

Mapping Indigenous Lands

A Practical Guidebook



Center for the Support of Native Lands

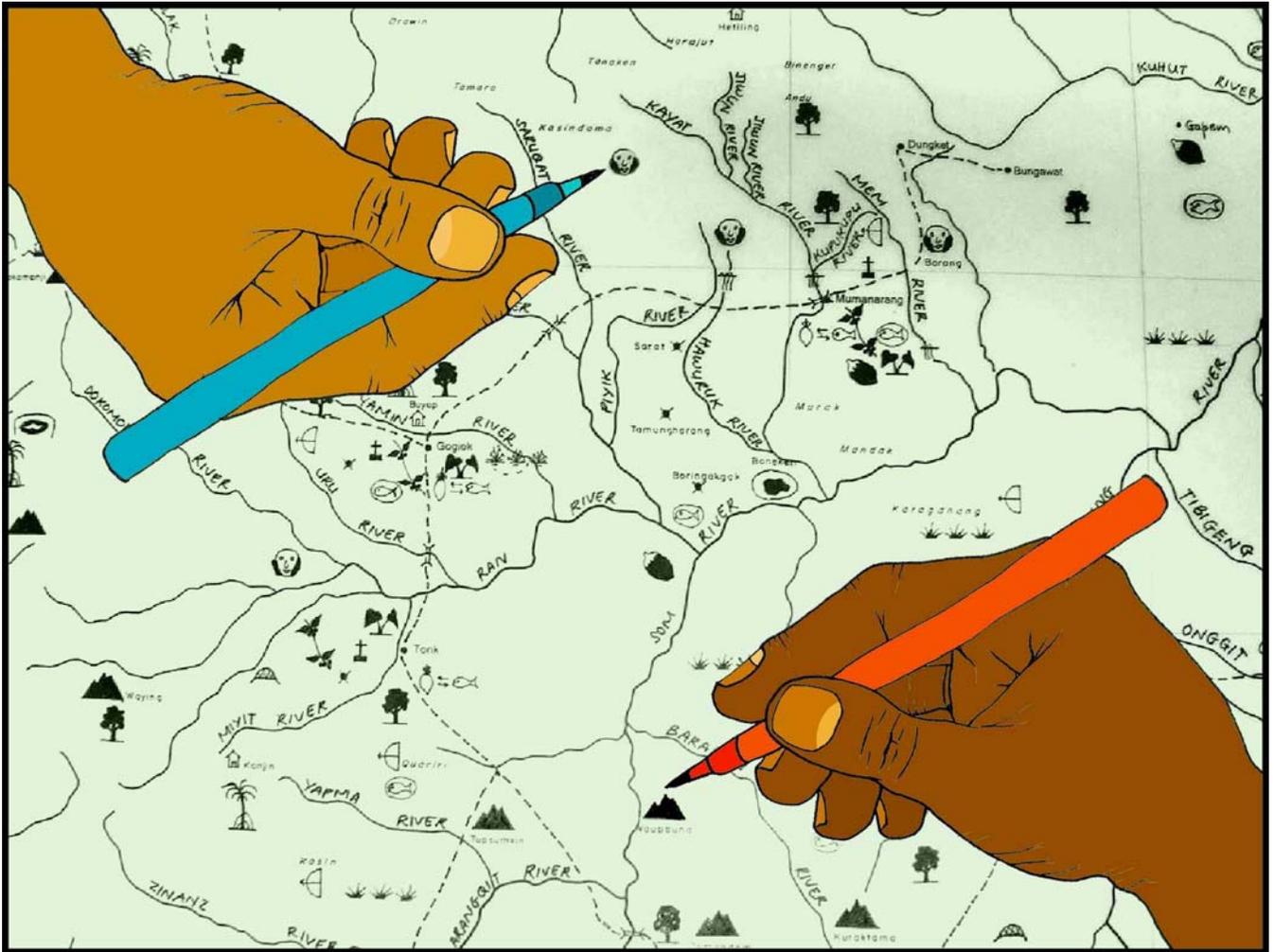
Mac Chapin Bill Threlkeld



Mapping Indigenous Lands A Practical Guidebook

Mac Chapin

Bill Threlkeld



Center for the Support of Native Lands

Environmental Law Institute

Unless otherwise sourced, all images are courtesy and copyright of the Center for the Support of Native Lands 2008.

Cover and inner cover art: Leland Chapin 2008.

This book was made possible through generous funding provided by the Gordon and Betty Moore Foundation, the Liz Claiborne and Art Ortenberg Foundation, and the U.K. Department for International Development (DFID).



2. ADDENDUM: PROJECT DESIGN

Before proceeding, some thoughts regarding project development are due. An essential first step is to evaluate the task facing the mapping team: What is the nature of the territory to be mapped? Four questions must be asked before the project gets underway:

- What is the ideal size of the territory that is to be mapped?
- How many communities can be mapped in a single project?
- What is the population density of the territory and the size of communities?
- How many Village Researchers are needed?

It has already been noted that this methodology allows the team to map relatively large territories containing many communities. But how large and how many? The broad answer is that the upper limit is determined by what is **manageable from a practical standpoint**: if the territory is too large, there are too many communities, and too many people, project logistics will be strained; if there are too many Village Researchers, supervision in the field will be difficult and the atmosphere at the workshops will be cluttered and confused. Let's look at each of these variables.

Size of territory: In projects we have helped organize there has been considerable variation in the size of the area mapped. Thus, we cannot say that there is an "ideal" size. Rather, there is an ideal upper limit, as will be explained. The variation in our work can be shown with a few examples:

- Southwestern Suriname: 21,000 km²
- The Honduran Mosquitia: 20,000 km²
- The Izozog in Bolivia: 19,000 km²
- The Darién in Panama: 16,800 km²
- The Comarca Kuna Yala in Panama: 5,400 km²
- The Boa Plain in Cameroon: 420 km²
- The Huon Peninsula of Papua New Guinea: 250 km²

Number of communities: There has also been considerable variation in the number of communities within these territories, as follows:

- The Honduran Mosquitia: 174 communities
- The Panamanian Darién: 82 communities
- The Comarca Kuna Yala: 51 communities (in two phases, of 32 and 19 communities)
- The Huon Peninsula: 37 communities
- The Izozog of Bolivia: 22 communities
- The Boa Plain in Cameroon: 8 communities
- Southwestern Suriname: 1 community and numerous small camps

Population density and community size: In all of the areas we have worked in, the population density is low and community size is small.

- Suriname had the lowest population density, with between 2,000 and 3,000 people spread across an area of 21,000 km²; almost half of the people were living in a single community, while the rest were spread about in small household camps.
- The Izozog of Bolivia held roughly 7,500 people distributed among 22 communities. Community size averaged around 350 people.
- Kuna Yala in Panama had about 35,000 people living in 51 communities; the largest of these had over 8,000 inhabitants, and there were several with a couple of thousand people. Most communities, however, had less than 1,000 inhabitants.
- The Huon Peninsula in Papua New Guinea had a total population of roughly 11,000 people living

in 37 communities.



Number of Village Researchers: There has been far less variation in the number of Village Researchers. The variation has been in the relation of Researchers to communities.

- The Comarca Kuna Yala: 26 Researchers (in two phases, of 16 and 10)
- The Honduran Mosquitia: 22 Researchers
- The Izozog of Bolivia: 22 Researchers
- The Panamanian Darién: 21 Researchers
- The Huon Peninsula of PNG: 14 Researchers
- The Boa Plain of Cameroon: 11 Researchers
- Southwestern Suriname: 7 Researchers
- West Papua: A special case (see box)

Researchers in West Papua

It is hard to say how many Researchers participated in the mapping project in West Papua, for their numbers fluctuated through time. We began with a relatively small number at the First Workshop. There was a good deal of suspicion initially as to what the project was about, so few showed up. As we moved through the Second Workshop and the villagers began to see that they were indeed being consulted and the maps were being produced for them rather than for outsiders, they came to participate in greater numbers. By the time the Third Workshop was held their numbers had swollen exponentially and we had over 100 villagers, including many elders and leaders, at the workshop facility. All of them were contributing in one way or another, and it would be difficult to say who should be considered a Researcher and who was simply an observer.

The large influx of participants reflected the involvement of villagers in the project, and it was extremely positive. Luckily, the project budget was able to cover their participation.

Certain patterns emerge when we begin to put these figures together. Some examples are:

Southwestern Suriname: Here, the project involved an extremely large territory, but there was only a single village of between 500 and 1,000 people (many moved in and out according to the seasons), and most of the inhabitants lived dispersed in hunting and gathering camps. There was a total of between 2,000 and 3,000 people in the entire region. The seven Researchers were living in the one village, Kwamalasamutu, yet they had traveled throughout the territory and knew much of it well. Kwamalasamutu lies to the south, along the Sipaliwini River. As a result, this area was most familiar to the Researchers and was the most thoroughly documented on the map. The northern reaches were more thinly represented.

The Honduran Mosquitia: By contrast, the 20,000 km² Honduran Mosquitia constituted a relatively large territory that contained 174 communities containing a total population of more than 55,000 people. The size of the territory by itself was not too large, but the number of communities put it way over the limit. There were only 22 Researchers to cover the 174 communities, which meant that all of them had to work in multiple communities – some of them with up to 10 and even 12 communities to cover. This arrangement stretched the team of Researchers far too thin and the quality of the data suffered.

The Izozog of Bolivia: Our first two mapping projects were in the Honduran Mosquitia and the Panamanian Darién; both suffered with an overload of communities and a dearth of Researchers to cover them. In our third project, in the Izozog, we determined to set this straight. We decided to provide for one Researcher per community. This worked very well and we decided that this, or some slight variation off of it, was the model we were seeking.



The Comarca Kuna Yala in Panama: The Kuna project presented a special case. Although the territory was only 5,400 km² in size (relatively small), it covered land and sea and was extremely complex both logistically and politically. The team therefore decided to divide it into two phases, the first with 32 communities and the second with 19 communities.

The Huon Peninsula of Papua New Guinea: The territory was small – 250 km² – and there was a large number of communities – 37 – but the communities were small and closely related by kinship and trade, and a total of 14 Researchers was able to handle the territory with relative ease. Beyond this, the territory was divided by language, for there were three language groups contained in this small area. A bit complex, but it was all handled smoothly by local leaders.

The Boa Plain of Cameroon: The size of the area mapped was small (just 420 km²), as was the number of communities (8), and there were 11 Researchers (three communities had two Researchers). In the cases where two Researchers were present, one had extensive experience in the bush but was illiterate and the other was literate but lacked experience in the bush. They had complementary skills and worked together as a team.

Summary: Several general points can be made regarding size of territory, number of communities, and number of Researchers.

Territorial size: Under normal circumstances, 21,000 km² would be too large a chunk to bite off. The mapping in Suriname only worked because of the low population, the existence of a single village, and a dispersion of semi-permanent camps. There was no need to transport people over great distances because all of the Researchers were located in the single village. At the other end, 420 km² in the Boa Plain region was extremely easy to manage.

We recommend that no territory larger than 20,000 km² should be taken on in a single project. Anything smaller than this is acceptable; but the key factor with any territory is the ease of travel.

Number of communities and Researchers: These two variables are closely linked and are the key to defining the area to be mapped. We have found that the best arrangement is to have one Researcher per community; in some cases a single Researcher may cover two communities (or more if the communities are very small and closely related), and in others two researchers may work in a single community. The number of communities should not be over 25 or 30 – and even this is at the high end. More than this makes the project difficult to manage.

What to do with a territory that is larger than 20,000 km² and/or contains more than 25 communities? Take it on by phases. The Kuna broke their project into two phases because of the number of communities (51). In Papua, there were several phases. The Papua team began with a region called Nambluong, which was roughly 540 km²; then projects were begun in the neighboring regions of Kentuk, Kressi, and Dempta. The main advantage of doing projects in phases is that the team becomes experienced in the first phase and can put their expertise directly to work in subsequent phases. To facilitate this process, we suggest that key people who will participate in later phases accompany the work of the first phase.

We have found that one Researcher per community – and at times two per community – is the best arrangement. The person chosen as Researcher is known in the community; he knows the area he is mapping and can process information he receives from other villagers; and since he has been chosen by the community, access to information will be open – something that is often not the case with people who are not members of the community.

There may be slight variations on this, depending on the situation. Where communities are small and physically close to other, larger communities, there may be some lumping, in which one Researcher, generally from the larger community, works with both communities. In other cases, there have been two Researchers working as a team in a single community: one who is knowledgeable about the

countryside and subsistence but illiterate, the other who knows how to read and write yet has little experience in the wild.



Projects should limit themselves to no more than 25 or 30 Researchers – which means that there should be no more than 25 to 30 communities being mapped at any one time. The number of communities may be increased slightly if there is lumping, with some cases in which a single Researcher is covering two or even three communities. But more than 25-30 Researchers makes the project difficult to manage logistically; moving all of these people in and out of the rural area to the workshop site, accommodating them in the site, and organizing their work with the Cartographic Unit would be a nightmare.

If the region to be mapped has more communities than this -- upward of 50 and up to 100 – it should be done in two or more phases. This was done on the Comarca Kuna Yala in Panama, where 51 communities were mapped in two phases (33 communities in Phase I and 18 in Phase II); and in West Papua, where several contiguous regions were mapped; at least four separate projects were undertaken, some of them simultaneously.

Defining the Project Area Flow Chart

