Seeking harmony: Scenarios for nature conservation and agricultural development in Kapuas Hulu district, Indonesia

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This brief is based on the workshop report: The use of Participatory Prospective Analysis in Collaborative Land Use and natural resource planning and management in Kapuas Hulu, Indonesia.

“We want development but it should benefit us local and indigenous people” (Mr. Luther, Customary leader).

The Kapuas Hulu district, which covers an area of 31,162 km², has unique environmental characteristics and was designated as a conservation district in 2003. The district has two national parks, Danau Sentarum National Park and Betung Karihun National Park, which together with the Kapuas River provide a vital ecological environment for the people of Kapuas Hulu and the larger population of West Kalimantan. Forest designated for conservation comprises approximately 57 percent of the district's area, and the two national parks occupy about 30 percent.

Conflicts of interest between agricultural development interventions and conservation practices exist in the Kapuas Hulu district. Lack of infrastructure, low economic productivity and a lack of access to basic services are among other problems faced by Kapuas Hulu's local government. Oil palm plantations have expanded across the West Kalimantan region in recent years and are now advancing across Kapuas Hulu. Investments in palm oil have a potential negative impact for the environment (e.g. loss of biodiversity) but also offer economic benefits to the people and the district economy.

To understand the main drivers of development in Kapuas Hulu, it is important to answer the question of how future land use can support both agricultural development and nature conservation.

Participatory Prospective Analysis: a tool for stakeholder participation

CoLUPSIA\(^2\) initiated a process called Participatory Prospective Analysis (PPA)\(^3\) to provide decision makers with information to deal with challenges and future consequences and enable them to anticipate actions to achieve the desired economic and conservation goals. It uses a horizon of 20 years (2010-2030).

The PPA method produces scenarios to explore possible futures and the strategies to achieve them. The process is participatory by nature: it seeks consensus and involves a range of stakeholders comprising local government, legislative authorities, farmers, fishers, local businesspeople, customary leaders, development practitioners and youth.

A series of workshops were conducted to: identify the variables influencing future evolution; assess the influence of these variables on each other; determine the key influential variables; and develop scenarios based on the most influential variables.

The stakeholders identified 50 variables that will influence development in Kapuas Hulu in the future, comprising various aspects such as economic, political, social, technological and environmental. A participatory analysis was conducted to determine which variables had the strongest influence on Kapuas Hulu development. Series matrice calculations were used to determine the strength of each variable from the table. It resulted in six key variables: Government policy; Use of technology; Customary law and wisdom; Mindset; Participation; and Education and Skills.

The variables are also highly interdependent, which means that the evolution of the system depends on the interaction of these variables, and that development interventions will occur in a dynamic environment.

The combination of these six variables lead to the identification of four contrasted scenarios. Each scenario represent a possible future situation, according to the future states of each variable as identified by the participants in the workshops (see Figure 1).

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Figure 1: Scenarios: “Development of Kapuas Hulu in 2030”
- Scenario 1. Langkah Serumpak ("steps in harmony"): Policies favor the community and are compiled together with the community. The public participates by monitoring and supervising the planning process. In this scenario, access to education improves and changes people's mindset to master the appropriate, environmentally friendly technology. Land use is decided taking into account people's aspirations and in synergy between customary law and national law.

- Scenario 2. Lempar koin sembunyi tangan ("throwing coin but hiding the hand"): Most policies are weak and don't address the essential development needs of the people. National law is widely accepted and customary institutions and indigenous wisdom have been excluded; indigenous people have disappeared. Land use has no wisdom behind it, leading to environmental destruction and people's marginalization.

- Scenario 3. Mendulang Emas mendapat batu ("panning the gold but getting the stone"): Conflicts in society escalate because stakeholders are excluded from the development process. Poverty and inequality also lead to public apathy in the form of people's refusal to participate in any development project. Land use conflicts arise as customary institutions are weakened and Indigenous people are divided.

- Scenario 4. Makan tuba buah ("eating poisonous fruit"): Development grows slowly, caused by changing policy priorities because of opportunistic behavior and tendencies that favor group interests. Indigenous peoples and customary law are recognized, but their existence is just for the sake of showing a good image of the district. Land use and development have excluded people's participation.

A series of socialization workshops and meetings were conducted to inform the public about the scenarios. Feedback was collected and many respondents agreed that the vision of development in Kapuas Hulu corresponded to scenario 1. The other scenarios were undesired, but some workshop participants expressed their concern that scenarios 2 and 3 were also already happening, and that a combination of scenarios 1 and 4 could also be another possible reality.

**Challenges and opportunities**

The scenarios demonstrated that they were a useful tool to inform the public and decision makers about what could happen in the future. If the elements indicate an undesired future, decision makers can take preventive action. Similarly, if the elements indicate a desired future, action plans should be built to achieve it. At this stage, collaboration among stakeholders is needed.

The PPA method was designed to engage stakeholders in a participatory process. This was not always an easy task. It's a learning process for stakeholders to work together and determine what actions should be taken to achieve a common vision. The power gap among stakeholders and the presence of sensitive issues often hindered participation. For example, palm oil development was a sensitive issue for government officers, and it was especially difficult for them to be challenged about it in a public environment. Also, the knowledge gap among diverse stakeholders led to multiple interpretations of simple as well as sophisticated terms. To bridge this gap, some concepts were simplified, but with the risk of oversimplification.

The method offers forward-thinking approaches with which not all decision makers are familiar. In many cases, they focus on immediate benefits and neglect the long-term costs. The introduction of palm oil in Kapuas Hulu is one example.⁴

Public discussion on the scenarios "Development of Kapuas Hulu 2030" also revealed that the variables of customary law and wisdom have a strong influence on the development process. Both variables are important for the community and shape the way in which land use is managed by society.⁵ Customary law is important in the Kapuas Hulu area to enforce social norms, but when it comes to land appropriation by large-scale investment, the customary institution seems very weak in its ability to secure land rights. Communities refusing to surrender their land for oil palm have little power to defend their rights over their land.

**The way forward**

The prospective work in Kapuas Hulu continues to facilitate discussion and negotiation about land use among stakeholders. Apart from the scenarios, the CoLUPSIA project is also developing land-use maps using integrated information (i.e. biophysics, economic and social aspects of the community), including land tenure and rights. The land-use map and scenario tools are expected to improve the decision-making process in the district.

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⁵The existence of the indigenous community in forest management is recognized under Forestry Law No 41/1999, but there are inconsistencies in the practice.
Using scenarios to explore the development agenda in Kapuas Hulu by 2030 has awakened the public to the need for actions to be taken to achieve the desired future – actions including revising land use planning to favor sustainable development, recognizing customary rights over land, and mobilizing strong commitment from all stakeholders. Such actions would bridge conflicting interests over natural resource management at the district level.

Land-use planning is also one of the keys to resolve the diverse interests over land. In government terminology, this is known as spatial planning. Capacity building for local government is needed for local officials to be able to decide what goods are needed for development, while at the same time protecting the environment. Local government intervention is also needed to protect vulnerable groups.

It is not easy to answer the question of how much land is needed to balance agricultural development and nature conservation, but it can be answered through stakeholder consensus. The PPA method has demonstrated how consensus can be built among stakeholders. Conducting workshops and stimulating stakeholder engagement are crucial to the process of facilitating information exchange; consensus will be built along the way. These topics of agricultural development versus nature conservation, land-use competition and conflicting stakeholder interests have also been seen elsewhere in Indonesia.

It is important to understand the institutional context of the issues in relation to development interventions; land tenure and institutions that govern the land should be taken into account. The example of Kapuas Hulu reveals that the process was not easy and would take longer than expected.

Finally, the scenario-building method can be used not only for land-use issues in one district, but also for other topics with wider geographical coverage – at the national, regional or even global level. Adaptation and developing capacity for the use of foresight methodologies are crucial to enhance the integration of this approach into a decision-making system.

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