

C03 - Conservation of Jelutong (*Dyera* spp.) in Suku Anak Dalam, Bukit Dua Belas National Park



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Introduction

Jelutong (*Dyera* spp.) or “Chewing Gum Tree” is an indigenous tree species of lowland Sumatera and Borneo. It has many valuable benefits for local people, particularly Suku Anak Dalam (SAD) in Jambi forests. Forests in Jambi have been transformed into different land uses that led to decreasing habitats for Jelutong (Fig. 1). There are urgent calls for Jelutong conservation actions and sound strategies are necessary to be formulated by incorporating the local knowledges and cultural interests.

Objectives

- 1) Identified the ethnobotanical aspect of Jelutong on SAD
- 2) Measured the potentials of Jelutong
- 3) Identified the potentials of Jelutong traditional markets in SAD



Fig. 1. Transformed forests

Methods

Study Site



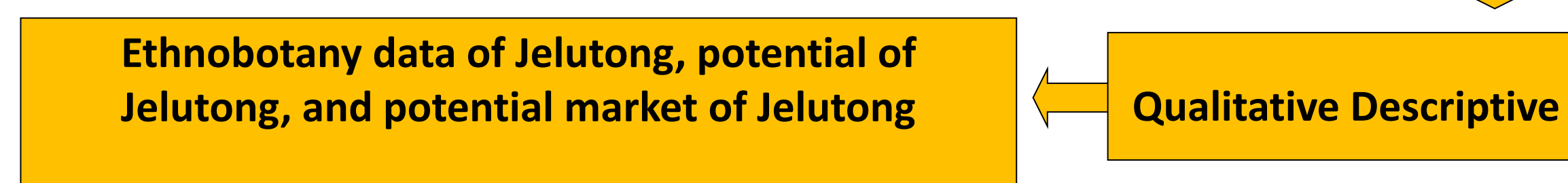
Fig. 2. Approx. research location

Survey was carried out in the Resort Air Hitam, Bukit Duabelas National Park, District Sarolangun (Fig. 2) covering lowland and swamp tropical forest types. It belongs to A climate Schmidt dan Ferguson classification with 3,294-3,669 mm/y rainfall, temperature 32°C-40°C, and 80%-94% humidity.

Data Collected



Data Analysis



Results & Discussion

Characteristics of SAD

- SAD lives based mainly on daily activities in the nature and sells various forest products such as jernang, jungle rubber latex, rattan etc.
- A SAD group is headed by a tumenggung, selected democratically in a customary way. Every problem is resolved by customary deliberation.



Ethobotany of Jelutong

- There were two types of Jelutong habitats, namely: i) Swamp (*Dyera polyphylla*) and ii) Hill/dry land (*Dyera costulata*)



Dyera polyphylla



Dyera costulata



Dyera polyphylla



Dyera costulata

- SAD uses Jelutong products for commercial purposes (latex), health (medicine, anti repellent), and energy (lamp/lights)

- A SAD man usually taps latex of Jelutong for 2-3 hours in the morning before 10 am (before sun rising)



Potentials of Jelutong

- Field survey found 22 old trees, 6 poles and 7 seedlings. Vegetation analysis showed that Jelutong trees were found at random distribution with 3-8 trees per ha in which their diameters varied between 10 to 51 cm in size
- In the sampling plots of Jelutong, there found 77 species of edible/food plants and 64 species of medicinal plants
- There were no association of Jelutong with other trees (esp. *Endospermum diadenum*, *Shorea parvifolia*, *Koompassia malaccensis*)

Traditional Markets of Jelutong

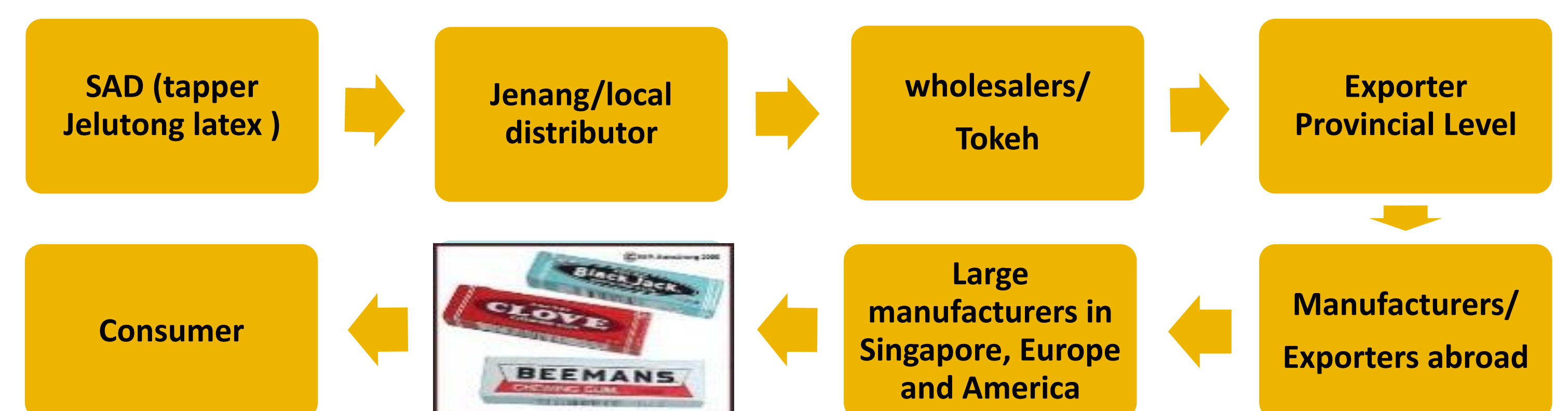
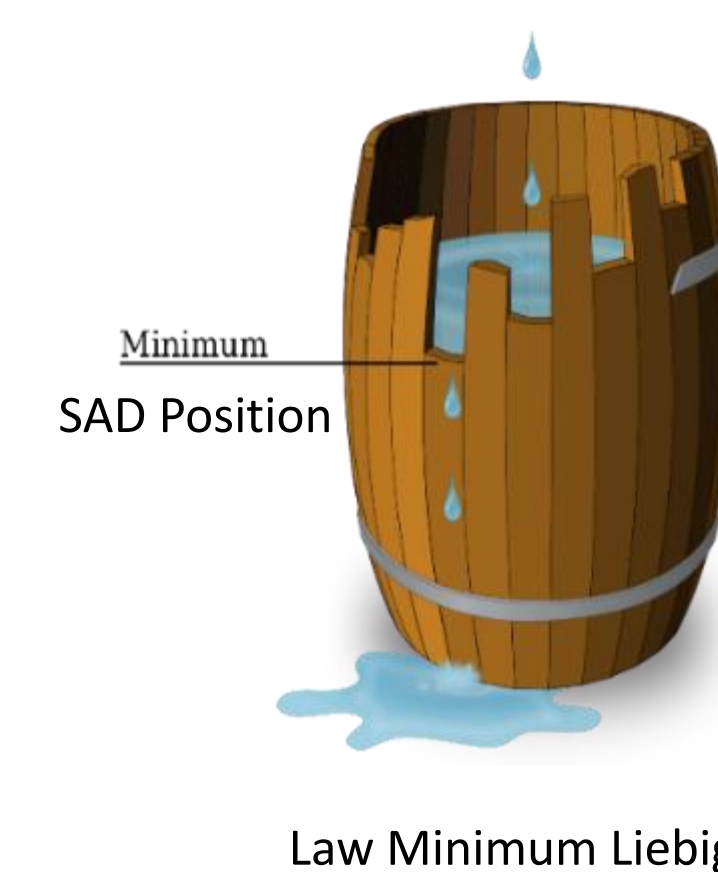
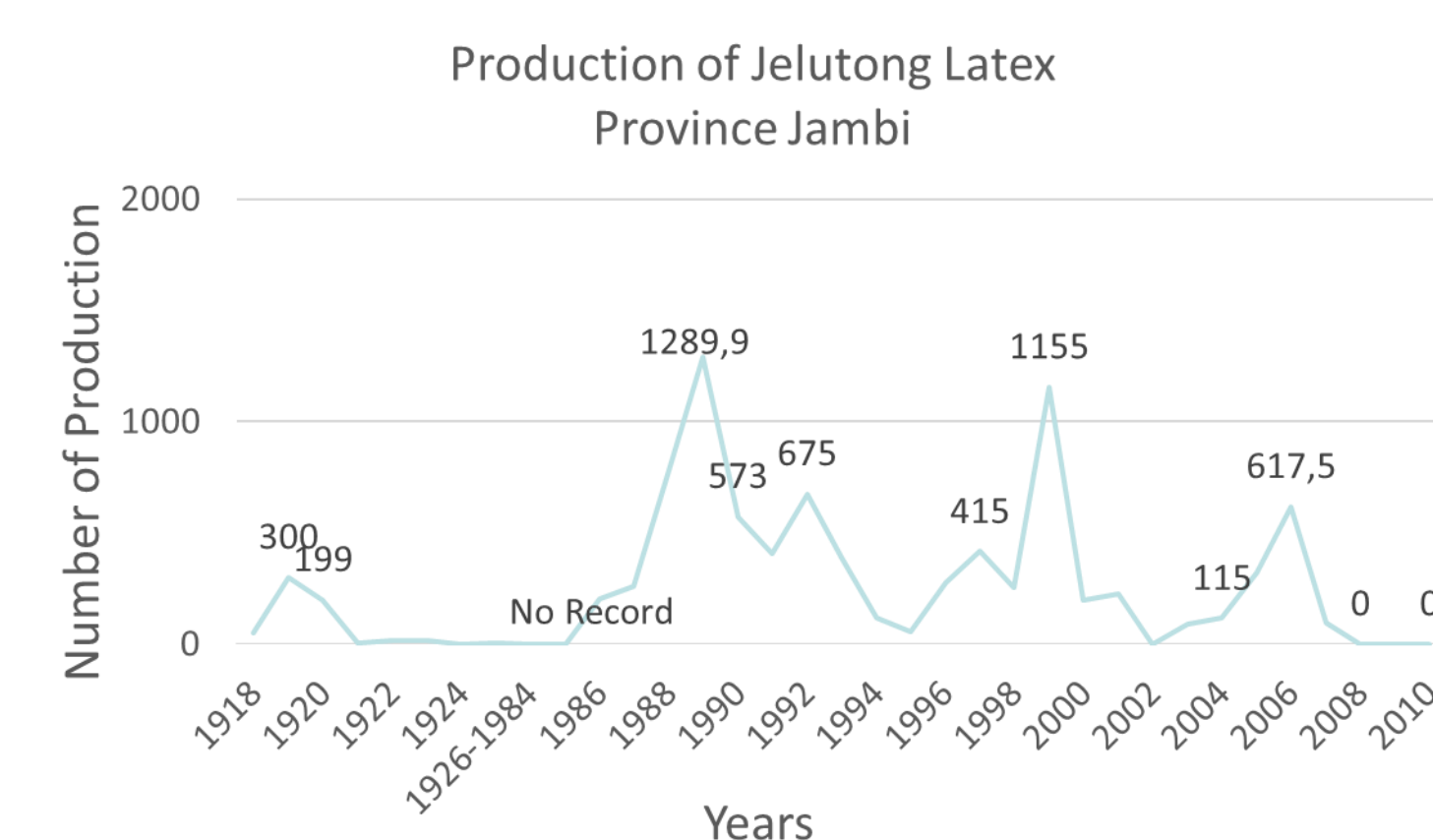


Fig. 3. Flow chart production of Jelutong latex

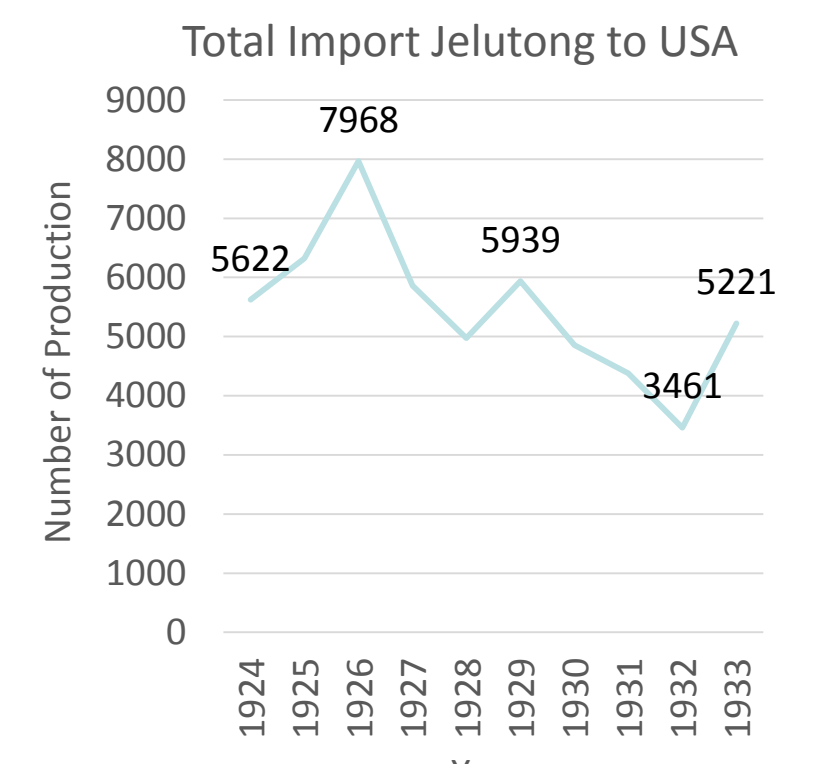
Jelutong latex has entered the global market since more than a century ago (Fig.3), but it is still an irony that SAD as the main producers did not get fair margin values. At the present situation, strong supports and facilitation from the governments are necessary.



Law Minimum Liebig



Source: Heyne K (1989) & Sofiyuddin M et al. (2012)



Source: Burkill LH (1935)

The above graph showed that the production of Jelutong latex (in ton) tend to decrease. In the Liebig's law of the minimum, it showed that the barrel will not reach the highest point if there was still the lowest position. This was the main position to be handled wisely by all stakeholders highlighting the significance of the SAD as major producer of latex Jelutong.

Conclusion

1. Jelutong was an important commodity for SAD from the perspectives of both economic and non-economic values. As a commodity, it has a clear demand and supply.
2. The potential of natural Jelutong tend to decrease due to habitat degradation or land conversion
3. Jelutong latex has entered the global market since more than a century ago. The existence of Jelutong as one of main source of income for SAD was increasingly unclear. Intervention from the government is necessary through a set of regulations and supports targeting directly the SAD communities in the field.

Reference

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Acknowledgement

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