

CITY RESILIENCE ACTION PLANNING TOOL

CityRAP Tool

Participatory mapping



The mapping component

Throughout the CityRAP process, the mapping component has its main activities in Phase 1 with risk mapping at city level, and in Phase 2 with participatory planning at neighborhood level.

Phase 1

City risk mapping

Phase 2

Participatory
planning at the
neighborhood level



What is Participatory Mapping?

It is a general term used to define a set of approaches and techniques that **combine mapping tools with participatory methods** to represent the spatial knowledge of local communities.

It is based on the premise that **people have knowledge about their local environment**, which can be expressed in a geographical setting.

It shows **local perceptions of areas or people in a community** (such as settlements, infrastructure, and resources) that face different levels and types of risk.

The mapping component: Objectives

Phase 1

City risk mapping

During the **crash course**, **identify at least two (2) of the most vulnerable neighborhoods** as the location for conducting the neighborhood-level participatory planning exercise during Phase 2

Phase 2

Participatory planning at the neighborhood level

Communities in vulnerable neighborhoods will be **actively involved** in the process through consultations and participatory planning

Local knowledge will be harnessed to **identify, prioritize and find possible solutions to potential risks** in neighborhoods in a participatory manner



Participatory mapping

Why is the high resolution satellite image important?

- It is an image of the area
- It provides a visual overview
- Everyone can easily recognize familiar areas, structures and natural features on the image
- The application of the discussed concepts on the map can contribute to the decision making process
- It is a common and unique planning tool, understandable to all



Participatory Mapping

Necessary Equipment per Group:

1. Satellite Image (Google Earth – free software, Google maps) in format A0 ou A1 with:
 - Scale
 - North Arrow
2. Tracing paper (semi-transparent, in rolls or A0/A1 sheets)
3. Large markers (at least 3 different colors)
4. Tape, scissors



Phase I



RISK MAPPING EXERCISE IN THE CITY



Participatory mapping

A three steps process:

STEP 1: Familiarize yourselves with the map - general orientation and recognizing main areas

STEP 2: *Baseline mapping*

- Identify land use and land cover, location of main infrastructure and services, and other landmarks and important urban features
- Prepare the legend



Participatory mapping

STEP 3: *Environmental and risk mapping*

- Identify environmentally sensitive areas (e.g. prone to flooding or erosion)
- Identify relevant socioeconomic risks (e.g. areas with high levels of poverty or crime)
- Identify existing resilient solutions (e.g. safe havens , evacuation routes, green or blue infrastructure)
- Identify target areas

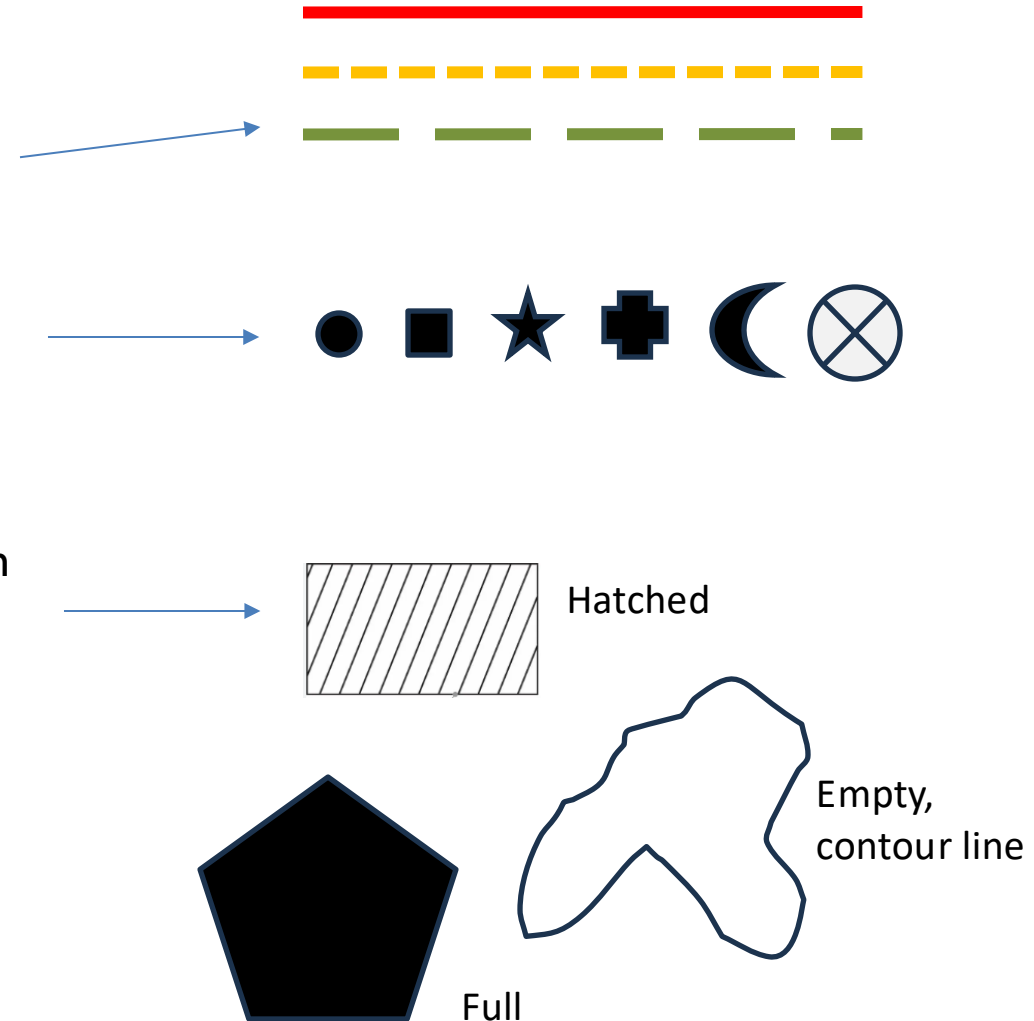


Tips for good mapping and visualization

Think about the many representation tools and choose the most suitable one:

- **Lines:** They can be used to delimit a territory, or to follow the path of rivers, routes, etc.
- **Points/crosses/symbols:** These are useful for representing specific elements of limited size, such as certain types of infrastructure or buildings. They can be accompanied by a name.
- **Surfaces/patterns:** Sometimes it is necessary to work with the representation of target areas, for example risk areas. To identify them easily, a combination of contour lines and the use of colors/stripes to create patterns inside the areas can be used.
- **Different colors!** To differentiate different the topics by using not only different line types and patterns, but also colors..

Look for creative and easy-to-understand colors, symbols and designs.

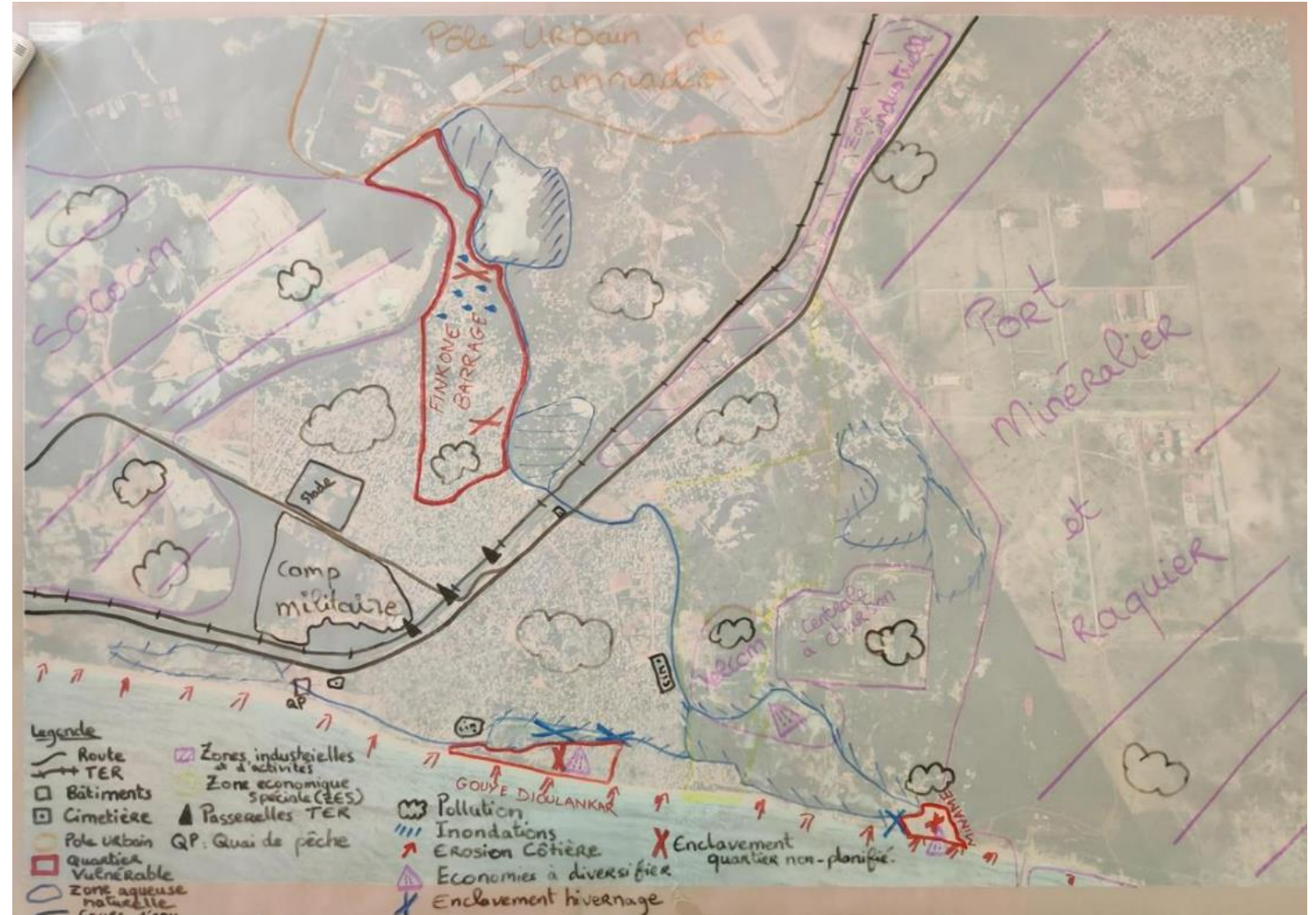
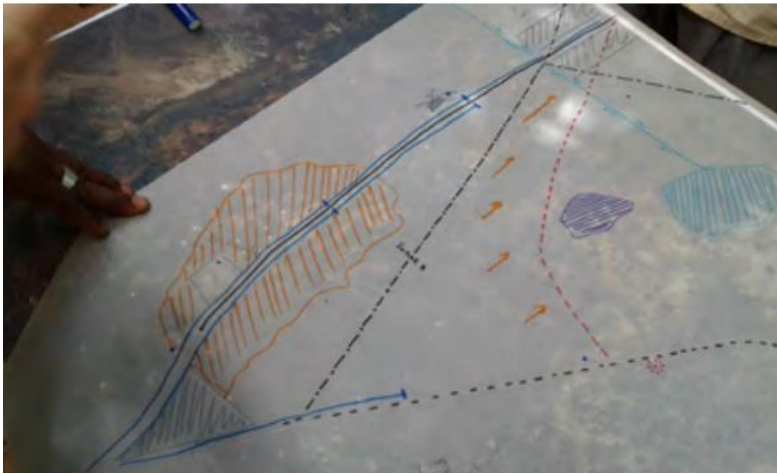
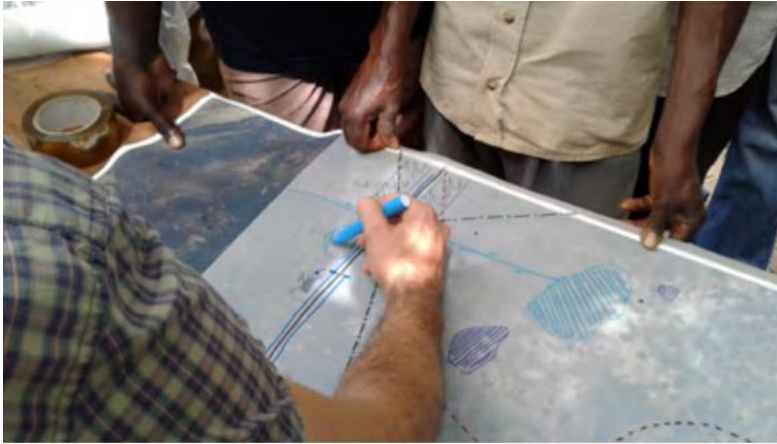


Some examples

Legend



Some examples



Some Examples

LEGENDA

Situação Actual

- Estrada principal e caminho de ferro
- Estrada secundária
- Estrada interna urbana
- Área industrial
- Área agrícola
- Área florestal
- Rio e/ou lagoa
- Edifícios do Município
- Fábrica
- Edifício escolar
- Campo e/ou espaço público
- † Cemitério
- H Hospital
- Q Quartel

Factores de Vulnerabilidade

- Assentamento informal
- Aterro sanitário
- Área inundável
- Área de crime



Phase 2

PARTICIPATORY PLANNING AT THE NEIGHBORHOOD LEVEL

Participatory mapping

Who should be involved?

- Municipal representatives and councillors
- Neighborhood associations
- Public service representatives (schools, health centers, etc.)
- Customary and religious authorities
- Private sector representatives
- Academia
- Media

+ ANY OTHER STAKEHOLDERS
IDENTIFIED IN THE PREPARATORY
PHASE AND CRASH COURSE



Participatory mapping

What makes a good facilitator?

- Neutral point of view
- Respected , trusted person
- Good technical knowledge
- Strong coordination skills
- Clear and effective communication



Participatory mapping

What are the steps?

- Participants introduce themselves
- Presentation of the objectives of the exercise
- Recognition of the image and the territory
- Identification of problems
- Identification of solutions
- Prioritization of actions (key role of the facilitator)



Participatory mapping

What are the benefits?

- Increasing chances of a successful outcome due to inclusive participation and engagement
- Promoting exchange of ideas and consensus based decisions
- Encouraging ownership of the process and the final output
- Supporting mutual commitment and accountability of the stakeholders
- Strengthening teamwork
- Reducing long term costs



Participatory mapping

What are the challenges?

- Selecting the right facilitator
- Identifying all of the relevant key stakeholders and convincing them to participate
- Consistent availability of stakeholders
- The scale and legibility of the satellite image
- Reaching unified consensus
- It is a short exercise; it might limit the degree of analysis and sometimes data could be insufficient

