Sustainable Reforestation in Asia

Open Data Technologies in Practice
Founding OpenForests

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Forest project development & Social Banking

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Forest Information Systems

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Project Management & Drone Based Remote Sensing
Where we operate?
Selected clients
Key Information

- Founded: 2011
- Team: 6 Persons, plus network of consultants
- Area under management with OpenForest's Forest Information Systems: about 300,000 hectares
Why

Separation of nature and people as set free forest exploitation on a large scale.

We founded OpenForests to support organisations to create better forest projects. Better means more sustainable, more resilient, more biodiverse, more social and more transparent.

We develop tools to empower organizations with customized information technology solutions.
Sustainability

Conventional vs. Sustainable forestry
Non-Sustainable Forestry

Clear cutting

Monoculture plantation

No undergrowth
Sustainable Forestry

Agro-Forestry

Cocoa in the understory

Diverse Mixedforest Plantation

Mahogany

Rosewood

Jung trees and undergrowth
## Conventional vs. Sustainable Forestry

<table>
<thead>
<tr>
<th>Economic</th>
<th></th>
<th>Sustainable</th>
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</thead>
<tbody>
<tr>
<td>Profit maximization</td>
<td></td>
<td>Optimization of all success dimensions</td>
</tr>
<tr>
<td>Focus on timber production</td>
<td></td>
<td>Multiple products (timber, NTFPs)</td>
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<tr>
<td>Focus on international markets</td>
<td></td>
<td>Focus on local &gt; regional &gt; international markets</td>
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<tr>
<td>Low value commodity timbers</td>
<td></td>
<td>High value specialty timbers</td>
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<table>
<thead>
<tr>
<th>Social</th>
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<tbody>
<tr>
<td>Replacement of traditional land use models</td>
<td></td>
<td>Inclusion of traditional land use models</td>
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<tr>
<td>Competitive</td>
<td></td>
<td>Cooperative</td>
</tr>
<tr>
<td>Buying land</td>
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<td>Leasing land</td>
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<tr>
<td>Hiring work labour</td>
<td></td>
<td>Benefit sharing</td>
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<table>
<thead>
<tr>
<th>Ecological</th>
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<tbody>
<tr>
<td>Monocultures (even aged)</td>
<td></td>
<td>Mixed forest plantation (diverse species and age)</td>
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<tr>
<td>Focus on few foreign tree species</td>
<td></td>
<td>Focus on marketable native tree species</td>
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<tr>
<td>Genetically improved species</td>
<td></td>
<td>Locally adapted species</td>
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<tr>
<td>Extensive use of pesticides</td>
<td></td>
<td>Avoidance of pesticides</td>
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<tr>
<td>Use of mineral fertilizers</td>
<td></td>
<td>Use of organic fertilizers</td>
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<tr>
<td>Little conservation area</td>
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<td>High percentage of conservation area</td>
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<table>
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<tr>
<th>Technical</th>
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<tr>
<td>Standardized management</td>
<td></td>
<td>Demand oriented management</td>
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<tr>
<td>Mechanisation</td>
<td></td>
<td>Biological rationalization</td>
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<tr>
<td>Low complexity</td>
<td></td>
<td>High complexity</td>
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</tbody>
</table>
Demand for industrial round timber is predicted to grow fast due to growing economies and population. Weiner, et. al 2000

Growing timber demand leads to worldwide expansion of plantations. It is up to us to manage them sustainably. FAO, 2010.
Why Technology is Needed

Sustainable forestry = high complex
Digitization reduces information costs
→ Increase competitiveness
Transparency
Open Source Technology

Our goal is to work with open source technology and software to save costs and to democratise access to information technologies.
Information Services

- FairForest Rating
- Drone Mapping & Remote Sensing
- Web Maps, Project Explorer, Stakeholder Portal
- Forest Information System
- ... and combinations
FairForest Rating

Projects are evaluated according to 170 performance indicators grouped in 6 independent sections:

- Social performance
- Environmental performance
- Financial performance
- Business environment
- Management performance
- Production Security

Drone Mapping & Remote Sensing
Web Maps & Project Explorer

http://ourpiece.openforests.com/jbp/webmap/live/
http://www.weforest.org/webmap/#/IN/
Forest Information System

http://sintra.openforests.com/
How to ensure efficient forest management, transparency and collaboration along the value chain? How to provide accessibility for all stakeholders?

Example

https://www.youtube.com/watch?v=SNiobkIgQ-o

http://karte.fairventures.org/
How to ensure efficient forest management, transparency and collaboration along the value chain? How to provide accessibility for all stakeholders?
Workshop

- Q & A
- Outcome based definition of information demand from a stakeholder perspective
- Impact of digital and open data: SWOT-Analysis
- Sense and Respond Approach vs. Classical planning
Thank you for your attention!