Title of paper: Issues, Challenges and Opportunities of Designing Sustainable Financing for Natural Environment and Ecosystem

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Abstract

- Forms of sustainable financing is introduced by reviewing a selected conservation financing schemes currently practiced. The objectives that these schemes are intended to achieve and issues faced are highlighted. An attempt at formulating a conservation trust fund for sustainable ecosystem management in Sabah is presented in the context of the form of the conservation financing, source of financing, payment mechanism, value and how collected, and governance of the trust fund. The challenges and opportunities at potentially introducing such a fund are discussed. In light of all these, the implications to sustainable financing of wetland conservation are discussed.
CONSERVATION FINANCING

EXPERIENCE FROM GoM-UNDP-GEF Project’s on the biodiversity conservation in multiple use ecosystem in Sabah Malaysia. Study on the feasibility to introduce an ecosystem conservation fee targeting visitors to Sabah.

CHALLENGES AND OPPORTUNITIES OF A CONSERVATION TRUST FUND FOR SUSTAINABLE ECOSYSTEM MANAGEMENT IN SABAH

IMPLICATIONS TO SUSTAINABLE FINANCING OF WETLAND CONSERVATION
Conservation Finance

"the practice of raising and managing capital to support land, water, and resource conservation."

Conservation financing options vary

• by source from public, private, and nonprofit funding organisations
• by type from loans, to grants, to tax incentives, to market mechanisms; and
• by scale ranging from federal to state, national to local
Conservation Financing Scheme or Initiatives in Malaysia:

- Malua Bio Bank & Malua Trust, Sabah
  - MAS Voluntary Carbon Offset Fund, Pahang
  - Malaysian Palm Oil Council – wildlife conservation trust
  - New England Power – Innoprise
  - INFAPRO and INIKEA
  - Perak Forestry Department and the Perak Hydro Renewable Energy Corporation (PHREC)
Malua Bio Bank & Malua Trust, Sabah

<table>
<thead>
<tr>
<th>No</th>
<th>Company Name</th>
<th>BCCs Unit</th>
<th>Price per BCC (USD)</th>
<th>Total (USD)</th>
<th>Date of purchase</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Maxland Sdn. Bhd</td>
<td>10,000</td>
<td>10</td>
<td>100,000.00</td>
<td>Aug. 2008</td>
</tr>
<tr>
<td>2</td>
<td>Hormat Jadi Sdn. Bhd.</td>
<td>5,000</td>
<td>10</td>
<td>50,000.00</td>
<td>Aug. 2008</td>
</tr>
<tr>
<td>3</td>
<td>Bakalayan Sdn. Bhd.</td>
<td>1,500</td>
<td>10</td>
<td>15,000.00</td>
<td>Aug. 2008</td>
</tr>
<tr>
<td>4</td>
<td>Lebih Hasil Sdn. Bhd</td>
<td>5,000</td>
<td>10</td>
<td>50,000.00</td>
<td>Aug. 2008</td>
</tr>
<tr>
<td>5</td>
<td>Adam Leather (UK)</td>
<td>30</td>
<td>20</td>
<td>600.00</td>
<td>Mar. 2010</td>
</tr>
<tr>
<td>6</td>
<td>Tetley Tea (UK)</td>
<td>500</td>
<td>6.50</td>
<td>3,250.00</td>
<td>Feb. 2011</td>
</tr>
<tr>
<td>7</td>
<td>The Kimberly-Clark (UK)</td>
<td>1,000</td>
<td>10</td>
<td>10,000.00</td>
<td>Jan. 2012-Jun. 2013</td>
</tr>
<tr>
<td>8</td>
<td>Retail - On Line Sales</td>
<td>401</td>
<td>10</td>
<td>4,010.00</td>
<td>Jan. 2012-Dec. 2013</td>
</tr>
</tbody>
</table>

Payment scheme: buyers purchase directly to the service provider

2008-2013 = 23,431 BCCs
Revenue: US$ 232,860.00
MAS Voluntary Collection and Carbon calculator: YOUR PAYMENT FOR YOUR CARBON FOOTPRINT

MAS Voluntary Carbon Offset Fund, Pahang [launched 2008-?]

The offset is not included as an option in the online booking process. Customers must click-through from a ‘Towards a Greener Future’ section on the home online booking page. A carbon calculator works out the amount of CO2 emissions for a particular trip and a sum calculated to offset the emissions. The amount is then paid for by credit card. Customers can make separate voluntary contributions.

South-East Pahang (87,045 ha)
Examples & Initiative  
Peninsular Malaysia

**PES Mechanism in Perak**

- Perak Forestry Department and the Perak Hydro Renewable Energy Corporation (PHREC) had voluntarily agreed for PHREC to make payment of **0.25% of revenue to the Perak Forestry Department** for ensuring provision of watershed services in terms of the quality and quantity of the flow.
- Renewable Energy Act 2011 has given PHREC the mandate to act as the master developer for all mini-hydro projects in Perak, a total of 31 sites with an estimated combined installed capacity of 240MW.
- PHREC has entered a Joint-Venture agreement with Gunung Hydropower in 2012 to develop a mini hydro power plant, with 10MW installed capacity, in Perak.
New Initiative: Feasibility to introduce an ecosystem conservation fee targeting Sabah visitors

• Study on Willingness of Visitors to Sabah to Contribute towards Ecosystem Conservation Fee

One component of GoM-UNDP-GEF Project’s on the biodiversity conservation in multiple use ecosystem in Sabah Malaysia

A study was undertaken to provide information on

Whether visitors are willing to pay the proposed ecosystem conservation fee,
The amount they are willing to pay
95% of visitors come to Sabah through airports, => the study relied on interviews of visitors leaving Sabah’s three main city international airports which are at

- Kota Kinabalu Airport
- Sandakan Airport
- Tawau Airport

The distribution of 800 samples is based on regional proportions of visitor arrivals into Sabah in 2016.

<table>
<thead>
<tr>
<th>Airport</th>
<th>Kota Kinabalu</th>
<th>Tawau</th>
<th>Sandakan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of Sampling according to Airports</td>
<td>67%</td>
<td>22%</td>
<td>11%</td>
</tr>
<tr>
<td>Categories of Tourist</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Sabahan Malaysian</td>
<td>268</td>
<td>88</td>
<td>44</td>
</tr>
<tr>
<td>Southeast Asia (ASEAN)</td>
<td>91</td>
<td>30</td>
<td>15</td>
</tr>
<tr>
<td>Northeast Asia</td>
<td>135</td>
<td>43</td>
<td>19</td>
</tr>
<tr>
<td>Oceania</td>
<td>8</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>European</td>
<td>25</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>North American</td>
<td>4</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Middle East</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Grand Total</td>
<td>531</td>
<td>177</td>
<td>92</td>
</tr>
</tbody>
</table>
Would you be willing to contribute to an ecosystem conservation fee?
The fees collected will:
- **Complement** government funding for carrying out conservation activities at the ecosystems and landscape level
- Be pooled into a ecosystem conservation **trust account** that will be managed by the State of based on best practices such as transparency and accountability, where activities and achievements will be presented in annual reports
- Be used to - “To fund conservation activities at the ecosystems and landscape level to maintain and increase existing benefits of ecosystem services”. These activities are grouped into the following categories:
  - I. Expand Protected Areas
  - II. Restore resilience and functionality of ecosystems
  - III. Reduce habitat fragmentation by enhancing connectivity
  - IV. Support and incentivise best management practices

Sabah’s terrestrial and marine resources above provide various benefits to...
WTP among Visitors

<table>
<thead>
<tr>
<th>Type of visitors</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Sabahan Malaysian</td>
<td>RM4.42</td>
</tr>
<tr>
<td>International</td>
<td>RM19.52</td>
</tr>
<tr>
<td>All visitors</td>
<td>RM11.97</td>
</tr>
</tbody>
</table>
WTP by Purpose of Visit

- The lowest average WTP was for official work purposes of RM7.28
- Followed by visits to friends and relatives of RM7.96
- Highest average WTP: for purpose of visiting tourism sites of RM13.00
- Above averages by purposes of visit, vary when broken down by regions.
<table>
<thead>
<tr>
<th>Type of tourists</th>
<th>Reasons for Visiting Sabah</th>
<th>Average (RM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Sabahan Malaysian</td>
<td>Official work</td>
<td>4.55</td>
</tr>
<tr>
<td></td>
<td>visiting friends</td>
<td>3.91</td>
</tr>
<tr>
<td></td>
<td>visiting tourism site</td>
<td>4.32</td>
</tr>
<tr>
<td>International</td>
<td>Official work</td>
<td>16.08</td>
</tr>
<tr>
<td></td>
<td>visiting friends</td>
<td>15.71</td>
</tr>
<tr>
<td></td>
<td>visiting tourism site</td>
<td>19.72</td>
</tr>
</tbody>
</table>
OTHER INFLUENCES: GENDER ON WTP

• Similar WTP patterns among gender:
  • Non-Sabahan Malaysians
    • Males: RM4.39  Females: RM3.97
  • International Tourists
    • Males: RM17.33  Females: RM17.13
OTHER INFLUENCES: AGE ON WTP

• No definite pattern of WTP with age.
• Higher Average WTPs Among
  • < 20 years old: International RM52.50 and N-S Malaysians RM14.75
  • 31-40 years: International RM46.31 and N-S Malaysians RM20.80
  • > 60 years: International RM51.50 and N-S Malaysians RM21.54.
OTHER INFLUENCES: EDUCATION ON WTP

• Non-Sabahan Malaysians with
  • Professional certificates and a degree: Ave WTP
  • \([RM4.67 \text{ to } RM8.08]\)
  • Lesser Educated: Average WTP
  • \(WTP < RM3.80\).
• International visitors with
  • Middle Secondary Schooling & Above: Ave WTP
  • \([RM14.12 \text{ to } RM30.94]\)
• Feedback: Method of Payment Collection

- On arrival to Airport
- Before departure from Airport
- Part of airline fare
- Part of hotel fare
- Tourism Site Entry Fee

Pie chart showing:
- 63.83% Part of airline fare
- 12.77% Part of hotel fare
- 6.77% On arrival to Airport
- 11.41% Before departure from Airport
- 0.97% Other
- 4.26% Other
<table>
<thead>
<tr>
<th>No.</th>
<th>Other comments</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Agree with the Conservation Fee idea however the state &amp; country have a major issue with mismanagement of funds. High degree of transparency is needed.</td>
<td>46.15%</td>
</tr>
<tr>
<td>2</td>
<td>A mechanism to differentiate tourists (locals &amp; internationals) working and travelling frequently to Sabah.</td>
<td>23.08%</td>
</tr>
<tr>
<td>3</td>
<td>Actions needed to improve the cleanliness of Sabah &amp; upon tourists polluting the environment.</td>
<td>15.38%</td>
</tr>
<tr>
<td>4</td>
<td>State government needs to advertise and give more information on the conservation fee before implementation.</td>
<td>7.69%</td>
</tr>
<tr>
<td>5</td>
<td>The conservation fee might lead people to other states or countries with similar tourism attraction.</td>
<td>4.62%</td>
</tr>
<tr>
<td>6</td>
<td>There have been a lot of new plantation projects occurring at and nearby what used to be forest reserve. This will give negative impacts to Sabah’s ecotourism industry.</td>
<td>3.08%</td>
</tr>
</tbody>
</table>
Overall, majority of visitors were willing to pay for the conservation fee (70.83%).

International tourists willing to contribute more compared to Non-Sabahan Malaysian visitors. Due to
- the strength of their currency and
- the reasons of coming to Sabah.

It is recommended to have two separate conservation fee rates
- Non-Sabahan Malaysian Visitors
- International visitors.
Estimation of Potential Revenue

- Rates and Scenarios based on Average WTP
  - Non-Sabahan Malaysian Visitor: Average WTP of RM 4.42
    - Suggested to round up to RM5.00
  - International visitors: Average WTP of RM19.52
    - Scenario 1: RM10.00 - closer to SE & NE Asian visitors’ WTP
    - Scenario 2: RM15.0
    - Scenario 3: RM20.00 - closer to European and Australian/New Zealand visitors’s WTP

- Potential Aggregate Fee Collections from all visitors based on 2016 visitor arrival
  - Scenario 1: RM22.8 million
  - Scenario 2: RM28.4 million
  - Scenario 3: RM34.1 million
ISSUES

- SELECTION OF CONSERVATION TRUST ACCOUNT / FUND RATHER THAN A TAX OR LEVY
- GOVERNANCE BY A BOARD OF TRUSTEE TO SET POLICIES ON USE OF CONSERVATION TRUST ACCOUNT / FUND
- LEAN ADMINISTRATION TEAM ON COLLECTION AND ADMINISTERING OF THE ECOSYSTEM CONSERVATION FEE
- GUIDELINES ON THE USE OF THE ECOSYSTEM CONSERVATION PROGRAMME GRANT
HOW COULD PES SUPPORT sustainable financing of wetland conservation

- ESTABLISH A PES PROGRAMME DEDICATED TO WETLAND CONSERVATION
- OR
- SEEK A SHARE OF CONSERVATION TRUST FUND THROUGH APPLICATION FOR AN ECOSYSTEM CONSERVATION PROGRAMME GRANT
THANK YOU