

Ten years after: counter-mapping and the Dayak lands in West Kalimantan, Indonesia

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In mid 1990s the first exercise of counter-mapping took place in West Kalimantan in order to protect Dayak lands from land-grabbing industrial activities. By the end of 2004 more than 1 million hectares of Dayak lands were mapped, which is about a half of the total counter-mapped areas in the country. As a social movement which uses mapping technology, it is crucial to understand why counter-mapping grew rapidly in the province and what it achieves to date. While recognizing the advantages of counter-mapping in empowering Dayak peoples and protecting their lands, in a recent evaluation proponents of this movement realized the problems created by the existing mapping approaches. Following a historical description of the movement in West Kalimantan, this paper explores the reasons of rapid expansion of movement in the province, the impacts of counter-mapping to customary institutions and practices, and the influence of the movement to natural resource management policies at the different scales.

Introduction

For the last 20 years many indigenous peoples around the world have produced maps of cartographic standards, either by their own or with the assistance from outsiders, to defend or reclaim their territories from the appropriations carried out by the states and market. This method has become a new form of social movements as a means to fight against dispossessions these peoples have experienced and to put them back on the (modern) maps. Due to this nature Peluso (1995) coined counter-mapping to this kind of mapping. It is also different from conventional cartographic techniques because it applies participatory methods, that emphasize dialogue in knowledge production, and tries to break the scientific knowledge-indigenous knowledge dichotomy by incorporating local/indigenous knowledge into cartographic maps.

For Dayak peoples and other indigenous peoples counter-mapping is a new form of resistance, which focuses on challenging the state claims over indigenous territories. For indigenous peoples, whose worldviews are based on their relationship with nature, land and water are important part of their identities. Access to and control over land and water are crucial components of their social organizations and economic activities. Therefore, gaining back their territories is in the core of their struggles. By mapping the claims over the territories, they express their resistance to the states.

In Indonesia counter-mapping began in early 1990s and has spread nationwide since then. Among all provinces in the country the movement in West Kalimantan (the western province of Indonesian Borneo) demands particular attention due to its notable achievement. This paper discusses the history and experiences of the movement. It begins with the story of dispossessions of Dayak peoples and how counter-mapping entered into the picture of their struggles. It then explores how and why the movement expanded so rapidly and what its impacts are to the indigenous institutions and practices. Finally, it assesses to what extent that the movement can influence policy formulation at the different scales.

Dispossession of Dayak peoples in West Kalimantan

Dayak is the generic name of peoples who live in the interior of Borneo. The word means people of the interior and had an insulting notion of backward, primitive people. The name was given either by the Malays who live in the coastal areas or the Dutch colonial administrators. This implies the hegemony of the Malays over the Dayak peoples. In other words, Dayak peoples were the subordinates of the Malays. Such unequal relationship continued into the era of independent Indonesia.

West Kalimantan is one of the four provinces in Kalimantan (Indonesian Borneo). As the history of Indonesian state, West Kalimantan is also a product of unification and pacification conducted by the Dutch. Up to the 18th century, several small states existed in western part of Kalimantan, but it finally took full control of the province in 1819. But it was only in 1848 that the Governor General of the Netherlands Indies decided to create a province, called *Westerafdeeling* of Borneo, particularly due to a growing rivalry with the British in northern Borneo. This rivalry set off a massive cartographic project to map the interior of the province, especially after the Dutch and the British made a treaty in 1891 (Irwin 1955). The Netherlands Indies state sent surveying missions to West Kalimantan between 1886 and 1895 (Vuuren, 1923). Later, the leader of this mapping team, Captain J.J.K. Enthoven, published the results of the work as a geographical and ethnographical account (Enthoven 1903). This mapping project was an important phase in asserting internal territoriality (Bryant 1998) of the colonial Netherlands Indies.

Another massive mapping project occurred during Suharto's New Order era with the main goal to search the 'emptiable spaces' – spaces that are "devoid of socially or economically valuable artifacts or things that were intended to be controlled" (Sack 1986: 33-34), so that the state could exploit its territory, primarily for commercial timber extraction and plantation purposes. For forested areas the Ministry of Forestry began to define forest areas and divided the areas into several functions. The final maps with signatures of governors, district heads, and heads of regional forestry offices were adopted into Tata Guna Hutan Kesepakatan (Forest Land Use by Consensus) in 1984 which became the basis for forest planning in provinces outside Java and Bali. Outside forest areas the government carries out spatial planning programs to allocate areas for assigned functions. In the case of West Kalimantan both forest land use plans and spatial plans enable the government to grant commercial logging, plantation and mining concessions and establish conservation areas.¹ The implementation of this approach marked massive dispossession of Dayak peoples.

Dispossession also occurs in smaller scales, but it nonetheless is systematic. First, in their customary land tenure systems a person does not necessitate legal documents for ownership as it is locally acknowledged and enforced. But it is the very reason the state undermines and overrides the customary land ownership, because untitled lands do not have legal protection due to their existence outside the state legal system. Such state action has caused land dispossession by legal definition or 'legal landlessness' (Colchester, 1995). Furthermore, state officials consider swidden agriculture as inefficient and of inferior farming system as opposed to sedentary, intensive agriculture. Thus swidden lands are a target for spatial rationalization in order to have more economic gains through commercial logging and plantation activities. Finally, the domination of the Malays in local politics in the past changed Dayak place names, particularly through adoption of the Malay pronunciation of place names as the official place names.

As Dayak peoples have severely suffered from different types of dispossession, scattered collective actions began to arise in early 1990s. Road blockage, attacks on production facilities, rallies, and other forms of direct resistance occurred in many places in West Kalimantan. However, the New Order state employed strong measures, including the use of military and police forces, to crush the opposition. After these strategies did not show the expected outcomes, some Dayak intellectuals launched a new strategy through the (re)construction of Dayak identity to gain back control over their lives and their lands and the adoption of discursive methods. A Pontianak-based indigenous non-government organization (NGO), Pancur Kasih, is the center of this effort. Dayak peoples in West Kalimantan even see this organization as "a symbol of Dayak cultural resurgence and economic emancipation" (International Working Group on Indigenous Affairs [IWGIA], 1997, p. 199).

Pancur Kasih was founded in 1981 by a group of formally educated Dayak with the goal of improving the lives of Dayak people "in the midst of a strong flow of individualism and consumerism" (translated from Atok, 1998, p. v). Its main principles were education, self-reliance and solidarity (Mecer & Florus, 1998). From its first activity in providing education through the establishment of schools, now it is a parent organization of 13 semi-autonomous specialized units covering people's economy, natural resource management, education, and indigenous research. The goal of this empowerment movement is to improve the dignity of Dayak people as the owners of their own lands. However, Pancur Kasih owes a tribute to several

¹ However, some logging concessions had been granted in late 1960s.

Dayak organizations in the past, including Pakat Dayak (1930s) and Persatuan Dayak (1950s), which helped create Dayak identity (Riwut, 1993).

In reconstructing Dayakness, Pancur Kasih produces knowledge about the Dayak. It particularly employs autoethnography in two approaches, ethnographic accounts of Dayak peoples by Dayak writers and producing counter-maps. The Institut Dayakologi (ID) spearheads the former by publishing their research on Dayak cultures. Pemberdayaan Pengelolaan Sumber Daya Alam Kerakyatan (PPSDAK – Empowerment of Community-based Natural Resource Management) Pancur Kasih takes a leading role in the latter.

Short history of counter-mapping in West Kalimantan

Although counter-mapping movement has flourished in West Kalimantan and has become the most active and the largest one in the country, it did not start in the province. It started instead in the neighboring East Kalimantan province. It began when a group of activists affiliated with WALHI (the Indonesian Forum of Environment) accidentally "discovered" the power of maps. They found out that in 1990 the indigenous community of Tering Lama in East Kalimantan was succeeded in defending their lands from the appropriation of a gold mining company using an old map produced by the colonial Netherlands Indies government. Inspired by this "discovery," the activists started to spread the words around, especially within WALHI's circles.

Later in 1992 the then World Wildlife Fund (WWF) Indonesia Program initiated a mapping exercise in the kampung of Long Uli at the periphery of the soon-to-be Kayan Mentarang National Park as a part of its Ford Foundation-funded Culture and Conservation program. This exercise was to assist the community mapping the boundaries of their kampung and was thus the first counter-mapping exercise in Indonesia. Learning about the exercise the Institute of Dayakology Research and Development (IDRD) sent one of its staff members to learn this new approach of mapping. The first counter-mapping exercise in West Kalimantan, however, did not take place until 1994 when IDRD joined hands with its sister organization, PPSHK (Program on the Empowerment of Community-based Forestry System) to organize a mapping training in Sidas Daya, a *kampung* (indigenous village) around 150 km from the capital city of Pontianak. Both organizations invited a geographer, who had involved in mapping activities with the First Nations in Canada, and two foresters from Kayan Mentarang project to lead this exercise. Since then Pancur Kasih is fully committed to develop and engage in counter-mapping movement as a means to map Dayak lands by establishing a mapping unit, Pembinaan Pengelolaan Sumber Daya Alam Kerakyatan (PPSDAK) Pancur Kasih, in 1995.

The initiators of the establishment of PPSDAK had a vision for the counter-mapping movement in West Kalimantan. John Bamba (2005), one of these initiators, argues that the movement has internal and external goals. Internally, it is intended to clarify boundaries of local/indigenous land claims, to perform spatial management functions, and to be a means of community organizing to reduce the possibilities of natural resource conflicts and destruction. Externally, counter-mapping is expected to provide foundations for policy advocacy in seeking legitimacy on the claims in the forms of recognition, respect and protection of indigenous land rights.

The establishment of PPSDAK marked the rapid growth of counter-mapping movement in the province. Apart from this organization several other NGOs have adopted counter-mapping into their programs. However, their programs are smaller than that of PPSDAK and tend to concentrate on certain areas. Until December 2004 PPSDAK has been able to assist mapping 263

kampungs in nine kabupatens – an administrative unit under province – covering an area of 1,135,415.89 ha or 7.58% of the extent of West Kalimantan. This is considerably large area for the movement in Indonesia, since most NGOs are only able to map less than 10 villages in ten years. Apart from PPSDAK several others NGOs are also active in mapping villages. However, we do not have the figures on the number of villages and their extents. Nonetheless, the counter-mapping movement has expanded considerably in West Kalimantan and has become the yardstick for the movement in Indonesia. How and why did it happen?

Rapid expansion of counter-mapping in West Kalimantan

As a social movement the growth of counter-mapping movement in West Kalimantan can be explained from two theories: resource mobilization (McCarthy & Zald 1977) and political processes (McAdam 1999). The former attempts to explain on how “the variety of resources that must be mobilized, the linkages of social movements to other groups, the dependence of movements upon external support for success, and the tactics used by authorities to control or incorporate movements” (McCarthy & Zald 1977: 1213). This theory puts weight on the contribution of outside resources, both financial and time, to help a social movement to emerge and to be active. In other words, the existence of the organization largely depends on outside help. This can be true for social movements in the South which rely heavily on funding from international aid agencies or private foundation from the North. Nonetheless, the authorities put some sort of control on this resource flow. Therefore, to reduce the failure risks the actors have to identify their strength and political opportunities to launch a movement.

In his theory on political processes McAdam (1999) argues that the social movements are “the result of a combination of expanding political opportunities and indigenous organization, as mediated through a crucial process of collective attribution” (p. 2). This model has three important components: structure of political opportunities, the strength of ‘indigenous organizations’² and cognitive liberation. The structure of political opportunities means how the structure of power relations between the powerholders and the aggrieved population (the ‘oppressed’) enables or disables the latter to take actions to improve their political position and social welfare. By ‘indigenous’ organizational strength McAdam means that the aggrieved population can exploit the available political opportunities using the resources they possess. The resources include the level of cohesion and participation of the members of the individual organizations, the existence of communication network that can disseminate information throughout the aggrieved population, and a strong, recognized leadership that provides “centralized direction and coordination” (p. 47). Finally, the cognitive liberation is the increasing awareness among the aggrieved population about their problems and what are the roots of the problems. Cognitive liberation is the key to collective attribution which keeps the aggrieved population “to share the particular mix of cognitions needed to sustain insurgency” (p. 53). However, the level of insurgency – collective actions that challenge the powerholders – depends on the level of social control, the degree of repression performed by the powerholders.

As explained earlier the initial development of counter-mapping movement in West Kalimantan has links to the circles of Indonesian environmental movements, both their major actors and their donors. WALHI and WWF were crucial in introducing counter-mapping to the NGOs in West Kalimantan. Both big NGOs have received funds from the Ford Foundation in

² Indigenous organization here should not be confused with those of indigenous peoples. What McAdam means by indigenous here is the existing organizations which the aggrieved population are the members of or targets of the organizational activities.

developing their community-based natural resource management programs in their different varieties that led to the introduction of counter-mapping to Indonesia. The foundation invited some scholars, from Canada and the US, to introduce this new method to Kayan Mentarang project.

Ford Foundation also provided funds when Pancur Kasih established PPSDAK. Later USAID-funded Biodiversity Support Program (BSP) funded PPSDAK's programs that enabled it to map many kampungs throughout West Kalimantan. BSP was the major donor for the establishment of Indonesia's Community Mapping Network of which PPSDAK is a founding member and a major actor. With the funding from both donors PPSDAK was able to develop a module for counter-mapping method and provided trainings to many Indonesian NGOs. In short, donor agencies are key actors in engaging Indonesian NGOs with the circles of epistemic communities (Haas 1992, Jasanoff 1997) by bringing in consultants to introduce counter-mapping method and in transforming the NGOs to be parts of these communities.

Financial resources and technical assistance from bilateral aid agencies and private foundations are not free from state surveillance. USAID and Ford Foundation, for example, have formal agreement with the Government of Indonesia that may restrict the types of funded projects. Moreover, some donor agencies require some kind of clearance from state agencies. Proposals to the Ford Foundation, for example, have to be approved by the Office of State Secretariat – provided that a state agency endorses the project – before the foundation can sign a funding agreement. Although the state control weakens after Suharto stepped down, this procedure is still in effect.

The counter-mapping movement in West Kalimantan, and in the rest of the country, started during the heights of the repressive New Order era. In early 1990s community-based natural resource management and participatory development entered the discourse of development. Donor communities were crucial in introducing these themes to Indonesian state agencies, scholars and NGOs. To NGOs the themes opened up political opportunities that enabled them to promote democratization of natural resource management. Democratization in this case also implied the recognition of people's rights in resource management. It was during this time counter-mapping was introduced as a method. However, the term employed was participatory mapping, which entails its roots in participatory research methods and is likely a means of softening the notion of resistance. It was likely these rubrics that led the Ministry of Forestry to send its employees in taking part in the mapping exercises in Kayan Mentarang.

The counter-mapping movement also sought on legal foundations, in state laws and regulations, to carry out their programs. As counter-mapping movement grew out of the environmental movements the NGOs in this movement used 1982 Act for Basic Provisions of Living Environment that provided political space for people's participation in environmental management. However, the movement relied particularly on the Spatial Planning Act (No. 24/1992) and its derivatives, particularly the government regulation on people's participation on spatial planning (*Peraturan Pemerintah* No. 69/1996) and the Instruction of the Minister of Home Affairs on the Socialization of Village Spatial Planning Pattern (*Pemasyarakatan Pola Tata Desa*, No. 46/1994). The former regulates the rights and duties of people (including indigenous communities, NGOs and commercial entities) in spatial planning processes. This regulation allows the people to give input for the development of a spatial plan. The latter is to regulate the development of desa (village) "in orderly manner and in harmony with the sustainable environment."

The breakdown of New Order regime in 1998 marked a substantial change in social movements, including counter-mapping. As political space opens up, people express their demands openly. In late 1990s Dayak peoples began to organize themselves demanding the state to recognize their rights and give back their lands. Pancur Kasih was again at the center of this struggle and facilitated the establishment of Indigenous Peoples' Alliance of West Kalimantan (*Aliansi Masyarakat Adat – AMA Kalbar*). This new organization was one of the organizers of the first Congress of Indigenous Peoples of the (Indonesian) Archipelago in 1999. Since then it is one of the leading regional indigenous peoples' alliances in the country. As a recognition to its achievements Indigenous Peoples' Alliance of the Archipelago (AMAN) decided to hold its third Congress in West Kalimantan with AMA Kalbar as the host.

The growing indigenous movement in the province has a strong correlation with the expansion of counter-mapping movement in the province. Previously NGOs were at the forefront of the movement. The establishment of AMAN has encouraged many indigenous groups to organize. These indigenous organizations are also active in promoting counter-mapping as a means to assert their claims over lands and natural resources.

Pancur Kasih plays an important role in orchestrating the supports to the movement from its units and other networks of which it is a member. Through its units it emphasizes the development of economic power among Dayak peoples by establishing credit unions in areas where its units work and mapping land claims as a means to assert control over lands. After the economic development units of Pancur Kasih are able to form credit unions, the units will encourage the communities to map their lands. On the other hand, if PPSDAK works with a community in counter-mapping exercise, it will also promotes credit union among the communities. The initiators of counter-mapping in West Kalimantan, PPSHK and ID (a new name of IDR), continues promoting counter-mapping. Pancur Kasih is also active in promoting counter-mapping through other networks, particularly WALHI of West Kalimantan of which it is a major player. WALHI has involved in and funded some counter-mapping exercises in the province.

The year of 1999 was also an important year for the restructuring of the relations between central government and regional governments. In that year the parliament passed a law on regional autonomy which marked a new decentralization era in the country. The new law mandates the central government to transfer many of its authorities to regional governments, including forest management (to some extent) and spatial planning. However, such power transfer does not mean that the regional governments can perform their new authorities well, because most of them do not possess the necessary skilled human resources and facilities. Villages are now also more autonomous in decision making including village planning and can even produce village regulation. Moreover, in the last five years new provinces and kabupatens were formed. However, most of these new administrative units do not possess sufficient capacities in managing their areas. Finally, decentralization policies also require a more bottom-up development planning processes. The central government has promoted participatory planning processes, from the village level up to the national one. This policy provides new political space for the people, including social movements, to take part in development planning, previously virtually closed to them.

These are the political opportunities that allow counter-mapping movement grew rapidly in West Kalimantan. At the grassroots level more kampungs requested their lands to be mapped

that overwhelmed PPSDAK³ as the Dayak peoples were more aware of their rights and attempt to reconstruct their indigenous identities. Some local governments, up to the kabupaten level, requested PPSDAK and other NGOs to assist in mapping their jurisdictions and produce spatial plans, because they do not have the capacity to carry out these activities.⁴ Although it sounds promising, after ten years of existence counter-mapping movement is still unable to influence policies at the higher levels, provincial and national ones. We discuss this issue later in this paper.

Finally, the expansion of counter-mapping is largely due to the opportunity provided by the growth of spatial technology. The increasing availability of low-cost geographic information systems (GIS) and hand-held geographic positioning systems (GPS) greatly enables the actors in counter-mapping in materializing their goals and discounts the role of cartographers in making maps (Aberley 1990) and thus challenges state monopoly on mapping. Using Hess' (1995) term, these spatial information technologies become the "technologies of resistance" (p. 229) that allow less powerful groups to reconstruct the technologies. A hand-held GPS now turns into a new 'weapon' in defending indigenous territories by taking geo-referenced points. In Nicaragua, the indigenous mappers even refer to themselves as "GPSistas" (Dana, 1998), probably as an analogy to Sandinistas insurgent movement. This implies that mapping indigenous territory is thus a new method of insurgency. Adopting state-of-the-art spatial technology was one of the reasons that made PPSDAK to install a GIS unit to produce maps with the standards set by the state. This unit produces maps based on data collected from geo-referenced surveys using hand-held GPS units. However, the adoption of latest technology creates new unintended problems which we will come back later.

Impacts to customary institutions and practices

As mentioned earlier, hundreds of kampungs in West Kalimantan had been mapped within the framework of counter-mapping. As each kampung has its own *adat* (customary) institution, either active or not, the number means that counter-mapping movement has affected hundreds of *adat* institutions. The influence starts with the execution of counter-mapping exercises. We use the practices and experiences of PPSDAK to illustrate these impacts.

There are some positive outcomes of the movement. As a tool of community organizing, counter-mapping has increased the sense of community within kampungs as the cohesion among the community members grew. In most cases the communities came together to support and participate in counter-mapping exercises. After the exercise they gathered to discuss the agreements on the management of their kampungs. In short, the exercises helped the communities to (re)construct their identities, but this can also create problems as the identities fix along boundaries (Peluso 2005).

The other positive outcome of the participatory mapping is the revitalization of Dayak identity after a long domination by the state and Catholic Church. They now openly and proudly identify themselves as Dayak persons. This is a major change, since for quite some time many of them denied or suppressed their Dayak identity. However, as the revitalization of Dayak identity also means to revitalize cultural practices, the consciousness is coming face to face with the Catholic Church, which in the past contributed significantly to the erosion of Dayak culture.

³ To enable it to meet the large flow of requests, it recruited and trained local persons with basic mapping skills and dispatched them as community mappers

⁴ However, the requests from local governments can also mean a way of taming the counter-mapping movement by turning the NGOs as consultants.

However, the most important outcome was that the communities could achieve the goal of protecting their lands from the appropriation of land-grabbing activities for resource extractive industries. Unfortunately, the pressure from outsiders in some cases shifted to internal pressures.

From its ten-year experience PPSDAK found a number of negative outcomes. We start with the competitions within adat institutions. PPSDAK has a methodology that can be divided into four sections: preparation, field survey, map production, and delivery of maps to the community. In preparation it encourages a deliberation among adat leaders and elders (*musyawarah tokoh adat*) as a means to ensure the desire to carry out the mapping process and to openly discuss the boundaries among kampungs as a process of negotiation and learning. The selection of adat leaders can be a contentious issue, particularly when the institution was no longer functioning.

Another contentious issue on leadership arises from the emergence of new elites after counter-mapping exercise completes. To introduce the new mapping technology PPSDAK usually recruits young people to assist in mapping exercise. These people are trained with basic cartographic techniques and many of them become community mappers. They generally attended schools as their duties involve reading, writing and calculating. As they are closed to PPSDAK and have gained leverage due to their position and knowledge, they often become new elites in the kampung. In some cases these young people are in conflicts with incumbent elites.

Counter-mapping exercise is basically an effort to transform mental maps that exist in oral traditions into cartographic maps that evolves within a written culture. Such transformation has some implications. First, the cartographic tradition is an alien tradition to most, if not all, indigenous spatial knowledge traditions. As each spatial knowledge tradition evolves within a certain context of social relations, cartographic maps cannot fully represent the social relations among the members of a given Dayak community. Scholars have shown that Dayak peoples have complex tenurial systems in which multiple tenurial rights may exist in a piece of land, a phenomenon that cartographic maps are unable, or maybe unwilling, to represent to date. Simplification of tenurial rights on cartographic maps has resulted in changes of social relations within and between communities. One crucial issue is increased tensions since individualism has strong effects to the communities. Land boundaries then tend to be fixed making access to customary claims denied. Counter-mapping exercise may not the only factor in this regard, but it certainly contributes substantially to the problem. This problem sets off to another set of changes.

Counter-mapping exercises usually delineate kampung or desa. This practice in effect reinforces the existing state administrative units by providing clear boundaries that had previously never been surveyed. The consequence is that the practice unintentionally delegitimizes the claims of Dayak peoples over the lands and at same time bringing adat institutions under the control of the state. Moreover, in every map there are spaces for signatures of state officials, in addition to the spaces for signatures of the members of the community. The counter-mapping practice in West Kalimantan encourages the local communities to seek signatures from local government officials, up to bupati (head of kabupaten), with understanding that these officials endorse the maps or even becoming a legal document. However, this practice raises two questions. First, the signatures of the officials are not legally binding since the officials act on their own behalf, not as government representatives. Therefore the successors of these officials are not bound to acknowledge the endorsement. Secondly, a more important question also arises whether it is necessary to acquire state recognition on the maps. Such practice weakens the meaning of resistance implied in counter-mapping. The communities

themselves might have requested such practice because they are very much absorbed into the discourse of the state. The unit for mapping should be dusun or desa following the state administrative units. Signatures of state officials are necessary so that the mapping exercise becomes legal. NGOs may also have the same notion that sets this practice. A concrete example is when Krio Bihak people felt lost in determining the forests outside the boundaries of their kampong. Was it part of their territory or state lands or even no man's land?

Another problem comes from resource extraction by the communities themselves. The counter-mapping was to prevent outsiders to exploit their kampong, but now the pressure comes from within the community. Some communities consider the maps of the kampong somewhat as a proof of land title, so they can exploit according to their own interests. PPSDAK actually encourages the kampong to draft an agreement among its members to manage their lands sustainably. However, the agreement often does not work. The drafting process outside adat mechanisms may contribute to this problem.

Secondly, the transformation into cartographic maps may weaken that Dayak peoples as the original owners of spatial knowledges. As the spatial technology is alien to them, or at least because they cannot control the uses of the maps once the artifacts are in the hands of outsiders, even in the hands of PPSDAK. The use of computer-based mapping technologies further separates the communities from map production. Many communities do not have access to electricity, not to mention computer. If they have electricity computer literacy is another issue and mapping software require certain skills that are generally not available in the communities.

Finally, the maps can back fire as a means of controlling the community who requested the production of the maps by outsiders who have interests on the lands. One advantage of written culture is that everyone has access to information once it becomes a public domain. However, the disadvantage is that once the information circulates the original owner of the information or the author cannot control how the information will be used. For marginalized communities this is a big problem, because it can be used against them who do not have access to power in order to counter the course of actions that harms them.

All these problems may come from the counter-mapping practices among the NGOs. In a recent workshop to evaluate the counter-mapping movement in West Kalimantan, the participants identified a number of problems:

1. maps become an end in itself not a means to achieve political goals due to the technical preoccupation within the movement
2. a perception that mapmaking is only a project, so that activities end after funds for the project are used up and there is no obligation to come back to the communities, no outsiders (including local communities) cant intervene with the project development and implementation, and the need to map the number of kampungs as set in the project proposals has led to speedy mapmaking process – lowering further the quality of participation.
3. NGOs came in to the communities using the economic language in promoting the needs to maps their lands and did not explore much of the spiritual and social values of the lands that were strongly attached to the cultures of Dayak peoples.

Impacts on policy at different scales

As described earlier, the proponents of counter-mapping in West Kalimantan had been successful in promoting their movement in the province. Many local/indigenous communities have been able to secure their claims over areas or resources and had fined the encroachers of

their lands with adat sanctions. However, although hundreds of kampongs have been mapped, the counter-mapping movement in West Kalimantan can rarely influence the political landscape at the kabupaten level, not to mention provincial and national levels. This is a major weakness of counter-mapping movement in West Kalimantan, and in other parts of Indonesia as well, regarding the scale of intervention and advocacy.

The movement focuses so much on local level. This choice is partly due to the need to organize communities at the grassroots level. Another reason may be the reluctance to deal with the state agencies beyond the level of *kecamatan* (administrative unit under kabupaten). Or else they are unable to handle large amount of and complexity of spatial information. The obvious example is that although they rely on Spatial Planning Act as its legal foundation for its interventions, their spatial planning exercises so far are only for villages. Meanwhile the smallest scale of the state spatial planning processes occurs at the kabupaten, sometimes at the kecamatan (sub-district). Therefore, there is a gap for intervention so that the movement needs to scale up its activities in order to have leverage at the national level.

Constraining factors of the counter-mapping movement are not entirely internal since current laws on natural resource management do not sufficiently protect or recognize local/indigenous tenurial practices, and do not provide resource conflict mechanisms and much room for people's participation. The issue here is that there is no law that recognizes or regulates indigenous territorial claims such as the Indigenous Peoples' Right Act in the Philippines. such security is only temporary since there is no assurance that the communities can maintain their claims. Even though the counter-maps have signatures from state officials, they cannot be presented as proofs in courts.

Decentralization era, however, gives some opportunities as most kabupatens do not have the capacities to generate, manage and analyze spatial information. This is where some NGOs began to step in. PPSDAK, for example, is assisting the kabupaten government of Landak to generate spatial information. It also attempted to influence spatial planning processes in Sanggau kabupaten, but failed. It moves its attention to the neighboring, new kabupaten, Sekadau, which is developing a new spatial plan through a joint program with the Community Mapping Network.

Conclusion

The counter-mapping movement in West Kalimantan shows that it both empower and disempower the Dayak peoples. It proves that arguments of the proponents of counter-mapping who promotes the importance of adopting the mapping technology in providing "a visual framework for integrating knowledge of [environmental] condition and resource conflicts" (Poffenberfer et al., 1995, p. 42) that can be understood by all parties. By using the same 'language' the peoples can negotiate with outsiders in claiming their territories and resolving the conflicts. Furthermore, in most cases maps provide the legal foundations for the tenurial or territorial claims, such those in Canada, New Zealand and Australia. Therefore, counter-mapping can increase the political leverage of indigenous peoples and thus change the terrain of resource politics.

Counter-mapping disempowers Dayak peoples because the application of cartography is problematic in recording indigenous spatial knowledges and in representing the social relations. Fox (1998) questions the ability of modern maps in incorporating the fluidity of boundaries and the ethnological content of indigenous spatial patterns. Using GIS as an example, Rundstrom (1995) argues that the technology is an inscriptive technology that can disenfranchise or, using his word, is even *toxic* to indigenous peoples. The cartographic inscription causes indigenous

spatial knowledge to become fixed and static, suffers from misrepresentation and information loss, loses of its holistic content, and becomes distantly separated in space and time from the source of knowledge (the people). These issues show the unequal relations between the indigenous peoples and the mapper or cartographer, and also the possibility of manipulating the knowledge from a distance.

Within ten years the movement settles itself within the epistemic communities that can move it away from the political goal of the movement, i.e., to assert people's sovereignty over space. One of main problems is its preoccupation on technical matters in mapping. It leads to the situation where map is an end not a means for social transformation. Because of this, the movement, that also applies to Indonesia in general and in West Kalimantan in particular, is still unable to have their voices heard. The problem comes from the emphasis on economic and ecological issues within the movement.

Therefore, to date the movement focuses its works on educating peoples to manage their lands sustainably but not building up a political power to pressure the state so that the dispossessed peoples can have access to and control over their territories. Responding to these problems the counter-mapping movement in West Kalimantan is intended to enable indigenous peoples to reclaim, protect, recover and manage indigenous territories, especially indigenous lands and forests; and to fight for the respect and protection of indigenous territories. This goal entails strategies to organize communities for collective actions; and to employ counter-maps as a means of planning, implementation, monitoring, and evaluation of community programs (either for ecosystem restorations or territorial management). This is may be a moment that counter-mapping movement in West Kalimantan slowly put itself at the central stage of political power.

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