
[Mapping as a Step for Securing Community Control: Some Lessons from South East Asia](#)

Community forestry requires secure tenure, if the local people are to have any confidence that they will reap the benefits of their efforts. Community mapping can be a powerful tool to help communities think about the lands, represent their land use system and assert their rights to the forests they seek to control.

The use of geomatic mapping technologies by indigenous peoples to demonstrate their relationship to their lands and to mount land claims is a relatively recent phenomenon. In South East Asia the basic idea and the technology was introduced in the early 1990s and the technique has since spread rapidly. Community level mapping exercises are now underway in India, Philippines, Malaysia, Indonesia, Papua New Guinea, Solomon Islands and Thailand.

At their best, mapping projects directly involve community members in the survey of the land use and boundaries of the own domains. The technologies used vary widely. At their simplest, as used in Thailand, maps may be hand-made 3D maps, made by cutting shapes along contour lines derived from government base maps enlarged to a 1:15,000 scale. Vegetation zones, roads, land use data, village sites and the boundaries of land claims can then be painted onto the models by the local community members. These maps have proved to be useful tools for community mobilisation and village-level discussions of land claims and natural resource management planning.

Other mapping exercises are using geomatic (mainly GPS) or traditional surveying techniques to locate data on maps. Although these techniques do allow community members to decide what is put into the maps, they do, however, generally rely to some extent on trained personnel from outside NGOs to prepare the base maps, record the field data directly on the maps, or in the computer, and print up the final maps. Higher technologies, such as sophisticated Global Information Systems, while allowing much more subtle use of colours, layers and data sets, increase the conceptual distance between those with the indigenous knowledge in the communities and those who make the maps. Community control and a sense of ownership of the maps can be attenuated accordingly and there is a risk that the technical NGOs consider themselves and not the villagers to be the owners of the maps.

There is a tendency for support NGOs helping indigenous peoples with mapping, to adopt progressively more sophisticated systems driven by their own thirst for knowledge, fascination with the technology and a will to get ahead of and outwit government administrators. The risk is that the mapping process becomes more and more remote from indigenous priorities and in the end becomes yet another form of administrative annexation, this time by NGOs, against which the indigenous peoples have to struggle. Clear mutual agreements on who has the intellectual property rights to maps --they should be vested with the communities not with the NGOs-- and greater investment in training the indigenous leadership in the manipulation of data and the new technologies are part of the answer to this emerging problem.

In the field, there are a number of other difficulties that mapping exercises have to overcome. The

first is that they tend to freeze what are in reality fluid boundaries and systems of land use. Hard lines are drawn where fuzziness and ambiguity may, in fact, prevail. Mappers in Mindanao, in the Southern Philippines, for example, find that traditional areas of land use expand and contract seasonally. In Borneo, communities move around as lands in the immediate vicinity become 'used up'. Boundaries of hunting grounds shift accordingly. Secondly, the maps do not just include --more or less successfully-- the concepts of the community mappers, they exclude the concepts of those who are not involved, both people within the communities (often women) or areas in question (often lower caste or lower status groups) and those outside them or on their boundaries (neighbouring communities). Successful mapping initiatives depend on both adequate community preparation within the area to be mapped and on prior agreement with neighbouring groups on the boundaries between villages or ethnic groups. This problem can be exaggerated, however, and a common solution where inter-community boundaries are disputed is to map the boundaries that extend around all the communities and leave resolution of the disputes of the internal boundaries to the future, preferably according to customary law and procedures.

Within the region, the process of mapping indigenous lands has probably gone furthest in the Philippines, where something like 700,000 hectares of community lands have been mapped out of a total of 2.9 million hectares so far registered with the government as Ancestral Domains. The experience there has revealed a number of additional problems. One is that customary areas and boundaries frequently do not coincide with existing administrative boundaries. Villages can thus find that they are subject to several "barangay", district or even provincial jurisdictions, which entails complicated negotiations if the regularisation of tenure is then sought. Unusually, in the Philippines NGO-made maps can be accepted by the local administration as authoritative documents on which to base land claims and not just as advocacy tools, which is the way they are used in many other areas. In this case, increasing precision in the survey techniques is called for, requiring more specialised training of mappers and implying a closer interaction with the local administration.

Those involved in mapping emphasise the need for preparation, training and community-level capacity building as an integral part of any mapping project. Preparatory meetings, workshops and visits are crucial for the long-term success of the mapping exercises themselves. Establishing community consensus and agreement on the goals and practices of the project is a necessary first step and some NGOs make consensus decisions a pre-condition to their involvement in helping to map any area. Community control and sense of ownership depends not only on formal agreements --which are vital-- but also on quite detailed training of community members to ensure that at least some in each mapped community are comfortable with the details of the technology and the way it is being used to represent local knowledge. Unduly abbreviated training is the main weakness in many projects. Since maps are just tools in a much longer process of establishing a community's control over its lands and natural resources, the long term usefulness of mapping projects also depends on adequate capacity-building and community mobilisation. A frequent complaint is that outside donors tend not to provide enough funds for this element, as they seek quick and visible results and are wary of creating dependency --a legitimate concern.

Participatory mapping is here to stay as part of the tool-kit used by the indigenous movement. Communities have discovered that it is powerful, as much for community organising, strategising and control as for communicating local visions to outsiders. Mapping can help build community coherence and reaffirm the value and importance of traditional knowledge, recreating respect for elders and customary resource management practices.

Perhaps one of the most important benefits of the mapping movement is that it has provided a tool for the indigenous leadership to address community-level concerns, thus helping them maintain ties with

their constituents as they engage in political negotiations at the national level. Maps have also proved vitally important tools to indigenous communities confronting the impositions of logging, mining, plantation and conservation schemes. By use of maps, communities and NGOs have been able to demonstrate conclusively the overlaps between indigenous lands and imposed concessions. They have also been used to expose the incompetence of different line ministries, whose maps are so very often erroneous and have created horrendous confusions in the overlap between different jurisdictions and concessions.

Initial enthusiasm for community-mapping led to it being considered a 'magic bullet' that could resolve land conflicts and promote community-based forest management, in one shot. Experience has quickly taught most of those involved that mapping is just a tool --a very powerful tool in the right hands-- in a much longer struggle to reform land ownership systems, indigenous self-governance and government systems of administration. To be effective, mapping exercises need to be integrated into long term community strategies and be clearly linked to broader strategies for legal, policy and institutional reforms. The charge that the mapping 'craze' has diverted attention away from other pressing issues --like political organisation, tenure reform, legal changes and national policy reforms-- has some weight. However, the lessons are being learned fast and a more skilled and mature mapping 'movement' is emerging as a result.

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