The Oil Palm Sector: Community Grievances and Water Governance in Central Kalimantan, Indonesia

Key Findings

- **Local communities in Central Kalimantan Province have severe grievances about the impacts of oil palm plantations on water resources. Plantations affect both water quality and quantity – for example by polluting drinking water and drying community wells.**
- **Despite commitment from the provincial government, existing governance mechanisms largely do not address these grievances. Weaknesses exist in particular at district level. The provincial environmental agency reports that the government is only able to investigate less than 1% of complaints.**
- **There are a range of weaknesses in how the province and districts regulate water resources. Legally required river basin management is not yet implemented, and district and provincial agencies struggle to enforce basic environmental provisions, such as riparian zones around water bodies.**
- **There are conflicts of interest between different levels of government over forest resources, which affect how palm-oil cultivation is governed. For example, the mismatch between land classification maps that are held by central and district governments means that many companies proceed with operations mandated by district governments without having secured the final permits (Hak Guna Usaha (HGU)) from the National Land Agency.**
- **There is an urgent need for solid data on how water is used in palm oil plantations, and on the impacts of plantations on rivers, lakes, and groundwater aquifers. Because public agencies are under-resourced they cannot adequately monitor water flows and quality, which makes it difficult to demonstrate who is liable for specific impacts. To meet this need, new and cost-effective impact-assessments are required. These assessments also need to be credible in the eyes of stakeholders.**
- **Local community complaints, for example on river pollution, fish death and drying of wells, are usually not resolved by the appropriate levels of government. This undermines growers' claims to responsible palm-oil production, even in cases where growers might be investing heavily in sustainable production with good water management practices.**

Background

Palm oil, generally traded as crude palm oil (CPO), is one of the main sources of biodiesel. Biodiesel accounts for over three-quarters of total biofuel consumption in the European Union. The production of CPO to manufacture food, detergents and cosmetics is already extensive and has been further stimulated by demand for liquid biofuels, and the need to replace other food oils diverted for energy consumption.

Indonesia and Malaysia are the world's largest producers of palm oil, and together are responsible for close to 90% of global production. The sector plays a pivotal role in Indonesia's national economy, and has shown that for some it can help alleviate poverty. However, the palm oil business also has a well documented traumatic legacy, particularly from large-scale plantations, caused by unceasing expansion and resource degradation, marginalization of indigenous groups, and adverse impacts on communities that do not benefit. There is heated debate over the sustainability of the sector in Southeast Asia, as well as controversy over its impacts on local livelihoods and natural resources. This is especially the case in Kalimantan. Notwithstanding this controversy, oil palm expansion has continued.

Community grievances that require immediate attention

Our study (see box, page 3) found that villagers in Central Kalimantan, and others who live close to oil palm plantations in the province, have severe grievances about how the industry impacts on water resources. Complaints centre on a few key issues:

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A palm oil concession in Central Kalimantan

- turbid, murky water caused by land clearing, erosion and run-off
- toxins released into water bodies via spraying of pesticides on plantations
- decline in fish stocks and aquatic wild plants
- palm-oil mill effluent (POME) and other palm-oil waste either dumped or released into rivers and streams, which is aggravated when waste dams overflow in the rainy season
- reduced or redirected water flows caused by channels and dams built to irrigate and drain plantations
- deforestation, which increases the risk of flood, especially the risk of flash floods in the rainy season
- drying of community land that is adjacent to plantations, which lowers the water table, affects wells, and forces villagers to give up traditional rice farming to work in oil palm production.

As well as being affected by these short-term impacts, communities also report that they are caught in a spiral of dependency on the plantations and the companies that own them. This is because the plantations cause pollution and water scarcity which undermine water-dependent livelihoods, such as rice cultivation and fishing. Furthermore, local people come to depend on the plantation companies for their drinking water supply.

Regulatory failure and its causes

The provincial government has shown much commitment and made significant progress in improving the regulatory framework in recent years. This includes the Governor's Green Government Policy, a new provincial regulation on sustainable plantation management, and provincial laws recognizing customary land rights. Still, however, public sector mechanisms do not adequately work to address the issues outlined above. In particular there are weaknesses in implementation at district level. Our research found that this is mainly because authorities do not properly implement existing regulations and policies, which include integrated basin and catchment management; environmental regulations; land permits; spatial planning; and procedures on environmental impact assessment.

This failure of regulation has contributed to the rapid expansion of oil palm production in Central Kalimantan. Because palm-oil producers are not obliged to comply with environmental and social regulations, the cost of compliance is low or non-existent, making palm oil produced in the province very cost-competitive on the global market.

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Impression from waterway within an oil palm plantation

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Political conflict is an underlying reason why public regulations are poorly implemented. Central and sub-national government are in a struggle over benefits from forest and land resources, and this struggle is evident in, among other things, a lack of acceptable spatial planning, conflicting maps of land use at different levels of government, and reports of trading in land permits by political executives.

Corruption at the district level may also be a factor. While tax revenue accrued from natural resource production and sales (from palm oil, rubber, fruit, etc.) must be returned to the national government, it is district administrations that handle the sale of land permits for logging and palm oil concessions (except for concessions spanning districts, where the province is responsible).

One structural cause of weak implementation is that district authorities have become less and less accountable to their citizens. Since 1999 there has been a process of political decentralization in Indonesia, and districts, at the same time as becoming increasingly autonomous, continue to depend on (largely insufficient) grants from the central government. These two factors have combined to diminish accountability.

Urgent need for consolidated and trusted data on water resources

Public sector governance of water is based on an assumption of access to comprehensive and quantitative monitoring data. However, in Indonesia, environmental agencies at district and province levels are broadly unable to deliver extensive and trusted information, so there is only limited understanding of how the use of water for palm oil plantations impacts on rivers, lakes and groundwater aquifers. In particular, there is uncertainty over the relative impact of pollution from different sources, including extractive industries located upstream in the river basin. Furthermore, stakeholders disagree over the exact causes of the pollution that villagers experience in Central Kalimantan province.

There is also a lack of data on potential risks from toxic ferrous-oxide released from degraded peatlands that are now used for palm-oil production. Hydrological modelling using data from Central Kalimantan has shown that water drained from peatland concessions contains high levels of sulphuric acid and decomposed organic matter, which adds low-pH compounds to the already acidic soils and water bodies.

The Central Kalimantan study

SEI and its partners recognized that there is a lack of research into how water resources are managed in palm oil concessions in Southeast Asia, and into how governance systems respond to the impacts of these concessions. To meet this need, we carried out a pilot study with a methodology based on the principles of participatory action research. The case study focused on the production of palm oil in Central Kalimantan province and the Mentaya and Seruyan River basins of Indonesian Borneo.

Study background

Central Kalimantan is heavily dependent on extractive industries and the exploitation of its natural resources, such as forests. The province has suffered the highest rate of deforestation and forest degradation in Borneo, chiefly owing to logging and the expansion of industries such as the palm oil sector. Our study examined the situation in three villages – Pondok Damar, Sembuluh and Terawan – located in two river basins of the province. The area has previously seen the immigration of large numbers of people from South Kalimantan and Java as a result of the Suharto government's Transmigrasi (transmigration) programme during the logging era in the late 1980s. Human settlements in the area have traditionally been located along rivers, which are used as a means of transport and subsistence, and there are many villages and towns that were not relocated in resettlement programmes that remain in these locations.

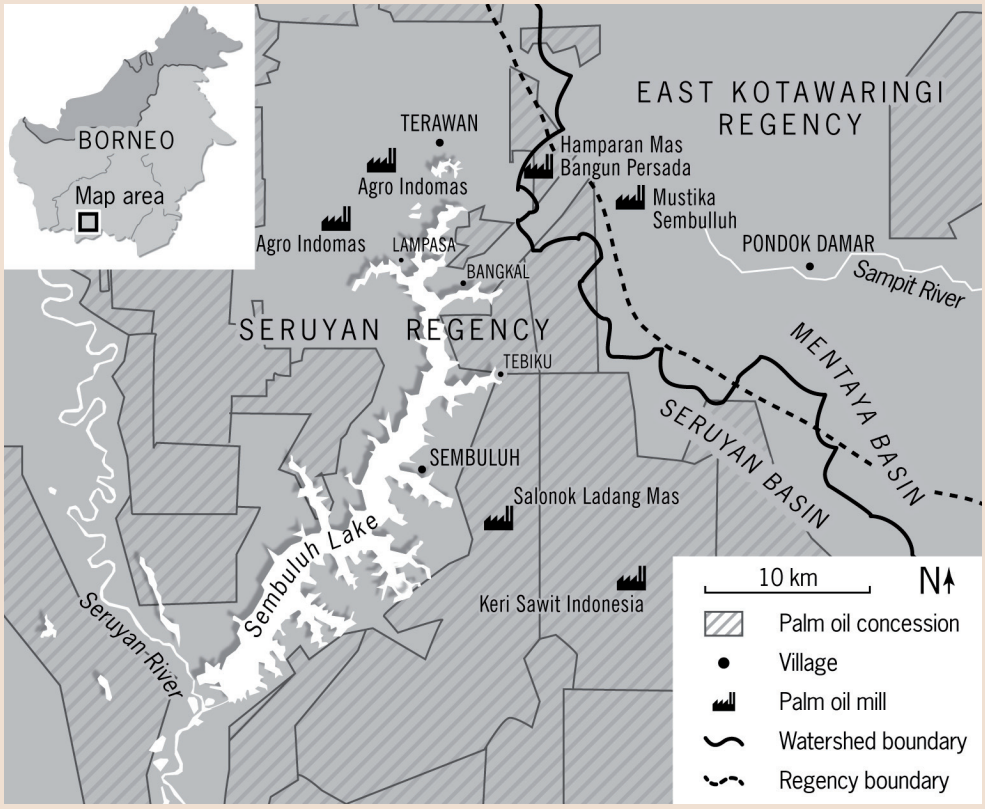

Fig. 3.3: Map of the field study sites

Palm oil plantations and with palm oil mills in the distance, Kalimantan, Indonesia

Policy recommendations for actors in Central Kalimantan Province

- ***Immediately address the grievances of local communities.*** Government and private sector actors should urgently address the issues raised by the affected villagers about the impacts of the oil-palm sector on water resources.
- ***Strengthen the capacity to enforce public legislation in the oil palm sector.*** To achieve this, the government needs to provide greater funding to recruit and train district and provincial law enforcement officers and strengthen the accountability mechanisms (oversight) of government officials and corporate executives.
- ***Allocate a greater share of tax revenue from natural resource exploitation to provinces and districts.*** It would incentivize sustainable development if the national government allocated provinces and districts a greater share of tax revenue from production of crops such as rubber and fruit. District executives would then be less likely to opt to make a one-off profit by selling tracts of forest for clear-cutting in order to establish large scale oil-palm production.
- ***Address the gaps in public regulation to enable landscape and river basin management.*** There are gaps in legal guidance for the use of drainage channels, and in regulation of water flows and water table management, including at catchment level. There is also a need for official guidelines on landscape-level water management and plantation planning.
- ***Clarify the interpretation of constitutional 'water rights'.*** There is considerable scope to clarify how the control of water rights is allocated in the province, both with respect to the legal and de facto situation. There should also be greater clarity on how to interpret the right to water resources enshrined in Indonesia's Constitution and Water Law.
- ***Establish and fund conflict resolution mechanisms.*** Government should consider setting up sufficiently resourced mechanisms for conflict resolution as part of future policy and project development. Such mechanisms could form the core of further donor-funded efforts in the province, such as under the moratorium and Letter of Intent between the Indonesian and Norwegian governments.
- ***Direct financing to water monitoring and build institutional capacity.*** Strengthened financial and human resources and institutional support are needed to build up consolidated and trusted water monitoring. Such monitoring would produce better data. Participatory water assessment methodologies can be part of this monitoring effort. Building monitoring capacity should be a central task of national fiscal planning and of ongoing and future support from development agencies.
- ***Incorporate water-related ecosystem services into implementing REDD.*** Payments for ecosystem services related to good water management could provide much-needed additional incentives to local government, for example under REDD (now promoted in Indonesia).
- ***Undertake independent studies of water management practice in plantations.*** Few, if any, independent studies have examined water management practices in oil-palm plantations. Such studies are greatly needed in order to test the usefulness of current regulations and guidelines.

This policy brief was written by Rasmus Kløcker Larsen and Tom Gill, and is based on the SEI Working Paper: Larsen, R. K., Osbeck, M., Jiwan, N., Rompas, A., Nito, J. and Tarigan, A., 2012 (forthcoming). *Competing Water Claims in Biofuel Feedstock Operations in Central Kalimantan: Community Grievances and Pathways to Improved Governance of Oil Palm Concessions*. Stockholm Environment Institute, Stockholm.

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