Bringing bushmeat home: A contribution of NTFPs to local livelihood in West Papua

Wildlife for food

Using wildlife for food varies between communities

• Some used because it was affordable and familiar
• Others valued them for its taste
• In rural areas, it was more accessible than cultivated meat
• People in 62 tropical countries are dependent on wild animal meat as protein sources (Prescott-Allen & Prescott-Allen, 1982)
• In West Papua, wildlife for food was obtained through hunting
Hunting in West Papua

• Hunting is mostly done for subsistence purpose
• Hunting contributes to traditional culture
• There has been limited research on wildlife exploitation for local consumption in West Papua

Methodology

Figure 1 shows the relative location of the sampled villages at the Amberbaken District.

• Hunting surveys and household surveys were conducted to collect information on hunting and consumption patterns along the coasts.
• Surveys were conducted between June and December 2011 at seven villages on the Amberbaken District of Tamrauw regency of West Papua Province (Figure 1).
Information about hunting was gathered through interviewing 140 focal hunters.

To gain an overall picture of hunting, we also distributed 100 questionnaires, a total of 562 questionnaires were returned for analysis.

Household meal surveys were conducted to determine the level of consumption of wild meat (N = 400).

All data was analysed using log-linear model in S+ package for the Analysis Biological Data (Jones et al., 2012).

**Hunting patterns**

- Hunting was conducted for different purposes (consumption, sale and others)

![Figure 2: Purpose of hunting in the 7 sampled villages (N = 702), \( p = 0 \)]
Hunting techniques

• Different hunting techniques were used related to species-specific behavior
• Each hunter typically used more than one technique
• About 80% of hunters used active and passive hunting techniques
• Hunting with dogs conducted by 40% hunters
• 9% hunters employed hunting with guns

Hunting returns

• A percentage of returns was deer 40%, wild pig 35% and native species was 27% and it was different $p < 0.0001$
• Throughout a seven-month observed period, 208 animals were brought home by 21 collaborating hunters.
• The returns were 49% deer, 39% pig and 12% native species (*Thylogale brunii* Dusky pademelon and *Dendrolagus inustus* Grizzled Tree Kangaroo).
Hunting returns-2

- A total of 7,623 kg of dressed weight of deer and wild pig were harvested
- The local price per kilogram being 25,000 Indonesian Rupiah (IDR) (equals to US$ 1.89) for venison and 15,000 IDR (or US$1.13) for pork.
- The hunting take was valued at IDR 154,125,000 (US$ 11,651)

Consumption patterns

Table 1. Meal consumption across the sampled villages in Amberbaken District

<table>
<thead>
<tr>
<th>Meals</th>
<th>Arupi</th>
<th>Wefari</th>
<th>Saukorem</th>
<th>Wasarak</th>
<th>Wefiani</th>
<th>Imbuan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bushmeat (n)</td>
<td>19</td>
<td>24</td>
<td>26</td>
<td>26</td>
<td>26</td>
<td>18</td>
</tr>
<tr>
<td>%</td>
<td>38</td>
<td>44.44</td>
<td>34.28</td>
<td>34.66</td>
<td>34.66</td>
<td>38.29</td>
</tr>
<tr>
<td>Fish (n)</td>
<td>15</td>
<td>14</td>
<td>28</td>
<td>23</td>
<td>19</td>
<td>7</td>
</tr>
<tr>
<td>%</td>
<td>28.88</td>
<td>44.44</td>
<td>34.28</td>
<td>34.66</td>
<td>34.66</td>
<td>7</td>
</tr>
<tr>
<td>Livestock products (n)</td>
<td>5</td>
<td>5</td>
<td>10</td>
<td>12</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>%</td>
<td>9.63</td>
<td>9.63</td>
<td>14.03</td>
<td>14.03</td>
<td>14.03</td>
<td>9.63</td>
</tr>
<tr>
<td>Vegetables + Noodles (n)</td>
<td>11</td>
<td>9</td>
<td>26</td>
<td>34</td>
<td>20</td>
<td>16</td>
</tr>
<tr>
<td>%</td>
<td>22.00</td>
<td>18.36</td>
<td>18.36</td>
<td>18.36</td>
<td>18.36</td>
<td>18.36</td>
</tr>
<tr>
<td>Non-bushmeat (n)</td>
<td>31</td>
<td>30</td>
<td>64</td>
<td>60</td>
<td>49</td>
<td>29</td>
</tr>
<tr>
<td>%</td>
<td>62</td>
<td>55.55</td>
<td>71.11</td>
<td>65.71</td>
<td>65.33</td>
<td>60.00</td>
</tr>
</tbody>
</table>

- Bushmeat consumption varies between 29% and 44% across the sampled villages
- The results indicate the importance of bushmeat as diet components in the study sites
- Available alternative protein provide different choices of other forms of protein
Conclusions/outlook

- NTFPs - bushmeat played important roles to local livelihood along the coast of the Bird’s Head Peninsula
- Introduced species – deer and wild pig was the most prey species killed by hunters at the last hunting excursion.
- The reliance on bushmeat was significant for both food and income.
- Intensive studies to provide baseline information on bushmeat and local livelihoods is currently urgent

Thank you...
Terima kasih...
Tabea...