Introduction

Oil palm cultivation can be a valuable source of income, but farmers may have important reasons to make other choices, preferring other crops or combine oil palm with other crops. In West Kalimantan, land acquisition for large-scale oil palm expansion has led to conflict with local communities, because to existing land uses and livelihoods. In such cases, participatory village-level spatial planning and mapping is a way to strengthen the ability of rural communities to decide whether to engage in oil palm, and if so, on which land, and under what terms.

Oil palm has gained a strong foothold in West Kalimantan: the area of mature industrial plantations has more than doubled, from 683,276 ha in 2011 to 1,445,695 ha in 2017 (Directorate General of Estate Crops 2017). Many farmers have benefited from this...
boom, but others have become involved only under adverse terms, and have lost access to land and sources of income. Conflicts between companies and local communities occur, since concessions are often given for land that is already inhabited and being cultivated, with customary land rights only weakly protected by Indonesian law. Lacking formal land title, farm lands may be regarded by the government as state land, unencumbered by rights, and therefore available for land investments.

Although important steps have been taken, policy initiatives to prevent and address conflicts do not always match the realities on the ground. Land conflicts are not easily solved by just sorting out who owns what, and by determining the right amount of compensation for the transfer of land from communities to companies. Land acquisition for plantation development is a complex and fragmented process, involving many actors and activities, dispersed over place and time (Peluso and Lund 2011; de Vos, Köhne and Roth 2017). Policymakers strongly believe in the principles of free, prior and informed consent (FPIC), but in reality, negotiations between companies and communities do not take place in “roundtable-like” settings where consent can be negotiated, and companies and communities rarely meet directly before a project begins to discuss the details of proposed plantation projects.

Consent must be negotiated in the planning phase, and project details should be made known to the wider public beyond the villages concerned. But as commonly happens, concessions are granted without consultation, and local communities find out only as companies start work on preparatory activities such as constructing roads and canals, measuring land and demarcating concession borders. In these cases, when companies finally meet community members, tensions are often already high. This leaves little room for a thorough consideration of the pros and cons for giving consent, the terms under which this is given, and the many long-term consequences of plantation development.

Mapping as a tool to protect livelihoods

Therefore, rather than relying solely on free, prior and informed consent, solutions for sustainable and equitable palm oil production require more structural approaches to protect rural livelihoods, based on respect for existing ways of using and understanding land, prior to any land acquisition activities. In West Kalimantan, local NGOs are taking steps to achieve this by promoting participatory village-level spatial planning. The objective is to strengthen the autonomy of local communities to control their territory, and to decide whether to engage in oil palm cultivation; and if so, on what land, and under what terms.

Mapping is used by NGOs around the world as a tool to help protect the land rights and livelihoods of marginalized communities, in cities and in rural areas. Researchers, however, have warned that mapping and spatial planning should not be seen as panaceas for securing land rights. On the contrary, such activities may create new conflicts, as they potentially exclude certain groups of people, and can even make resources more visible to potential investors (Peluso 2005; Fox et al. 2006). Moreover, village maps and spatial plans may be disregarded by governments and companies, or by villagers themselves.

This article highlights two examples from Sambas District in West Kalimantan: Sungai Putih village and Tanah Rawa village. Both villages have been in conflict with an oil palm company and are now in the process of conducting participatory mapping and spatial planning, assisted by local NGO Lembaga Gemawan.
5.3 Putting livelihoods on the map: spatial planning in West Kalimantan

This research was based on ethnographic fieldwork conducted between 2013 and 2016 (11 months in total). Research methods included participatory observation, focus group discussions and semi-structured interviews with village members, village officials and NGO staff, and analyses of local media and NGO reports on the subjects of spatial planning, mapping, the village law, palm oil and land rights.

Oil palm expansion in Sambas

Sambas is a coastal district in West Kalimantan, an important maritime trade hub with a long history of smallholder production for the global market. Key crops are rubber and coconut, as well as rice, black pepper, maize, fruit and pulses — and, for more than a decade, oil palm. Since 2004, 32% of the region (202,331 ha) has been granted to 35 oil palm companies; by 2018, 43% of these concessions had been developed, as shown by CIFOR’s atlas of deforestation and industrial plantations (CIFOR n.d.). In other areas, the process of land acquisition is ongoing, although some communities are now also engaged in village-level mapping and spatial planning to anticipate company claims.

In 2008, Sungai Putih village and 14 other villages were included in an oil palm concession of 20,000 ha given out to a private company. Unrest began when the company started demarcating the borders of the concession. This included placement of cement poles in farmers’ crop fields on village land, making the farmers afraid that they would lose their livelihoods. Company representatives and government officials told farmers to cut down their rubber trees to make way for oil palm, which was assumed to be more profitable. But farmers said that they cherished their rubber plantations as they provide a daily source of cash; also, tapping rubber is considered “light” work that can be done between other farm activities. Rubber trees also offer a connection to the ancestors who planted them, and they are valued as an asset for future generations. Producing rubber on their own land...
gives farmers autonomy, and they feared they would become mere plantation labourers on their own land if oil palm plantations were established.

During the first socialization meetings between company representatives and community members, there were no discussions on how to explore ways to integrate oil palm with other community land uses. One farmer who attended a meeting described it as merely “informative,” without room for discussion, adding that, “The company just made promises about how we would become rich, but did not discuss the details of the plantation project plan,” such as the exact location, time frame, land transfer arrangements, or details of the proposed plantation scheme.

Later, villagers organized a demonstration, demanding that the head of the district government revoke the plantation licence; which, to their surprise, he did on the spot. However, after challenging this decision in court, the company’s licence was reactivated, and although the company withdrew from Sungai Putih, it started to develop in another village where resistance had been less organized. Almost a decade after the demonstration, rumours kept circulating about the company’s plans to expand and return to Sungai Putih. In addition, concession documents related to other companies were circulating in the villages, and the district government could not guarantee that oil palm companies would not return in the future.

Putting livelihoods on the map

Community mapping has a long history in Indonesia; NGOs have mapped villages to protect land rights since the ‘new order’ in 1966 (Warren 2005). In response to uncertainty, the council of Sungai Putih and neighbouring villages invited the NGO Lembaga Gemawan to map the village land. This
NGO was established during the 1999 reformation by student activists from Pontianak and Sambas, with the aim of strengthening rural economies and political rights. Since oil palm conflicts started to occur in Sambas, around 2006, Lembaga Gemawan has used mapping to strengthen communities' ability to plan and control their territory.

In 2014 President Jokowi’s new Village Law (No. 6/2014) granted more autonomy to villages to control their own territory (Vel and Bedner 2015; de Vos 2018). Lembaga Gemawan noticed that since the implementation of the new Village Law, some district governments were more interested in facilitating village mapping and spatial planning. Local communities and NGOs in Indonesia can use this momentum to further influence the allocation of concessions by proposing long-term spatial plans for village development, based on the assets and resources already present in villages.

Lembaga Gemawan stresses that in its participatory mapping, the role of the NGO is mainly to train villagers in mapping skills. It is important that villagers are in control of the process and can do most of the work by themselves. In Sungai Putih, after a series of meetings, villagers appointed a mapping team and the village head provided a formal mandate letter. The team first took GPS coordinates of village borders, and after discussions with neighbouring villages, drones were used to make high-resolution photographic maps.

Based on these efforts, the village council created a spatial plan of land-use zones, including rubber plantations, rice fields, mixed-crop gardens, and residential areas. These zones would then be formalized through regulations (peraturan desa), to be enacted after approval from the district government. The idea is that these zones cannot then be converted to other types of land use, such as oil palm, without the formal permission of the village council. The former village head of Sungai Putih argued that the village needed to have its own spatial plan, because many parties seek access to land. He said that “To secure our land rights, we need to have a village map. Then we are in a better position when we are at the negotiating table with companies and the government.”

In addition to designating zones through village regulations, villages in Indonesia can also opt to propose to district governments the designation of land for sustainable food crops, peatland protection, agrarian reform, or social forests, where villagers are granted legal permission to use state forests. This procedure can be complicated, especially when land is still classified as forest and as such, formally controlled by the state; this means that proposals have to go through the Ministry of Forestry and the Environment. However, Lembaga Gemawan has experience with communities in another district who successfully claimed former converted production forest as sustainable food crop land; this was formally ratified by a district regulation, with permission from the Ministry of Forest and the Environment.

In another village in the area, Tanah Rawa, Lembaga Gemawan and the Institute for Peat Land Recovery worked with farmer groups to recultivate a peat forest area that had been destroyed by fire and was prone to new fires. A participatory mapping programme was initiated to inform village-level spatial planning so that villagers could contribute to restoring and protecting the area. After testing which crop would grow best on the deep peat soil, villagers choose to grow ginger and taro, and to keep livestock.
In addition to restoring peatland, preventing forest fires, and creating new livelihood opportunities, this programme was part of a more general effort to strengthen village autonomy and give villagers control over their own land. This followed conflict with another oil palm company in 2010 after a large part of village land was included in a 10,000-ha plantation concession. A key problem in that case was the lack of clarity regarding the exact location of the projected plantation, as a village official explained: “They said they would plant on ‘empty’ land. We thought this was the production forest that previously had been used by timber companies to grow acacia and mahonia. But they lied. Our rubber gardens would be destroyed. It turned out that they were not allowed to plant in the production forest, only on our land, which has the status of non-forested, agricultural land. The land marks were placed in our gardens. The village head asked me to cut my rubber trees to make way for a road. They never discussed the exact location. If it is on our land, we reject [it]. If it is in the forest, we agree, because we want a road. There were many ambiguities. It was not clear.” The company eventually cancelled the plantation project after community protests. However, after the first company retreated, several new concessions were granted to other companies. This has prolonged the uncertainty, but it is hoped that village-level spatial planning may help to avoid a repetition of conflict.

Benefits and challenges

In the two villages where spatial plans were piloted, the resulting maps have not yet been put to the test because no new companies have yet become active there. However, the process of mapping and spatial planning activities, such as taking GPS coordinates and having village meetings, has already generated valuable discussions within the villages about the status of land, tenure security, and aspirations regarding land use in the future. In addition, the fact that villagers are visibly engaged with spatial planning also sends a message to companies.

During one village meeting where company activities were discussed, a community representative from Sungai Putih said that, “Surely the company will hear about our meetings now, and they will know that we are on our guard.” In addition, activities are picked up by local media and this influences debate at the district level and beyond. In this way, village-level spatial planning could help in the revision of concession maps so that they would be more aware of local community interests. And if oil palm companies propose to use village land for plantation development, maps and spatial plans can provide leverage at the negotiation table.

Lembaga Gemawan acknowledges that spatial planning alone is not enough to protect land rights and livelihoods. Therefore, it works in parallel on socio-economic development programmes, including a rubber cooperative, organic farming, a credit union, and women’s groups that produce traditional Sambas cloth and handicrafts. The NGO also organizes workshops on village governance and village law, and has established village schools to train women to participate in village governance. Such activities aim to strengthen the capacity and capability of villagers to protect their rights and influence their own socio-economic development.

Keeping the pitfalls in mind, several conditions are crucial when using mapping to prepare spatial plans for villages. The process needs to be genuinely participatory and inclusive, involving both women and men and representatives from various social classes and ethnicities. In addition, a key factor explaining the success in Sambas was the fact that the village head and council had good relations with the NGO and were highly involved in facilitating the process. Local leadership and
networking are vital in such programmes. And importantly, a village map and spatial plan should not be the end goal. Rather, these tools should be the starting point for discussions, raising awareness of land rights, and influencing government spatial plans.

**Ways forward for a more inclusive palm oil sector**

Crucial for a more inclusive palm oil sector is the strengthening of village economies and community autonomy. Planning for plantation development must also consider existing land use to avoid conflict; FPIC procedures alone are not enough. Village-level planning and mapping, on the other hand, give communities leverage when they negotiate with companies and government.

Indonesia’s 2014 Village Law provides room for NGOs and villages to take initiatives in planning future land use. If villages are offered palm oil development projects on village land, maps and spatial plans can help them assess the direct and long-term consequences and the terms under which a project can be beneficial. Participatory mapping and spatial planning contribute to free, prior and informed consent procedures, by giving communities the opportunity to accept proposals under their own terms, or to say no to plantation development.

**References**


de Vos, R.E., M. Köhne and D. Roth. 2017. “‘We’ll turn your water into Coca-Cola’: The atomizing practices of oil palm plantation development in Indonesia.” *Journal of Agrarian Change* 18(2): 385–405.


