7. Negotiating More than Boundaries:
Conflict, Power and Agreement Building in the Demarcation of Village Borders in Malinau[1]

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In Malinau, the poor and the more powerful increasingly compete for the same land and forest resources. Swidden farmers, hunter-gatherers, timber companies, mining companies and local government make diverse demands on the forest. Yet coordination[2] of forest management among these different land users has been weak. During the implementation of decentralization reforms between 1998 and 2001, when demands on the forest increased and local coordination was at its lowest, social conflict increased dramatically and forest degradation occurred at unprecedented levels.

Malinau is not unique. Large forest landscapes everywhere are under increasing pressure from diverse and incompatible demands. In this report we argue that unless appropriate mechanisms are in place for forest users to coordinate among themselves, large forest landscapes such as those in Malinau are subject to the risk of escalated and entrenched social conflicts, increasing social injustice, open access competition for resources and even wilful destruction of forest resources. Because of recent reforms, stakeholders in Malinau face the additional challenge of making a transition between the top-down more coercive coordination by forest departments in the 1970s to 1990s, when conflict was rarely openly acknowledged, to more deliberative[3] and pluralistic coordination, where self-organization, transparency in government, conflict management and greater citizen participation in decision making (DiZerega 2000, Anderson *et al.* 1999) guide decision making.

We report here on the findings that lead us to these conclusions.[4] We focus on village-to-village coordination as a subject that has received little attention, yet is fundamental to multistakeholder processes. We were interested to know whether the principles guiding more formal and complex multistakeholder processes were relevant to intervillage coordination, where lower numbers of people, more familiarity among people and more of a moral economy and stronger kin obligations occurred. We asked the research question: *What conditions facilitate coordination of interests within and among villages?* We were also curious to learn more about local people's concepts of conflict and agreement in Malinau and how these might be changing during the reform period. The work focused on village boundary demarcation as a means of land use coordination and as a tangible source of conflict about which agreements could be negotiated.

Below we briefly present current thinking about coordination processes, our study methods and a history of village-level coordination efforts in Malinau. We then present the results of the study, with data about sources of boundary conflict among communities and how they sought to overcome that conflict. We conclude with recommendations.

Background

What constitutes 'good' coordination in forest management? During the last two decades, proponents of community management have often advocated that the state should decrease its involvement as the primary coordinator of local

management (Poffenberger 1990, Sarin forthcoming). However, where government coordination has been weak, local entrepreneurs and strongmen often gain control over the forest at the expense of communities (Kaimowitz 1999, Barr *et al.* 2001, Dove 1993). A new paradigm is emerging in which coordination occurs through more pluralistic processes that take into account the interests of different stakeholders. In these multistakeholder processes, the central challenge is 'how a society composed of formally equal citizens could be ordered so that those having access to more political resources, luck or talent would not use their advantages to exploit others weaker than themselves' (DiZerega 2000).

To answer this challenge, current principles of multistakeholder processes in forestry suggest that coordination should be grounded in negotiations that involve all relevant stakeholders, identify their interests, facilitate effective communication and learning, create a neutral space for interaction, and seek to achieve consensus (Allen *et al.* 1998; Borrini-Feyerabend 1996; Fisher 1995; Röling and Wagemakers 1998; Röling and Maarleveld 1999; Porter and Salvesen 1995). Iterative cycles of conflict and adjustment are likely to occur and conflict should be managed (Lee 1993, Ramirez in press).

Experience in forest areas—including formal co-management agreements between states and communities and the decentralization of decision-making authority—indicate, however, that some of these aims might be unrealistic and even work against politically weak groups, such as local forest-dependent communities and vulnerable groups within communities (Contreras *et al.* 2001; Sundar forthcoming; Edmunds and Wollenberg 2001; Wollenberg *et al.* in press a; Anderson *et al.* 1999; Baviskar in press; Antona and Babin in press).

We argue that a more realistic view of coordination thus requires modification of these principles. First, in contrast to certain current beliefs about conflict mediation, there is strong evidence to suggest that it is difficult, if not impossible and undesirable, for facilitators or people engaged in negotiation to define stakeholders' interests clearly. Interests are many-layered and we tend to construct our interests in response to specific contexts and for strategic purposes (Baviskar in press, Leach and Fairhead in press). Especially where trust among groups is low, it may be unwise to reveal one's true interests or to assume that other groups are

Inter community meeting in Setulang

communicating their interests honestly. Baviskar argues that we can best infer interests from people's actions, not from what they say.

Second, as suggested by proponents of pluralism (Anderson *et al.* 1999, Rescher 1993, Bickford 1999), consensus is impossible and participants in a multistakeholder process should treat agreements as inherently partial and unstable. Complete agreement is impossible because differences in experiences prevent even two individuals from ever having the same desires (Rescher 1993). As only temporary states of coordination can occur, coordination is best thought of as a process of ongoing accommodation and negotiation involving multiple actors. Agreements are not the end of the process, so much as a set of principles providing guidelines and legitimacy for new actions. People negotiating contractual agreements and management plans should therefore build in flexibility to accommodate adjustment and acknowledge these as temporary measures (Wollenberg *et al.* in press b). Boundary agreements should acknowledge flexibility in rights allocated across borders. Facilitators of coordination should work with the plurality of institutions with which local actors interact, and not just through single user groups or local forest departments (Leach and Fairhead in press).

Third, some parties consistently enjoy disproportionate control over coordination processes. Weaker groups' interests have been routinely excluded, represented ineffectively, co-opted or negotiated away (Anderson and Grove 1987, Hecht

and Cockburn 1989, Parajuli 1998). Power has been exercised according to who assumed the convenor and facilitation roles (or controlled these roles), who was represented in the process, and differing capacities for communication and negotiation among participants (Steins and Edwards 1999, Ramirez, in press). Government agencies have often assumed this role in regard to forestry by working in an expertocratic mode that relies on opinions of professionals rather than wider citizenry (Rossi 1997: 237). In these situations, the interests of disadvantaged groups are often masked under the guise of agreements (Edmunds and Wollenberg 2001). Well-intentioned efforts to expand participation in forest management by including marginalized groups can actually work to their detriment, unless certain checks and balances and accountability measures are used. Multistakeholder negotiations are likely to be more socially just by acknowledging existing power relationships and enabling disadvantaged weaker groups to work politically in more effective ways, rather than assuming that negotiations can ever be neutral.

From the points documented above, we suggest that more strategic principles[5] for multistakeholder processes are necessary. These require facilitators to manage sensitively and for participants in the processes to demand. Any group or coalition that takes the facilitator role will seek to meet their own self-interest to some extent, so it is necessary for the group of participants to collectively agree on norms, rules and sanctions that encourage socially responsible facilitation. Principles include the following:

- Acknowledge the fluid and complex nature of interests, agreements and coordination processes and encourage institutions that enable multiple groups to communicate, debate and negotiate about these. Create agreements and coordination mechanisms that can acknowledge underlying conflicts and accommodate flexibility and adjustment. Assess interests through people's actions, not statements.

- Improve the preconditions for disadvantaged groups to participate and negotiate effectively. Seek out possibilities for alliances among select stakeholders, rather than trying to achieve an apolitical agreement among all stakeholders.

Working in, with, and through alliances, disadvantaged groups can achieve significant gains for themselves, while maintaining greater control over the types of information made available to their antagonists. Enhancing the power, urgency or legitimacy associated with certain stakeholders can increase the likelihood of their being noticed and involved in decisions (Ramirez, in press). Enable excluded stakeholders to work through parallel arenas to challenge decisions.

- Ensure accountability of coordination decisions to interest groups through effective representation (facilitating proximity of leaders to their constituencies, elected leaders and delegates and fostering an ideology of civic dedication), transparency (third party monitoring, public meetings and reporting, participatory processes), and checks on power (legal appeals to existing decisions, separation and balance of decision-making power across several authorities, enabling civic education and social movements) (Ribot in press).

- Situate the legitimacy of negotiation processes, decisions and agreements. This means analysing the reasons for participation or nonparticipation by each group in negotiations, how groups are represented, the roles of convenors and facilitators, and the historical context for such agreements. It also means treating legitimacy as partial and contingent rather than assuming that an unproblematic legitimacy is assured through open negotiations.

To test the applicability of these principles and refine them, we examined the extent to which they were relevant to village-to-village coordination about land claims in Malinau. We report our findings below.

Methods

CIFOR used action research to examine negotiation among stakeholders in relation to forest land claims and coordination of land use in the 27 villages of the upper Malinau River (see Map). Action research enabled us to conduct research that would mutually benefit CIFOR and local stakeholders by generating

local impact immediately, as well as enable us to directly observe how these impacts occurred. The methods and focus of the work evolved in response to local needs in iterative stages.

Initiation

We began in the village of Long Loreh in 1997, where we stationed a local research assistant to collect baseline information about forest dependence, villagers' concerns and local governance. In early 1998, we explored developing scenario-based methods as a tool for building a common vision and negotiation among stakeholders. At the time, there was little local interest in these methods.[6] We looked for another entry point for collaboration and action research, and in the meantime, produced a review and guidelines to scenario methods for multistakeholder planning (Wollenberg *et al.* 2000; Wollenberg *et al.* in press a, b). These have been shared in training seminars and international conferences.

Because of the opportunities for community land claims created with reform under President Habibie, we subsequently explored research on methods for different groups to reach agreements about village boundaries, using participatory mapping of village lands as a platform. WWF's participatory mapping of village territories or *tana' ulen* in Kayan Mentarang National Park also provided a precedent. We conducted training in participatory mapping with the NGO SHK in the village of Long Loreh in late 1998. Communities' interest in settling land claims was high, and other communities expressed a desire to join the process. We decided to also gather more information about other communities to better understand their perceived problems and priorities and subsequently expanded our work area to the 27 villages of the upper Malinau River.

In 1999, we conducted a systematic survey of stakeholders, land tenure and forest-related conflict in these 27 villages, as well as organized a five-day community workshop involving representatives from throughout the watershed to identify a mutual agenda for collaboration between communities and CIFOR (Padan and Laway 1999, Anau 1999, ACM-CIFOR 1999). The survey demonstrated that all the communities had a strong interest in mapping their lands. The workshop showed that villagers' highest development priorities were securing reserved or protected forest, clean water and electricity (and other infrastructural improvements), in addition to the mapping of village boundaries. The activities also revealed high levels of conflict among villages and between villages and companies about a range of forest-related issues, including land claims.

Participatory mapping of administrative boundaries

In response to the high interest in mapping, CIFOR trained village-level committees in participatory mapping techniques and, from January to July 2000, facilitated conflict mediation and mapping among the 27 villages. CIFOR created a core team of nine trainers-researchers-mappers that included six Malinau community members. This team documented and analysed the types and causes of conflict over boundaries (Tim Pendampingan Pemetaan Partisipatif, 2000). Twenty-one villages produced draft maps. A community workshop was held in 2000 to review next steps with the communities. Communities recommended that CIFOR continue to mediate the boundary demarcation process, although local government at the same time expressed an interest in taking on the mediation and mapping themselves. Because of the long-term nature of boundary adjudication and the role of local government in approving boundaries, CIFOR and the Malinau District government recommended that local government would be better placed to continue the mapping. Communities also requested more information about decentralization, local government and negotiation methods for dealing with IPPK (*Izin Pemungutan dan Pemanfaatan Kayu*[7]) holders.

In each village the steps planned by the Core Team to facilitate community mapping were:

1. The Core Team initiated work with a community once they had had internal discussions and negotiations with neighbours to decide their boundaries and had formed an internal village mapping committee of five to six members.
2. The Core Team began by facilitating a community meeting to discuss the purpose of mapping, the process, the responsibilities of the community and how they wished to store/control use of the map once it was finished.

3. The Core Team trained the village mapping committee in GPS (Global Positioning System), compass and mapping skills.
4. Together the Core Team and village mapping committee visited boundary areas to collect GPS points. Those areas that could be mapped according to topography or rivers were drawn in on a satellite photo. The Core Team provided leadership in these activities.
5. Both teams entered GPS points to the satellite photo and a base map.
6. At the completion of fieldwork, the Core Team reported about the process and results of mapping back to the community.
7. One draft map was left with the community, and the other was sent to Bogor for processing by CIFOR.
8. Processed maps were returned to communities for crosschecking.
9. Communities begin negotiations with government to acquire legal recognition of their boundaries.

We faced several challenges in implementing these steps fully. Although we attempted to genuinely build the capacity of local villagers to undertake the mapping on their own, we found that few communities, even after several training sessions and experience in mapping, were able to participate in the mapping as much as we had expected (see discussion below).

The Core Team also helped to mediate conflict on several occasions when requested to do so by communities. During the mapping and separate monitoring activities, Core Team members observed conditions affecting how agreements were reached. They also observed the types of conflicts occurring and the strategies of communities to achieve agreements.

The Core Team was not always able to hold meetings about the results of the mapping because community members were often preoccupied with other business and the large distances and tight schedule did not permit the team to wait in an open-ended way for village leaders to call a meeting.

The project was not able to complete the last two steps of the mapping because of the requests for changes in boundaries and the lack of information about how to formally recognize the boundaries. From July 2000 until the end of the project period (December 2001) the completion of the process was therefore put on hold in anticipation of the local government's plan to facilitate the conclusion of the mapping.

Land use under decentralization

Beginning in 2001, because of the increasing conflicts about land use among all stakeholders and rapid deforestation, CIFOR decided to broaden the stakeholders in the project. To that end, CIFOR and the Malinau local government co-sponsored a multistakeholder workshop in May 2001,[8] involving 69 participants including the Malinau local government, local concession holders, 19 community members (additional community members were also represented in government and NGO positions), church leaders and NGOs. The participants identified their shared hopes for the future:

- Increased income
- Land use that is clear and occurs according to assigned rights and functions
- Development of institutions that are efficient, coordinated and transparent
- Environmental conservation.

Participants jointly produced action plans to achieve these desires. These plans included the recommendation that land use and boundary decisions should include participation of representatives of all affected groups in all stages, from field inventories to rule making and implementation. The meeting was the first-ever multistakeholder meeting of its kind in the district. Participants, especially local villagers, were highly enthusiastic about the opportunity to meet with so many different groups to discuss these issues together. The meeting created a high level of optimism and good will about the potential for future stakeholder collaboration.

CIFOR is presently in discussions with local government to determine a program for next year to follow-up on these recommendations. We have been also working intensively in the Loreh and Langap sites (seven villages, four ethnic groups) to discuss with communities their priorities for action related to decentralization and land use management. A workshop will be held in November with the communities of the upper watershed and other stakeholders. Two members of our team, sponsored

by the Ford Foundation, have been preparing legal literacy materials for communities and local government.

Preliminary outcomes of these discussions indicate strong interest from communities and local government in:

- Completing the conflict mediation and boundary demarcation process
- Improving understanding of future economic options for increasing local incomes
- Improving legal literacy related to decentralization and community rights
- Identifying ways of reserving forests for local use and protection.

During the course of these three phases of work, we have worked with officials in the *kabupaten* and *kecamatan* offices, Bappeda, INHUTANI II, Meranti Sakti (another local HPH), and *Dinas Kehutanan* at the provincial and *kabupaten* levels of government, mostly in the capacity of exchanging information about our plans. We have also collaborated with Plasma, SHK-Kaltim, PPSDAK, Padi, LPMA, the University of Victoria (Canada), Wageningen University and Yale University in various components of the work. We have coordinated with and informed partners in Samarinda periodically, particularly Plasma, SHK, Putijaji, APKSDA, The GTZ Sustainable Forest Managament Project and WWF-Kayan Mentarang (now in Tarakan).

The context for struggles over land and forest

Struggles over land and forest in Malinau have been long-standing, even if the reasons and means of managing them have changed. We can trace the shifting authorities that worked to overcome these struggles and served to coordinate control over land during the last several centuries. For the earliest periods we can only draw evidence from historical documents, oral histories and try to extrapolate from conditions observed in more 'traditional' villages, although the latter is risky (see Sellato in press for a historical overview of Malinau during the last 150 years).

At least until the early 1900s, intergroup warfare was common, as was migration in response to the threat of war. Minor customary leaders (*kepala adat*) and their circle of close advisors helped to

Committee members of two neighbouring villages collect GPS coordinates along the village border, assisted by members of the facilitation team

control access to land, manage conflicts and coordinate decisions within their ethnic group, while major customary leaders (*kepala adat besar)* helped to coordinate these matters at yet larger scales. Most settled rice farming communities (e.g. the Kenyah) seem to have sought control over territories, while others (e.g. the Punan) seem to have been more concerned with access to settlements and key resources. Where they existed, territories seem to have been conceptualised in terms of a central settlement point or river and its watershed, with less emphasis on the exact location of the outer bounds. In many places, customary leaders controlled rights to valuable resources like birds' nest caves nested within the territory of a sultanate. [9] The sultanate in turn levied taxes on the traded products.[10]

Coordination occurred through these customary leadership structures, which used hierarchical social controls within their villages and periodic consultation—especially with a close circle of

influential villagers or *tokoh masyarakat*—to manage conflict within the group. Unresolved conflict was handled though the fission of the group, with one faction moving to a new settlement or, in the case of external groups, by violence. Around 1900, Kayan groups repeatedly attacked Merap groups on the Malinau to reclaim caves taken over by the Merap. Marriage or trade alliances were used to build relationships with external groups. Rights of access to village territories were based on these ethnic and trade alliances as well as respect for customary authority, requests for permission and verbal agreements, although people often casually entered watersheds for hunting or collection of forest products without permission. Rivers and mountain tops marked boundaries. Reflecting the economic value of forests at the time, some leaders requested fees from outside groups wishing to collect forest products in their area (Sellato in press). Evidence suggests that in the upper Malinau, the Merap *kepala adat besar* was the reigning local power, together with the local Tidung Sultanates, for most of the 20th century.

As warfare declined, the Dutch[11] and later in 1950s the Government of Indonesia[12] became additional layers in the institutional hierarchy in what was first the Bulungan sultanate and later the *kabupaten* or district of Bulungan. The new Indonesian government established an infrastructure of centralized control. The role and direction of accountability of customary leaders became muddled over time as many were appointed by outside officials as village government heads (*kepala desa*) and became upwardly accountable to a *camat*, *bupati*, governor and the president. Local social institutions were severely weakened with the delegitimation of customary laws and leaders. Government maps of villages bore little, if any, relationship to actual settlements and their claims. Unfortunately, local villagers became increasingly politically disenfranchised and distanced from under this system. Most matters of village concern continued to be settled by customary leaders, especially those who also worked for the government as *kepala desa*. These leaders made decisions among a group of ethnically homogenous people. Access to land and forest continued to be managed as before.

In addition to establishing new administrative overlays, the state staked extensive claims to forested territories starting in the 1960s as the timber boom began. Nearly 95% of what is now the district of Malinau was designated as state forest land, and in the late 1960s the central government allocated all the state forest land to timber concessions. Suddenly villages found themselves sharing the forest with timber harvesters and being told that the land belonged to the government of Indonesia. The state's assertion of authority over land through the logging companies' presence openly challenged local sovereignty and claims to land in a way that sultans and the Dutch had never done. Villagers for the most part accommodated the concessions, largely out of feelings of intimidation (military officials usually accompanied logging company staff or otherwise harassed potentially troublesome villagers). The gradual degradation of forest, loss of wildlife for hunting and lower water quality that they experienced were also partially offset by the construction of roads, provision of transportation, generation of employment (albeit limited) and occasional contribution to a village project. Local concessions did not strictly enforce hunting and burning prohibitions and allowed swiddening in some forest areas in an effort to maintain good relations. During this time, forest-related conflicts were predominantly intervillage quarrels about access to agricultural plots and for a few individuals, efforts to maintain claims to birds' nest caves. The state did not allow conflicts with the government or concessions to occur.

The authority of village customary leaders further eroded and land claims became more complex as ethnic groups began to share territories. Government resettlement programs of the 1960s through 1980s, and an *ad hoc* case of government-sponsored resettlement in 1999, reallocated mostly formerly Merap[13] lands along the upper Malinau River to Dayak groups who had moved from more remote parts of the area. The newcomers did not, however, always sever ties with their former territories. As a result of these programs, two to four ethnic groups now reside collectively in each of nine of the 16 settlements (*lokasi*) along the upper Malinau River. Population pressure has also increased substantially on local resources. These groups now make claims to multiple territories that overlap with other group's claims, calling into question who maintained authority over which land and what the role of customary and government authorities is in settling these claims. Because of the resettlement programs, the upper Malinau River area suffers more from these sorts of multiple claims than any other part of the district.

The final and most recent major development occurred with three overlapping phenomena: decentralization reforms, new access for villagers to monetary payments for timber and land and the creation of the new *kabupaten* Malinau. With the initiation of decentralization and the associated uncertainty, local people from all sectors of society have sought to seize their share of Malinau's resources. Even before decentralization policies were formally implemented at the *kabupaten* level, *de facto* decentralization began taking place with villages making claims to *adat* lands and negotiating directly with local investors (Rhee forthcoming). Villagers made demands for compensation or benefits from timber and mining companies more freely and requested larger amounts than ever before.[14] Since former President Soeharto stepped down, villagers say they can express their discontent without fear and have been much freer about speaking out against their leaders and the government. Military officials only rarely accompany timber companies or government entourages any more. New political associations have formed among different ethnic groups. Village leaders can be seen as often in the central town of Malinau, meeting with government or company officials as they are in their own villages.

Fuelling the race for resources was the offer of payments by companies for harvesting timber. In 1996, the exploitation of coal in the Loreh-Langap area resulted in payments to some 10 to 20 households and to the customary Merap leader of Langap for rights to excavate their fallowed swidden fields. In 2000, the Governor of East Kalimantan passed a provision (stimulated by the new Basic Forestry Law 41, 1999) enabling communities to claim compensation from timber companies for logs harvested in their areas.

The most lucrative deals, however, were the IPPKs, or *Izin Pemungutan dan Pemanfaatan Kayu*. Beginning in April 2000, the *Bupati*[15] began allocating these small scale logging permits for 100 to 5000 ha each to hastily formed small local companies (CVs). With decentralization, the *kabupaten* became responsible for generating its own income, and could also keep a larger proportion of the income it generated than ever before. The incentives for intensive resource use were therefore high. The presence of the Kayan Mentarang National Park increases the pressure on the *kabupaten* to make more intensive use of the remaining areas, such as the upper Malinau River, which are also more accessible and have better infrastructure. The result has been extraordinarily high levels of timber extraction among more diverse groups and increasing conflict among nearly all parties, including smallscale timber harvest permit holders, concession holders, villagers (themselves often forming factions) and mining interests (Barr *et al.* 2001). Thirty-eight IPPKs have been issued granting access to more than 53 000 ha in Malinau since April 2000. Underlying the logging deals has been the negotiation of territorial claims and speculation about the value of these lands for future claims or compensation. A *laissez-faire,* frontier atmosphere has emerged in which making money has become more important than always being lawful or fair.[16]

The symptoms of trouble are clear: community protests against the investors for not paying expected fees or wages to local harvesters; complaints among villagers about opaque deals struck between leaders and investors; and forest logged in areas where permission was not granted by villagers. In most villages, few people know the content of the evolving law or are aware of their entitlements. Usually only a select elite close to the village head (*kepala desa*) are involved in *kabupaten* matters and negotiations with investors. Many villagers are excited about trying new economic options, but lack the information about how to consider trade-offs in livelihood security and long-term resource use. The communities' euphoria—unchecked by a lack of information—about receiving several thousands of dollars now will most likely be forgotten in a few years when both the forest and their money have run out.

In addition to the above, the formation of the new *Kabupaten Malinau* in October 1999 (one of three new districts formed from the district of Bulungan) has meant that there was a one and a half year period of temporary leadership of the district that was not accountable to a local assembly. Not coincidentally, this was also the time when the bulk of the IPPKs were issued. Many government offices were only filled in 2001, including the forest service (*Dinas Kehutanan*). Another significant aspect of the new local government is that for the first time, most posts were filled by people originating from the *kabupaten* (or married to someone from the *kabupaten).* Previous officials were mostly from Java, Sulawesi or other parts of Kalimantan (especially

Samarinda or Banjarmasin). The Dayak-ization of local government has meant that authority is now rooted in the local politics of more than 18 different ethnic groups. Local relationships of power are more intertwined and complex than ever before.

These evolving relationships have affected how struggles over land play themselves out. Current alliances in Malinau reflect a set of fluid, interlocking networks of ethnic affiliations, economic interdependencies, strategic kin relationships and even historical alliances from the headhunting period. Kenyah, Lundaye and Tidung groups have been the most politically aggressive groups in recent years and dominate Malinau's new local government. These groups, together with the Merap, have also worked most aggressively to consolidate their claims to land. Punan groups, meanwhile, have had little representation in the *kabupaten* government, as well as weak historical claims to lands, and are always the weaker partner in alliances with other ethnic groups.[17] Individuals from all groups have maintained an opportunistic attitude towards building alliances and sought to strike new deals as they may, making it difficult to know at any one time precisely who has control where. Unfortunately, only a relatively small group of leaders and their circles enjoyed the benefits of these deals and exerted any real influence over decisions.

Decisions made in the next several years will have huge consequences for who controls land and how that land will be used in the medium term. Current trends indicate very real threats of rapid deforestation, disenfranchisement of the Punan, and ultimately the loss of opportunities for long-term economic gain by most local groups. As one of Asia's largest remaining expanses of continuous forest and home to the largest group of Punan in Borneo, it is vital that coordination be improved to encourage a longer-term and more integrative view of how the areas's forest can be managed to provide more equitable and long-term benefits for local communities. Local stakeholders feel these challenges intensely.

Setting Village Boundaries

It was in the context of this last set of developments that CIFOR's action research on intervillage boundary conflict took place. Below we report our results. We report on the lessons learned about the types of conflicts encountered, the factors influencing how communities reached agreements, and the impacts of the boundary demarcation process. We also note some technical lessons learned about the participatory mapping process.

Sources of Conflict

The most common sources of conflict between villages over boundaries were the overlap in ownership or use of agricultural lands (swidden fields, wet rice fields and perennial gardens) and a history of mistrust and non-cooperation. Other sources of conflict included timber, valuable non-timber products like gaharu or birds' nests, and land containing coal deposits. Every village experienced however its own unique constellation of specific conflicts (Table 7.1). A general pattern can be seen among the different parts of the watershed. In the far reaches of the upper Malinau, where mostly Punan groups lived, conflict focused on access to forest products, in addition to the sources mentioned above. In the central portion of the upper Malinau, where rich coal deposits occurred, conflicts emerged because of efforts to claim compensation from the coal mining company for the use of cultivated or fallow fields. In the lower stretches of the upper Malinau, problems focused only on access to agricultural lands and historically problematic relationships of mistrust.

Underlying the mistrust and lack of cooperation were disparities in economic or political status between villages. These disparities affected how a conflict over boundaries manifested itself, as well as the possibilities for resolving the conflict. As we discuss further below, the larger the discrepancies between villages, the less likely it was that villages were able to reach agreement about boundaries.

Although many of these conflicts had existed formerly, villagers noted that the intensity of the conflict increased with the advent of outside parties seeking to exploit local resources such as timber and coal and offering compensation payments for them. The possibility of earning large amounts of extra income raised the stakes of the conflict, and made people determined to protect or expand their claims to timber or coal-bearing areas. When high stakes occurred, more latent, long-term conflicts related to intervillage differences or rights to agricultural land

Table 7.1 Sources of conflict affecting boundary negotiations

Boundary	Source of conflict				
	Coal deposits	Agricultural lands¹	Non-timber forest products²	Timber	History of poor relations
Lidung Keminci - Sentaban		X			X
Sentaban - Setulang		X			X
Setulang - Setarap		X			
Setarap - Batu Kajang		X			
Batu Kajang - Gong Solok		X			X
Batu Kajang - Adiu					
Gong Solok - Adiu		X			X
Adiu - Loreh		X		X	
Adiu - Nunuk Tanah Kibang					
Long Loreh - Gong solok					
Long Loreh - Nunuk Tanah Kibang					
Long Loreh - Langap	X	X	X		X
Langap - Seturan/Punan Rian	X	X	X		X
Langap - Nunuk Tanah Kibang	X	X			X
Langap - Laban Nyarit	X	X			
Langap - Tanjung Nanga'	X	X			X
Laban Nyarit - Mirau		X	X		
Laban Nyarit - Halanga'		X			X
Laban Nyarit -Tanjung Nanga'	X	X			X
Laban Nyarit - Metut					
Laban Nyarit - Pelancau					
Laban Nyarit - Long Lake					
Tanjung Nanga' - Seturan					
Tanjung Nanga' - Metut		X		X	
Metut - Pelancau		X	X	X	X
Pelancau - Long Lake					X
Long Lake - Long Jalan			X		X
	6	17	5	3	13

¹ Swidden fields, rice fields, perennial gardens

² Birds' nests, gaharu etc.

were drawn to the fore and further fuelled the intensity of the immediate conflict.

The Process of Negotiation

Community Participation

Community participation in the negotiation and mapping process was lower than CIFOR anticipated. It was also less than necessary for the mapping to genuinely reflect diverse villagers' interests. In retrospect, however, we found that low participation is common in participatory mapping (Fox in press) and generating adequate participation is a central challenge of populist approaches (Rossi 1997). In Malinau, we observed that the lack of broad participation or at least effective representation in the negotiations in particular affected the ability of villages to achieve stable agreements. Although villagers asked us to conduct the mapping during a period of low agricultural activity (April to July) so that they would have more time available, and CIFOR's Core Team actively sought to stimulate broad community participation through meetings and informal interaction, decisions tended to be controlled by only a few individuals. We observed this decision-making pattern to be typical in villages of the upper

Malinau River for most matters at the village or intervillage level.

In relation to mapping, participation was ineffective both within villages as well as in meetings between two or more villages. Within villages, participation in meetings was low. For example, in the Loreh site (four villages) only 50 people of a total of over 1000 ever attended most public village meetings, including the mapping consultations. Only 20 people from the Loreh villages were later involved in the final negotiation with Langap. Of the 60 people interviewed in the Loreh villages after the mapping had been completed, only a small proportion knew that the mapping took place. Factions were common in even small villages. Representatives of these factions were frequently not present in meetings, either because they had not been invited or they purposely did not attend. Boycotts of meetings were a common means of quiet protest against the group calling the meeting. Village leaders usually only consulted with a small circle of influential colleagues among the *tokoh masyarakat* and never actively sought the views of different groups, let alone represent them. Women rarely participated in meetings, and if they did, rarely spoke. Predictably, village politics led to some groups giving more weight to their own preferences, while marginalizing others.

In intervillage meetings, villages were represented by only one to six influential village members (*tokoh maysarakat*), including among others the village head (*kepala desa*), members of his staff (*aparat desa*) and customary leaders. Even though there were village leaders representing villages, decisions often could not be reached if a key leader was absent. In Langap, for example, a decision could not be taken without the endorsement of the Merap customary leader or *kepala adat besar*. In Metut, the absence of the village secretary completely stalled negotiations with Pelancau. In cases where the village leader only needed to reaffirm an existing agreement, the participation of a few individuals was sufficient for ensuring acceptability to other villagers and the stability of the decision. A small delegation became problematic, though, where changes needed to be negotiated and consultations with key influential people and representatives of groups were needed before settling on a particular option on behalf of the village. People attending meetings on behalf of a village rarely reported back to the village about the outcome of their negotiations.

One of the most important factors affecting participation was the location of a meeting. The number of people attending a meeting was strongly affected by its location in one village versus another. Time and transportation expenses limited the number of people willing to travel. For example, a meeting between Langap and its neighbours held in Langap involved 21 members of Langap and none to three members of the eight neighbouring villages. Similarly in a meeting held in Setulang, 30 people attended from Setulang, compared to the three from the neighbouring village of Setarap. If negotiations are held repeatedly in the same village, other villages face difficulties in sending representatives, which then compromises their ability to reach more stable decisions.

Representation and participation among the Punan was especially poor. The Punan faced special constraints participating in meetings called in villages. First, Punan families frequently went to the forest for long periods of time (*mufut*), with men additionally going into the forest to look for gaharu (*Aquilaria* sp.) for weeks or months at a time (*ngusah*). Their absence meant that they also would often not know about meetings in advance and therefore lacked time to consult with other community members before attending a meeting. Second, where the Punan lived in a settlement with other ethnic groups, the Punan did not always feel comfortable expressing themselves in meetings. More dominant groups did not always invite them to meetings and information from meetings was not always shared with them. Selection of representatives to meetings appeared to be more *ad hoc,* and these representatives were rarely accountable to anyone in the village. Among the nine locations where Punan villages coexisted with other ethnic groups, participation of Punan groups was extremely weak in three communities (Seturan-Punan Rian, Tanjung Nanga'-Respen, and Gong Solok I and II). Third, in at least Langap, the Punan living in neighbouring Long Rat and Punan Rian had a historically subservient relationship with the Merap, having been given land locally to facilitate their work as forest collectors for the Merap, especially of birds' nests. A final reason for weak Punan participation was that in four settlements (Pelancau, Long Lake, Metut and Long Jalan), members of the village were scattered in several locations, making it difficult to involve representatives from all groups and distribute information to everyone.

Internal village processes

Internal village consultations strongly affected the ability of villages to reach agreement among themselves, as well as with other villages. In each case, the village head (*kepala desa)* coordinated whether these consultations occurred or not, sometimes together with the customary village head (*kepala adat*). Of seven pairs of villages that engaged in broad consultations within their respective villages before negotiating with their neighbours (Setarap-Setulang, Setarap-Batu Kajang, Batu Kajang-Gong Solok, Tanjung Nanga'-Langap, Langap-Laban Nyarit, Langap-Loreh, Metut-Pelancau), five resulted in agreements. Internal preparations served the purpose of ensuring that the negotiated decision would be acceptable to the broader community. They also helped community representatives to explore different options and have more information at hand to be able to negotiate better. These preparations differed among villages. Only 11 out of 27 villages held formal community consultations or *musyawarah*. Others held small informal meetings. Aspects of internal consultations that seemed most important in producing a stable, broadly acceptable outcome were as follows:

- Transparency, indicated by the holding of a community meeting attended by a majority of the families. Where transparency was lacking (e.g. Metut, Sentaban and Laban Nyarit), people within the village later challenged the agreement determined by the village head.
- Community capacity to work together and trust and support each other (community cohesion), indicated by a history of lack of factionalism, cooperative efforts at the village level and support for the village leader. Such capacity was high, for example in Tanjung Nanga' and Setulang. Where people did not work together, negotiations were less effective. Langap representatives negotiated demands from Tanjung Nanga' that were not supported by other Langap villagers (where at least four factions exist), such that when the mapping team tried to identify boundaries, the agreement was rejected.

Negotiations between villages

In observing the negotiation process, we sought to understand how negotiations were organized and the factors influencing their outcome. Although we

People were often eager to mark their boundaries, especially along a road

initially encouraged parties to reach agreement[18] quickly and described this as a 'successful' negotiation, we soon learned that many such agreements were short-lived and partial in their support. An agreement reached quickly enabled communities to conduct the mapping of their territory, but we fear this occurred too often at the expense of a more socially inclusive process that would have probably resulted in more stable results. We learned that *we should have evaluated the process underlying how a village reached their agreement as a basis for proceeding with the mapping, not just whether an agreement had been reached.*

Two approaches were used in negotiations between villages: meetings between village heads or meetings between selected village representatives. Meetings between village heads usually occurred where there had been no previous village consultation. As noted above, this occurred in several cases where both parties already accepted a boundary and the boundary only required affirmation (Laban Nyarit-Pelancau, Laban Nyarit-Metut, Laban Nyarit-Long Lake). In these cases one meeting was sufficient to agree on boundaries. Where there was a disagreement about the boundary, however, community members consistently rejected agreements reached only by their village heads. For most villages, negotiations with other villages commonly involved one to five meetings, although in one case 19 meetings were held! As noted above, both village heads and other representatives were only partly, if at all, accountable to their broader village constituency.

In the negotiation process, five factors appeared to help communities reach agreements, in addition to the influences mentioned above. First was consultation with the other village. Among the 27 villages, eight held consultative *musyawarah* meetings with neighbouring villages as part of their preparation for the mapping. Six of these villages successfully negotiated agreements. Good relations did not predispose these villages to having meetings and reaching agreements, since at least half of the six were communities with long-standing historical difficulties with their neighbours.

Second, family relations among villages encouraged compromise that led to more rapid agreement. Six villages (Long Jalan, Long Lake, Pelancau, Metut, Laban Nyarit, Langap) sought agreements based on compromises because of family relationships with another village. Although they may have wished to expand their territory due to the changing value of resources, because they were all members of the same extended family, these communities decided to maintain existing boundaries.

Third, financial incentives encouraged speedy resolution. Potential compensation payments by the coal company or sharing of benefits from small scale timber harvesting (IPPK) holders promised concrete benefits that encouraged villages to act quickly to reach agreement and get on with mapping their lands to secure additional income. With the uncertainty of decentralization policies, a first-come, first-served attitude developed where people feared someone else would benefit from the resource if they did not make use of it first, or the policy would change and the benefits would no longer be available.

Fourth, villages with similar institutional capacities and power were more likely to reach agreements than villages that differed.[19] In a number of cases, especially the case of Langap and its weaker neighbours such as Long Rat or Paya Seturan, more powerful villages presumed themselves entitled to exert their will about a boundary decision, and disregarded the need to build agreement with a weaker village. Weaker villages often passively resisted these decisions by the more aggressive villages. This pattern is evident with the application of a simple scoring system,[20] the results of which are summarized in Table 7.2. Even where agreements were ostensibly reached, there was a clear pattern that villages having lower capacity-power differentials were more likely to reach stable agreements. The more similar two villages were, the more likely they would not challenge boundary agreements.

The fifth factor influencing outcomes was the opportunity to share benefits across villages. CIFOR assisted villages to reach agreement in several cases by encouraging villagers to treat the boundary not as a fence excluding non-villagers, but as a set of rules about sharing access or benefits. In seven cases (meaning the unique boundary between two villages), villages negotiated agreements enabling neighbours to maintain their swidden fields, perennial gardens, or hunting rights (Langap-Loreh, Langap-Seturan/Punan Rian, Langap-Nunuk Tanah Kibang, Langap-Laban Nyarit, Laban Nyarit-Tanjung Nanga', Metut-Pelancau, Long Lake-Long Jalan). In five of these cases agreements were reached. Langap and Nunuk

Table 7.2 Difference in capacities and power status between two negotiating villages and nature of agreements reached

Difference in capacities and power status between two negotiating villages	Difference in capacity-power scores	Agreement reached?		Stability of decision[1]	
		No	Yes	Stable	Not stable
No difference	0	0	6	5	1
	0.5	1	7	6	1
Moderate difference	1	2	2	1	1
	1.5	1	5	2	3
Large difference	2	1	1	0	1

[1] Stability was only counted for cases where agreement was reached.

Tanah Kibang agreed to share future compensation payments from the coal company. Langap and Long Loreh reached agreement about an area under which lay valuable coal, by acknowledging that Loreh could continue to use existing cultivated plots in the Langap territory. Although both parties appeared satisfied with the current arrangement, there was no discussion of who would gain rights to compensation payments should these agricultural plots be converted for mining. In negotiating these agreements, village decision makers had to carefully weigh the benefits of working out an agreement in highly specific detail against working out only the broad principles. Negotiating too many details creates the risk that agreement would not be achieved. Negotiating only general points enables at least a partial agreement to be achieved—but at the risk that additional conflict will occur later.

To the extent these factors were not present, villages with conflicting boundary claims were not able to reach agreement. These villages were ultimately not able to sustain a supportive political base. We observed in particular that community members in these villages frequently did not support agreements produced by their leaders and in several villages refused to map the suggested boundary. For two villages, there was also the practical problem that they were not sure whose territory adjoined their own because their borders were far, hence their preparations with these neighbours were lacking and preliminary agreements had to be renegotiated (Gong Solok-Long Loreh, Batu Kajang-Adiu).

The Results of Negotiation: Boundary Agreements

Of the 27 boundaries among villages in the upper Malinau, 21 were negotiated to the point of agreement between the villages concerned during the seven-month period during which CIFOR conducted the mapping (Table 7.3).

During the period of the mapping, most villages relied on written agreements between villages, which for many was a new development. Verbal agreements had previously been more common for boundaries. Written agreements were produced as *berita acara,* or public announcements signed by two parties and sometimes further signed by the local subdistrict leader (*camat*). Although in the past, some community leaders amended documents to include extra signatures from another group, it appears that the *berita acara* produced during the mapping process were legitimate. In the past, one village in particular had attached the signatures from attendance at a meeting to a statement of supposed agreement and produced a map showing their own version of the boundary. Trust in written agreements appears to be increasing despite such past abuses. Trust in verbal agreements has certainly declined, perhaps because they are seen as no longer binding and less legitimate.

Negotiations conducted transparently with written agreements tended to be more stable than those that were not. Of 21 boundary agreements, 14 were stable, while seven changed within the seven-month period. The 14 stable ones used more

Table 7.3 Results of Boundary Negotiations among Villages of the Upper Malinau River

Village boundary	Agreement reached	Documented in writing	Agreement stable[1]
Lidung Keminci - Sentaban			
Sentaban - Setulang		X	
Setulang - Setarap			
Setarap - Batu Kajang	X	X	X
Batu Kajang - Gong Solok	X	X	
Batu Kajang - Adiu	X		
Gong Solok - Adiu	X	X	X
Adiu - Loreh	X	X	X
Adiu - Nunuk Tanah Kibang	X		X
Long Loreh - Gong Solok	X		
Long Loreh - N.T. Kibang	X		X
Long Loreh - Langap	X	X	X
Langap - Seturan/P.Rian	X	X	
Langap - Nunuk Tanah Kibang	X	X	X
Langap - Laban Nyarit	X	X	X
Langap - Tanjung Nanga'	X	X	
Laban Nyarit - Mirau	X		
Laban Nyarit - Halanga'			
Laban Nyarit -Tanjung Nanga'			
Laban Nyarit - Metut	X	X	X
Laban Nyarit - Pelancau	X	X	X
Laban Nyarit - Long Lake	X	X	X
Tanjung Nanga' - Seturan	X		X
Tanjung Nanga' - Metut	X		
Metut - Pelancau		X	
Pelancau - Long Lake	X	X	X
Long Lake - Long Jalan	X		X

[1]Stability means here that there were no challenges to the agreed boundary by the two villages involved by July 2000.

transparent negotiation (negotiations that were conducted in a more secretive manner where negotiators did not share information about the process or contents of their meetings were Setulang-Setarap, Batu Kajang-Adiu, Long Loreh-Gong Solok, Laban Nyarit-Mirau, and Tanjung Nanga'-Metut) and ten of the 14 used written agreements.

However, as of December 2000, *nearly all villages requested changes even to previously stable boundaries*. We attribute these demands to the increasing activity of the small scale timber permit (IPPK) holders during the latter half of 2000 and a new provision at the provincial level enabling villages to claim compensation from timber companies for timber previously harvested. As the stakes rose, villages sought to increase their land claims even further. The lack of a clear higher third party institution with the authority to provide formal recognition of boundaries and control *ad hoc* revisions also made it possible for this fluidity to occur. With decentralization, just where this authority lies is not clear, although many have assumed it is

now with the *kabupaten.* The establishment of the new Malinau *kabupaten* has delayed the local government's involvement in the boundary demarcation to date. As the *kabupaten* asserts its authority and endorses boundary agreements, we can expect to see more stable results. The authority vested in this higher institution would have to be controlled by checks and balances and maintain downward accountability to ensure just decisions.

Impacts of Mapping

Viewed in November 2001, more than one year after the completion of the mapping, several important impacts of the negotiation process and mapping activity can be observed. First, a new awareness has emerged among all stakeholder groups of the location and extent of different villages, as well as the value of mapping as a means for making claims to land. This awareness can be considered a necessary basis for coordinated landscape management. Although CIFOR did not distribute maps of a village to others and clearly marked maps as drafts, villagers themselves often shared them (especially with local investors) and CIFOR displayed the maps in several meetings with other stakeholders.

New types of boundaries emerged as some villages (e.g. Tanjung Nanga' and Langap) reconceptualised boundaries as straight lines or along roads rather than natural boundaries. For most groups, there is a subtle shift in the conceptualisation of territory as defined by its centre settlement point or a main river of a watershed to an emphasis on outer boundaries. For some groups, especially the Punan, we suspect that the mapping has reinforced the historical trend of gradual territorialisation of previously nomadic or shifting groups, a trend accompanied by an increasing tendency among inland groups to want to register their land as property, and even to seek private rather than communal property. Whether such changes are significant and occur to the benefit or detriment of Malinau's populations and forest, it is too early to tell, but they do signal changing attitudes and values related to land. Developments in the policy environment related to *adat* and IPPK claims will strongly influence how these changes play out.

Second, the mapping process, in combination with other changes related to decentralization and changing attitudes towards land, affected relationships among and within villages. The mapping brought out conflicts that had been latent, thereby exacerbating conflicts in some villages and alleviating it in others through negotiations. New alliances and coalitions among communities emerged as weaker communities sometimes conferred among themselves about how to deal with a common, more powerful, community. For five pairs of villages we observed improved relationships after boundaries were settled. For five others, relationships declined, and for the remainder relationships stayed more or less the same. Where there were multiple villages in one site (e.g., the sites of Gong Solok, Long Loreh and Sentaban), financial offers from investors arriving after the maps were completed contributed to the villages in each location wanting to have separate territories, resulting in more antagonistic relationships among villages in the location.

Within communities, we saw five communities where new factions emerged as a result of the mapping, despite these particular villages having relatively strong leadership, community cohesiveness and good access to information. Three of these occurred because a faction did not accept the decision handed down by the village leader. Two occurred because of a subgroup of the village wanting to make claims for themselves, e.g., Liu Mahan in Long Loreh, and the case of Laban Nyarit and Halanga'. As attitudes and values about land changed, so did village relationships. There was no significant overall trend, however, towards better or worse relationships.

Third, community capacities for mapping and negotiation improved. Small teams of people in each community mapped gained experience in the methods and equipment necessary to geographically reference and plot a series of point in their village on a map. Understanding of maps—including scales, legends, orientation and their uses—became stronger in each village. Through the process of negotiation and with input from CIFOR, communities' understanding of representation and the need for building a wider political base of support for reaching an acceptable agreement also increased.[21] Since the project began, there have been more demands from villagers for their leaders to use more transparent, inclusive processes for consultations and decision making.

We report observations about the participatory mapping process in Attachment 2.

Conclusions

What did the Malinau experience in boundary demarcation indicate about the kinds of conditions necessary to facilitate better coordination with other stakeholders and improved negotiations by communities? What do they add to our understanding of emerging principles related to multistakeholder processes? We summarize our observations below and draw conclusions about the lessons that seem most generalizable to other settings.

Facilitating coordination requires handling political factors

Boundary negotiations in Malinau highlighted the deeply political nature of coordination efforts and the skewedness of power relations underlying them, even among seemingly (to an outsider) homogenous community groups. Portraying the agreement-seeking process as apolitical or neutral would ignore fundamental relationships that our experience showed influenced *whether agreements were reached, how resources were distributed in agreements,* and *the stability of outcomes.* Political aspects of coordination that we noticed to be especially important in Malinau were *how conflicts were defined* (e.g. history of mistrust between villages), *the differences in capacity and power status* among villages that made agreements hard to reach or less stable, and *the lack of representation and attention to weaker or more marginalized groups in negotiations.*

Dealing with fluidity

As political struggles in Malinau played themselves out through shifts in alliances, stakes and negotiating conditions, people's interests, agreements reached and coordination efforts tended to change frequently. Our experiences support the pluralists' position that *agreements are best thought of as partial and temporary,* and we observed such fluidity to be extreme in Malinau. We conclude from our three years of study that *the more intense the underlying struggle, the more fluid interests, agreements and coordination* are likely to be. In Malinau, periodic opportunities to claim resources—as with the event of decentralization, the changing monetary value of local resources, the new *kabupaten* and the mapping activity—directly caused struggles to increase.

Reaching stable decisions may have sometimes been actively avoided by villagers in part because of a lack of knowledge of an appropriate 'solution' given the rapidly changing conditions.

Facilitators of multistakeholder processes should anticipate fluidity and adjust coordination practices to accommodate it. In hindsight, the instability of boundary agreements in Malinau that were reached before July 2000 was predictable. During periods of fluidity, instead of investing in formalizing and implementing agreements likely to change, it might be more useful to anticipate increased conflict and seek only tentative agreements that require a testing period of several months or longer, depending on the volatility of opportunities and the extent to which agreements are likely to be challenged. In this way, vague arrangements (e.g. Loreh-Langap) resulting from efforts to achieve agreements quickly could be tested for their loopholes. During such periods, a focus on *managing conflict* to maintain constructive levels of debate is likely to be more productive than forcing an agreement. Also, as the concept and practice of agreements appear to be evolving and becoming more formalized, villagers may need time to develop a shared understanding of what such agreements are and imply. Investment in implementing the agreement could occur after evidence of reasonable stability.

Although some fluidity is inevitable and facilitators should manage it to adapt to changing forest conditions and managing political tensions, the extreme fluidity witnessed in Malinau imposed high costs on everyone. Agreements reached quickly were not necessarily fair or acceptable to the people concerned. Groups—including CIFOR—that invested time to carefully negotiate boundaries and then engaged in the tedious process of mapping, felt frustrated when these agreements were later changed. We observed that there is a need for facilitators and participants in negotiations to *build a supportive political constituency through consultation, and transparent decision making appeared to be key to achieving and then keeping an agreement.* Building such a constituency requires adequate time and deliberation. In addition to building support from the bottom, we think authority from the top can also stem extreme fluidity. The challenges to agreements in Malinau would have most likely been fewer if a third party with authority and legitimacy above the level of the village level had been involved to set the criteria

for resolving conflicts and validate and enforce legitimate agreements. Coordination processes may therefore need *to take both bottom-up and top-down measures to balance the need to flexibly respond to fluid conditions against seeking to limit excessive change that imposes excessive costs.* Such top-down measures probably need to include *kabupatens* making use of provincial and national policies and agencies to reinforce local decisions.

Complexity of conflict

The political nature of agreements and negotiation also suggests the need to consider *power relationships in understanding the complexity of conflicts.* In Malinau, conflicts over village boundaries involved multiple dimensions of historical, ethnic, class and economic relationships among and within villages. Boundaries were not just lines on maps, but major determinants of monetary flows and resource use to villages and individuals within them. Profound changes in people's attitudes towards land and its values created new dimensions of struggle related to speculation.

Our observations in Malinau suggest that it is indeed impossible to ever really know other people's interests, as leaders covertly negotiated among themselves and changed their minds about previous agreements. Instead, to better understand the factors driving negotiation, we suggest that an understanding of the diverse political relationships among groups can facilitate coordination and negotiation. Such an understanding is particularly important for promoting coordination and negotiation that deals fairly with differences in power among stakeholder groups. With such information, *facilitators of negotiation can better select representatives, fora for decision making, and subjects of negotiation that deal with the different aspects of the conflict.* They should *use a phased process that allows layers of conflict and awareness of changing political conditions to unfold and be identified.* An open framework of conflict management and flexible schedule is needed to allow for new elements of conflict or new authorities to be incorporated.

Accountable decision making

In Malinau, only a handful of people tended to be involved in each village in negotiating boundary decisions and these representatives, if the label is even apt, were weakly, if at all, accountable to their communities. Networks, communication and trust were frequently strong among selected leaders, or between leaders and companies, but often less strong between leaders and their constituencies. Decisions were usually made without consultation. A number of villages attempted to map their boundaries without even consulting their neighbours. These conditions made it difficult for conflict to be managed in transparent ways, which kept disagreements from being acknowledged and agreements from being implemented.

Abuses of power are likely to persist unless certain checks are put in place. Central among these checks is the need for better representation and transparent decision making to negotiate decisions that constituencies will accept and support. Where community representatives were more accountable to their constituencies and built a strong political base of support, decisions were less frequently challenged. *Broader consultation with factions in communities and better reporting back to communities can assist with building transparency. Leaders need to be more downwardly accountable to their constituency* to create incentives for them to be more responsive to community interests, although this would be difficult to fully implement in groups like the Kenyah and Merap due to a strong tradition of hierarchical control by the aristocratic class. Interlocking family, ethnic and economic relationships would help to foster agreements, but could work to marginalize outgroups and encourage corruption. In Malinau, the history of upward accountability of government representatives, the hierarchical nature of customary leaders, strong local networks and the pressures for striking quick deals have led to regular abuses of power that will not change easily. The more open environment of the post-Soeharto reform era creates the opportunity to question these networks, but changing how they work is a much more ambitious task.

Improving involvement of disadvantaged groups

Conventional multistakeholder theory seeks to establish neutral conditions that enable fair negotiation. We agree that s*pecial effort is needed to encourage effective participation and representation of weaker or disadvantaged groups.* Historical

information and analysis of the multiple aspects of conflict will help to indicate who is most disadvantaged. We would add, however, as argued in Edmunds and Wollenberg (2001), that *political relationships pervasively influence even so-called neutral processes and should be dealt with explicitly throughout the coordination process*. In Malinau, *differences between villages in capacity and power status affected nearly all aspects of negotiation*, including how the conflict was defined and who defined them. We suggest that at a minimum, facilitators of coordination efforts pay attention to these differences and seek to give certain advantages to weaker groups. These include, for example, distributing information to them earlier, giving them priority access to resources, and facilitating their preparations for negotiations. More significant measures for longer-term empowerment would include community organizing, assisting them to mobilize resources and helping them develop strategic alliances.

All of this depends of course on the desire of the group in question to receive such extra attention, and facilitators should take care not to create an identity of disadvantage that prevents the group in question from seeking to empower themselves. Facilitators also need to take care not to alienate more powerful groups in the process by creating unfair advantages or overprotecting the group in question.

Legitimacy: Effective coordination requires shared operating principles

Participants in a coordination process, with the assistance of outside parties, should periodically assess the legitimacy of any process of negotiation, agreement making or coordination to identify how well accountability measures and attention to disadvantaged groups are working. Given the nature of ongoing struggles and highly unequal power relationships in places like Malinau, the potential for abuses of power in multistakeholder coordination processes is high. Such abuse can cause existing conflicts to escalate, particularly under the conditions of greater openness enjoyed now in Indonesia, and result in protests involving disruption of work, degradation of forest resources, and destruction of property, as has already been demonstrated in Malinau.

There is thus a need to build coordination upon stronger social foundations about what are considered legitimate operating principles and outcomes. In Malinau, there is presently an institutional gap, such that there are no clear authorities on either the customary or the government side for settling conflicts among stakeholders in ways considered legitimate by all groups. Some groups are presently seeking to build that legitimacy, especially the *kabupaten* government, by, for example, creating new sets of local regulations about customary land claims. Following pluralist principles, they have been seeking in 2001 to better accommodate other authorities, including customary leaders. However, because of the close relationships between many of the government officials and local customary leaders, self-interest appears to prevail even here. Ultimately there may be a need for a consortium involving outside groups with few local relationships. The consortium would facilitate debate and develop and articulate the shared operating principles, as well as identify who should best act as the authority for implementing and enforcing the principles. Even within this consortium though, there would need to be vigilant attention to the nature of operating principles as something negotiated and subject to abuse by more powerful parties.

Participatory Mapping as a Tool for Achieving Coordination

Participatory mapping is, in theory, one approach for building a strong bottom-up political base of support for demarcating boundaries. It also, in theory, should build local capacities and empower groups that would not normally be involved in such processes to better understand maps and the types of decisions involved in mapping. While we agree that boundary demarcation is an essential tool for achieving bottom-up coordination and builds capacities, we note some differences between our experience and that in the literature.

Most documentation of participatory mapping focuses on the technical aspects of the process and its outcomes (Momberg *et al.* 1996, Gupta and IDS Workshop 1989) with little, if any, attention to the negotiation process underlying decisions or the acceptability and stability of outcomes (exceptions being Fox 1998, Peluso 1995). More attention needs to be given to the limits of making such processes

truly participatory (see Fox, in press), identifying appropriate stakeholders, developing operating principles for negotiation and identifying institutions for settling conflicts and legitimising outcomes. Bottom-up approaches alone will not work if there is a need for an authority at a higher level to resolve conflicts or support agreements. The factors that led to stable, accepted outcomes should be noted to assist others in seeking to replicate these conditions. As highlighted throughout this report, more effort needs to be given to making processes more fair for disadvantaged groups by giving them extra attention in training, working with their schedules, holding meetings in places convenient for them and enabling negotiations that acknowledge differences in power.

Experience in Malinau and elsewhere suggests that such deliberative and pluralistic coordination can be achieved through meaningful consultation among affected groups, accountable representation, fair negotiation, transparent decision making, public reporting and safeguards for effective representation of disadvantaged groups. Agreements among parties should be recognized as partial and temporary, with attention given to understanding not only how to reach agreements, but also on how to manage the conflicts resulting from the evolving interests of each group.

In conclusion, our experience in facilitating boundary demarcation in Malinau marked only the beginning of a long and multistranded process for achieving better coordination among the very diverse stakeholders interested in Malinau's forests. The research demonstrated the nature of coordination and agreement making in Malinau and its current vulnerabilities. The base of political support for coordination is fluid and often fragile. There are few safeguards to ensure fair negotiations for weaker groups. The authorities for supporting and endorsing these processes are unclear. Very real gains have been made, however, in empowering local communities to begin the process of asserting claims to their territories and of establishing debate about rights associated with those claims. A process has been started that communities, government and companies are now keen to complete. Further efforts at coordination will hopefully heed the lessons of this experience, and in the process generate its own local brand of democracy that enables the people of Malinau to embark upon the exciting journey that lies ahead.

Endnotes

[1] The project was conducted by the following members of the Bulungan Adaptive Co-Management Team and Core Mapping Team from 1998–2000: Salmon Alfarisi, Sargius Anye, Njau Anau, Ramses Iwan, Pajar Gumelar, Miriam van Heist, Godwin Limberg, Made Sudana, Nyoman Wigunaya, Asung Uluk, Lini Wollenberg. We wish to express our thanks to and acknowledge the support of the following parties: the local government of Malinau District; Roem Topatimasing and INSIST; Carol Colfer, Kuswata Kartawinata, Steve Rhee, David Edmunds, Yurdi Yasmi and Herwasono Soedjito from CIFOR; Jalong Lawai, and Paulus Irang of Long Loreh; Samuel ST Padan and WWF-Kalimantan Action Network; WWF-Kayan Mentarang; Ade Cahyat and Konsortium Sistem Hutan Kerakyatan-Kaltim; Niel Makanuddin and Plasma; Franky and Yayasan Tanah Merdeka; Amin Jafar and Yayasan Padi; H. Sayo and Pemberdayaan Pengelolaan Sumber daya Alam Kerakyatan; Mairaji and Lembaga Pemberdayaan Masyarakat Adat; and Jon Corbett and the University of Victoria. The work was jointly funded by ITTO (primary donor) and the International Fund for Agricultural Development.

[2] Coordination refers here to decisions that seek to achieve an aim on behalf of a group in light of the many self-interests of individuals that exist in that group. Coordination can be self-organized (Ostrom 1999, DiZerega 2000) or imposed from outside the group. We assume here that coordination is likely to be more successful where it can balance self-determination by group members with institutions at the group or supragroup level that maintain authority and legitimacy to make and enforce decisions on behalf of the group.

[3] We use Rossi's (1997) interpretation of deliberative here, meaning dialog and discussion that operates in an 'engaged mode, somewhere between mere respect and confrontation,' (p 205), and deliberative democratic decision making, in which individuals seek to go beyond their self-interest (although such interests might be part of the dialog), and make decisions based on their perception of the common good.

[4] Sections of this report are drawn from the CIFOR report 'Pemetaan Desa Partisipatif sebagai alat menyelesaian konflik: Studi kasus desa-desa daerah aliran Sungai Malinau, Januari s/d Juli 2000, Tim Pengelolaan Hutan Bersama secara Adaptif, 2001.

[5] These recommendations are drawn from Edmunds and Wollenberg 2001 and Wollenberg *et al.* 2001, the latter of which is a synthesis of other papers (see References).

[6] The *Kabupaten* has recently expressed an interest in learning more about scenario methods.

[7] License to fell and utilize timber.

[8] Funded by ACIAR.

[9] Fox (in press) characterizes overlapping sovereignties in late 1800s Thailand, writing that sovereignties were 'neither single nor exclusive' (p. 2), but rather (citing Winichakul 1994: 88) 'capable of being shared—one for its own ruler and one for its overlord—not in terms of a divided sovereignty but rather a sovereignty of hierarchical layers.'

[10] Interestingly, the letters of tax payment have been used in more modern times to establish ownership over the caves.

[11] According to Sellato (in press) Dutch control in the Bulungan Sultanate began in 1850 with a *Politiek* Contract, was furthered in 1877 with an agreement for the Dutch to handle some of the sultanate's affairs and formalized in the late 1880s as part of the Dutch colony. In the early 1900s they forced the Sultan to turn over control of the remoter regions of the Bahau River, Pujungan River and Apo Kayan. They also worked with the sultanate, for example to put down a Dayak rebellion in 1909 in the Tidung lands (includes the current Malinau River area).

[12] According to Sellato (in press), in 1950 Bulungan became a *Wilayah Swapraja* (Autonomous Territory, 1950) of Indonesia after the Japanese occupation, and then in 1955, a *Wilayah Istimewa* (Special Territory). In 1959, after the last sultan, Jalaluddin, had died in 1958, the sultanates were abolished and Bulungan became an ordinary regency (*Daerah Tingkat II or kabupaten)*.

[13] Prior to the Merap, it is believed that the Berusu' and Punan occupied the area (Sellato in press, Kaskija 2000).

[14] Even though demands for compensation had been made previously, villagers received few, if any, benefits in response.

[15] The young *kabupaten* has so far had two *bupatis*; Bapak Asmuni Alie served as a temporary *bupati* and issued all of the 38 IPPKs now functional in Malinau. In March 2001, he was replaced by Bapak Marthin Billa, a forward-thinking leader who helped to first establish the '*tanah ulen*' concept with WWF in Kayan Mentarang in the mid-1990s.

[16] This is not to imply that conditions before decentralization were always lawful or fair. There are numerous examples of smaller scale illegal logging and other illicit and unfair activities from the pre-reform era.

[17] Historically they have lacked the strong social cohesion of groups like the Kenyah or Lundaye and have lacked effective institutions for representing their interests. Only in the mid-1990s did the Punan in Malinau organize the appointment of a Punan customary leader.

[18] We defined agreement as concurrence between two villages about the location of their boundary.

[19] We used *strength of leadership* (economic status of leader, e.g. food surpluses, quality of home construction, access to significant or regular cash income, possession of productive assets like rice mills or luxury items like parabolas; alliances with powerful external groups; support of leader by community and level of leader's education), *cohesiveness of community* (economic status of community, e.g. see above; internal loyalties and mutual supportiveness; alliances with powerful external groups; skills and education levels; support of leader by community and level of leader's education) and *access to information* (transparency of mapping process within village, knowledge of their territory) as indicators of a village's institutional capacities and power.

[20] A score of 0, .5 or 1 was assigned for each of the three dimensions above. Attachment 1 summarizes the scores.

[21] This understanding increased among broader community members. Many community leaders were savvy enough to know, and decide when to use more (or as was usually the case, less) participatory approaches.

[22] Even at the time that this report was written, there are, however, conflicting interpretations of what '*wilayah desa*' or village area implies. Among villages, there was disagreement about whether to join, for example, all the village in one location in one area. Government authorities and local companies were not amenable to communities claiming areas within concessions and would prefer to see land reserved for exclusive government use (Marthin Billa, personal communication November 2001).

[23] We developed our approach based on the examples of participatory mapping conducted by the World Wide Fund for Nature in Kayan Mentarang and by several NGOs in West Kalimantan.

[24] As a response to IPPK developments, we did make an effort to increase attention to building community negotiation skills, hold multistakeholder dialogues and build community and government knowledge of decentralization laws, as well as to send a group of villagers on a cross-visit to oil palm estates in the Paser region of East Kalimantan.

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Attachment 1

Scores of village capacity and power status

Village	Leadership strength	Strength of community organisation	Information access	Village score
Sentaban	Lemah	Weak	Medium	0.5
Setulang	Medium	Strong	Strong	2.5
Setarap	Medium	Medium	Medium	1.5
Batu Kajang	Strong	Strong	Medium	2.5
Gong Solok	Weak	Weak	Medium	0.5
Adiu	Medium	Strong	Medium	2
Long Loreh	Weak	Medium	Strong	1.5
Langap	Weak	Weak	Strong	1
Seturan	Weak	Medium	Medium	1
Nunuk tanah kibang	Medium	Medium	Medium	1.5
Laban Nyarit	Strong	Medium	Weak	1.5
Mirau	Weak	Weak	Weak	0
Halanga'	Weak	Weak	Weak	0
Tanjung Nanga'	Strong	Strong	Medium	2.5
Metut	Weak	Medium	Medium	1
Pelancau	Medium	Medium	Medium	1.5
Long Lake	Medium	Medium	Medium	1.5
Long Jalan	Weak	Strong	Medium	1.5

Vilage score is calculated by the value of leadership strength, strength of community organisation, information access

Value: Weak = 0;   Medium = 0.5;   Strong = 1

Notes:

Leadership strength is measured by:

Economy

Outside relations

Support of community

Education

Strength of community organisation is measured by:

Ability to work together

Economy

Human resources

Outside relations

Information access is viewed by:

Knowledge of field

Information about mapping activities and results of meetings

Attachment 2

Observations about Participatory Mapping

Because participatory mapping by rural communities has become popular in recent years, we report here on the lessons we learned and what we think could be improved. Additional information about the technical aspects of the mapping can be found in Van Heist (2000).

Our most significant lesson was that it was extremely difficult to make participatory mapping truly participatory in the sense of village self-sufficiency in mapping. Participation was lacking in two regards—the proportion of the community involved in decisions about mapping and the degree of village capacity to conduct the mapping on their own. As noted, however, by Fox (in press), lack of community self-sufficiency in mapping is common in much participatory mapping and may be less important than who controls the maps in terms of its impact on empowering local communities. Also, as discussed above, the level of participation in the mapping exercises and related negotiations was not unusual compared to participation in other village level efforts. If communities or facilitators of projects wish to increase long-term mapping capacity, training exercises should occur over longer periods of time than the one to two weeks used by CIFOR. There should be careful selection of participants to identify qualified individuals and exercises should be repeated several times.

We feel the more important dimension of participation that requires attention is the need for community decision making to better engage its members in debate and discussion and to give more attention to the interests of its members. We observed a *general lack of adequate representation and accountability of leaders to their constituencies*. CIFOR's efforts to reach 27 villages with the funding and grant schedule given also meant that the *time to work with any one village to stimulate interest and build skills was constrained* by limited funds and the schedule of the grant. Where problems are expected with representation, more time should be allocated to working with villagers to engage more people directly.

CIFOR's core team found that they needed to take an active, facilitating role in nearly all phases of the process. Although we were least involved in the negotiation stage, there were even calls from

communities for CIFOR to assist in that process. We suggest it is realistic for others attempting participatory mapping to assume that they will need to play a strong facilitating role. Care needs to be taken though to *facilitate in a manner sensitive to different communities members' interests and empowerment*. The risk in assuming the facilitator's role is that the purpose and results of the mapping reflect more of the facilitators' interests than that of the villagers. In CIFOR's case, for example, we would have preferred to focus on mapping forests to be sustainably managed, which would have involved more of an emphasis on institutions and rules. However, because we wanted to accommodate villagers' interests to empower them and build their ownership of the process, we agreed to focus on administrative boundaries.[22] Participation should not mean that villagers become mostly labourers to carry out the aims of the facilitator. Methods need to be built in for communities to be able to control the process and take responsibility for key decisions. In CIFOR's case, this meant that communities decided and negotiated their own boundaries, and rechecked and approved all maps.

Second, the mapping occurred during a time when the authority for determining criteria for boundaries, settling intervillage conflicts, approving boundaries and even the definition of a village itself were in transition. Since we started the process before decentralization policies were implemented and the new *kabupaten* established,[23] we had not anticipated these events and were unsure of how to adapt to them.[24] Consequently we found ourselves working with the status quo and assuming that existing claims by formally acknowledged villagers were legitimate. In retrospect, we should have probably *sought to engage communities and local authorities, even as they shifted, in more discussion about the basis for allocating land fairly in the watershed and what constituted a village, and to build this into the mapping process*. Having a firmer shared framework of criteria for determining what constituted a village or a village's legitimate boundary could have probably helped to settle conflicts and prevent the fluidity of boundary revisions and land claims that later occurred.

Because the authorities for settling these matters were themselves unclear or nascent and not as yet operational, it would have been difficult to create an effective framework within the time constraints of the project. As an intervillage affair, it

would not have been sufficient for villages themselves to determine the framework or for even an outside relatively neutral party such as CIFOR to play this role. Disagreements and changes of heart are inevitable, such that *a supravillage institution with the legitimacy and authority to make, validate and enforce decisions is necessary*. As an example, much debate occurred between adjacent newcomer villagers and older villages about the role of prior historical presence in establishing land claims (e.g. Setulang and Sentaban). Older villages tried to claim lands of newer villages for themselves. Although villages nominally agreed to not use history as a basis for land claims (supported by the urging of several government leaders), the lack of a clear statement endorsed by government authorities has encouraged older villages to persist in trying to expand their territories.

Third, related to the two first points, the *meaning of the maps produced was not always clear* to the communities or other stakeholders. We understood the maps to be of village administrative boundaries, with rights within those boundaries to be determined by other processes. However, despite numerous statements by CIFOR, INHUTANI II and government to the contrary, a number of communities considered the maps to be evidence of their ownership and control over the territories. Many communities therefore treated the completion of the mapping as an end in itself, rather than as a tool to be used for negotiating their rights with other parties. We discovered after the fact that some villagers even thought the mapping was intended primarily to service CIFOR's research projects. In hindsight, more intensive attention should have been given to developing a shared understanding of the mapping and use of the maps in the early stages of the project. In addition, we suggest that effective community-based mapping also requires higher scale social institutions and effective representation that can help to coordinate such understanding. Follow-up is necessary now to organize communities to work with local government to approve their boundaries and discuss associated rights, responsibilities and future land use.

A fourth lesson was that we should have *worked more strategically with a broader range of stakeholders* as policies and the social landscape evolved. In the effort to focus on community empowerment and build communities' trust, we worked primarily with communities and less with other stakeholders like local government and INHUTANI II in the early stages of the project. Local government was often seen as a force that had exacerbated rather than helped resolve conflict. Where local government had previously mediated conflicts, villagers commented that the outcome was determined by which side paid more to the official, rather than by a considered assessment of the situation.

Given the interests of these other groups in controlling communities' claims, we felt that the communities' own goals needed to be developed independently and that we needed to concentrate on building a solid relationship with communities. We expected communities to negotiate with these other parties at a later stage. Our experience suggests, however, that such empowerment activities can come at the expense of building relationships with other stakeholders. With more of the latter we might have lessened some of the suspicion other stakeholders had about our intentions and encouraged the development of the supravillage framework necessary for guiding land claims; however, this might have been at the cost of empowering communities.

Fifth, *good preparation and flexibility in schedules were necessary*. The mapping process proceeded smoothly in large part because CIFOR had invested in getting to know the communities since 1995. Villagers knew about CIFOR and had developed a certain level of trust in CIFOR. The Core Team also had very thorough preparation in developing their facilitation skills. Flexibility allowed us to adjust to villagers' own schedules. We completed the first phase of mapping in seven months, and even with that some villages had not yet resolved their boundaries while others decided to change boundaries previously mapped. The length of time was most drawn out by the need to settle conflicts about boundary location. The actual mapping was relatively quick. This suggests again that more adequate preparation in developing institutions and governance mechanisms to guide between-village decisions would have been helpful.

Sixth, as a technical note, in areas such as Malinau for which existing maps are generally poor, participatory mapping needs to give significant attention to producing a well-geo-referenced base map. In Malinau we did this through the use of satellite imagery and determining GPS coordinates at ground control points at major tributaries and other visible landmarks.