

THE PRODUCTION OF COMMUNITY RISK AND RESOURCE MAPS WITHIN THE FRAMEWORK OF TERRITORIAL DEVELOPMENT PROGRAMMES



*The Risk and Ressource Map of the Gafsa Oasis ((Tunisia)
Realized by the young people of the UNESCO-ALECSO Club*

Presentation

The collective analysis of the needs and problems of a particular community to identify ways of improving living conditions can be carried out by means of a very simple, practical and easily replicated methodology: community *Risk And Resource Maps*. This can be used to facilitate dialogue and collaboration between different actors and competent institutions in the search for common action to resolve what are considered priority problems.

The application of the *Map* methodology in the community takes place in four stages: an exchange of experiences is organised, which is also used to valorise the community's historical memory; field research is carried out to map identified risks and the resources which can be used to tackle them; projects are defined to solve the identified priority problems and reduce community risks and vulnerability; the projects are implemented with the contribution of the public sector and social actors, and activities are carried out to find resources that the community lacks. In this process, the concrete implementation of identified projects represents an essential stage in strengthening people's participatory and democratic tendencies and their confidence in the institutions.

The *Risk and Resource Map* methodology is a tool for the programmes that operate in a territory to promote community participation in development processes. These guidelines aim to promote greater use of this methodology in all countries, within the framework of local planning activities and also in setting up initiatives that facilitate community participation.

The use of this methodology within the framework of international cooperation goes back a long way. The World Health Organisation and Panamerican Health Organization adopted this method to prepare communities in tackling emergencies. The manual "[Local Health Personnel and the Community in Tackling Natural Disasters](#)", edited in 1989 by the WHO in collaboration with the Red Cross, presents *Risk and Resource Maps* as a strategic instrument for the prevention of disasters. Also WHO ERO/EPP, in collaboration with the WHO Centre for Environment and Health, Rome, and the CIRI, in the framework of the D.A.R.E Project (Development of Appropriate Response for Emergencies) produced guidelines for the production of *Risk and Resource Maps*.

The ministries of health of Colombia and El Salvador, in collaboration with the WHO and various cooperation organisations, have published manuals that use this instrument to prepare communities for emergencies. Emergency prevention programmes using the map methodology were set up by the Department of Tolima (Colombia), in the region of Port Antonio (Jamaica), in the province of d'Albay (Philippines) and in the municipalities of S. Marcos and S. Jacinto (El Salvador).



Risk and resource maps were first used in the 1970s in Europe, within the framework of occupational medicine. Occupational doctors, in collaboration with workers' organisations, utilise this method to jointly analyse and assess risk factors in communities located close to factories and to identify the necessary initiatives to reduce the negative effects of production on the living conditions and health of the population.



United Nations human development programmes in Africa, Latin America and the Balkans adopted this method at the beginning of the 1990s, adapting it to the process of participatory analysis of community needs and the production of projects to solve identified problems. This methodology has also been successfully used in communities affected by the consequences of conflict. In the communities of Bosnia-Herzegovina and Central American countries, these activities have helped re-establish relations between different social groups and foster a climate of dialogue needed for social and economic reconstruction.



The success of the map methodology is due to the fact that it reverses normal vertical intervention mechanisms and boosts the role of communities in the analysis of needs and the identification of the best and most culturally appropriate solutions. Authorities and local institutions play an important role in map production processes and the development of projects that solve identified problems, thus establishing more constructive relations between the population and institutions. The term 'community' refers not only to the population but also to all local actors: public institutions and administrations, services, schools, territorial associations, trade unions, the private sector.

The map methodology involves setting up initiatives capable of benefiting all the interlocutors concerned and fostering mediation when necessary. The *negotiated programming* approach, which was little used in traditional cooperation practices, plays an important role in the map methodology. When many actors are involved, the decision to adopt one solution rather than another to tackle an identified problem always involves a process of negotiation to mediate between the various interests involved.

Authorities, institutions, experts, local associations and organised groups of the population normally have different views of both the problems and the priorities. What normally happens is that it is the experts, in agreement with the institutions, that identify the problem and the solution, and apply it to gain the consensus of the population. In other cases, experts listen to the population but end up developing projects and taking initiatives that are not sustainable or that are sometimes ineffective. Lists of community needs are very well-known in the world of international cooperation and do not usually lead to development processes.



The map methodology always involves discussions between the experts and the three fundamental actors of the community: the citizens, community organisations and local institutions. In this way it is possible to identify solutions that are sustainable from the social, technical, economic and cultural point of view.

Another important methodological aspect is that the actors mentioned look for the causes of the problems and identify solutions that are preferably structural. Technicians and experts contribute towards this analysis but community history normally reveals many elements that can help identify the origin of the present problems and also positive solutions that were adopted at a certain time but then abandoned. The analysis of a community's history of natural disasters, for example, can valorise collective memory and know-how for the prevention of future risks.

Finally, a proper application of *Risk and Resource Maps* helps identify solutions within the framework of a local community's specific culture, valorising its human, material and immaterial heritage.

The Maps on the territorial development programmes

As mentioned, the risks and resource maps are normally used in the framework of territorial development programmes. These programmes normally allocate financial resources to development projects identified with the map methodology, to respond rapidly to identified problems and create a positive climate of change.

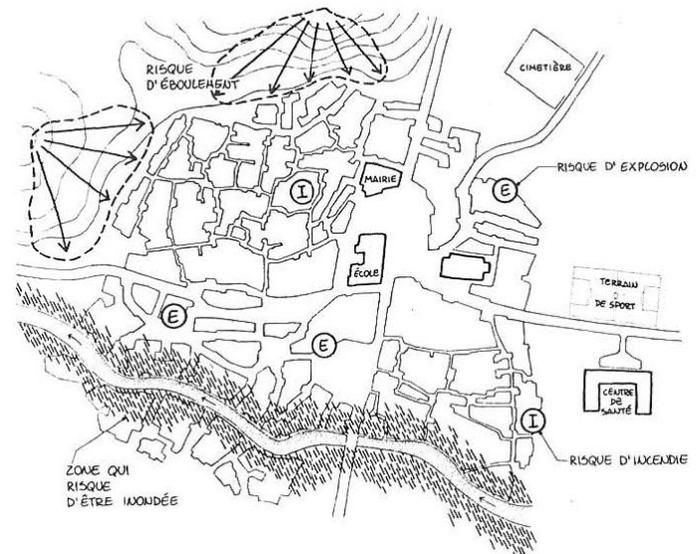
In particular, the maps are very useful to carry out the following stages and goals of these programmes:

- In the start-up phase, they involve the communities in the production of the first Action Plan. The maps foster the broadest participation of all groups of the population in the identification of the problems and their solutions, which are translated into local impact projects which are then incorporated into the Plan. While the more complicated process of programming is carried out at regional and municipal level, the communities carry out the more specific activities of developing local projects. In this way, the Programme provides a concrete opportunity for the experimentation of participatory methodologies and encourages local actors to become involved in the overall development process. Another important added value is that this methodology provides an opportunity for the qualitative analysis of territorial problems. Experts and technicians that manage the Programme acquire a broader view of problems when they are defined by the people from their point of view.



- In normal programme activities, they help establish a process for the integral development of communities that have less access to services and opportunities. Territories that are most at risk or isolated and with high rates of poverty are always identified in regional and municipal planning. The needs of these communities must be addressed by integrated responses and above all better local organisation so that local actors can take advantage of existing development potentialities. The map methodology fosters the development of better local organisation and gives the community a leading role in finding the solutions to its problems, in collaboration with all institutions mobilised at the regional and municipal level.
- In normal development activities, when specific thematic risks and solutions need to be analysed and identified. The map methodology can be of great help in the preparation of local emergency plans, in the preparation of jointly agreed plans for environmental risk and resource management to regenerate old town centres, to reduce the vulnerability of

Risques du bâti



groups at risk, or other priority themes for the development of specific territories. In these cases, risk and resource analysis revolves around a specific theme, but it is still an integral approach because the interdependence of community risks and development factors is always evident. This integral approach at the community level can dissuade experts from adopting their usual sectoral and specialised approach to initiatives.

The following presentation of the methodology for the production of *Risk and Resource Maps* only includes basic and common aspects. In practice, each regional or municipal working group will define the specific purpose of the maps within the framework of the process it is encouraging, and consequently adapt the methodology to its goals. Similarly, the methodology is presented in a logical sequence but in practice many activities can be carried out contemporaneously, depending on what is best for a given situation.

Work organisation and team leaders

The territorial development programmes are implemented through participative regional and municipal working groups, which are responsible for producing local development strategies and plans. The maps are used within the framework of these working groups, as instruments to facilitate the active participation of social actors in the processes of programming and managing development.

Each working group identifies the communities where participatory and integrated activities can be used to analyse needs and set up impact projects. A community is a particular territorial area, small enough for the development of a broad participatory process, such as for example a neighbourhood or a village.

The next stage involves setting up committees for the production of maps in the target communities. Each committee must be as representative as possible of all local actors: formal and tradition authorities, public service personnel (schools, health services, and others), non-profit organisations, producers' associations, trade unions and other organised groups.

The working groups of the territorial development programme will instruct these committees to plan and direct the activities involved in the production and use of the *Risk and Resource Maps*. At the end of this process, all community maps will be included in *regional and municipal development plans*, will make sure that the identified projects are included in the action plan, which defines the use of the Programme resources.

The committee identifies a jointly agreed person to coordinate the work involved in map production. It is important for this team leader to be a person that is recognised by the community and who has the capacity to foster a participatory process, providing technical guidelines but without imposing his or her ideas on the participants.

In the initial organisational phase, an *operational base* is identified for carrying out the work involved in map production: the community map, the symbols and keys, etc. The *operational base*, located in a local institution or a place where people meet, can be gradually equipped with the materials needed for the work, such as a photo display board, specialised reference maps, etc. In this way a place is established for social groups to meet and receive information on ongoing activities.

First stage: Exchanges of experience, valorisation of historical memory and basic map production

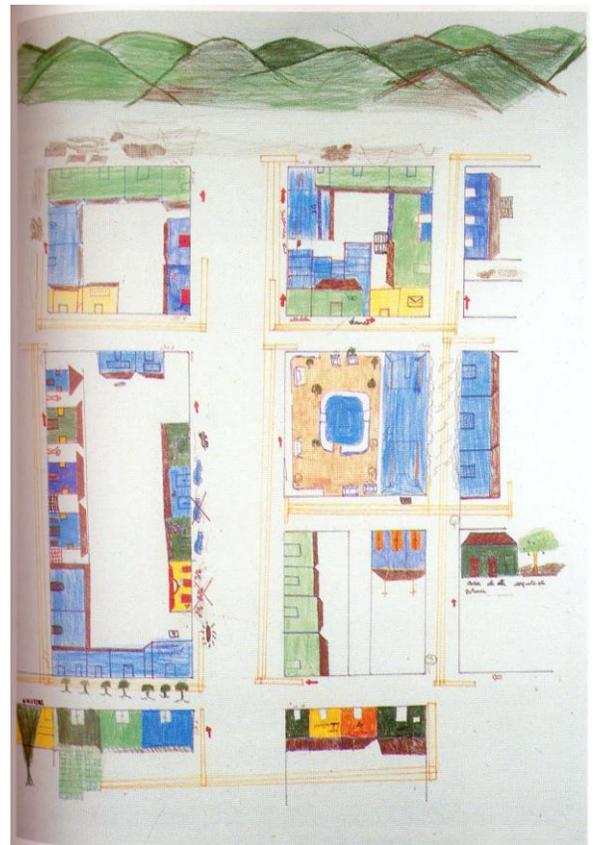
Risk analysis

The committee begins by promoting a wide-ranging debate in the community leading to the preliminary identification of risks and resources. It organises an initial meeting to which all the community's social

groups are invited. The general meetings should be held in a place that is accessible to all groups of the population. In the first meeting, the team leader will give an overview of the activities involved in map production, the aim and work methodology. Finally, the activity schedule, the procedures for working in homogenous groups, and the commitments of the participants are established by common consent.

The schedule will include a series of meetings to work on the preliminary identification of the risks faced by the community. The meetings, which will provide an opportunity for the participants to exchange experiences, should be conducted as simply as possible to allow everyone to express their opinions. The team leader's role is to facilitate the active participation of everyone and, at the same time, stimulate discussion so that participants discuss the greatest number of factors affecting the quality of life of the community. In this task, the participants point out what in their opinion are the most important problems they have to deal with and resolve in their lives.

A useful way of getting things started is to hold a wide-ranging, spontaneous discussion on the priority risks identified by the various groups. A group of workers may feel they need to concentrate on the risks they face in the factory where they work, and their list will be different from the one drawn up by a group of housewives, who may be more interested in the situation of the neighbourhood where they carry out their activities. A child might be worried about a stray dog in the street and assess this risk as an adult would an electric cable over his or her house.



In the first debate, the groups should be guided towards the identification of risks that affect their normal lives and the risk of extraordinary events such as the school roof falling in, a flood or the outbreak of an illness. The team leader makes a note of the problems identified and places them on a bulletin board for everyone to see.

The first Risk List

In other meetings called by the committee, each social group gives a list of risks and resources that reflect their situation, interests and living conditions, as well as their level of information and critical capacity. As discussions progress, in meetings or homogeneous groups, the main categories of community risk can begin to be identified and included in a first list.

In this work, the team leader plays an important role in drawing attention to categories of risks that have not been highlighted, perhaps because the people are used to them or because they do not think they are capable of addressing them.

It might be useful to discuss, for example, the community's past experience of accidents and risk of disasters. The past experience of risks (environmental, natural or other) which have turned into disasters represents a common factor that involves everybody and

The following categories are frequently found in risk lists:

- lack of environmental sanitation (refuse, sewage, drainage, industrial waste);
- lack of basic services (electricity, water, health centres, schools);
- lack of hygiene: housing, markets, and streets;
- the presence of animals that carry disease (rodents, insects) or the proximity of slaughterhouses to food factories;
- bad eating habits (unbalanced diets lacking vitamins or proteins);
- Lack of vaccination;
- Polluted water and infected food.

an analysis will lead to the identification of many important elements: the capacity of the community to deal with disasters, the municipal, regional and national interlocutors for the prevention and solution of the problems. Through these discussions the community's vulnerability to frequent risks can be identified and at the same time an assessment can be made of the community's level of information and the efficiency of the competent institutions.

The group, thus, draws up a list of extraordinary events (natural or man-made) to which the community is at risk at any given time, taking into account dangerous structures such as deposits containing fuel and other inflammable materials, the vulnerability of community buildings (such as public buildings, condominiums) and infrastructure, such as the electrical system, roads, drainage channels, refuse collection and others.

Discussion should also focus on the identification of those most exposed to risks, such as the elderly, disadvantaged children, the disabled, and people living in extreme poverty.

The needs of these groups require particular attention from the community. Their marginalisation in society is generally due to many factors, but action always needs to be taken to integrate them into the community by providing services and above all promoting the values of solidarity.



Vulnerability and qualitative indicators

Physical

- Historical buildings in the town centre in urgent need of renovation (church, town hall, social centre).
- Old houses in the centre replaced by standard cement structures.
- Urgent work on sewage, drainage and repaving of town centre

Social

- Progressive decline and decay of community areas in the main square and in streets
- lack of protected children's play areas
- Lack of a regeneration plan and community organisation for the old town centre.

Cultural

- community heritage buildings are being destroyed, along with community history
- a lack of enterprises producing traditional building materials for the population
- the know-how of traditional trades and skills are being lost
- Schools do not allow children to speak their local language and there are no programmes to valorise local culture.

Map production must always take into account aspects of social vulnerability, so the committee should work towards the identification of groups most vulnerable to risks. The identification of these groups is also important for determining resources and initiatives to improve their living conditions.

Risks come in different categories: permanent or accidental, like the proximity of a river that floods regularly or outbreaks of malaria; collective or individual, such as unsafe houses, fuel explosions, fires or food shortages.

Lack of or precarious community defences against risk determine the *physical, social and cultural level of vulnerability*, which can be defined through qualitative indicators. The list to the left gives examples of qualitative risk indicators that refer to urban decay.

Different groups, even within the same community, select different priority risks because they may be of different ages, cultural levels, social class, or from different geographical areas.

These priorities, which reflect real needs and group consciousness, must be respected by the team leader, because they will form the basis for future action.

At the end of this phase, broad categories of risk will be established, reflecting the contribution of all participants. The risk lists are placed on bulletin boards for everyone to give their opinion.

Identification of symbols risks

In addition to working on a list of risks, the committee should choose symbols to identify them. The symbols should be clear, simple and immediately intelligible to all interlocutors.



Simple symbols are an important element of the method because they allow people, in accordance with their view of things, to establish their own graphical language to describe and indicate what they will find in their surveys. The photograph shows examples of the keys to symbols used in different map production experiences.

Resource analysis

Once the risks have been identified, the group needs to look at what they do about them within a framework of development. It isn't just a question of discussing existing and available community resources because the group also exchanges ideas on what could boost its capacity for intervention.

The first outcome of this analysis will be the production of an up-to-date inventory of the human, material, technical and financial resources available to the community.

Collective work in looking for resources and concrete, feasible ways of tackling the problems fosters a positive and active attitude in the people involved and gives them the motivation to undertake joint initiatives and social action without waiting for outside help.

From this perspective, analysis should also take into account categories of resources such as the community's immaterial heritage: its history and historical buildings, minor heritage, culture, arts and music, traditional values, and others. The second result is a list of the resources that are lacking, which the community will try to mobilise, in collaboration with the committee and the working group.

A Resource List

The work involved in the identification of community resources can use the following form:

- Governance institutions: municipality, town council, formal and traditional authorities, civil society associations; media (newspapers, radio); systems for communicating with municipal and regional institutions; alarm systems; etc.
- Public services: water supply, electricity, sewage, transport, telephone and communication systems, and refuse collection and treatment, etc.
- Health services: health centres, basic health service programmes, emergency systems, ambulances, availability of medicine, assistance programmes and services for vulnerable groups, etc.
- Educational services: schools, professional training centres, availability of didactic materials, etc.
- Economic development: availability of basic foods and local markets, important production chains, producer associations, enterprises, factories, services and programmes provided by municipal and regional institutions, etc.

It is very important for this research not to exclude any area that fosters community development. However, the idea is not to produce just a general inventory but to look into ways of solving the identified risks. Finally the lists of identified resources are placed on the bulletin boards.

Choice of symbols

When working on the lists of resources the group decides on what symbols should be used to identify them. The photograph is an illustration of the key to some symbols used in different map production experiences.



The production of a basic community map

At this stage in the work, while the activity of identifying the risks and resources is in progress, back at the operational base the committee produces a detailed map of the community and its surroundings.

It should include all streets, squares and community areas. Depending on the available technology, this map can be produced on a computer and then scaled up.

Otherwise, a municipal map, if available, can be photocopied. Sometimes maps have been drawn directly by young people or schoolchildren.

The risk and resource symbols are placed on the map in the appropriate areas. This preliminary map will be used in field research. Whichever technology is used, many copies of these basic maps are needed so that they can be used by different groups in field research.

The second stage: Field research

After the first stage, the committee organises field research in the places mentioned in the meetings to find out about the risks and resources in the map. Field research is also used to involve members of the population that did not take part in the meetings and above all the most vulnerable groups. Research can be used to compare the information provided in the meetings with people's experience of the risks and the ways to solve them.

To carry out field research, the committee can also select a group to lead operations, recognised by the community and with a capacity to mobilise people. In all cases, the leading group will have to be directed by the team leader nominated by the committee to guarantee that work is carried out within the framework of the defined methodology, that different institutions take part when their contributions are required, and that the results are acquired by the committee.

Homogenous groups

To carry out this research, homogenous groups of social actors exposed to the same risks are formed: factory workers, schoolchildren, farmers, pensioners, and others. These groups may be interested in evaluating risks and resources in specific areas to produce specific maps of a neighbourhood, school or factory. Others may be interested in assessing the risks and resources in just one aspect of community life,

such as refuse collection or the food distribution system. Thus a map can be produced which indicates the areas where no refuse collection takes place and where people dump their rubbish despite hygiene regulations; or a map may be produced of the hygienic conditions in different food sales points, which can be also used as a product guidebook for consumers.

These homogenous groups are the operational units of this phase of operations and will also play an important role when it comes to defining and managing the concrete projects to address the identified problems. So that everyone can take part, research should be carried out in small groups. This fosters alertness to the problems and enthusiasm, enabling each participating group to carry out a specific task in the work of producing the maps of their area. Each small group will have a team leader accompanying them, who could simply be someone with experience. Using this strategy, maps of very large areas, such as that of the city, can be produced, while at the same time involving large groups of people, such as for example all the students of a college, in the activities.



A homogenous group can be made up of students and teachers of one or more schools, a group of health or social service workers. Each group will use the map to identify the risks and resources of a neighbourhood, involving families, shopkeepers, small businesses and other interlocutors in their activities. Health workers can play a key role by meeting people and families living in isolation or on the margins of society and speak for their needs.

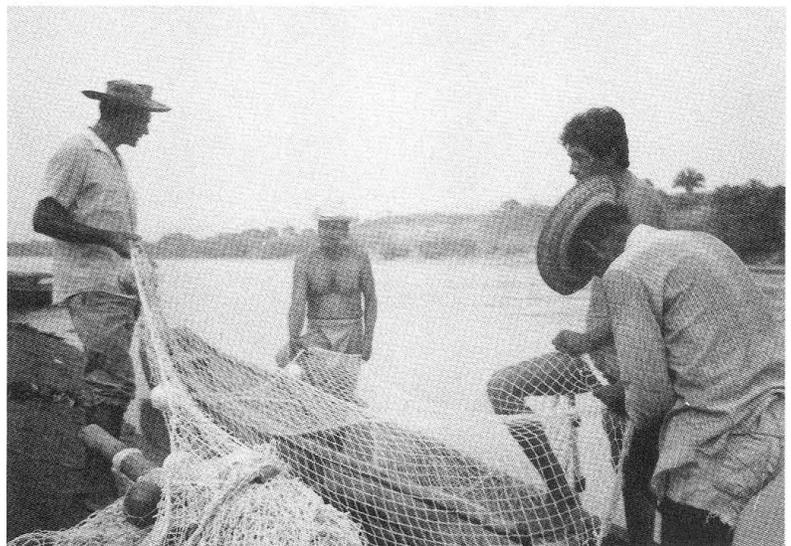
Field research may lead to the production of different thematic or territorial maps, to be included in the final single map, in preparation for the following phase of analysis and programming.

Before carrying out field research, a plan of activities and places to be visited is defined with each group. The best times for meeting people are chosen. The groups visit the areas where most risks are concentrated, to observe and verify the number and location of previously identified elements on the map. Groups will find it easy to recognise many elements along the way but others will be revealed only by speaking to the inhabitants.

To find out this information, the groups will carry out door-to-door interviews, asking questions on the risks and resources under consideration. For example, if the identified risk refers to poor construction quality, they could ask:

- about the services provided in the house: water and electricity, sanitation;
- whether the area has efficient sewage and drainage networks;
- Whether they have any difficulties in utilising public services.

While carrying out these activities the group prepares questions to ask the inhabitants about the different aspects



under consideration. Going out together to find out about daily life, identifying risks and resources to record them on the map is important because it produces a qualitative leap in the perception of reality from the private to the collective, from the inevitable to the resolvable. All forms of creativity that increase group participation must be accepted and encouraged. As people discover what goes on around them they become absorbed in the game of reinventing a living space, which leads to a change in the way people see themselves in this space. For a brief time each person is an explorer in his or her own territory. Going around houses, speaking to people to find out about things is not only a way of gaining precise information but it is also a way of relating to a large number of people.

It would be useful to have a camera at hand to take photos of risks and resources of particular significance. The photos can be shared and placed on bulletin boards, in wall journals, or exhibited in public places.

Placing the symbols on the maps

Through field research, consultation and specific work meetings, the group place the risk and resource symbols on the map, complementing and rectifying previous information. These activities may lead to priorities which had not been considered and which will be noted for collective discussion.

It is during this phase of the work that the various partial maps are produced, which, in the next phase, will be incorporated into a single complete map. However, all the thematic and territorial maps produced are important and could be used for specific purposes in the future. The thematic maps could be used to produce and monitor specific development projects (waste management, food production and distribution systems, school improvements, etc). The territorial maps could be used to develop and monitor projects that concern a specific neighbourhood or area.



Integral map production

Each committee produces an integral map of the territory of interest, on the basis of information contained in the thematic maps or specific community maps. The task of combining the different elements is carried out collegially.

All previously mentioned materials that can help set priorities are produced and exhibited: bulletin boards with photos of the various identified and documented risks, videos and written documents on the different themes under consideration.

Maps produced in this way are not specialised or 'scientific' instruments. They do not replace specialised maps. At the same time, however, they are something more because they are the result of collective work and represent an important instrument for carrying out the community activities of discussing and assessing risks and possible solutions.

In Cuba, the Office of the Historian of Habana Vieja directs the Master Plan for the regeneration of the old town centre, a UNESCO World Heritage Site. The plan includes highly detailed strategies and activities for urban regeneration, and the office has the most advanced computerised instruments for data collection and processing. However, the Office believes that the people who live in the old town, with their activities and culture, represent an essential element of the heritage. The office, therefore, uses risk and resource maps to involve the people, ensure participation in programming initiatives and in carrying out all the projects in the master plan.

Map production should involve technical organisations that have detailed studies, information, and specialised maps on the various specific risks identified by the community. This information will be useful when collectively discussing the solutions to be programmed. In this way, experts will be contributing to the process and complementing the work of the community without devaluing it. Indeed, the knowledge of a community's socio-cultural aspects, which can only be learned in situ, working together with the population and with their participation, can help these technical institutes to fine-tune their strategies.



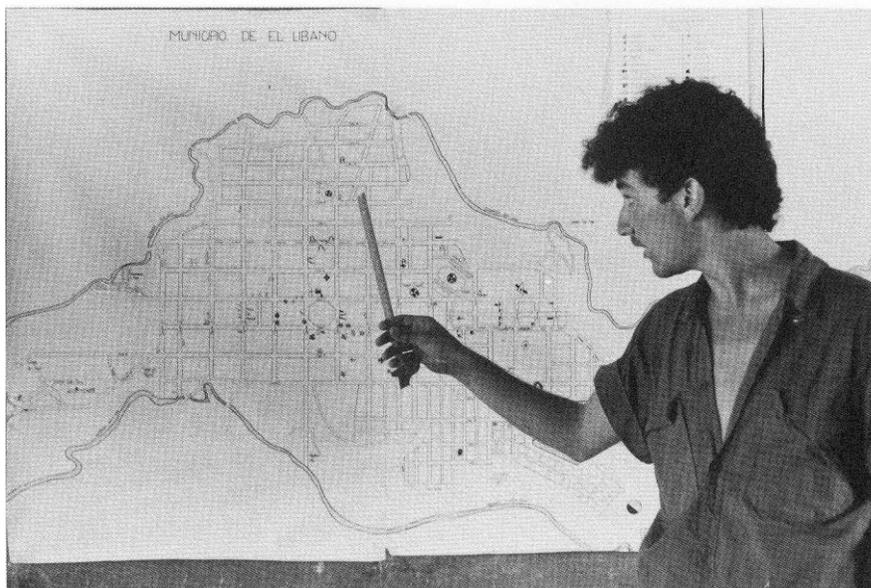
The thematic maps could be very useful for the future programming and implementation of specific initiatives. For example, a community emergency map can be used to rapidly verify all aspects of an emergency situation and, basing their considerations on the most vulnerable points, organise priorities and strengthen rescue services and other operations. Moreover, it will be easier to locate the places where resources are available and use them more rapidly. All the maps and support documents are exhibited in the committee headquarters to facilitate discussion and provide information to invited institutions and groups that have yet to take part in the work.

Third stage: Discussion, organisation, programming

Once the committee has a risk and resource map it can start to discuss priorities and the action that can be taken. The third phase, in contrast to the previous two, which take place within a defined time, involves a process whose length depends on the goals set by the committee.

Discussion and identification of priorities

The committee organises a workshop to discuss the integral map with all local actors. The social groups involved in field research and competent institutions are invited to these meetings.



During workshops, the team leader and the homogenous groups present the materials produced during field research: the integral map, the thematic and territorial maps, and other documents. For more complete information, use can be made of all available technical material or materials produced by institutions, such as specialised maps, books, brochures, audiovisual materials, posters, and others, in accordance with the means at the community's disposal.

The first workshop will focus on the identification of the

priorities and the projects that the community will be carrying out to address the problems. These projects can be grouped into two broad categories: projects that can be carried out immediately using community resources, and more complex projects which need the backing of institutions and other actors.

The production of a plan of activities

After identifying the priorities and the projects, the committee can work on a plan of activities. This plan will be used for all subsequent phases of activities and to monitor the results. The plan is also an instrument for negotiation outside the community.

The next steps, the committee members to take charge of each activity and other interlocutors will be identified for each of the priority activities.

An analysis will be carried out of the financial resources needed to implement each of the identified projects and the activities required to raise the necessary resources at other levels.

Once the plan has been produced, it will be presented by the committee to the municipal institutions responsible for the planning of local resources and various competent institutions (responsible for health, education, agriculture, etc). One of the important aims of this methodology is that it facilitates structured communication between communities and institutions responsible for local development processes.

To provide an integral answer to all needs and involve the greatest number of groups that have taken part in the work, the plan of activities should include initiatives in all areas of local development:

- health and the inclusion of vulnerable groups
- education and vocational training
- the promotion of the environment and improvement of the urban habitat
- local productive activities

The plan will be included in the Territorial development programme resource plan, which is produced with the active participation of the municipal and regional institutions. This helps promote the widespread use of participatory methodologies by competent territorial institutions.

Identification of interlocutors

To programme these projects, based on identified risks, the committee proposes and establishes contacts with various competent institutions. The committee, in collaboration with municipal and regional working groups, always carries out two functions: on the one hand, it supports the community in the identification of the competent interlocutors; on the other, it gets the competent institutions to respond to collaboration requests.

In other words, the committee acts as a promoter of a process of integration not only between the group and the specific institutions it represents but also between the group and institutions that operate at other levels, which will be collaborating to solve specific needs. A positive and immediate effect of this integration is that it gives people an opportunity to find out about services, establish direct contact with them to address concrete needs and, finally, find out about programmes and resources. Through this approach, the community learns how to request specific services. Lack of information is at the root of lack and poor use of services.

Here is an example of intervention in a factory in Colombia: after identifying the risks they faced, the workers wanted more information on the dangers of volcanoes, how to use and improve the factory's fire prevention system and, finally, advice from an industrial engineer on reducing excessive noise in the production system. The committee identified which institutions could provide them with this help and organised a guided tour of the Manizales National Volcano Observatory with the SENA; it facilitated collaboration with the institutions responsible for industrial security; and finally it asked the local Civil Defence to give a training course on the use of extinguishers.
Colombia. We, the volcano people. Risk prevention programme in the Tolima, after the eruption of the volcano in Nevado del Ruiz. 1988

For the institutions this contact is of great importance because it helps them address the problem of lack of resources, which in many cases also conditions the implementation of priority programmes. By collaborating in identified projects, such as environmental sanitation, assistance for the infirm, vaccination campaigns and others, health institutions, for example, can benefit from a community's human and material resources, which otherwise would remain unused.

In many cases, thanks to discussions on various problems, the community and different competent institutions can provide precise information on specific problems and, at the same time, identify action to tackle them with the commitment of all concerned.

In Colombia, for example, after receiving information from the local health personnel, community leaders carried out a census on children under five in record time and promoted a vaccination campaign in which they collaborated in administering the vaccines. In this way, health services can give a community greater attention and the local population can benefit from a service that was previously inaccessible.

Fourth stage: implementation of identified projects

Thanks to all the activities carried out, committee action will usually benefit from the participation of new local interlocutors in project implementation. Competent institutions will also have defined their involvement in activities.

After having completed the planning process involved in map production, the community will have the organisational capacity to carry out the projects in the plan. Specific forms of organisation depend on the specific situations. The important thing is that the organisations are jointly defined by the community and the institutions. In general, the homogeneous groups that have identified the risks and specific solutions during workshops spontaneously form an organisation to carry out the identified project. Various institutions can offer their services to the community and provide, on request, specialised technical assistance and training.

Immediate action projects



Many of the risks identified in the maps can be tackled immediately, with the support of the committee, utilising available resources: public and private community resources and Programme resources set aside for the purpose. Sometimes the solutions to relatively simple problems are evident even during the first meetings or field research, and, if the resources are available, the local actors can work together to put them into practice.

The lack of hygiene in streets and in the areas around the community, very often due to neglect and lack of community organisation, is a serious vulnerability factor that can be reduced with relatively low resources. Cleaning a beach to promote leisure activities and tourism is a project that can be carried out by an association of young people, with little support from community services. Cleaning up rundown schools and setting up a play area for children can also be carried out by the community with its own resources and voluntary work.

The identification of these immediate action projects has formed part of the methodology in all the experiences carried out.



When a group of people take part in the identification of the risks that threaten them they see their needs very clearly and want to find rapid solutions to improve their living conditions. Communities always responded positively, employing all their creativity and capacity in carrying immediate priority initiatives, identified with the support of the institutions that offered collaboration.

These projects almost always lead to the planning of more complex initiatives with the public sector. This enables each institution, acting within its specific sphere, to respond and adapt its general programmes to a community's needs. The specific projects arising from these dynamics will be different in each territory but what they have in common is that they motivate social groups and establish new active relations with institutions.

Complex projects

Complex projects are those which the community can only carry out with the support of municipal, regional or specialised institutions.

Complex risks include the permanent danger of a river flooding, lack of roads, urban decay, frequent outbreaks of illness, and others. Group discussions on complex

community risks will focus on identifying the institutions responsible for tackling the problems and establishing collaboration relationships with them.

These complex projects will be included in the municipal and regional action plans of development Programme, based on the roles and available resources. Complex projects arising from map activities and which locally lack the necessary financial resources will be presented to the national and international institutions working in the country, inviting them to contribute towards implementation.

Activity management

During operations, the committee and the territorial development programme working group will carry out monitoring activities to direct action towards the best results. When a community continues to plan new development projects using continuously updated maps it means that work has been successful and that a positive climate of exchange has been established in the community.



Risk and resource maps can be used as an instrument for communication with the population, to inform them of successes and the things that still have to be done. The maps are updated as results come in and evaluation meetings are organised in committee headquarters, neighbourhoods and community areas involved in the activities. Participatory evaluation means taking into account not only the common criteria of efficient project management to reduce community vulnerability but also the qualitative criteria of population satisfaction.

A collective evaluation of the activities can be achieved by identifying procedures suited to the specific situation of a community. It is always important to disseminate information on ongoing projects so that

results can be appreciated by the community and new outside actors can be involved in the initiatives. To this end, local radio and television can be used. Public festivals and conferences can be organised.

Evaluation criteria

As with each intervention, in the application of the methodology, too, it is important to define evaluation parameters in the planning stage. The following are some basic criteria which could be used to assess the impact of the methodology on the territory:

The extension of the experience

The interest of other organisations and communities in adopting the map methodology is an important factor to bear in mind. If maps are produced in all the communities of a territory, the population's level of participation in local development activities will be much greater. The number of workshops set up to identify risks and resources gives an indication of how many people over a certain period of time have been involved in collective work. In all territories, there are institutions and organisations which operate to help improve people's living conditions and for them community participation is both at the heart of and the instrument for their activities. The working group can instruct these institutions to produce maps in many communities of the territory. In this way, the capacity for replicating this methodology even after the Programme has ended will be installed. The number of institutions in the territory that have learnt to apply the map methodology can represent another important assessment criterion.

Projects generated

The number of projects generated by map production is another important criterion to measure the degree of active community participation. This includes both immediate action projects and more complex projects and the number of people taking part in implementing them. The degree of community participation in direct action to reduce vulnerability represents a way of assessing if a climate of change and greater confidence in the institutions has been fostered.



Promotion of associations

It is an important to verify if the collective experience of map production has fostered the participation of all heterogeneous groups of social actors, generated greater organisational capacity in existing groups, and led to the creation of new groups. Helping the population form associations is strategic to the territorial development programmes, because an organised population can take part in all formal negotiations and local development management. The number of economic and social associations generated by map



activities and the number of people involved in them is an important evaluation criterion. Another aspect is the representativeness of the participants. If producers' associations or women's associations have not taken part in the work, this indicates a problem and more efforts will have to be made to involve them. The variety and representativeness of the social groups involved in the operations is another evaluation criterion.

The participation of institutions

The following areas represent valid criteria for an assessment of the degree of integration between institutions and the population:

- The number of community activities in which the population and the competent institutions work together
- An increase in the use of services and the capacity of users to make specific requests for health care services, training, basic sanitation facilities and others.
- The willingness of service personnel to work outside institutional structures and get to know the different realities of a community, using a language that can be understood and adapting specific interventions to the environment in which they operate and the requests of the community.



Change indices

Quantifiable results such as an increase in the number of vaccinated children, a reduction in child mortality and the incidence of immunopreventable illnesses, diarrhoea, malnutrition, domestic and industrial accidents, and others, are an indication of the effectiveness of the work that has been carried out. These figures will be collected and processed by competent institutions, which, in the case of positive results, can use the methodology in the provision of services.



The consolidation of the community committee

Finally, the consolidation of the function of the local committee by all social groups, its effectiveness, operational capacity and degree of community and institutional integration are all important evaluation parameters. Committee participation in discussions promoted by the Programme (working groups, thematic committees, and others) gives an indication of whether the dynamics of community development in the framework of regional and municipal development processes have been stably established. A well organised committee can form twinning arrangements with other communities at national and international level to share experiences and carry out joint projects. This establishment of external relations is another important assessment criterion.