	2
URBAN ECONOMY/ JOB CREATION	3	3	2	1	1
URBAN PLANNING/ PUBLIC SPACES	3	1	1	1	2
ENERGY	3	2	2	2	2

IMAGE 37. Example of baseline assessment for Moroni city, Union of Comoros

## ACTIVITY 2: FIRST DRAFT OF THE CITY RFA AND REVIEW WORKSHOP

The objective of this activity is to prepare the first draft of the City RFA with the support of the external Team of Trainers. Since the latter will be on mission during only one

week, in order to maximise their presence, the following schedule is proposed:

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
<ul style="list-style-type: none"> <li>&gt; Review of the baseline assessment</li> <li>&gt; First draft of Priority Actions of the RFA</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Structure the RFA in the short, medium and long term</li> <li>&gt; Preparation of the Review Workshop</li> </ul>	Review Workshop	Start developing further the City RFA based on the inputs received during the workshop	The Team of Trainers provides guidance to the Municipal Focal Points to finalize the City RFA

Upon demand from the Municipality, up to three extra days can be added to Activity 2 for external trainers to support

municipal focal points in developing a strategy to mobilize resources for bankable projects.

This activity is carried out according to the following Steps:

## Step 1. Review of the baseline assessment table

The Municipal Focal Points explain to the Team of Trainers the rationale they followed for the scoring they applied to the selected priority issues against the RFA components, by presenting a clear justification and making reference to key documentation from the research they carried out during Activity 1. The group (Municipal Focal Points and Team of Trainers) jointly reviews the scoring and amend it as needed.

## Step 2. Definition of priority actions (or City RFA objectives/goals)

The definition of priority actions is based on the baseline assessment, especially by considering the lowest scoring cells (score = 1 or 2), i.e. where there are major gaps to be

addressed. To begin determining these actions, the group members can use the following guiding questions:

- > What priority actions should be undertaken to increase the scoring?
- > What are the aspects that are interlinked and could be grouped under a single priority action?
- > What are the most important root causes for the city's vulnerability that need to be urgently addressed?

Although identifying many actions may be tempting, the City RFA should be realistic and feasible, hence it is recommended to define maximum six priority actions or objectives, focusing on the most crucial and urgent aspects to be addressed. The actions will serve as entry-points for progressively building the city's resilience.

An example is provided below of the process for defining the priority actions of the RFA for the city of Moroni, Union of Comoros.

	POLICIES AND LEGISLATION	URBAN PLANS	INSTITUTIONAL SET-UP	FINANCE	INTERVENTIONS
SOLID WASTE MANAGEMENT	1	1	2	2	2
WATER, SANITATION AND DRAINAGE	2	1	2	1	2
URBAN ECONOMY/ JOB CREATION	3	3	2	1	1
URBAN PLANNING/ PUBLIC SPACES	3	1	1	1	2
ENERGY	3	2	2	2	2

IMAGE 38. Definition of Priority Actions for Moroni city based on the baseline assessment.

### Priority Action 1:

Design and implementation of a solid waste management strategy for the greater Moroni (i.e. Moroni city and surrounding municipalities) including a sustainable financing mechanism.

### Priority Action 2:

Elaboration and implementation of urban plans paying special attention to basic infrastructure layout/service delivery (water, sanitation, drainage, energy) and to the identification of priority economic areas for investment/job creation.

### Priority Action 3:

Identification and operationalization of effective financing mechanisms for urban planning and management.

### Priority Action 4:

Set up and strengthening of the institutional framework for the effective management of the greater Moroni area.

### Priority Action 5:

Promotion of ecotourism and tertiary economy for youth employment.

## Step 3. Structure the City RFA in the short, medium and long term

Based on the defined priority actions or objectives defined in the previous step, and on the vision of resilient city agreed in Activity 4, Phase 3, the team of trainers supports the municipal focal points in structuring the City RFA according to milestones in the short- (0-2 years), medium- (3-5 years) and long-term (6-10 years).

## Step 4. Producing the first draft of the City RFA

The purpose of this workshop is to review the proposed priority actions for the RFA together with the relevant stakeholders (e.g. municipal staff, government representatives, community members, NGOs, the private sector, service providers, the academia).

The logistics for the event should be organized by the Municipal Focal Points well in advance, while the trainers support the preparation of the main presentation and review the workshop agenda the day before the workshop. The main agenda items are:

### 1. Summary of the CityRAP Tool roll-out process so far:

one member of the Team of Trainers provides a concise but complete summary of the process carried out until the day of the workshop, since there will likely be participants in the room that were not involved in previous phases. Then the objective and expected outcomes of the event are explained.

### 2. Review and validation of the proposed priority actions and RFA structured timeframe:

the Municipal Focal Points present the results of the baseline assessment and the rationale applied for scoring the identified priority issues against the RFA components. The derived priority actions are then presented, as well as the milestones for the short, medium and long-term, followed by a plenary discussion in which suggestions can be made for improving what has been proposed.

The following questions can be used to moderate the discussion:

Do these priority actions and milestones contribute effectively to building the city's resilience?

Do they truly address the priority issues (resilience's drivers) selected during the prioritization workshop? Are there any other pressing issues that create risk and are not being properly addressed by the proposed priority actions?

Through this dialogue, the priority actions are reviewed on the spot and validated by the participants.

**3. Assigning responsibilities:** for each Priority Action, the participants suggest a lead institution that will be responsible for its effective implementation in collaboration with other concerned stakeholders/partners. The effectiveness of the work of the lead institution will be assessed every two years, as part of the monitoring and evaluation system to be set up in support to the implementation of the City RFA.

**4. Group discussions:** Participants are divided into groups. One priority action is assigned to each group. Participants should choose a group in which they feel that they will be able to contribute most meaningfully to the discussions, i.e. they are knowledgeable of the topics related to the priority action being discussed. Each group is tasked with making suggestions for formulating the activities and bankable projects of the priority action assigned to them according to the defined short, medium and long-term milestones, which they will then have to present in plenary. For this purpose, the group should try to answer the following guiding questions:

(i) What is the long-term (10-year) vision or the expected outcome for this priority action? Which guiding principles can be proposed to fulfil this vision or reach the expected outcome?

(ii) Can you propose ideas for formulating feasible and bankable projects to be implemented in the medium term (3-5 years) for which partnerships need to be developed (with which entities?) and funds leveraged (through which mechanism)?

(iii) Realistically, what concrete activities can be carried out in the short-term (0-2 years) using available means and resources?

## Step 5. Producing the first draft of the City RFA

Based on the workshop's results, the Municipal Focal Points continue working with the trainers during the remainder of the week to produce the first draft of the City RFA. Besides the review workshop, any material, information, data or idea collected since the beginning of the CityRAP Tool process can be useful for this purpose. Importantly, the structure of the City RFA needs to be well thought through. It could resemble to a tree, since, typically, there will be planned activities which could serve the purpose for achieving more than one priority action/objective.

## ACTIVITY 3: FINALISATION OF THE CITY RFA

The Municipal Focal Points, with the remote support from the Team of Trainers, work towards the finalisation of the City RFA. The following steps are carried out:

### Step 1. Consolidating the City RFA structure

The core structure of the City RFA is determined by the priority actions. Each priority action should include: (i) a lead institution and key collaborating entities; (ii) a 10-year vision or expected outcome, which is further refined by guiding principles that orient the course of the action in the long-term; (iii) some feasible/bankable projects to be implemented in the medium-term (3-5 years), presented in the form of 2-pager sheets (see a proposed outline of a project fiche below; (iv) a list of concrete activities to be carried out in the short-term (0-2 years) using available means and resources.

### Step 2. Synthetic city map

Once the City RFA core structure is consolidated, the Municipal Focal Points elaborate a synthetic schematic map of the city in which the concrete activities (0-2 years) and bankable projects (3-5 years) that can be spatially located are

**PROJECT TITLE:**  
**RATIONALE AND JUSTIFICATION:**  
**OBJECTIVE:**  
**EXPECTED RESULTS:**  
**PLANNED ACTIVITIES:**  
**OUTPUTS/DELIVERABLES:**  
**IMPLEMENTATION ARRANGEMENTS:**  
**KEY PARTNERS:**  
**RISKS AND ASSUMPTIONS:**  
**TIMEFRAME:**  
**ESTIMATED BUDGET REQUIRED:**

visualized. The map serves as illustration for grounding the RFA to the city's reality.

### Step 3. Monitoring and evaluation framework

Importantly, a monitoring and evaluation framework is set up in support to the effective implementation of the City RFA. In the latter document, roles and responsibilities of the key institutions/entities are clearly defined and their fulfilment should be checked. An external/independent body/consultant could be responsible for monitoring the progress made in implementing the City RFA every two (2) years, and

report back to the municipal assembly or, if not existing, to another relevant body with oversight responsibilities on the municipal/city council/government. In particular, a new assessment of the identified priority issues against the RFA components should be carried out and compared to the baseline to see if significant progress was made.

Overall, the monitoring and evaluation framework should respond to the following questions:

- > To which extent is the implementation of the City RFA activities (0-2 years) following what was planned?
- > To which extent are resources being mobilised as expected through the formulated projects (3-5 years)?
- > To which extent has the City RFA been used as reference framework when plans, policies and strategies are being implemented or elaborated (e.g. in occasion of the mandatory planning cycles of the municipality)?
- > To which extent has the implementation of the RFA impacted the overall state of resiliency of the city?

### Step 4. Completion and roll-out of the City RFA

The Municipal Focal Points, with the remote support of the trainers, finalize the City RFA formulation process by drafting a final consolidated document. It is important that this document includes the rationale behind the CityRAP Tool process and explains how the priority actions were identified as entry-points for building the city's resilience. The following outline can be used as guidance:

1. Introduction
2. Rapid city risk profile, using the preliminary questionnaire and the updated city risk map
3. The CityRAP Tool roll-out process, which includes details of the different implementation stages (e.g. municipal self-assessment, participatory planning at community level, focus group discussions, prioritisation workshop, baseline assessment, review workshop)
4. Priority actions for building urban resilience, including:
  - > Lead institution and collaborating entities
  - > Long-term (10 years) vision and guiding principles
  - > Project sheets with estimated budgets (3-5 years)
  - > Short-term activities (0-2 years)
  - > Synthetic city map
5. Monitoring and evaluation framework
6. Conclusion and way forward

## ACTIVITY 4: VALIDATION OF THE CITY RFA

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Once the RFA is finalised, the Municipal Focal Points should submit it to the relevant authorities and make sure that the necessary steps to validate it according to the local context are followed. Ideally, a validation workshop should be organised for such a purpose, in which high-level authorities should be present as well as potential donors, key partners and the media. Similarly to the review workshop, it is advisable that the whole CityRAP Tool roll-out process is described again so that participants understand all the work done and the importance of the City RFA, which was ultimately prepared by the city itself! After presenting the RFA, room should be given for questions and answers. The event should end with an official endorsement of the document by the municipal authorities, followed by a dissemination campaign.



IMAGE 39 A, B. The CityRAP Tool is essentially a participatory process where the community leads the process.

## GLOSSARY

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### ADAPTIVE ARCHITECTURE

Adaptive Architecture is a multi-disciplinary field concerned with buildings that are specifically designed to adapt to their environments, their inhabitants and objects as well as those buildings that are entirely driven by internal data.

### BUILDING CODES

Building codes are a collection of regulations adopted by a city to govern the construction of buildings. This includes regulations concerning materials, structural design, construction practices, safety, building services (lighting, ventilation, electricity, heating/air conditioning, escalators, plumbing, water supply, drainage and so forth) and specifications for appropriate administrative and technical control. Building codes set forth standards and requirements for construction, maintenance, and occupancy of buildings in the interest of health, safety, and welfare of the public.

### COORDINATION MECHANISMS

Concerns the effective communication and administration among various government departments and other stakeholders to design or implement policies or concrete measures. On the implementation level, a coordination mechanism could define the flow of information among the different governmental layers in order to define steering structures for a certain program or review its effectiveness. The coordination mechanism also facilitates the distribution of funding and financing among the different governmental levels to implement measures. Coordination mechanisms are the processes by which the viewpoints of multiple decision makers are aggregated to address collective choice problems.

### CONTINGENCY MECHANISMS

A contingency plan is a course of action designed to help an organization respond effectively to a significant future event or situation that may or may not happen. It ensures continuity of their services in case of a disaster or event. The need for drawing up contingency plans emerges from a thorough analysis of the risks that the city faces. It's also useful in thinking about new and ongoing projects: what happens when 'Plan A' doesn't go as expected?

### DISAGGREGATED INFORMATION

**Disaggregated data** refers to numerical or non-numerical information that has been (1) collected from multiple sources and/or on multiple measures, variables, or individuals; (2) compiled into aggregate data—i.e., summaries of data—typically for the purposes of public reporting or statistical analysis; and then (3) broken down in component parts or smaller units of data to a more detailed level to that at which detailed observations are taken.

### DISASTER RISK

Disaster risk is expressed as the likelihood of loss of life, injury or destruction and damage from a disaster in a given period of time. Disaster risk is widely recognized as the consequence of the interaction between a hazard and the characteristics that make people and places vulnerable and exposed.

### EARLY WARNING SYSTEMS

An early warning system (EWS) is technology and associated policies and procedures designed to predict and mitigate the harm of natural and human-initiated disasters and other undesirable events. Early warning systems for natural hazards include those designed for floods, earthquakes, avalanches, tsunamis, tornadoes, landslides and drought. Other systems exist for a variety of events including missile launches, road conditions and disease outbreaks.

### ENVIRONMENTALLY SENSITIVE AREA (ESA)

Environmentally sensitive areas are places that have special environmental attributes worthy of retention or special care. These areas are critical to the maintenance of productive and diverse plant and wildlife populations. Examples include rare ecosystems (such as the Garry oak and associated ecosystems found in southwestern British Columbia), habitats for species at risk (such as sagebrush grasslands) and areas that are easily disturbed by human activities (such as moss-covered rocky outcrops). Some of these environmentally sensitive areas are home to species which are nationally or provincially significant, others are important in a more local context. They range in size from small patches to extensive landscape features, and can include rare and common habitats, plants and animals.

### GENDER BALANCE

Gender balance is commonly used in reference to human resources and equal participation of women and men in all areas of work, projects or programs. In a scenario of gender equality, women and men are expected to participate proportionally to their share of the population. In many areas, however, women participate less than what would be expected based on the sex distribution in the population (underrepresentation of women), while men participate more than expected (overrepresentation of men).

### GREENING ACTIVITIES

Greening activities in urban areas includes cities striving to lessen their environmental impacts by reducing waste, expanding recycling, lowering emissions, increasing housing density while expanding open space, and encouraging the development of sustainable local businesses. Urban greening activities usually include creation and maintenance of green space, such as parks; planting and care of trees; and the creation of green infrastructure such as rain gardens and green roofs.

## INFILL DEVELOPMENT

Infill development is the process of developing vacant or underutilized lands within existing urban areas that are already largely developed. Most communities have significant vacant land within city limits, which, for various reasons, has been passed over in the normal course of urbanization. Ideally, infill development involves more than the piecemeal development of individual lots. Instead, a successful infill development program should focus on the job of crafting complete, well-functioning neighborhoods. Infill development is critical to accommodating growth and redesigning cities to be environmentally and socially sustainable.

## MICROCREDIT MECHANISMS

Systems and processes that are in place to ensure the availability and provision of microcredit to those that need it. Microcredit is the extension of very small loans (microloans) to impoverished borrowers who typically lack collateral, steady employment and a verifiable credit history/ those who cannot qualify for loans from traditional financial institutions. It is designed not only to support entrepreneurship and alleviate poverty. Many borrowers are illiterate, and therefore unable to complete paperwork required to get conventional loans.

## NATURAL HAZARDS

Natural hazards are naturally occurring physical phenomena caused either by rapid or slow onset events which can be geophysical (earthquakes, landslides, tsunamis and volcanic activity), hydrological (avalanches and floods), climatological (extreme temperatures, drought and wildfires), meteorological (cyclones and storms/wave surges) or biological (disease epidemics and insect/animal plagues).

## PERI-URBAN AGRICULTURE

Peri-urban agriculture is generally defined as agriculture undertaken in places on the fringes of urban areas. There is no universally agreed definition, and usage of the term generally depends on context and operational variables. The Food and Agriculture Organization of the United Nations defines peri-urban agriculture as "agriculture practices within and around cities which compete for resources (land, water, energy, labor) that could also serve other purposes to satisfy the requirements of the urban population." The term "peri-urban" used to describe agriculture, while difficult to define in terms of geography, population density, percentage of labor force in agriculture, or any other variable, often serves the purpose of indicating areas along the urban-rural continuum. These are places with dynamic landscape and social change and are often invoked in conversations about growth of cities.

## PUBLIC SPACE

A public space is a social space that is generally open and accessible to people. Roads (including the pavement), public squares, parks and beaches are typically considered public space. To a limited extent, government buildings which are open to the public, such as public libraries are public spaces, although they tend to have restricted areas and greater limits upon use. Although not considered public space, privately owned buildings or property visible from sidewalks and public thoroughfares may affect the public visual landscape, for example, by outdoor advertising.

## SECURITY OF TENURE

Legal protection afforded to tenants of dwelling houses (usually under a rent act) against arbitrary rent increases and landlord's attempts to repossess the property through eviction after informal settlements are upgraded. The tenant of the property holds the right to occupy it after upgrading unless a court should order otherwise.

## URBAN LEGISLATION

Urban law is the collection of policies, laws, decisions, and practices that govern the management and development of the urban environment.

## VULNERABILITY AND RISK ASSESSMENT

Vulnerability and Risk Assessment (VRA) develops a holistic, landscape-wide understanding of vulnerability and links up actors across various levels of governance to jointly identify hazards and risks and analyze root causes of vulnerabilities for distinct social groups and the environment. Later, VRA's design programs and risk reduction initiatives accordingly, ensuring that they are equitable, gender-sensitive and effective.

## ZONING LAW

Land use and zoning law is the regulation of the use and development of public and private real estate. Zoning is the most common form of land-use regulation, used by municipalities to control local property development. Zoning regulations typically divide a municipality (such as a city) into residential, commercial, and industrial zones. Thus, zoning laws are intended to maintain a level of order and efficiency within a municipality, while keeping each zone optimized for its intended purpose. For example, zoning laws reassure home owners that a factory or department store will not open across the street. Zoning laws also regulate specific requirements for the types of buildings allowed in each zone (height restrictions, etc.), location of utility lines, parking requirements.



CityRAP Tool

# CITY RESILIENCE

ACTION PLANNING TOOL

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**UN HABITAT**  
FOR A BETTER URBAN FUTURE

**DiMSUR**  
Disaster Risk Management,  
Sustainability and Urban Resilience