

IN COLLABORATION WITH THE PROJECT
"WATERPROOFING DATA"

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DIALOGICAL-PARTICIPATORY MAPPING APPLICATION (COMMUNITY MANUAL)



Photo: Minas Gerais collection team.

AUTHORS

ANA LAURA SOUZA VARGAS
ANDRÉ DUARTE MASSAHUD
ANIELY ARAUJO PORTO
GABRIEL BRANDÃO XAVIER
GABRIELA ANDRADE BORGES

COORDINATORS

VANGELIS PITIDIS
FERNANDA LIMA-SILVA
GUILHERME PRADO DE ABREU

LEADING INSTITUTIONS IN COLLABORATION WITH



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PROJECT COORDINATORS



Dr Vangelis Pitidis

Assistant Professor of Global Sustainable Development

Email: evangelos.pitidis@warwick.ac.uk

Address: Institute for Global Sustainable Development, Ramphal Building, University of Warwick, Coventry, CV4 7AL, UK



Dr Fernanda Lima-Silva

Postdoctoral Research Fellow/Researcher

Email: emaildefernandalima@gmail.com

Address: Centre for Public Administration and Government Studies, Getulio Vargas Foundation, Avenida 9 de julho, São Paulo - SP, 01313-902, Brazil

"It is necessary to have hope (**esperança**); but hope deriving from the verb "**esperançar**" (to hope); because many people's hopes derive from the verb "**esperar**" (to wait). And hope deriving from the verb "esperar" is not hope, is waiting. To hope is to get up, to hope is to go after, to hope is to build, to hope is not to give up! To hope is to carry on, to hope is to join with others to do things in a different way" (Freire, 1992, s. p.).

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SUMMARY

Each place is unique, not merely because of its size, number of houses, streams or waterways, but mainly because of its **identity**. This identity is formed by the relationships between people, the ways they live and how they express themselves within it. A space where local culture is expressed becomes a place. My place.

A map can simply be the geographical representation of a space, but when it is created by those who truly know the area, it can also become a way of communicating, of telling a story, of strengthening one's own identity.

Through the project '**Accelerating the impact of citizen-generated data for improving the monitoring and management of catastrophic flooding**' a methodology of creating maps based on dialogue and with the participation of local residents was developed. This methodology was later applied in three Brazilian cities in the first half of 2022:

- 06 de Agosto community in Rio Branco;
- Guarani Kaiowá Occupation in Contagem, Minas Gerais;
- Cai Cai community in São Paulo.

These were extremely interesting experiences which endorsed that this can be a good way to achieve the goals defined by community members.

The methodology has two main objectives:

- 1) The first is to **promote participation** through meetings between residents, researchers, public authorities and other stakeholders to generate maps that depict important issues in each area.
- 2) The second is to **instigate and encourage discussions** concentrated around the main themes identified in the produced maps.

Maps can depict the challenges, difficulties, and needs of local residents, the activities they want to carry out and many other issues that would help and guide future improvement plans in the community.

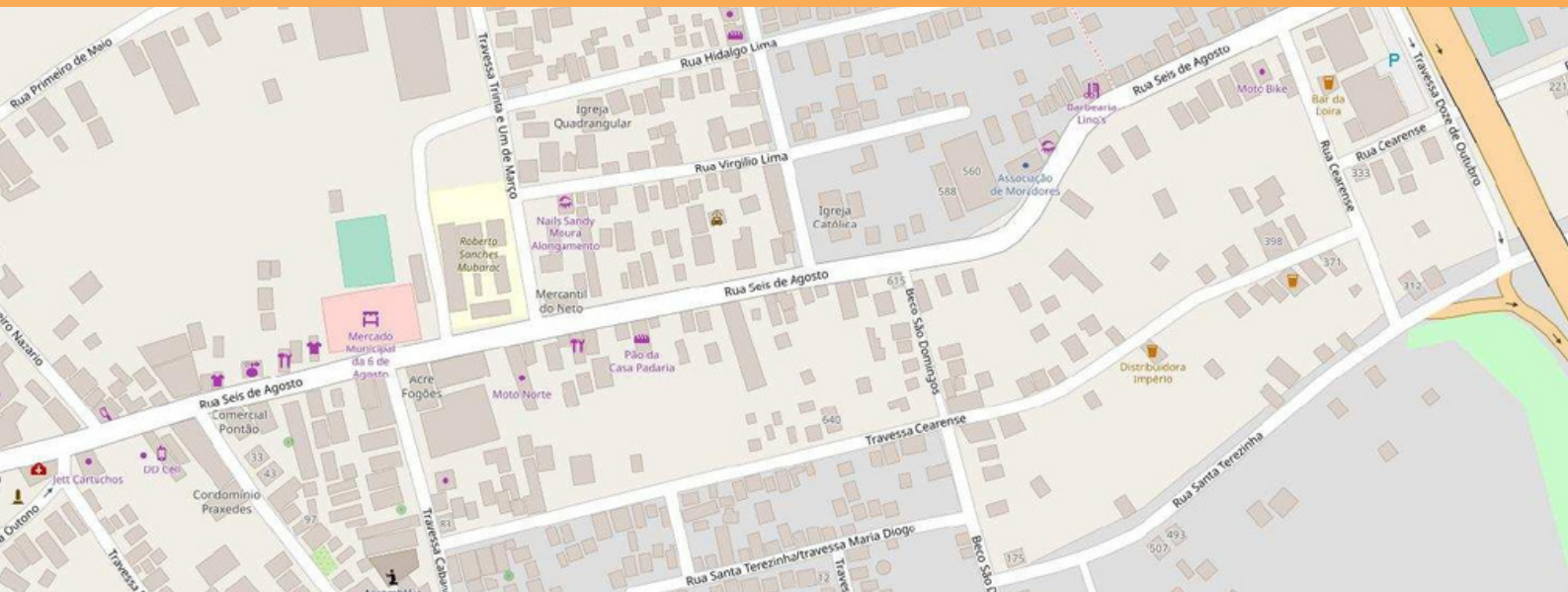
This manual briefly presents the methods and tools employed for mobilising residents and technical resources based on the mapping experiences in three different communities across Brazil.

All activities undertaken followed the steps described in this manual. However, each community defined its issues in a distinct and particular way thus building its own tailored pathway for producing and discussing its maps. People have different backgrounds and the ways of applying the methodology need to allow adaptations, changes and new interpretations.

The proposals presented in this manual are aimed at residents of urban neighbourhoods, marginalised communities, favelas, occupations and communities who wish to produce their maps, discuss important issues for their daily lives and collectively seek paths for a sustainable future.

SHALL WE START?

WHY SHOULD WE MAP?



- To generate data and produce information about the community.
- To understand the social, economic and environmental situation of the community and how it is spatially displayed.

- To identify the spatial challenges and opportunities.



- To support the local community, local governments and organisations in designing and implementing the most beneficial public policies and local projects.



HOW TO DO IT?

GET TO KNOW THE AREA AND MOBILISE THE COMMUNITY

- Establish contacts with local leaders.
- Walk along the community exchanging ideas, noting down what is important to the residents and thinking about the aspirations and goals for their community.
- Mobilise more people by following established community routes.
- Create an initial network and find people willing to participate in the identification of existing challenges, problems and other community issues;
- Begin the production of physical maps or basemaps, starting with streets, houses, shops, etc.

- Exchange experiences and opinions with residents on important themes for the community (lighting, local fests, criminal spots, health issues, etc.).
- Talk to local people and other partners about possibilities of dealing with these highlighted themes.
- Produce affective maps of the area.
- Define common objectives and choose priorities.
- Locate and write down on a physical map these identified themes as well as the established objectives and priorities.

IDENTIFY IMPORTANT THEMES

AFFECTIVE MAPPING

ONE MAP PER THEME

- List the questions gathered in detail and deepen the discussions on the themes considered most important.
- Define more specific objectives, priorities and forms of action for each question or theme.
- Prepare different maps for each issue or theme.
- Note in each thematic map every issue the participants identified.

- Discuss the development of the affective maps, the thematic maps and the discussions held.
- Evaluate what went well and what could have been done better.
- Celebrate the pathways identified and followed so far.
- Define the next steps or actions that should take place through the exploitation of the produced data .

EVALUATE YOUR PATHWAYS AND THINK ABOUT NEXT STEPS

COMMUNICATION AND MOBILISATION

Preparation of brochures, pamphlets and posters to advertise the project.

Creation of a WhatsApp group and identification of other means for managing meetings and other project activities.

Conception of incentives to increase the participation of local residents.

Definition of a specific timeline for regular meetings and important project deadlines.

Holding of meetings, workshops, conversation circles etc.

Development of a training agenda for the production of the maps

Categorising and validation of the data collected and generated by the community members.

Monitoring and recording (notes, photos, videos) of the entire participatory process.

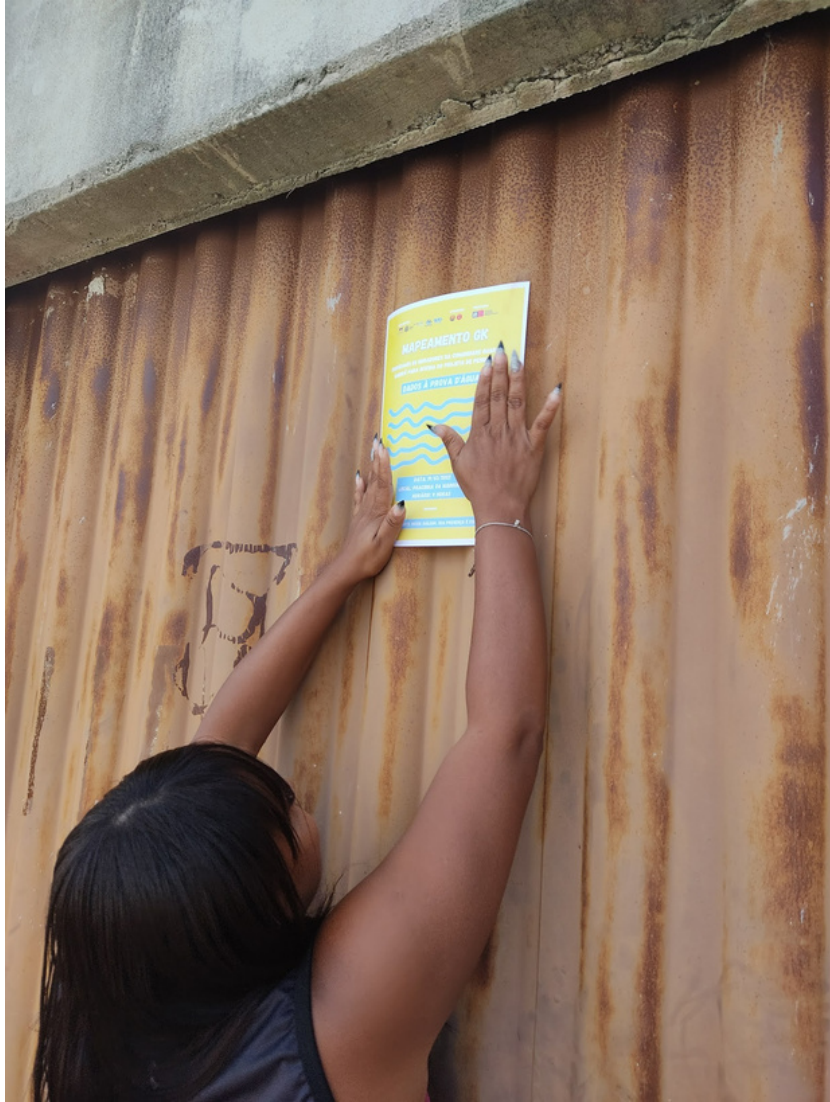


Photo: Minas Gerais collection team



AFFECTIVE MAPPING

Affective mapping is a participatory method of work that mainly takes into account the residents' own experiences of the place where they live.

1) As a starting point for the production of an affective map, impressions, feelings, stories, personal experiences, potentials and weaknesses of citizens in relation to the area where they live, are taken into account.

2) In an affective map, the issues discussed can be written, drawn or pasted on a cardboard. It is very important that someone is responsible for writing down everything that is shared by the participants.

3) There are no predetermined rules for the discussion to take place. Some targeted questions can help at this point, for example:

- Do you walk around the community? Which places do you usually visit?
- Which are the most important historical areas of the community?
- Are there any significant problems that need to be confronted urgently?



Foto: Acervo Equipe Minas Gerais

"We keep on hoping to continuously improve. Always"

RESIDENT OF THE GUARANI KAIOWÁ COMMUNITY

AFFECTIVE MAPS ARE IN A STATE OF CONTINUOUS MAKING

Life is dynamic. Everything changes all the time.
Thus, maps also need to be constantly updated.

Some methods, activities and tools to produce and update affective maps are the following:

CONVERSATION CIRCLES

- THIS IS AN ACTIVITY THAT INCLUDES INFORMAL CONVERSATIONS WITH SHARED OBJECTIVES, OF VARYING DURATION AND CARRIED OUT IN AN MUTUALLY AGREED LOCATION.
- ITS MAIN OBJECTIVE IS TO IDENTIFY THE MOST IMPORTANT THEMES FOR THE COMMUNITY AND CLASSIFY INFORMATION ON THESE ISSUES.

COMMUNITY WALKS

- FROM A PATH TRACED AND WITH A PHYSICAL MAP IN HAND, PARTICIPANTS CAN TAKE NOTES ON WHAT THEY CONSIDER MOST RELEVANT.
- THIS IS AN IMPORTANT ACTIVITY FOR COLLECTING AND VALIDATING DATA AND MOBILISING THE CITIZENS AROUND THE PLANNING AND EXECUTION OF THE METHODOLOGY..

IMPROVEMENT MAPPING

- THE MAIN THEMES AND ISSUES IDENTIFIED BY THE RESIDENTS ARE DRAWN ON A BASEMAP.
- THROUGH THIS WAY OF WORKING, CITIZENS POINT OUT THE PROBLEMS OF THE COMMUNITY AND THEN PROPOSE POSSIBLE SOLUTIONS TO ADDRESS THEM.

TREE OF PROBLEMS AND SOLUTIONS

- FIRST YOU NEED TO DRAW A TREE WITH ROOTS, TRUNK AND LEAVES.
- ON THE ONE SIDE, KEY PROBLEMS, ROOT CAUSES AND CONSEQUENCES ARE DISCUSSED.
- ON THE OTHER SIDE, THE MAIN IDEAS, ACTIONS AND ACTIVITIES NEEDED TO BE CARRIED OUT TO ADDRESS THESE PROBLEMS, AS WELL AS THE POTENTIAL OUTCOMES OF THEIR IMPLEMENTAION ARE RECORDED.

"Sometimes it feels like we're coming back to the same place, but that's just because we're starting to understand better the problems and how to tackle them"

RESIDENT OF THE GUARANI KAIOWÁ COMMUNITY

CONVERSATION CIRCLES

Photo: Acre collection team.



- Informal conversation circles are indicated as a form of instigating a collaborative approach.
- The objective is to analyse in more depth local problems, their root causes and consequences, as well as to seek possible solutions and list how they would be performed and what their possible results might be.
- It is suggested that one person should be responsible for taking notes, recording the themes discussed and share everything with the participants.
- Every talk can prove to be important to better understand the feelings of the residents in relation to space and any form of evaluation is valid.

Materials: pens and papers.

COMMUNITY WALKS

- Community walks is a suitable method for working with individuals or small groups. This activity has the potential to mobilise curious residents!
- The objective of the activity is to collect geographic and affective data of the area.
 - Example: mark on the map the bakery with the best food in the area!
- With a printed basemap of the area in hand, we define a route within the community and together with community members we walk and write down everything that is considered important, whether positive or negative.
- The use of icons and drawings as a resource to facilitate the identification of interesting spaces and their local understandings is recommended.



Photo: Minas Gerais collection team.

Materials: printed basemap of the area, coloured pens and paper for notes.

IMPROVEMENT MAPPING

Photo: Acre collection team.



- In improvement mapping, we seek to identify problems in the community and note them on a printed basemap. This activity can be both individual and collective.
- It is recommended that discussions about possible solutions to the identified problems take place.
- An interesting thing is that each map is related to a different type of problem. For example: garbage, basic sanitation (water and sewage networks), etc.
- Maps can also represent socio-economic problems (violence, security, unemployment, etc.).

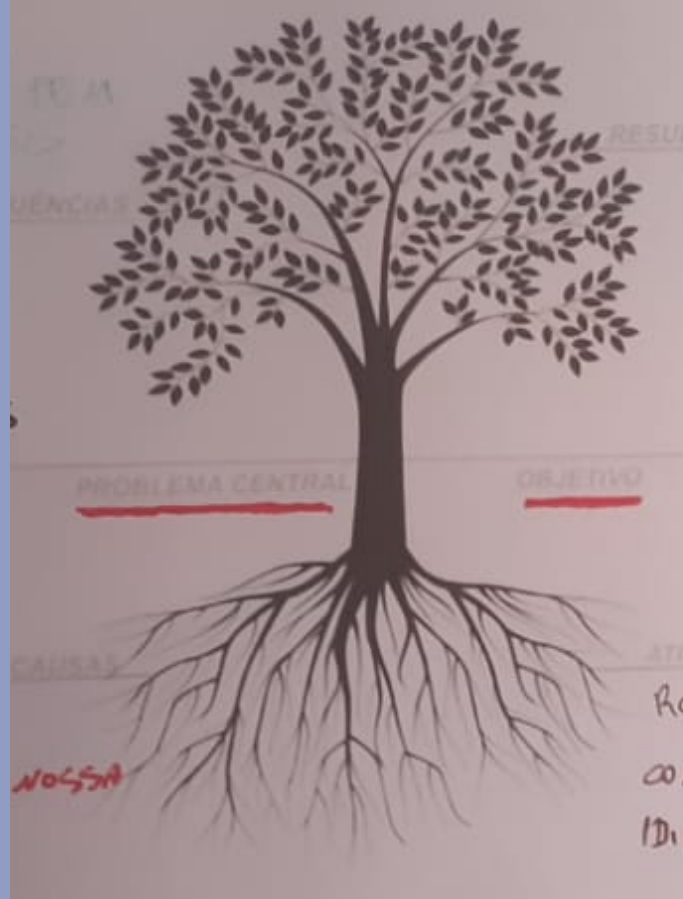
**Materials: 2 printed basemaps (minimum),
coloured pens**

TREE OF PROBLEMS AND SOLUTIONS

- The "Tree of Problems and Solutions" is a very interesting tool for classifying problems and thinking about solutions. Preferably this activity is applied in groups of 3 or more people.
- First you need to draw a tree and break it down in half with a vertical line. On the left side, the key problems (in the trunk), the causes of these problems (in the roots) and the consequences of these problems for the community (in the leaves) are noted.
- On the right hand side, the main ideas to solve the identified problems (trunk) as well as the activities for this purpose (roots) and possible outcomes of these activities (leaves) are recorded.

Materials: cardstock, colored pens, tape

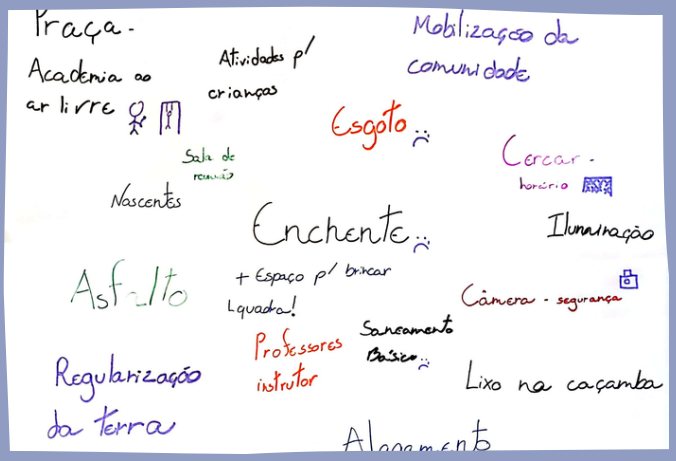
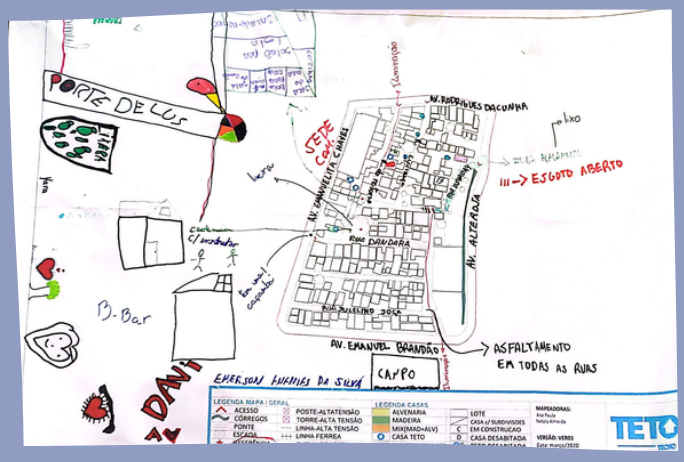
Photo: Minas Gerais collection team.



HOW TO APPLY AFFECTIVE MAPPING

TIPS

- Choose one or more activities presented above and produce the first maps with community-generated data.
- Be receptive and responsive to all participants and listen carefully to their opinions. Conversations almost always unveil different views and stories about the same places.
- Create a record of the information collected in notes, sheets, audios, photos or videos.
- Share the data produced with other community members, for example through established WhatsApp groups.



Photos: Minas Gerais collection team.



WHAT TO CARRY WITH YOU TO THE ACTIVITY

- PAPERS AND CARDBOARDS;
- PRINTED BASEMAPS OF THE STUDY AREA;
- COLOURED PENS AND PENCILS;
- GLUE AND SCISSORS;
- POST-IT NOTES.

NOTE: If a community basemap is not available, the methods can still be performed by adding or drawing important points on paper and cardboard.

THEMATIC MAPS: POTENTIALITY MAPPING

After collecting data and identifying relevant themes, we propose the development of thematic maps. Such maps is suggested to be **risk perception maps** and **maps of advantages and risks**, to help visualising themes and topics already raised.

Thematic maps allow community members to both present and undestand where their problems and strengths are spatially located, while they also serve as a tool to develop future projects within the community.

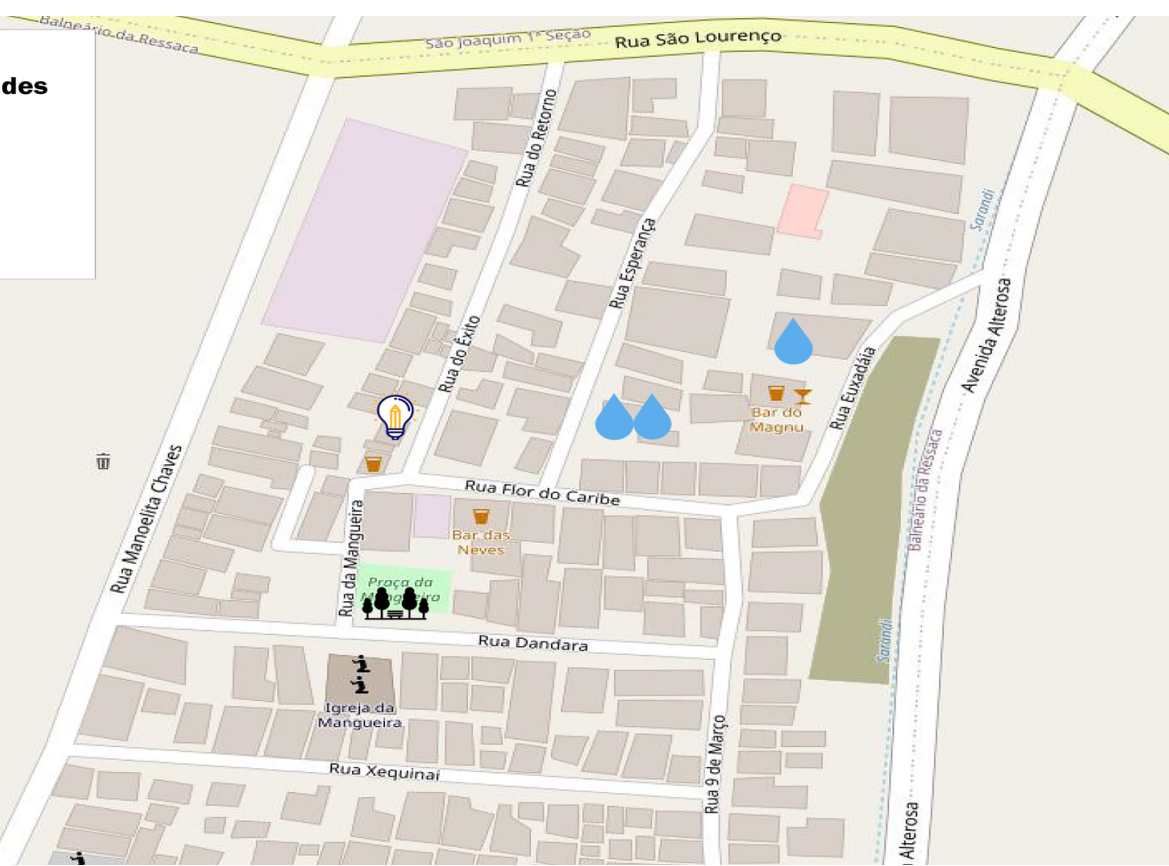
POTENTIALITY MAPPING



- THE MAIN OBJECTIVE IS TO VISUALISE THE ADVANTAGES OF THE AREA.
- THIS MAP DEPICTS THE POSITIVE ASPECTS WITHIN THE COMMUNITY IDENTIFIED BY THE RESIDENTS, FOR EXAMPLE: A SQUARE THAT IS A COMMUNITY MEETING POINT, A GOOD BAKERY, A COMMUNITY CENTER, A SPRING, A RIVER, A TREE ETC.
- POTENTIALITY MAPPING IS ESSENTIAL TO INCREASE THE CITIZENS' SENSE OF IDENTITY AND BELONGING, THROUGH THE SHARING OF FEELINGS AND STORIES, IN ADDITION TO THE PHYSICAL PLACES THAT ARE IMPORTANT TO THE COMMUNITY.

LEGENDA:
Percepção de potencialidades

- Nascentes
- Praça
- Sede Comunitária/
Projeto Geração GK

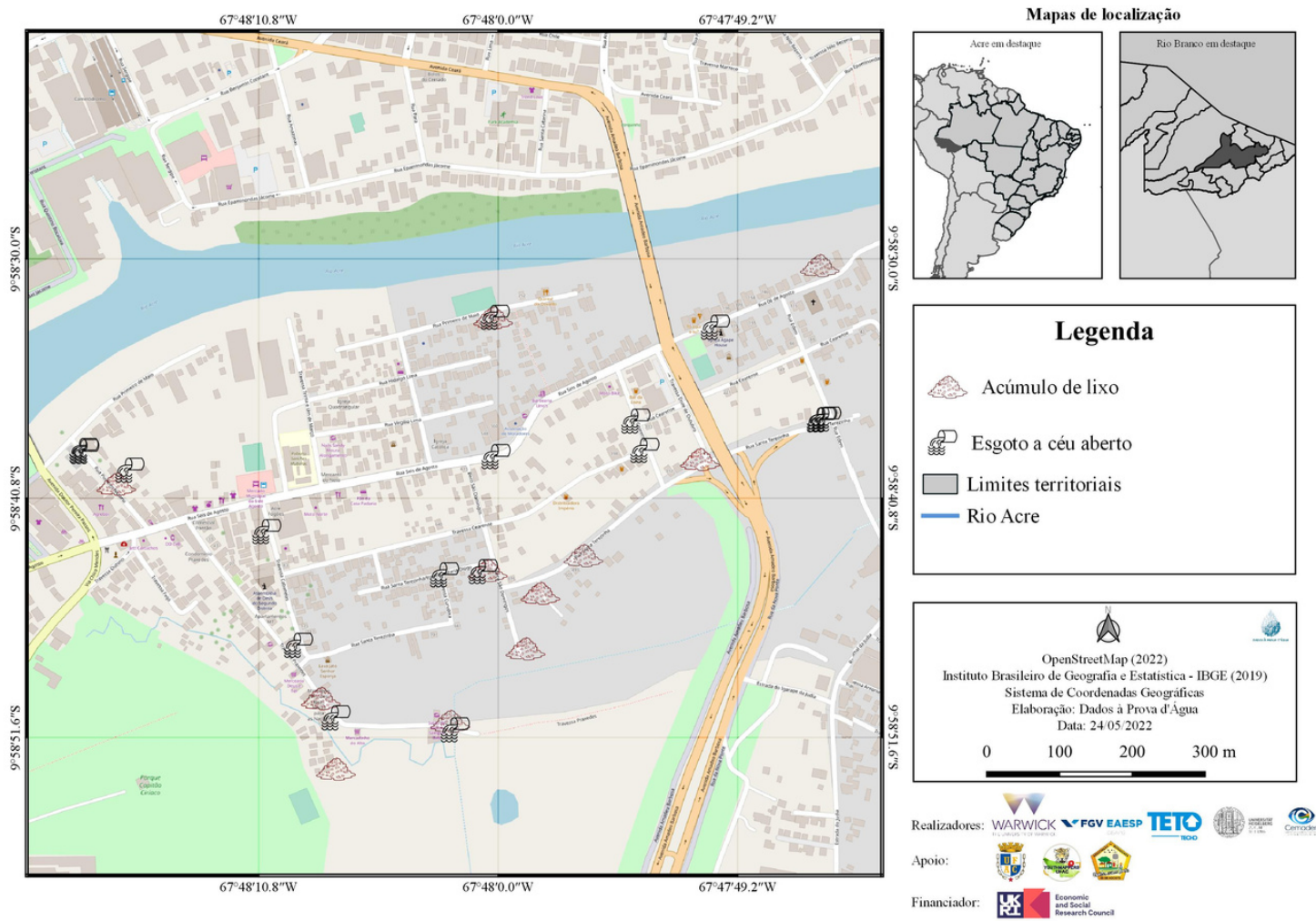


THEMATIC MAPS: RISK PERCEPTION MAPS

RISK PERCEPTION MAPS

- THE OBJECTIVE IS TO VISUALISE THE RISKS IDENTIFIED IN THE DIAGNOSTIC PARTICIPATORY MAPPING PROCESS SUCH AS, LOCATIONS WITH ACCUMULATION OF GARBAGE, AREAS PRONE TO LANDSLIDES, FLOODING ETC.
- IT IS A TOOL FOR COMMUNITY EMPOWERMENT, BECAUSE IT ENCOURAGES LOCAL CITIZENS TO ACT ON THEIR AREA AND ATTEMPT TO TRANSFORM IT, EITHER THROUGH CARRYING OUT IMPROVEMENT PROJECTS OR THROUGH WORKING IN COLLABORATION WITH OTHER SOCIAL ORGANISATIONS AND PUBLIC AUTHORITIES.

Mapa de Percepção de Risco - Saneamento Básico - Bairro 06 de Agosto - Rio Branco - Acre - Brasil



"I believe we are on the right path and I think this project will be very beneficial for our community; actually it is already being"

RESIDENT OF THE GUARANI KAIOWÁ COMMUNITY

FEEDBACK AND CRITICAL ANALYSIS

Following the data collection process and the diagnostic participatory mapping activities, such as the use of affective maps, the production of thematic risk perception maps and maps of advantages and risks, we strongly propose that an evaluation and reflection phase regarding the entire process needs to take place. It's time to discuss and analyse what went well, what could be improved, how maps can be used by the community, etc.

The time for feedback and discussions is also a moment for planning the next steps. It is essential to outline the objectives and action plans for prioritising future projects that should be developed, based on all the data and materials (maps and drawings) produced. The final presentation should also be a moment of celebration for the outputs and achievements of the application of the dialogical-participatory mapping methodology.



Photo: Acre collection team.

"I am very happy with what we have achieved so far and I am looking forward to another project here in the area"

RESIDENT OF THE GUARANI KAIOWÁ COMMUNITY

MAPS CAN EMPOWER THE COMMUNITY

Map production activities in the context of the dialogical-participatory mapping methodology can serve as an inspiration for organizations and communities that want to promote collective actions to stimulate citizen mobilisation and social participation and ultimately improve the quality of life of their residents.



Maps can also assist in community mobilisation and engagement...

...strengthen internal bonds relations between local residents, enhance their ability and motivation to collaborate...



... and highlight existing challenges and problems community members experience.

MAPS CAN EMPOWER THE COMMUNITY

Maps can also allow residents to see more clearly what the key challenges and problems in their everyday lives are...



... assist them in designing projects and action plans to improve their livelihoods...



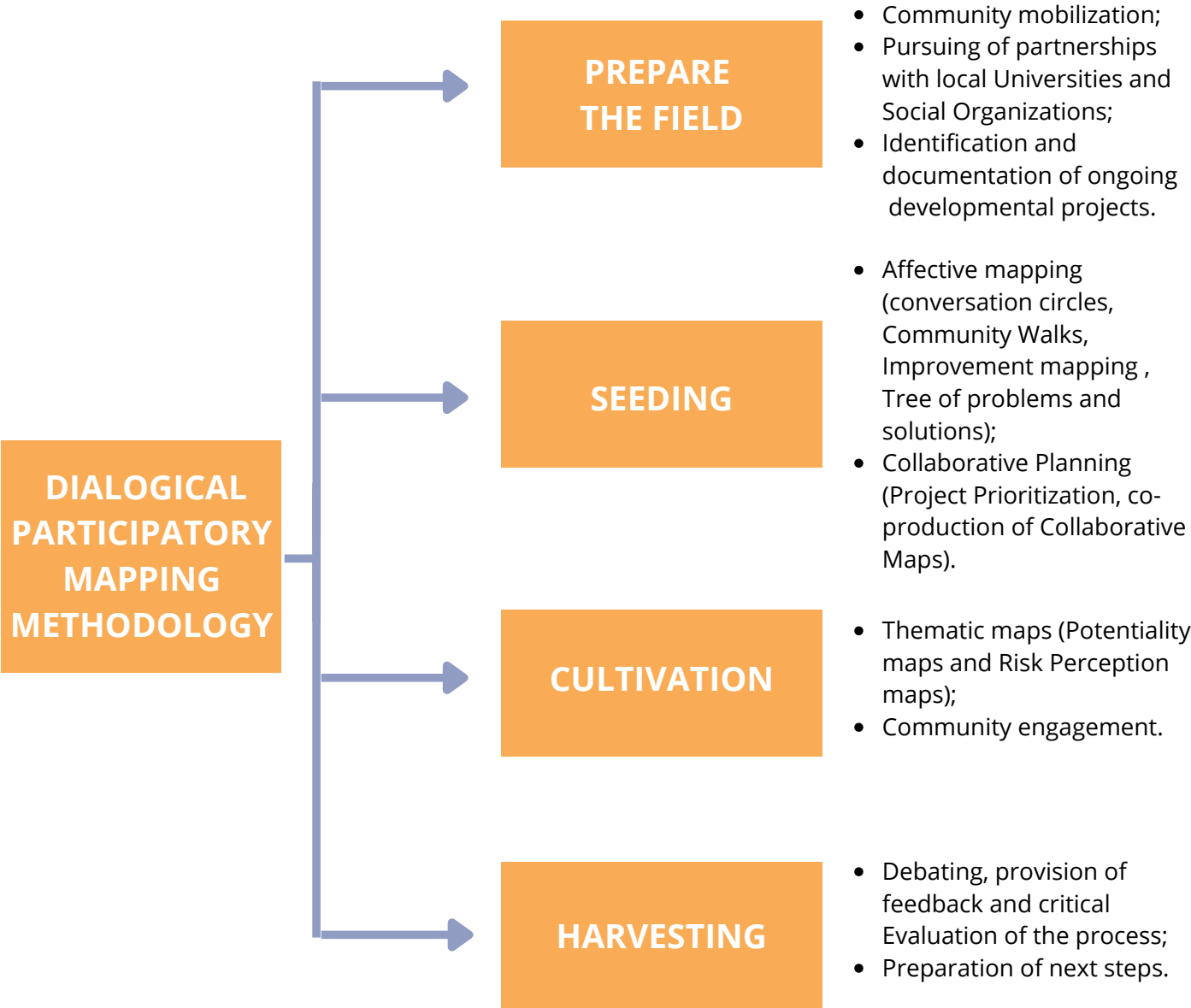
...guide social organizations that work together with the community towards developing future projects based on locally-important and accurate information...



...and help local government and public institutions work more effectively on designing tailored policies for community development.



SUMMARY DIAGRAM



IMPORTANT NOTES

- THEMATIC RISK PERCEPTION MAPS SHOULD BE PRODUCED USING A MORE TECHNICAL CARTOGRAPHIC LANGUAGE, BECAUSE THEY CAN BE A MORE EFFICIENT COMMUNICATION TOOL IN FUTURE DISCUSSIONS WITH GOVERNMENTS AND OTHER ORGANIZATIONS WORKING ON THE STUDY AREA. FOR THE PRODUCTION OF TECHNICAL MAPS THE ESTABLISHMENT OF PARTNERSHIPS WITH UNIVERSITIES AND SOCIAL ORGANIZATIONS ARE STRONGLY RECOMMENDED;
- TO PRODUCE TECHNICAL MAPS WE SUGGEST THE USE OF THE FOLLOWING VISUALISATION AND SPATIAL ANALYSIS TOOLS: OSM (OPENSTREETMAPS), FIELDPAPERS, KOBOTOOLBOX AND QGIS;
- SOME OF THESE TOOLS ALLOW FREE PUBLIC ACCESS AND THEREFORE, RESIDENTS ARE ABLE (AND ENCOURAGED) TO DEFINE WHAT INFORMATION THEY WOULD LIKE TO RECORD;
- THE USE OF TECHNICAL MAPS IS ONLY A SUGGESTION. COMMUNITIES CAN DEFINE OTHER WAYS OF PRODUCING MAPS FROM THE DATA THEY COLLECTED THROUGHOUT THE DIALOGICAL PARTICIPATORY MAPPING PROCESS.

CONCLUSIONS

Throughout this manual, we share the methods, activities, tools, ways of mobilizing residents and technical resources that were part of the experiences documented throughout the application of the dialogical-participatory mapping methodology in the three states (AC, MG and SP).

The results of applying this methodology can contribute to:

- creating more resilient communities;
- establishing a space for collective dialogue among community members about the place where they live;
- empowering and strengthening of local communities in an autonomous and self-managed way;
- reinforcing the importance of citizen participation in the development of actions and projects for the area where they live.

We hope that the experiences we share in this manual can serve as an inspiration for communities that wish to develop actions to stimulate citizen engagement, social participation and the mapping of information about the place where they live in an attempt to improve their quality of life and develop their community.

It is worth mentioning that all of the methods, practices, tools and activities described are just suggestions and their application can be continuously rethought and altered based on to the needs and aspirations of each community.

“What counts in life is not the starting point, but the journey. Walking and sowing, in the end, you will have something to reap.”

(Cora Coralina).

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