# « To develop or to be developed »

# Drivers, Dangers and Opportunities related to focus on rubber in Kesindu, Sarawak

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## Introduction

- ✓ Insecurity in land tenure and large scale natural resources development projects are drivers for land use change (Lambin, Geist and Lepers 2003).
- ✓ Farmers threatened land by encroachment from outsiders are

### The study area

✓ Kesindu (44 households village), Sarawak, Malaysia.

 $\checkmark$  90 ha of forest were cleared to be replaced by a monoculture rubber plantation.





## Objective

### Methodology and data collection

 $\Box$  To study the land  $\checkmark$  Transect walks,

likely to seek to secure their property rights and have less focus on preserving their natural resources (Hazell and Wood 2008).

on production, changes in social organization, limited resource access...

 $\checkmark$  Resources scarcity  $\rightarrow$  pressure

conversion into large rubber scale plantations, the drivers | ✓ Participatory behind it, and the effects the on environment and the livelihoods in Kesindu.

 $\checkmark$  Mapping with a drone,

rural appraisal (historical timeline, resource mapping, seasonal calendar, preference matrix),

✓ Focus group interviews with ladies and young generation,

✓ Questionnaires and semi-structured interviews with 39 households living permanently in the village,

 $\checkmark$  Soil sampling,

 $\checkmark$  Water sampling,

 $\checkmark$  Forest resource assessment,



Results Dangers

#### Wishes for the future



- efficient > Better crops, more technologies, rising market prices.
- $\succ$  Global and political decisions  $\rightarrow$ additional markets, price inflation.
- $\succ$  Fewer resources  $\rightarrow$  unability to invest in new crops and equipment  $\rightarrow$ downward poverty spiral.
- $\succ$  Land rights protection from drifting into an 'idle land'  $\rightarrow$  cooperation with the government.
- $\succ$  Rubber choice compared to the other crops: longer life cycle, longer harvest period and more flexible, less requirements on man power input, lower amount of production expenses, environmentally friendly  $\rightarrow$  it makes sense to clear the forest and turn it into > Villagers cannot afford a long-term investment in productive land.
- $\triangleright$  Clearing forests  $\rightarrow$  forest cover loss  $\rightarrow$  water samples showed high values of total coliform count and faecal coliform count  $\rightarrow$  drinking water is unsuitable for consumption
- $\blacktriangleright$  Reliance on one cash crop  $\rightarrow$  chemical degradation, soil acidity (unavailability of macronutrients to plants)  $\rightarrow$  unsustainability of the plantation.
- $\succ$  Increase in soil erosion and runoff and a decline in biodiversity and soil fertility.
- ecological ➢ Income and harvest instability, unsustainability, land and labour decline.

## Challenges

- Money, dropping prices of agricultural products, environment and water quality, health issues, incompatibility between offer and market demand.
  - their lands.

- $\succ$  Better health facilities, clean air, water supply, electricity, education and road network, better market prices.
- ➤ More land to cultivate new crops (oil palm).
- $\succ$  More attention from political side.

## **Opportunities**

- > The offer government was an opportunity to secure the villagers' livelihoods.
- $\triangleright$  Rubber could be a possible mean to develop the village and an important income generator that could keep the youth from migrating to urban areas.
- $\blacktriangleright$  Young generation seems to be interested in new land use strategies and better management (intercropping rubber with other crops).

#### **Conclusion and future perspective**

- As long as the people of Kesindu are unable to finance their own development, they will be vulnerable and lacking adaptive capacity in the face of outside drivers pushing land development, due to the 'develop or be developed' paradigm.
- Revenues from the new rubber plantations can facilitate investments in more land and thus even greater revenues.
- \* The focus on rubber monoculture might end up having negative implications for Kesindu's food security and lead to environmental impacts such as loss of biodiversity and degradation of soils and pollution of fresh water resources.
- \* It would be interesting for the villagers to investigate the opportunities of creating cooperatives internally in the village or perhaps together with other villages. This could allow them to amass the capital required for creating small scale industries that would allow them to benefit from manufacturing the raw products into tradable consumer products that has a much higher market price. This would also create job opportunities for the younger generation leading to a decreased tendency for migration.

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