Forest Management Practices in Central Highlands of Vietnam: Case Studies in two State Forestry Companies

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Introduction and Objective
State forestry companies (SFCs) are the main owners that manage production forests in Vietnam (FPD, 2009). During the early 1990s of \textit{Doi moi} (market-oriented reform policy) era, SFCs had played an important role in the forestry sector and impacted the livelihood of million people living in those managed areas (Artemiev 2003; EASRD 2005). However, being mainly based on natural forest harvesting, the forests under management of SFCs have been declining in term of both area and quality, unsustainable forest management is supposed to be a major problem (Nguyen et al. 2008). To date, no natural forest management unit in Vietnam is recognized to follow sustainable forest management (SFM) principles despite there are now reform policies and SFM approach in tropics. Natural forests are found mostly in the Central Highlands and the Central region of Vietnam which are conservation priority areas. Central Highlands are home of many ethnic minorities who live around forests and depend on the forests (Nguyen et al. 2008). Thus, the research is aimed to study Forest Management Practices in Central Highlands of Vietnam through a SWOT analysis which based on 2 case studies of Forestry Companies. The research is to understand the situation of forest management and then suggest the ways for improvement of natural forest management under state own enterprise.

Research Location and Method
The research was conducted in two state forestry companies namely So Pai and Ha Nung forestry companies which are located in Gia Lai province. The Gia Lai province belongs to the administrative region of the Central Highlands (see Map 1).
Map 1 Case studies location and land cover

Both State Forestry Companies (SFCs) are managing natural forests, the type of forest which there is evergreen to semi-deciduous rain forest.

SWOT Analysis is a main tool used to understand the forest management practices there. SWOT analysis was conducted with the manager and core staff of the SFC by participatory approach to lay out all strengths (S), evaluate weaknesses (W), look for opportunities (O) and learn about threats (T) the SFC are having and facing due to implementation of forest management tasks. Short semi-structured interviews with key SFC staff and literature review were also done to understand the current forest management system and other factors.

Results and Discussion

Situation of forest resources:

Data of difference between production forest and protection forest following forest classification system are shown in figure 1. It shows that both SFCs manage less than 10,000 ha, and over 85% of the total area is production forest.
Figure 2 shows that almost all forest that those SFCs are managing is natural forest, only Ha Nung SFC has about 150 ha of plantation which accounts for about 2% of the total area. Figure 3 shows the proportion between rich, medium and poor forests. It can see that So Pai SFC has more rich forest than Ha Nung SFC. However, Ha Nung has some very rich forest areas while So Pai does not have.

![Natural forest quality](image)

Source: Elaborated data from Inventory Report of WWF 2010

**Figure 3 Natural forest quality**

**SWOT Analysis:**

SWOT Analysis was conducted in December 2009 in So Pai and Ha Nung SFCs separately using the same approaches. Separate meetings with SFC manager and its key staff were organized to gather information, discuss on the issues by using participatory approach. The results were then wrapped up into SWOT standard sample table. Two case studies have many similar findings, and they are synthesized in one form as follow.

<table>
<thead>
<tr>
<th>Internal factors</th>
<th><strong>STRENGTHS</strong></th>
<th><strong>WEAKNESSES</strong></th>
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<tr>
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<td>- Large natural forest area, most of forests are rich and medium forests.</td>
<td>- Weak forest management competency of the forest owner.</td>
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<td>- Long traditional forest management practices and experiences.</td>
<td>- Lack of environmental awareness.</td>
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<td>- Systematic and long term stability in forestry production and service provision.</td>
<td>- Not fully active in finance and human resources.</td>
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<td>- Low efficiency of working apparatus.</td>
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<td>- Lack of fund for silviculture and post-harvesting activities.</td>
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<th>External factors</th>
<th><strong>OPPORTUNITIES</strong></th>
<th><strong>THREATS</strong></th>
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<td>- Strict forest management policy of the province</td>
<td>- Land-use conflicts with local communities.</td>
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<td>- Quick revenues for the state from timber harvesting.</td>
<td>- Exclusion of the participation of communities in operations.</td>
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<td>- Maintenance of environmental services and welfare for locality.</td>
<td>- Weak monitoring and evaluation (M&amp;E) system on performance.</td>
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<td>- Open for future reform.</td>
<td>- Slow change in terms of awareness and behavior.</td>
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**Table 1 SWOT Analysis Table**

Source: Own elaboration based on fieldwork in 2009
Outlook
Based on the result from SWOT analysis and literature review, a sustainable forest management (SFM) model is proposed as an initial theoretical framework for the PhD research. Future forest management needs to have a focus on the integration of adaptive management concepts and market-based instruments in order to promote responsible forest management.

Source: Adapted and modified from Higman et al., 2006 and Campbell et al. 2009.

Figure 4 SFM model
References
Nguyen, T.Q., Nguyen, N.B., Tran, T.N., Sunderlin, W., Yasmi, Y., 2008. Forest Tenure Reform in Viet Nam: Case Studies From the Northern Upland and Central Highlands Regions. RECOFTC & RRI
WWF, 2010 Assessment of status of natural forest resources at the SFCs Ha Nung and So Pai (unpublished report). Hanoi