

OCTOBER 2015

**RAINFOREST
FOUNDATION UK**
SECURING LANDS, SUSTAINING LIVES

THE Mapping For Rights METHODOLOGY

**A NEW APPROACH TO
PARTICIPATORY MAPPING
IN THE CONGO BASIN**

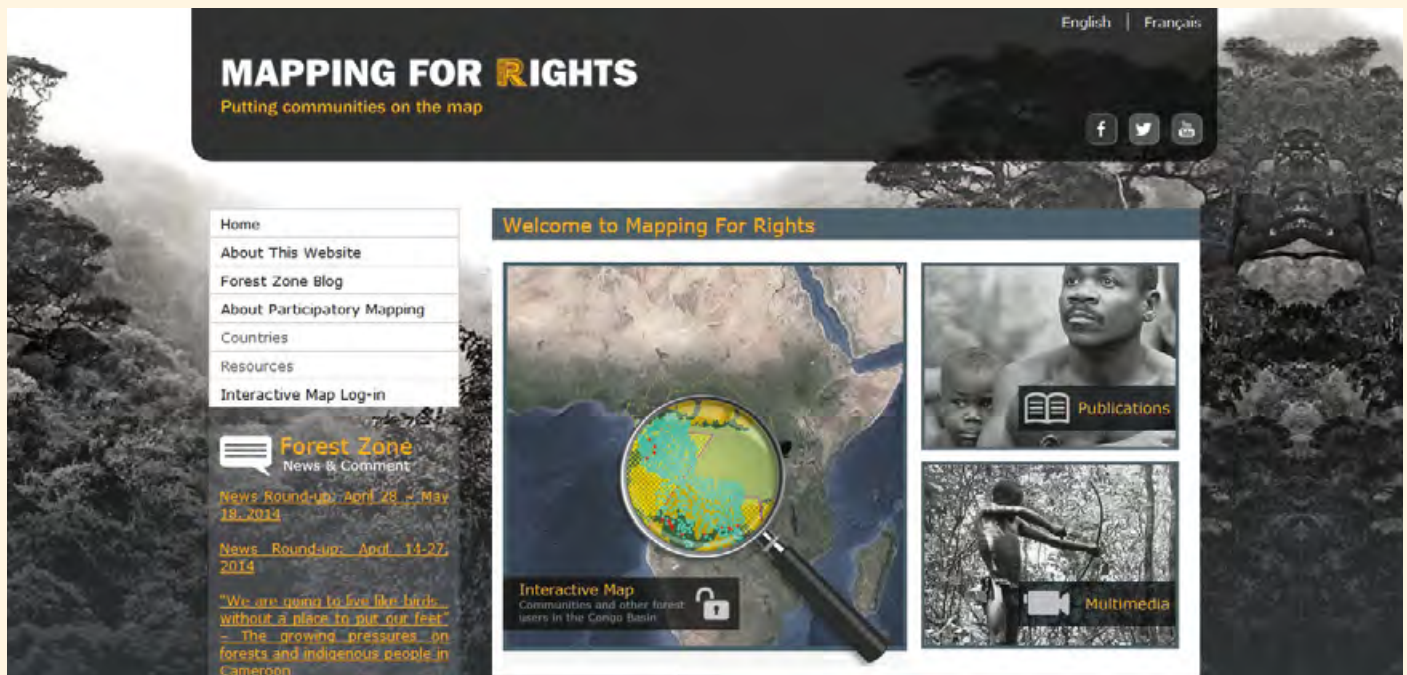
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Ressources Naturelles (RRN), The Rainforest Foundation UK.

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1. INTRODUCTION



MappingForRights is a new approach to participatory (or ‘community’) mapping. It has been developed by the Rainforest Foundation UK, (RFUK), on the back of 15 years’ experience of supporting indigenous and traditional communities of the Congo Basin rainforest in their efforts to fulfil their rights to land and livelihood.

The approach explained in this reference guide is the result of collaboration with indigenous peoples, non-government organisations, (NGOs), community organisations, government agencies and specialised academic institutions. It addresses the need to improve community ‘ownership’ of the mapping process and to develop their capacity to defend their rights to traditional lands, which are under imminent multiple threats.

1.1 BACKGROUND - THE CONGO BASIN

Second in size only to the Amazon, the Congo Basin rainforest covers more than 180 million hectares, across the Democratic Republic of Congo (DRC), most of the Republic of Congo (RoC), the south of Cameroon, southern Central African Republic (CAR), Gabon and Equatorial Guinea. This vast area is a vital regulator of the regional climate, a carbon store of global significance and an important biodiversity reserve.

The Congo Basin is thought to have been inhabited by humankind for more than 50,000 years and today is home to more than 50 million people who depend on the forest for their survival. This includes approximately 700,000 indigenous hunter-gatherers, many of whom still lead a semi-nomadic lifestyle.

The forest is a vital resource for local populations. It provides them with food, water, shelter and medicines and represents an essential part of

their culture and spiritual life. Unfortunately, these peoples are among the most marginalised and impoverished in Africa. Most local communities and indigenous peoples now have limited access to basic services and crucially, the forest lands and resources they have traditionally occupied.

In general, the laws of Congo Basin countries give the State overall ownership of all forest land. Indigenous peoples and local communities have virtually no formal or legally recognised control

of the lands they traditionally occupy, though they are sometimes permitted to use the land. Today, much of the forest in the region has been allocated for logging, industrial agriculture and mining concessions or reserved for wildlife conservation.

There is significant evidence that securing community rights to land and resources is one of the most effective ways to reduce poverty, preserve biodiversity, halt deforestation and reduce the harmful effects of climate change. Therefore, clarification of land rights is increasingly recognised as the cornerstone of good forest governance as well as responsible investment.

Geographical information generated by organisations in the UK and other select organisations in the Congo Basin is collated in a repository web platform – www.MappingForRights.org – in order to facilitate access to a range of information showing customary occupation as well as use of land and resources by forest communities. The visualisation of this data can help to engage policy-makers, the private sector and the international community in a vital step towards changing policy and developing programmes that help secure local communities' rights.

1.2 MappingForRights: A MULTI-FACETED APPROACH TO MAPPING

The MappingForRights approach builds upon previous approaches to Participatory Mapping - a general term used to define a set of approaches and techniques that combine modern cartographic tools with participatory methods, (such as semi-structured interviews, diagramming and visualisations), to represent the spatial knowledge of local communities. It is based on the premise that local inhabitants possess expert knowledge of their local environments that can be expressed within a universally recognised geographical framework.

Participatory maps often represent distinct social and cultural understandings of landscapes. They include information that is often omitted from official maps such as customary land boundaries, traditional and natural resource management practices and sacred areas.

This approach combines participatory mapping techniques, facilitation and hands-on support with the application of relevant and available technology. This combination of tools, guidance and equipment enables communities to identify advocacy goals that their maps could support. The maps are designed to provide a snapshot of the communities' reality, including information on their history and socio-economic situation and demonstrate occupation and use of specific areas by communities.

Facilitation is a central part of our methodology and the successful application of this approach relies on the ability of facilitators to encourage the sharing of local knowledge and experience. Facilitation also ensures that the entire process is **community-driven**.

The creation of participatory maps marks the beginning of a long-term process, in which

communities and supporting organisations use the data collected to advocate for the defence and promotion of the rights as well as the interests of communities. The maps also encourage better decision-making, as well as fair and transparent forest governance.

Also, our approach allows for the secure storage of the data in hard and digital copy so that it can be used and updated in the future.

A FACILITATION EXERCISE CAN INVOLVE:

- A discussion that takes place in a village to elect community mappers.
- Enabling exchanges and negotiations between a community, government representatives and external actors with interest in community lands or resources. (These could be conservation agencies in charge of managing a protected area allocated on ancestral community lands, or managers of a logging concession, for example).
- Managing discussions between members of two neighbouring communities about overlapping rights on land or resource use.

1.3 EVOLVING MAPPING PRACTICES TO MEET INCREASING CHALLENGES

The challenges facing forest communities are ever increasing, so RFUK is constantly seeking innovations in technology and practice so that it can evolve and respond to these.

1.4 KEY FEATURES OF MappingForRights

MappingForRights IS CHARACTERISED BY:

The mapping of customary land tenure and resources use: Mapping exercises present their use of resources but where traditional systems of land management exist, we also help communities to map these.

A decentralised approach to mapping: Field teams are comprised of Geographic Information Systems (GIS) technicians and mapping facilitators, equipped with mobile mapping laboratories that enable them to fulfil the entire mapping process at village level without major disruption.

THIS APPROACH PROVIDES:

- Ongoing support to indigenous and local communities as they define and implement their advocacy goals and throughout the mapping process.
- Strengthened and often targeted participation of all groups within a community, including marginalised groups (such as women and women and children). This ensures their ownership of the process.
- The ability to work with very isolated villages that are difficult to reach from capitals or provincial towns.
- A reduction in the operational costs of the mapping process. According to our calculations, the cost of previous mapping work per hectare is reduced by at least half with this new approach.
- More efficient time-management as field teams operate permanently in villages. In current projects, field teams spend an average of 20 days per month with the communities and a few days in the offices of local NGO partners for administrative tasks and data processing.
- Mapping of customary boundaries (where they exist) of areas where communities have traditional rights.
- Collection of key social, economic and historical data to document the specific conditions communities are living in and highlight their needs and challenges.
- Development of customised and free software applications:
 - Use of GPS-enabled tablets (or smartphones) equipped with survey application apps that use icons developed with communities, enabling the participation of all, including non-literate people.
 - Ability to download and upload data in near real-time (depending on connectivity in the countries and cities) directly from and to the web platform, MappingForRights.org.
- The use of computers, electronic and audio visual material (camera, projector, printers, etc.) adapted to tropical areas.

1.5 DATA COLLECTED

During the mapping work, data is collected based on eight main parameters, including information on general village characteristics, socio-economics of communities and traditional tenure. The data is represented on a map or other media by a point locating an object or activity, a polygon representing an area (for example, the land of a clan), or by additional descriptive information.

PARAMETER	ATTRIBUTES	DATA	TYPE (POINT, POLYGON, LINE, DESCRIPTION)
VILLAGE		Name, location, altitude, date surveyed, contacts, other descriptions.	Point and description
	Characteristics of the village population	Main characteristics of the population: total number of inhabitants including children, women, men, ethnic composition (e.g. indigenous-Bantu), names of clans, traditional organisation, languages.	Description, numerical
	Socio-economic and development indicators	Number of children in primary education/school, the presence of a pharmacy within 5km, the presence of a drinking water point, connection to an electricity network, connection to a telephone network, number of people in paid work	Point and description, numerical
	Challenges	List of key issues faced by communities in the access and use of lands and resources.	Description
	External actors	Names of the actors, description of main activity (protected area, industrial).	Description
		Logging, artisanal logging, mining, agro-industrial plantation, human-wildlife conflicts, other).	
CULTURAL AND LIVELIHOODS ACTIVITIES (1)		Name of the activity, description (hunting, fishing, gathering, agriculture, community forest, cemetery, sacred site, church, and ruins), data collection date, frequency of use.	Point polygon and description
NATURAL FEATURES		Name of the feature, description (waterfall, rocks/cliffs, savannah, cave), frequency of use, other associated villages.	Point and polygon
ROADS AND RIVERS		Type (water, land), frequency of use, other associated villages.	Point and polygon
TRADITIONAL TENURE (2)		Village, clan, decision-making powers, land management systems, presence of external actors, challenges related to access to land.	Polygon and descriptions
		Name of the infrastructure, type (sports field, water point, market, store, warehouse), year of construction, funding, ownership (individual, village, state, private actors), functional infrastructure or not.	Point and description
EDUCATION		Name of the school, type (primary, secondary), names of villages using the school, building material (brick, cement etc.), number of classrooms, number of students, number of teachers, length of curriculum, difficulties encountered.	Point and description
HEALTH		Name of the facility, type (health centre, clinic, hospital), names of villages using the centre, building material (brick, cement etc.), number of beds, number of doctors/nurses, average number of patients per year, difficulties encountered.	Point and description

Notes to table:

(1) About community, cultural and livelihoods activities: Cultural and livelihoods activities points are among those recorded. These are mainly used to indicate or point out the fact that communities are active in the area surrounding the point. To better evaluate space used by communities, a 'buffer' area (which could vary from 1 to 20 kilometres) needs to be applied to each point included in the community map to have a clear view of what communities use in terms of land.

(2) About traditional tenure customary land tenure (traditional tenure): This is the relationship defined between people, as (individuals or groups), with their land and its resources. These vary from one region to another and also from one group of people to others. In some places, strict rules govern how they manage their land and resources, in other places, the rules are very flexible. Our mapping work aims to present the exact circumstance for each specific group of people that relates to their history and their customs.

1.6 RESOURCES NEEDED FOR MappingForRights

1.6.1 HUMAN RESOURCES

FACILITATION TEAMS

The facilitation team is composed of a Geographic Information System (GIS) technician and a mapping facilitator. They sometimes work together and sometimes separately, according to the stage of the process, and have clearly defined roles:

- The GIS technician coordinates all activities of the mapping process and ensures the successful collection of cartographic data and the production of geo-referenced community maps.
- The mapping facilitator organises the logistics of field activities and assists the GIS technician in carrying out the various stages of the process whilst assisting the community members with participatory exercises.

Facilitation teams work under the supervision of locally-based NGOs which provide logistical support, monitors their work and helps with the use of maps by communities and other advocacy work.

COMMUNITY MAPPERS

Community mappers are selected by their own communities with support from the facilitation teams to ensure that they best represent the different components of the community, and the different types of knowledge about ownership, use and control of community land and resources as well as possible.

Community mappers play a key role in making sure the community map is accurately presented, but also that other members of the community fully understand the final map.

When the map is ready, community mappers or other members will then be trained in how to make best use of their maps and other related data as powerful advocacy tools.



1.6.2 LOCAL NGO COORDINATION



When the maps are ready, local NGOs are responsible for the support to communities to use their maps. This is done through community meetings, training meetings and public meetings to discuss issues presented by the maps.

Local NGOs also provide communities with existing laws related to their cases, and training on simple and accessible advocacy tools they could use with or without their support.

1.6.3 MATERIAL RESOURCES

Each field team is supplied with a fully equipped mobile mapping laboratory comprised of:

- 8 to 10 GPS-enabled tablets (or smartphones)
- 2 motorbikes with helmets and spare parts
- 2 laptops
- 2 field laptops
- 1 mobile projector
- 1 semi-professional video camera
- 1 still camera
- 1 2.5 KVA portable generator
- Field equipment (tents, sleeping bags, backpacks, torches, boots, waterproof jackets etc.)
- Training kits (paper in different sizes, pencils, coloured pens, and copies of official and community maps, official mapping data).
- Copies of relevant laws related to community rights over land and resources.

1.6.4 FINANCIAL RESOURCES

Financial support is required for travel and living expenses in the forest. Actual costs depend on location, but in DRC, for example, field teams spend between US\$780 and US\$930 per village for all the work leading up to and the production of a community map.

1.7 WORKING WITH DIFFERENT COMMUNITIES

In the Congo Basin, customary tenure situations can vary wildly from region to region, though, in general, we consider there to be six main groups:

- Indigenous communities that have customary rights to their own forest territory and collect resources beyond their boundaries.
- A Bantu community that has customary rights to its land which is traditionally managed and de facto 'controlled'.
- "Mixed" villages (Bantu and Indigenous) that share the same forest territory, one of them having customary rights to the land.
- 'Long standing villages' whose occupants use a forest territory that is traditionally owned by others.
- Villages (Bantu, indigenous, or mixed) that contain a significant number of recent immigrants.
- A set of villages with their own forest territories, some of which overlap.

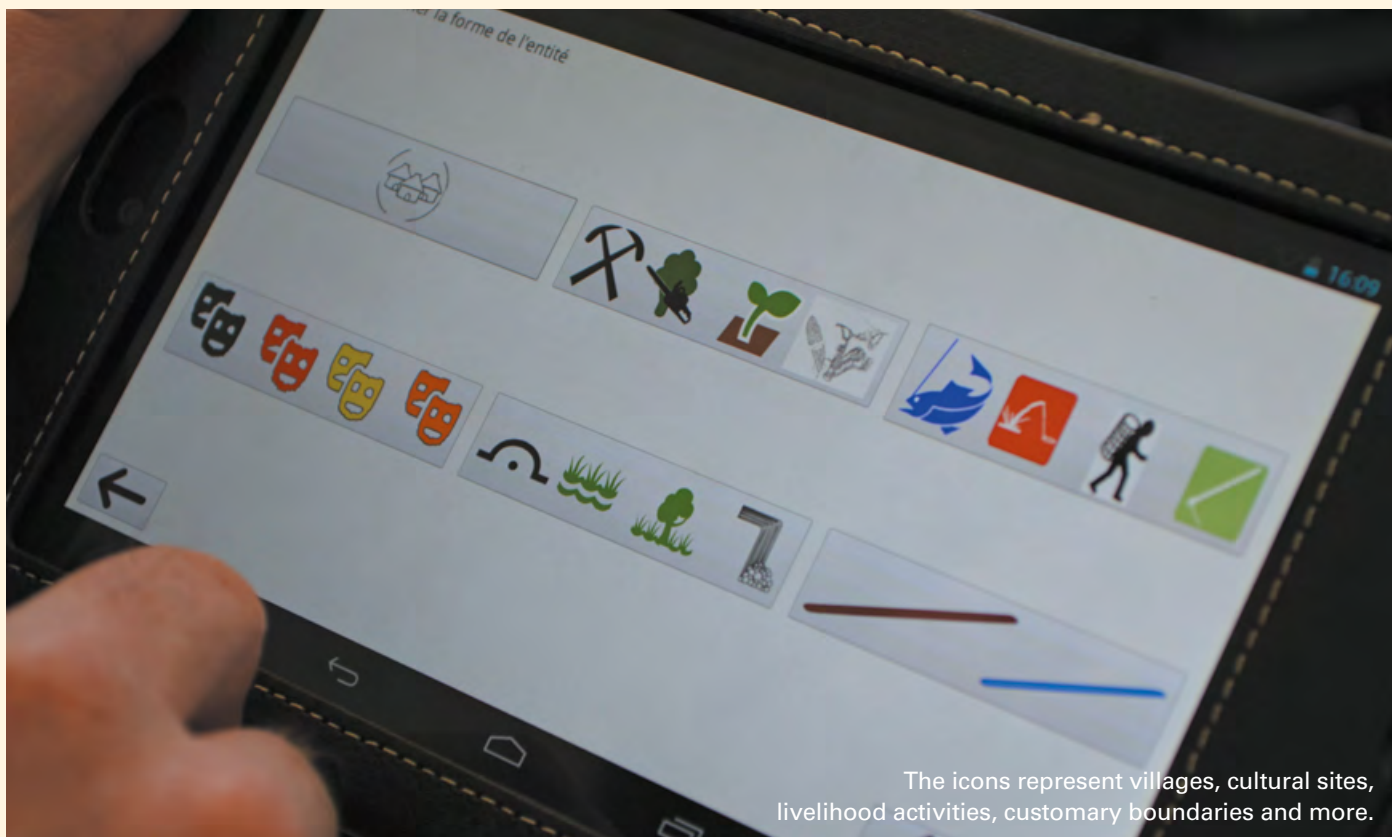


These situations - or variations of them - are identified by the mapping facilitators during the scoping work and determine the organisation of the mapping exercise.

1.7.1 INDIGENOUS VILLAGES THAT HAVE CUSTOMARY RIGHTS TO THEIR OWN FOREST TERRITORY

While working with forest communities in the Congo Basin, RFUK and its partners pay particular attention to indigenous peoples because of their specific situation. Characteristics of indigenous peoples' occupation, use and management of forest areas can be significantly different to other forest communities, although indigenous and Bantu groups, in some regions, share the same dependence on the forest for their survival and development. In semi-nomadic hunter-gatherer groups, these characteristics are often expressed through:

- A notion of territory marked by their seasonal traditional activities.
- Use of larger areas covering up to hundreds of kilometres, sometimes following a cycle.
- More varied periods of use.
- More diverse use of resources.
- Distinct cultural relationships with forest 'resources'.
- Decision-making processes that are often regarded as more egalitarian or less 'top down' and that vary from one situation to another. (For example the leader during a hunting party may not be the same when there is need for the community resource person).



The icons represent villages, cultural sites, livelihood activities, customary boundaries and more.

Mapping facilitators must ensure that the approach they take with a given community is adapted to the specific needs of that group. For example, because indigenous communities' decision-making structures are often more egalitarian, it may take them more time to reach a decision. The process should prevent exclusion and discrimination of marginalised groups. Measures taken to ensure this can include:

- The provision of one or more indigenous translators
- Adaptation of participatory research tools (for

example, a walk in the forest with one or more indigenous individuals) to capture the differences in use and management of resources, decision-making systems and indigenous-Bantu relationships, especially in relation to customary rights of the different components of the community.

- Plans that allow more time with indigenous communities in order to fully understand their use and management of the forest and involve them in the mapping process.

1.7.2 BANTU VILLAGES THAT HAVE CUSTOMARY RIGHTS TO THEIR LAND THEY TRADITIONALLY MANAGE AND 'CONTROL'

In some parts of the Congo Basin, there are numerous distinct groups known collectively as Bantu communities. These are primarily farming communities but many of them depend heavily on forest resources to complement their daily needs in terms of food, medicines and building materials.

These communities are generally more formally structured than indigenous communities, making support for them in the mapping process somewhat more straightforward.

1.7.3 'MIXED' VILLAGES (BANTU AND INDIGENOUS)

In the Congo Basin, there are many 'mixed' communities generally composed of Bantus and indigenous peoples groups, as a result of contact, union and exchange that has occurred over more than 60 years. These are villages that share at least some of the same forest territory; with one of them generally considered to traditionally own it. They are often characterised by one or many groups located in different places in the same administrative unit¹ sharing and using resources in different ways. Bantu tend to do more farming whilst indigenous peoples tend to concentrate mostly on hunting and gathering.

Their interactions with the forest can be very different. To make sure the map from such communities represents these diversities, the mapping facilitator will allow sufficient time to organise meetings with the two groups to collect specific data on occupation and use of lands and resources. The facilitator also insures that each group that each group is provided with sufficient time and resources to map and present their use and management of the land and resources and their perspectives about the issues they face in the use of their land.

This creates an environment that encourages free expression of the views of each group and their perceptions of their rights to forest lands and resources. There is generally a risk of marginalising one group and producing a map of a 'mixed' community that only represents uses, management and perspectives of one group.

1.7.4 'LONG STANDING' VILLAGE COMMUNITIES THAT HAVE OCCUPIED AND USED FOREST LANDS TRADITIONALLY OWNED BY OTHER COMMUNITIES

In the Congo Basin, there are situations whereby communities have settled on and are using land which is in fact customarily owned by others.

This situation can arise in villages that were 'created' as a consequence of eviction from their traditional lands during colonial times or as a result of logging permits, protected areas, saw mill installations, or creation of markets alongside river banks for example.

During the mapping work with these villages, mapping facilitators make sure these groups are included either by ensuring their representatives are part of the mapping teams, or organising specific meetings with them before, during and after the mapping production process.

During this phase, the teams will help map the tenure as managed by the traditional owner and the use of the land by each of the groups living on and using the community territory.



¹ In Cameroon for example, many indigenous communities are part of local administrative units "village", and these are generally refers to as "campements" which mean a settlement of the village

1.7.5 VILLAGES WHICH CONTAIN A SIGNIFICANT NUMBER OF RECENT IMMIGRANTS

These are villages largely made up of people who have limited interactions with the forest or little customary relationship to it. They are sometimes temporary or short term workers brought there by extractive industries. People from these groups tend to farm and hunt to supplement their diet, and in some cases, they turn to the forest after losing their job. As well as making sure that local mappers include activities for these groups, where possible, the mapping facilitator will also organise specific meetings with them to include their use of resources in the community map.



1.8 RESOURCES USED BY COMMUNITIES

In the Congo Basin, forest resources are generally shared between neighbouring communities, even in areas where there is a clear tenure system with well-known boundaries between clans and communities and knowledge of who traditionally owns the land. The usage rights of different groups tend to overlap.

In other places such as in parts of southern Cameroon, communities tend to use their forest with no limitations between each other or obligations. As soon as you are considered to be member of a community, all the activities in the forest are open and free of charge.

Those who are not members of these communities, who express an interest in using the forest, especially if they intend to farm it, must seek permission from the village chief, or the clan/family group, who are considered to be the owners of it.

2. THE STAGES OF MappingForRights

THE MAPPING PROCESS IS CARRIED OUT THROUGH EIGHT INTER-RELATED STAGES:



- | | |
|--|---|
|  STAGE 1: IDENTIFICATION AND INFORMATION |  STAGE 5: DATA TRANSFER AND VERIFICATION |
|  STAGE 2: SCOPING |  STAGE 6: DATA PROCESSING AND PRODUCTION OF THE COMMUNITY MAP |
|  STAGE 3: TRAINING OF COMMUNITY MAPPERS |  STAGE 7: VALIDATION OF THE COMMUNITY MAP |
|  STAGE 4: DATA COLLECTION FOR THE COMMUNITY MAP |  STAGE 8: SUPPORTING COMMUNITIES TO USE THEIR MAPS |

The objectives, processes, main results and expected outputs for each stage are described in this section. Specific issues that need to be taken into account during the mapping exercises are also addressed in boxed notes.



“FREE, PRIOR AND INFORMED CONSENT” (FPIC)

Ensuring the right to “Free, Prior and Informed Consent” is a core element of RFUK’s work. In accordance with FPIC, a community has the right to give or withhold consent to any activity proposed by external actors. In the context of participatory mapping, this could mean anything from participation in mapping exercises, to agreement to share specific data. It also implies that communities should have opportunities throughout the project cycle to be able to propose changes as they see fit. The giving of any consent should not be seen as one isolated instance at the beginning of a project. It should be prior to the design or planning of any project, and should be ongoing, meaning that communities should have the right to object as the project or activity progresses, and the obligation to continue consulting with them remains throughout the project or activity cycle. In the implementation of participatory mapping projects, facilitators should ensure that they provide opportunities for communities to express their consent by:

- Presenting all the information about the project, the expected results and desired impacts, so that they are fully informed of mapping objectives, how their maps can be used and how the mapping will be conducted in a format and a language that they can easily understand.
- Ensuring that the community is fully and genuinely represented during any consultations.
- Giving the communities adequate opportunities to express themselves freely and without pressure. This means respecting the processes by which communities make their decisions traditionally, as well as the length of time it may take to make these decisions.
- Confirming communities’ commitment at all stages of the mapping process, including any decision prior to a map being made.
- Being flexible in organising working time and logistics in order to take into account suggestions and proposals from the whole community.
- Being prepared to not proceed with the mapping exercise with the community if it doesn’t feel this is necessary or important for their needs and interests.

2.1 THE MappingForRights PROCESS EXPLAINED



STAGE 1: IDENTIFICATION AND INFORMATION



OBJECTIVES:

- To identify and locate targeted villages.
- To successfully collect basic information on communities: population (number, ethnicity), presence of extractive concessions, protected areas, key challenges faced by communities to access land and resources, local infrastructure, accessibility and logistics.
- To provide the community with all the information needed to enable their free, prior and informed consent (FPIC) to participate in the project.

PROCESS:

- The itinerary for visiting, consulting with and preselecting villages is prepared in advance from available maps of the local area.
- Facilitation teams use motorbikes and/or boats to visit all preselected villages (a car will not reach all the remote villages and settlements). Depending on the size of the area to cover, the teams visit an average of three villages per day and this initial mission can last up to one month.

RESULTS AND PRODUCTS:

- Preliminary knowledge and experience of the communities' environments.
- A report describing the villages and their local context, which highlights risks and opportunities for mapping, identifies logistical constraints and proposes a plan for the rest of the process.
- Basic maps of visited areas (location of villages and camps, roads, rivers and any information that is not available on official baseline maps).



- The teams present the objectives of the project, the mapping methodology, the indicative timetable and all the information necessary to enable the community to decide whether or not to engage in the project. Information should include what the project can and cannot achieve and the potential opportunities and risks for the community.

SPECIFIC ISSUES

Building trust with communities: Building trust with communities and their representatives is a key component to a successful mapping project.

This is a gradual process that uses a variety of approaches based on local situations. Trust can be built with communities by:

1. Giving them the opportunity to express themselves; their hopes for the maps; their questions and concerns. Facilitators listen to communities and finalise the mapping process accordingly, especially at the initial meetings.
2. Using the language with which the community is more comfortable to communicate in and, in indigenous communities, ensuring the presence of an indigenous translator.
3. Ensuring that, for mixed indigenous-Bantu communities, the initial meetings are jointly held. Separate meetings with each group are organised later on in the process so that they can express themselves freely, as in many cases indigenous people will be marginalised and/or discriminated against.
4. Discussing and agreeing logistics (accommodation of the mapping team and food and drinks for local mappers during mapping exercises) with the community.

2.1 THE MappingForRights PROCESS EXPLAINED



STAGE 2: SCOPING



Scoping is a process of collecting relevant information related to land and forest resources and communities. It is a continuous exercise that takes place during the entire mapping process and is not limited to the work presented at this stage. For example, while community mappers collect geo-referenced data in the forest, facilitators can continue to research and triangulate information initially collected with community members, such as elders, community leaders, schools and health centres staff.

OBJECTIVES:

- To gain the free, prior and informed consent (FPIC) of communities.
- To identify criteria for the selection of community mappers.
- To collect information about the community and its situation in relation to access and use of forest lands and resources, and identify with the community the necessary conditions to achieve the mapping exercise.
- To ensure the community defines the purpose and strategy for using the participatory map.

PROCESS:

After gaining FPIC of communities, a 'participatory diagnosis' is performed to collect and verify information, through:

- Interviews (with individuals and groups)
- Historical profiles that can explain the story of the village (see fig.1)
- Venn diagrams that show external actors in the community environment and the relationships between them (see fig.2)
- A seasonal calendar showing seasonal activities, including forest activities (see fig.3)
- A problem tree (see fig.4)
- Project plans
- Mapping assessment
- Community reporting tools (see fig.5)

An important exercise during the participatory diagnosis is the facilitation of discussions and reflections on the possible use of the community map. Based on examples of participatory mapping in the Congo Basin region, and the problems faced by the communities regarding access, use, and control of their traditional land and resources, the facilitators help the community to consider possible uses for participatory maps that could help address communities' needs and concerns.

FIG.1 HISTORICAL PROFILES:

The history of the village helps everyone understand the process of occupation of space that can be based on different factors

IMPORTANT INFORMATION TO INCLUDE IN THE HISTORIAL PROFILE:

- The year of creation and the reason for choosing the location of the village.
- The major events that marked the life of the village.
- The evolution of the village (creation of water wells, new neighbourhoods, electrification, the first generator, the elections, the first outsiders who arrived for example)
- Social organisation and the names of chiefs and notables who have impacted the village life and how.

HISTORIC PROFILE OF BOKONA VILLAGE



CREATION OF THE VILLAGE BY PHILEMON BOEME WHO DISCOVERED THIS SITE DURING HIS HUNTING HIKE



THE VILLAGE IS MOVING FURTHER IN TO THE FOREST



INDEPENDENCE DAY



EPIDEMIC OF CHOLERA



ARRIVAL OF A LOGGING COMPANY

2.1 THE MAPPINGFORRIGHTS PROCESS EXPLAINED

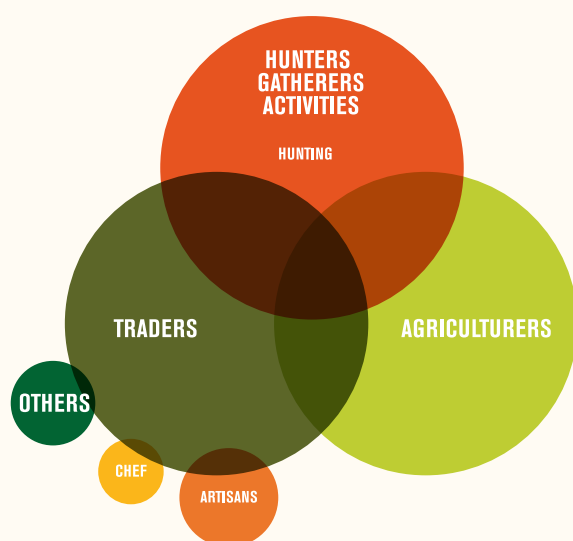
There is no specific timetable for conducting this work. It depends on the availability of the villagers, which requires flexibility and adaptability from facilitators. Work may be held at sunrise on the village square, continue in the fields or forest during the day, and finished during dinner and evening conversations. It may take a few days to over a week depending on the size and composition of the village and community involvement.

During this phase, it is important to ensure that all sections of the community are involved (traditional authorities, women, men, young people, different ethnic groups) and sufficient time is allocated to work with each specific group.

At this stage and in some cases, communities may not be interested in proceeding with the mapping exercise. This can happen for various reasons. The communities may treat outsiders

and the mapping process with suspicion. If this happens, the mapping facilitators further explain the methodology and the expected outcomes of the project and suggest returning to the village on the request of the community, in the future. Often the successful mapping work undertaken in neighbouring communities can have a positive influence, encourage them to take part and convince them of its value.

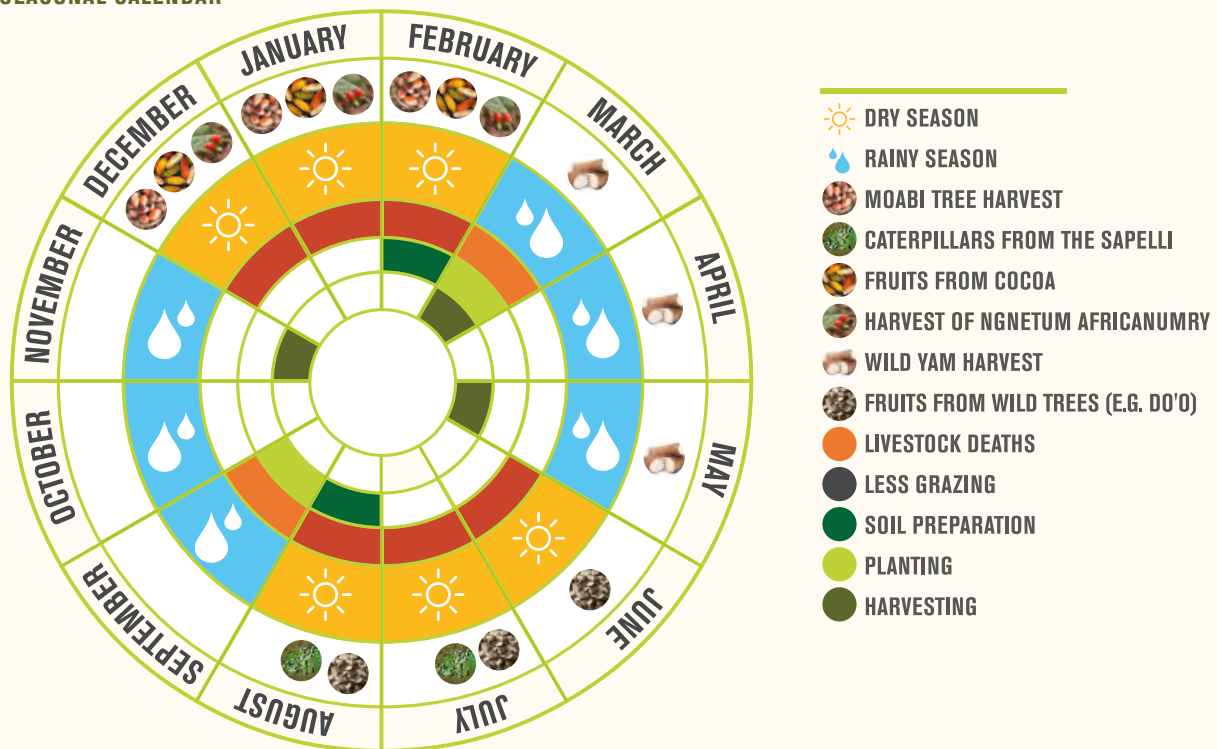
FIG.2 EXTERNAL ACTORS IN THE COMMUNITY ENVIRONMENT



ONCE THE COMMUNITY HAS GIVEN CONSENT, THE TEAM GENERALLY PROCEEDS BY:

- Delivering a detailed project presentation with a question and answer session.
- Leading discussions on the problems faced by the village in connection with the access, use and control of forest resources, the different actors involved, and any action already taken by the village to use their map address any problems.
- Reassuring communities that they have partners supporting them at national and international level.
- Managing the collection of socio-economic data (education, health, and infrastructure) and any information relating to the history and context of the village.
- Completing the identification of clans and ethnic groups within the villages, their relationships, and the distribution of property rights between them. For example, this is when the facilitators acquire information on rights-holders (those who have customary rights to land), users (those who have resource rights) and identify migrant groups.
- Initiating the mapping process for the community map by drawing a community map on the ground and on paper (see stage 4).
- Discussing the expectations of the project, and those of the community. For example, it is important to emphasise that the project will help to produce maps and facilitate meetings with authorities, but the community is responsible for presenting their problems and claims using the maps.

FIG.3 SEASONAL CALENDAR



- Planning the next stages of the mapping process with the community.
- Defining criteria for selecting community mappers. Generally, depending on the size of the village and the number of clans, three to six community mappers may be selected. They will be representative of the different ethnic groups and other groups within the community. A community may identify several criteria to select local mappers, but in general there are four main criteria proposed by communities:
 - Good knowledge of the history of the village.
 - Good knowledge of the traditional lands of the village (or of specific clan lands if there are several clans in a village).
 - Good knowledge of forest activities in the community and how to get there.
 - A willingness to work for the benefit and interest of the whole community.

FIG.4 A PROBLEM TREE



2.1 THE MAPPINGFORRIGHTS PROCESS EXPLAINED

FIG.5 COMMUNITY REPORTING TOOLS



RESULTS AND PRODUCTS:

- By the end of this stage, both the facilitation team and the community will have established a collective understanding of the environment, the methodology and the project planning.
- The community better understands the role of the community map for advocacy and an outline plan to use the map is developed.
- The facilitators develop with the community a list of criteria to guide the selection of community mappers.
- Facilitators organise collected data on computers (notes, transcripts of exercises done on the ground, photos, video interviews etc.) and begin to draft a monograph of the village. This document presents the village; its history, and the main socioeconomic conditions. It also gives an insight into the main concerns and needs of communities in relation to access, use and control of forest

resources in their traditional land, and provides some initial ideas for community advocacy strategies (using the participatory maps).

AT THE END OF THE SCOPING STAGE, TWO SCENARIOS ARE POSSIBLE:

- The whole community is ready to participate in the production of the community map (this is often only possible in the case of low population communities).
- The community has defined the criteria for selection of community mappers and have nominated them for training.

SPECIFIC ISSUES

Inclusion of local authorities:

It is important to meet with local authorities during the first community visits to inform them of the project, its potential contributions to processes related to the management of lands and resources, and how they will be involved, particularly in the context of meetings and workshops to present and discuss the community maps. Administrative authorities and customary authorities with specific responsibilities for the management of land (for example, “land chiefs” in the Democratic Republic of Congo) may also be involved.

Communities with immigrant populations:

Where immigrants are present in the community, the social relationship between them and other land users/owners tends to be more fragile as the two groups may have different perceptions of each other's rights. This can lead to conflicts over land at the local level.

In these cases, the facilitator will establish whether there are actual or latent conflicts between the two groups. Thereafter, he/she will work with each group to obtain an accurate representation of their views on the allocation of rights in the village, as well as resource use by each group.

In the case of indigenous villages where there are immigrants, the facilitator ensures that immigrants do not dominate discussions at the expense of local/indigenous peoples, and to do that, he/she includes provisions for separate meetings.

Due to the existence of potential conflicts between customary owners and immigrants, the facilitator will take care to act with diplomacy regarding the use of maps for resolution of such conflicts between the two groups, so that they do not generate new conflicts or exacerbate existing ones.



2.1 THE MAPPINGFORRIGHTS PROCESS EXPLAINED



STAGE 3: TRAINING COMMUNITY MAPPERS

OBJECTIVE:

To successfully train community representatives (or all the community) to map their traditional lands and resource use.

PROCESS:

- Training takes place in the village (in a school, for example).
- It takes a minimum of three days and consists of the following specific sessions:
 1. The basics of mapping (what is a map? map components - title, legend, orientation, scale etc, role and importance of maps).
 2. Reading and understanding a map (it is important to provide several copies of various types of maps).
 3. The stages of production of the community map (e.g, on the ground, on paper and on a computer).
 4. The handling of mapping equipment (GPS or tablets, collection sheets).
 5. Possible uses of a map.
 6. Practical data collection exercises.
 7. Planning and logistics to prepare for data collection in the forest.

RESULTS AND PRODUCTS:

- A sketch of a community map with clear indication of the routes to be followed by each team of local mappers.
- A team of community mappers are able to use the GPS-enabled tablet to collect georeferenced data of the occupation and customary use of land and resources, and can continue discussions with the community on the possible uses of the map (after the departure of facilitators).
- A report on the training of community mappers is integrated in the draft monograph of the village.



STAGE 4: DATA COLLECTION

OBJECTIVE:

To collect effective and useful field data to enable the production of a community map.

PROCESS:

Data collection from the scoping stage continues while the local mappers are trained and GPS points in the forest are recorded. It ends when the map is validated by the community.



THE COMMUNITY MAP IS COMPOSED OF DATA FROM FOUR SOURCES:

1. OFFICIAL BASELINE DATA

Where it exists and is believed to be reasonably accurate, official baseline data (to be prepared previously by a GIS technician).

2. THE GROUND MAP

- Collective identification of elements to be included in the map (hunting, fishing, gathering areas, rivers etc.).
- Choice of a symbol for each identified element (for example, a leaf to indicate a hunting camp or cassava powder to define the road).
- The production of a ground map begins with the most notable features such as the main road of the village, or the river near the village.
- With the support of facilitators, community members are invited to draw the tracks they take to check traps, to fish, collect vegetation, work in the fields and where they practice cultural and religious activities etc. This is usually a progressive process with the more subtle elements being added later once participants have gained an understanding of and confidence in what they are doing.
- Once the ground map is finalised, one or more members of the community copies it to paper, with the support of facilitators, preferably on a large format (A1 size). The paper map must then be submitted to all members of the community for comments, and amendments are made accordingly.

3. THE COLLECTION OF DATA IN THE FIELD USING GPS-ENABLED TABLETS:

- Use of tablets with integrated GPS, and specific icons for data collection. The local mappers can fill in the attribute table when in the field (see table outlining data collected during mapping process on page 5).
- Organisation of teams of community mappers: they are generally formed of at least two persons, one responsible for the GPS-enabled tablet and the other for transport of equipment and logistics in the field.

- Prior to the field visit, the facilitator must ensure that the teams have the necessary equipment (GPS-enabled tablet, portable battery, machetes, food rations etc.) they need for the expected duration of stay in the forest, which can be up to 10 days in some cases.
- If the community agrees, mapping facilitators can join the field teams. But they generally stay in the village to continue data collection initiated during the scoping stage and to prepare for validation of the map.

4. DATA COLLECTED DURING THIS PHASE

This data about community history, livelihood, education, health and perspectives together with the final map are key for the support of community claims on their land and resources.

RESULTS AND PRODUCTS:

- The occupation and customary use of land and resources by communities are visible on a sketch paper map and GPS data is available for processing.
- The monograph of the village is enriched with additional information.

SPECIFIC ISSUES

Should communities be financially compensated for participation?

RFUK's mapping projects have not paid communities for their involvement in participatory mapping exercises because it is a process that belongs to them in order to address their challenges and interests.

However, a financial contribution may be considered to compensate for loss of time endured by local mappers during data collection in the forest. For example, time lost for hunting during field work can be compensated through nutritional support for community mappers' families or the payment of a symbolic daily fees for local mappers for the time spend in for data collection in the forest. Providing meals for community members during group work is also important to be considered.

2.1 THE MAPPINGFORRIGHTS PROCESS EXPLAINED



STAGE 5: DATA TRANSFER AND VERIFICATION



OBJECTIVE:

- To have all geo-referenced data covering the entire traditional community lands successfully transferred onto a computer.
- To retain FPIC based on data collected.

PROCESS:

- As soon as the field teams are back in the village, the GIS technician uploads the GPS collected data on to the computer. This transfer is done immediately to avoid possible data loss.
- The different data streams collected from the tablets (GPS) are merged on the computer using a Qgis application (Merge tool).
- The facilitators then work with the community

mappers to check whether the information has been correctly entered.

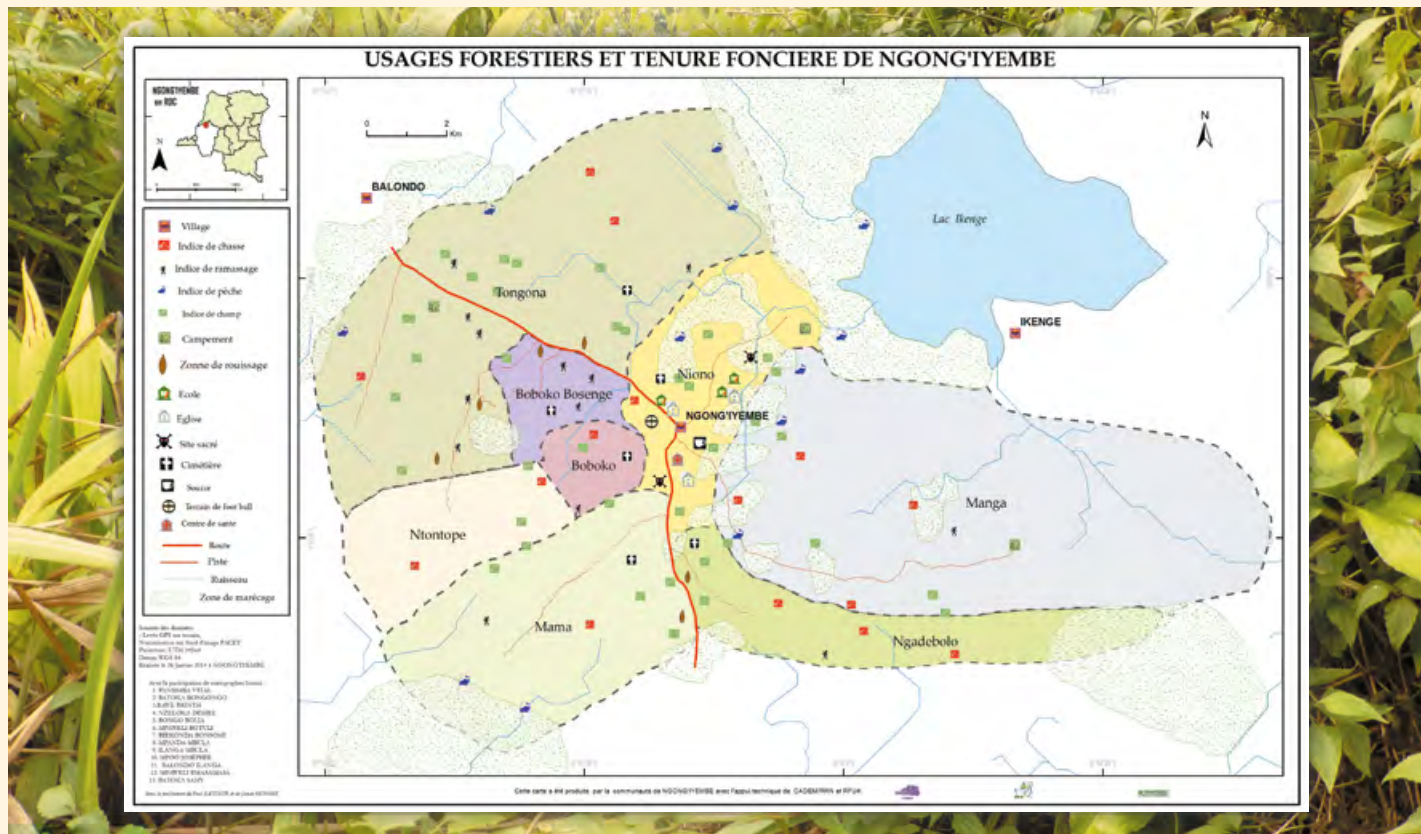
- Attribute tables of each community map layer are filled with relevant information together with the local mappers.

RESULTS AND PRODUCTS:

- Field data is uploaded onto the computer and grouped in specific layers.
- Attribute tables of community map layers are filled with relevant information.
- A first draft of a digital geo-referenced map is produced.



STAGE 6: PRODUCTION OF A FULL DRAFT COMMUNITY MAP



OBJECTIVE:

To successfully produce a geo-referenced community map.

PROCESS:

- 1 The verified data is transferred on to official baseline maps and treated with QGIS software which checks the data is accurate.
- 2 The GIS technician works with local mappers to ensure the accuracy of the data which allows a better appropriation by the community of the map produced.
- 3 After the work with local mappers, the GIS technician creates a layout for the community map including:
 - The title of the map
 - The map canvas
 - The legend
 - The orientation
 - The scale (numeric and graphic)
 - The north Arrow
 - The names of the local mappers and logo of supported organisations

RESULTS AND PRODUCTS:

- A second draft of a geo-referenced map is produced on a computer.
- Copies of the draft map are printed on a portable printer for the validation stage.

2.1 THE MAPPINGFORRIGHTS PROCESS EXPLAINED



STAGE 7: VALIDATION



OBJECTIVE:

- To create a map that fully reflects the vision of land and resources by the entire community.
- To help identify and if possible resolve any issues between neighbouring communities.

PROCESS:

Validation of the participatory map is a crucial stage as it is important that the map is considered accurate by all in the village and neighbouring villages, especially regarding issues related to land boundaries to avoid conflict. Validation is carried out at three levels:

1. VALIDATION WITH COMMUNITY MAPPERS

The data collected is compared with the data contained in the sketched map. It may be that, for example, some traditional areas were not covered and an additional trip to the forest must be arranged.

2. THE MAP IS CIRCULATED AMONG THE COMMUNITY

For verification community mappers present the draft map to the community to confirm that they understand the map, to collect and prepare some suggestions and to scope community validation.

With mixed communities, the facilitators work with teams from each ethnic group separately and then together at a later stage.

3. VALIDATION WITHIN THE COMMUNITY

This is a very important step to encourage the entire community to take ownership of the map.

Preparation by the facilitation team involves printing copies of the map validated by community mappers, a presentation sheet of the icons used in the legend of the map and guidelines for validation (e.g. how to understand the symbols, add missing information or modify the information contained in the map). The team will use any necessary equipment to present the map (i.e. projector, generator, etc.) and organise differentiated validation groups (Bantu, indigenous peoples, immigrants, men, women, hunters, fishermen etc.) before everyone meets together.

THE FACILITATION TEAMS WILL:

- Present the map to the entire community using the projector (e.g. projection on a sheet at night).
- Facilitate the correction of errors by each group.
- Facilitate the completion of missing information by each group.
- Facilitate the compilation of the work of the different groups.
- Discuss the intellectual property of maps and how to use them.
- Where possible, ensure minutes of the validation meetings are duly signed by the village head or recognised authority (ies) of the village.
- In the case of mixed communities or communities with immigrants, meet with ethnic groups individually followed by a meeting with the entire community.
- Print a copy of the final map on A4 paper, which is given to the community.



2.1 THE MAPPINGFORRIGHTS PROCESS EXPLAINED

4. DISCUSSIONS ON THE USE OF THE MAPS

The community advocacy strategy is discussed further by discussing the next steps of the process, including the use of the maps produced and in some cases, the strategy included in the presentation of the maps to external actors, local or national authorities.

Intellectual property of the maps is discussed, as community data contained in the map should be considered as theirs. The map can contain sensitive information that communities may not want to share with certain actors (sacred sites for example). The community decides who can use the map and under what conditions. This also applies for the authorisation to use the produced data on MappingForRights.org. The community generally discusses and decides on the information on the map that:

- Should not be made public.
- Could be made public under specific conditions.
- Could be made public without any restriction.

5. VALIDATION BETWEEN NEIGHBOURING COMMUNITIES

This step is also very important as it addresses issues of tenure boundaries between communities, but also those relating to areas of distinct and common activities between clans and communities and helps to produce a common vision of the land between local communities.

Validation is carried out with key representatives from each village, primarily local mappers, clan leaders (if they are not designated as local mappers), village chiefs, traditional authorities (such as “land chiefs”), and any significant resource person with good knowledge of the limits of lands and areas of community activities. If potential conflict exists over land boundaries or resources use, it may be necessary to involve other authorities (for example, the “chefs de groupement” in the DRC).

Facilitators follow a similar process as the one explained above for validation within a community; ensuring the validation of limits of land and areas of activity between clans and communities.

In rare cases, when it is not possible to get an agreement between communities on the boundaries of customary lands, where they overlap. It may be necessary to arrange additional meetings or rely on administrative and judicial authorities to arbitrate or adjudicate a conflict about communities’ boundaries. The facilitator documents the process and shares reports with any authority or institution that could help resolve the dispute.

RESULTS AND PRODUCTS:

Once the maps are validated between communities, copies are printed and laminated (A1 size) in the offices of local NGOs and the maps are given to the communities. The final map shows community areas under discussion and limits accepted by neighbouring communities.



STAGE 8: SUPPORTING COMMUNITIES IN THE USE OF THEIR MAPS

OBJECTIVE:

To successfully develop and implement a plan to support communities in the use of their maps.

PROCESS:

A general understanding of the challenges or specific problems faced by the community, and how mapping could help address these, will have been gained through the identification and scoping phases. Usually, the challenges communities face in terms of access, control and use of land and resources become clearer through the mapping process itself. But following the mapping, they should gradually develop through a series of discussions, exchanges and work with local people, and a strategy and action plan to address the issues raised.



FACILITATORS ADDRESS SPECIFIC ISSUES WHICH INCLUDE IDENTIFYING:

1. The problem(s), in detail, that exists in relation to land and forest resources.
2. The objective(s) that the community can achieve by using participatory maps.
3. The various influential actors and how they operate.
4. The legal context relating to the issues.
5. The resources needed to achieve the desired results.
6. The monitoring responsibilities within the community.
7. The representation and the decision-making process, especially at meetings and during exchanges with external actors.

This process starts with the whole community, who themselves select representatives responsible for implementing the community action plan (some may be responsible for technical work; others represent the community in meetings and forums). To help the community make the right choice, a profile of each representative is written and circulated. It is also important to make sure that all the community's components and demographics are factored in. For example, in the case of a mixed community, representatives from each group need to be part of the advocacy team. It's also important to have an adequate representation of men, women and youth, for example.

THE PROFILE OF A COMMUNITY REPRESENTATIVE GENERALLY INCLUDES:

- A person who is a key representative of a clan in the community or a group in a mixed community.
- A person willing to put the community's interests first.
- A person who can travel and participate in meetings.
- A person with the determination to stand up for community rights.

COMMUNITY REPRESENTATIVES ARE PROVIDED WITH ADDITIONAL TRAINING BY THE LOCAL NGOS ON:

- The preparation for a multi-stakeholder meeting.
- How to negotiate with actors (i.e. a logging, agro-industrial company or a conservation agency).
- How to give a PowerPoint presentation, advocacy techniques and how to implement them.

The time needed to develop and implement an advocacy plan depends on the urgency and complexity of the problem in question, the necessary information required and the approach chosen. In all cases, it is important that the facilitating teams and local NGOs that support communities develop an appropriate monitoring plan with communities.

A COMMUNITY ADVOCACY PLAN USUALLY CONTAINS:

- A presentation on the specific problems faced by the community in relation to accessing, controlling and using forest lands and resources.
- A presentation on the community and its history and main activities.
- A presentation on the community's relationship with forest land and their knowledge of the forest and its resources.
- A suggested list of actions to address these problems.
- A list of the target groups to be involved in the actions.
- An action plan with an approximate timeline.

In many cases, a group of communities who face the same problem can join together to develop a joint advocacy plan.

RESULTS AND PRODUCTS:

- Community action plans
- Advocacy statements
- Reports of issues and problems discussed, and documentation of the process
- Multi-stakeholders workshops addressing specific issues raised by communities

COMMUNITY MAPPING IN ACTION

Participatory mapping is a powerful tool for visualising, defending, securing and managing community lands and territories. It has been successfully deployed in many different ways, from countering destructive infrastructure projects to helping to establish community forests. The role it can play in land-use planning and tenure reform or a basis for FPIC and benefit distribution in relation to avoided deforestation projects is also increasingly understood by policy makers.

COMMUNITY RIGHTS IN AND AROUND PROTECTED AREAS IN THE CONGO BASIN CASE STUDY

Communities living in and around the region's many designated protected areas and national parks are mapping their traditional lands and resources to promote their rights. For example, in 2010 around 20 indigenous and Bantu communities around the Mbaéré-Bodingué National Park in CAR used their maps to influence the management plan for the area. In 2014, representatives from more than 50 communities around the controversial Tumba-Lediima Reserve in Western DRC proved their ancestral claims to the area in landmark meetings with local and national authorities, resulting in a reduction of heavy-handed policing by eco-guards and a commitment by local and national authorities to review the boundaries and management of the area.



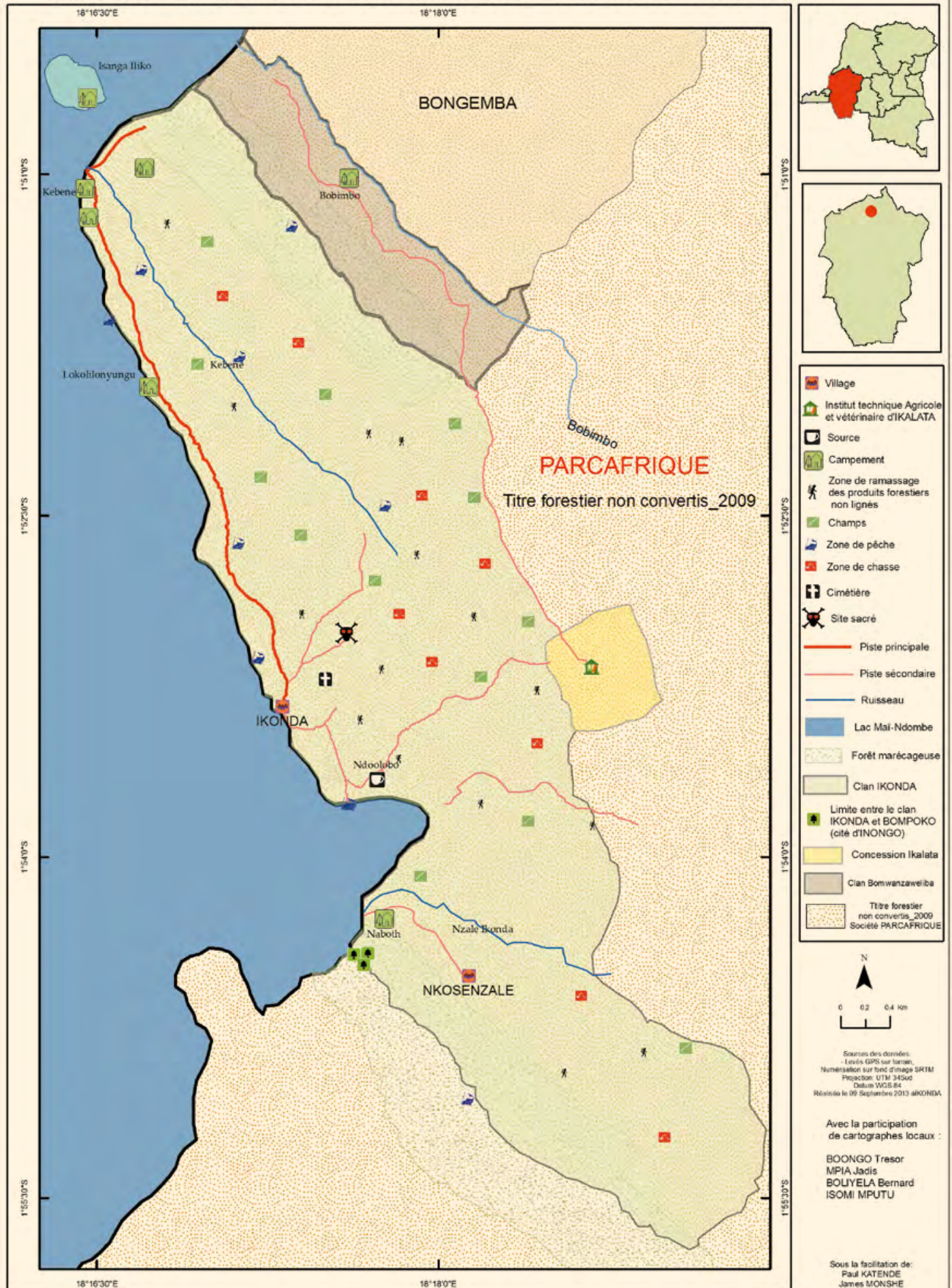
3. CONCLUSION: ONGOING AND FUTURE DEVELOPMENTS



Clarification of tenure and securing of land rights are increasingly recognised as being crucial to achieving sustainably and equitably managed forests. The availability of affordable and easy-to-use geo-spatial technologies combined with ever improving (internet, SMS) connectivity in remote areas hold the potential to transform the role of local communities in these efforts. The MappingForRights programme is aimed at transferring ever greater power into their hands, including through the following ongoing or planned initiatives:

- The rolling out of offline community maps and databases that enable communities to more easily access, update, manage and use geo-referenced data on land tenure, resource use and overlapping land claims.
- The launch of community real-time forest monitoring systems which allow communities to capture and transmit near instantaneous alerts on forest infractions or encroachments on their traditional lands, even in non-networked areas.
- Piloting different applications for this technology (REDD, wildlife monitoring, human rights abuses etc.) and exploring complementarities with satellite forest monitoring alerts.
- Development community mapping standards and protocols to ensure best practice in data collection and management.
- Assessment of the feasibility, demand and potential uses of technologies and methods developed under the MappingForRights initiative in other tropical forest regions.

CARTE COMMUNAUTAIRE D'USAGES ET DE TENURE FONCIERS DU VILLAGE IKONDA



AN EXAMPLE OF COMMUNITY MAP, DRC

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This work is supported
by UKAid-DFID