

Brief Description of the Living Lab and the challenge in Ketapang

A Living Lab is a real-life, user-centered research and innovation environment where diverse stakeholders collaborate to develop, test, and refine solutions to complex challenges. It brings together civil society, academia, companies, and government actors to co-create innovations in real-world settings. By prioritizing experimentation and contextual learning, Living Labs foster practical, sustainable outcomes tailored to local needs.

This particular Living Lab is led by [Tropenbos Indonesia](#) and focuses on village forests located on peatlands in Ketapang District, West Kalimantan Province, Indonesia. Key partners include Universitas Tanjungpura (UNTAN), Van Hall Larenstein (VHL), InHolland, Aeres University of Applied Sciences, local communities, and government stakeholders at both district and provincial levels.

The village forests are managed by communities from three villages—Sungai Pelang, Sungai Besar, and Pematang Gadung—spanning a total of approximately 10,000 hectares (see Figure 1). The local population of about 6,000 residents is predominantly of Malay ethnicity, which is common along the coasts of Kalimantan, Sumatra's east coast, and Malaysia. However, over the past four decades, Ketapang has seen a substantial influx of migrants from Java, Madura, and Sumatra, driven by government-sponsored resettlement programs and spontaneous migration in search of economic opportunity. This demographic shift, coupled with expanding corporate activity, has significantly altered the landscape. Once dominated by dense forest, the peatlands have become a frontier of development, highlighting the tension between conservation and livelihood interests in a carbon-rich environment.

While the area lies relatively close to the district capital (population approx. 100,000), it is a 12-hour drive from Pontianak, the capital of West Kalimantan Province.

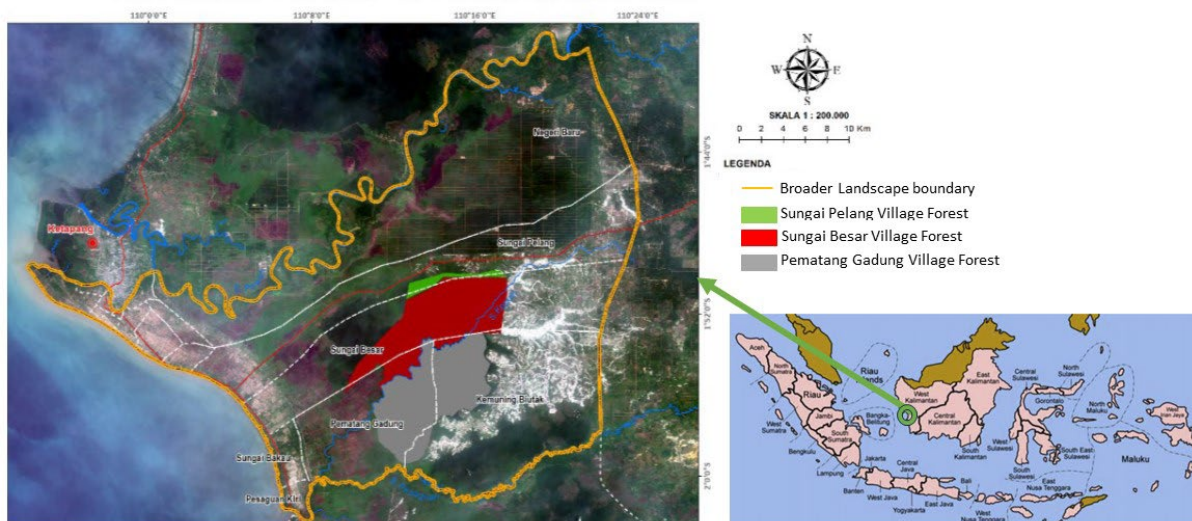


Figure 1 Ketapang Living Lab area

The Challenge

Indonesia's peat forests are under severe threat from land drainage, forest fires, oil palm expansion, and extractive industries. These pressures result in biodiversity loss, rising greenhouse gas emissions, and the marginalization of local communities. In response, the Indonesian government launched the Social Forestry Programme in 2008, which grants 35-

year forest management permits to local communities, aiming to promote sustainable and community-led forest stewardship. However, significant challenges remain: Can communities manage these landscapes more sustainably than the State? In order to do this communities need to derive income from these forests.

Maintaining a high water table is critical for peat forest preservation. Saturated peat prevents land subsidence, reduces CO₂ emissions from oxidation, and limits the risk of peat fires—key to addressing Indonesia's role as a major global emitter. Yet, in many areas, including Ketapang, communities and companies often prefer lowering the water table for agriculture, particularly oil palm cultivation, which directly undermines sustainable peatland management. Additionally, illegal gold mining—by both local and external actors—poses a growing threat, especially in the eastern zones of the landscape (see Figure 1).

These activities exacerbate environmental degradation and complicate conservation efforts. The key challenge for the Living Lab is to co-develop a Sustainable Business Model Canvas that balances ecological preservation with the socio-economic needs of stakeholders. The goal is to eventually pilot and implement this model through the Living Lab framework.

Involved coaches

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Relevant sources

- <https://www.tropenbos.org/news/social+forestry+business+unit:+strengthening+people%E2%80%99s+economy+in+indonesia>
- <https://rimbacollective.com/project/ketapang-district>
- <https://www.tropenbos-indonesia.org/?language=en>



Figure 2: Papaya and Aloe Vera being cultivated on peat close to Pontianak