Tapping frequency and productivity on a few smallholdings in West Kalimantan Province Indonesia

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Context

- Smallholders are assumed to tap their trees very intensively in \( \frac{1}{2} S d/1 \), \( 2d/3 \) or \( d/2 \) with very high bark consumption.

- Latex production has been monitored on a daily basis, since tree opening in 2003, on 38 farms spread over 5 villages in West Kalimantan province.

- During the survey, farmers said that they followed ICRAF recommendations 1/2S d/2.
Very irregular number of tapping/year with frequency different from d/2

Box plots Number of tappings per village

Total

Engkayu

Embaong

Kopar

Sekadau

Trimulya
Very irregular number of month with tapping and tappings/month

- Number of tappings/month proportional to the number of months during which tapping was carried out.

- If a farmer tap 12 months, he will carry out 11 to 12 tappings, (d/2).

- However, if he only chooses to tap for 4 to 5 months/year and 6 to 7 tappings/month amount to a frequency of d/4 during the tapping months and an annual frequency of d/10 (32 to 37 tappings/year).
The time spent on tapping depended on other farming activities.

<table>
<thead>
<tr>
<th>Village</th>
<th>Ethnie</th>
<th>Tapping /year 2005</th>
<th>Farm area Others activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Embaong</td>
<td>Dayak local</td>
<td>80-111 d/4-d/3</td>
<td>5 ha Clonal rubber project SRDP</td>
</tr>
<tr>
<td>Kopar</td>
<td>Dayak local</td>
<td>27-168 d/14-d/2</td>
<td>5 ha Oil palm</td>
</tr>
<tr>
<td>Trimulia</td>
<td>Javanese transmigrant</td>
<td>99-187 d/3-d/2</td>
<td>2 ha Food crop</td>
</tr>
</tbody>
</table>
Land productivity increases with the number of tapping.

![Graph showing relationship between land productivity and number of tapping per year.](image)
Labour productivity decreases with the number of tapping
Farmer increase frequency of tapping to compensate low tree/ha
Bark consumption/tapping is inversely proportional to tapping/year.

The graph shows the relationship between bark consumption/tapping (in cm) and tapping/year for different locations: ICRAF, Trimulya, Engkayu, Sekadau, Embaong, and Kopar. The data points are plotted on a scatter plot, with bark consumption/tapping on the x-axis and tapping/year on the y-axis. The graph indicates a strong inverse relationship, with tapping/year decreasing as bark consumption/tapping increases.
Very intensive bark consumption after 2 years of tapping
Conclusion

- Tapping frequency was a concept that could not be applied to smallholder farmer at least at Indonesian experience: irregular number of tappings/month and /year (27 to 187)

- Farmer adapt the number of tappings to his strategy: land productivity (Kg/ha/year) or labour productivity (Gramme/tree/tapping).

- Most of the smallholdings are tapped with less than 110 tappings/year in 1/2S unstimulated: trees are under-exploited.

- Technical training in tapping organized by ICRAF in June 2005 has helped farmer to improve tapping quality: bark is over-exploited.
Thank you for your kind attention