

IMPACT OF FOREST CERTIFICATION: FROM THE PERSPECTIVE OF FOREST CONCESSIONAIRES' STAFFS

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Abstract

Concerned by the increased in tropical deforestation, a number of efforts to combat deforestation and forest degradation due to the bad management of forest practices were raised by several parties. As a result, forest certification was introduced as a tool to improve forest management practices which among the rationales is to assure that the forest management is compliance with social, economic and environmental sustainability principles. This paper analyses the impact of the forest certification towards social, economy and environment from the view of three forest concessionaire companies' staffs. Since the introduction of forest certification to these companies, a lot of changes have been made to ensure the companies operation is compliance with the principle and criteria of the forest certification. Assessing it, from the staffs' view are essential because they involved in every aspects of forest management. Results reveal that certification had lead to more positive impacts such as benefited the staffs' social welfare and help in improving the sustainability of forest. However, the implementation of the program has been affecting these companies economically due to the additional cost of getting certified and annual inspection. On this other hand, this research exposes the impacts of forest certification and hopefully, it has provided useful information for the stakeholders regarding the issues on forest certification.

Keywords: impact, forest certification, forest management

Introduction

Forest plays a crucial role in our life whether directly or not. Forest is beneficial in meeting the need of human being by acting as anti pollutants, natural air conditioner and balancing the ecosystem. However, deforestation and forest degradation especially in the tropics had threatened it and forest is rapidly vanishing in many countries. Consequently, a lot of developed countries had called for a boycott of tropical timber during the 1980's as a way in responding to tropical deforestation. Europe governments such as Belgium, Denmark, Germany and the Netherlands have restricted the use of tropical timber. The boycott has affected the timber industry (business and investment decisions) and the economy of the countries involved. Concerned by the increased in tropical deforestation, a number of efforts

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to combat deforestation and forest degradation due to bad forest management practices were raised by several parties.

During 1990s, a lot of efforts had been undertaken in attempt to improve sustainable forest management. One of the efforts was the implementation of forest certification, which came into existence in 1992 as a result of the United Nations Conference on Environment and Development (Earth Summit) in Rio de Janeiro, Brazil. However, frustrated by the lack of progress after the Earth Summit and increasingly concerned about continued deforestation and forest degradation, environmental non-governmental organizations (ENGOs) set up the Forest Stewardship Council (FSC) in 1993 and since then forest certification has grown rapidly (Innes and Hickey, 2005).

The rationale for forest certification is the need for consumers to be assured by neutral third party organizations that companies involved in the forest products supply chain from the forest to the consumers are employing sound practices that will ensure sustainable forest management (Ozanne and Vlosky, 1997). The emergence of forest certification had positively affected the forest management practices. The great advantage of forest certification is that it could provide a means to identify tropical timber that was properly grown and harvested, thus allowing northern consumers to buy tropical hardwoods without feeling that they were contributing to tropical deforestation (Meidinger et al., 2003). In addition, forest certification is driven by a variety of interests (Rametsteiner and Simula, 2001). For industry and trade, it is an instrument for environment marketing. For buyers and consumers, it provides information on the impacts of products they purchase. For forest owners and managers, it is a tool for gaining market access or market advantage, or perhaps for capturing price premiums. It also serves to demonstrate responsible forest management through independent third party certification regardless of what the market wants. For the environmental movement, it is a way of influencing how production forests are managed. For governments, it is a soft policy instrument to promote SFM, sustainable consumption patterns and a variety of other environmental and social goals. For investors, it can help in risk mitigation.

Forest certification is designed to let the consumers to select timber products which originated from a sustainably managed forest thus supporting the sound management of the forest. Vogt et al. (2004) highlighted that since the inception of forest certification, it has

become a central focus of forest management and are considered by national and international agencies as a solution to many other environmental problems such as global warming, forest destruction and carbon sequestration in forests and acts as a tool to achieve sustainable development goals. It has been seen as a practical tool to help ensuring the success of sustainable forest management and with the increasing impact has grabbed the attention of many forestland owners, government and forest managers to adapt it their forest management practices.

Forest certification has expands rapidly during the last decade. In 2002, the area of certified forest was estimated at 109 million hectares (Atyi and Simula, 2002) and it has increased to approximately 300 million ha of world forests in 2009 (US Forest Service International program, 2009). Temperate and boreal forests currently comprise the majority of certified forests land, with only a fraction of tropical forest resources currently certified due to challenges in developing countries governance and capacity. There are several of forest certification programs that had been developed all around the world by the: Forest Stewardship Council (FSC), Program for The Endorsement of Forest Certification (PEFC), Malaysian Timber Certification Scheme (MTCS), Lembaga Ekolabel Indonesia (LEI), Sustainable Forestry Initiative (SFI), Canadian Standard Association (CSA) and so on.

Malaysia had been committed to achieve sustainable forest management (SFM) and these can be seen through the changes at policy level and the allocation of financial resources to carry out forest development activities and studies related to sustainable management. The forest certification in Malaysia had emerged through the direct initiatives of the state's forestry departments which act as trustees of Permanent Forest Estates (PFEs), through bilateral projects for sustainable forest management between these departments and international bodies, and through direct interest from individual forest concessionaires (Shahwahid, 2004). Among the certification program in Malaysia are Malaysian Timber Certification Scheme (MTCS), Program for The Endorsement of Forest Certification (PEFC) and Forest Stewardship Council.

This study focused on the perspectives of forest concessionaires' staffs towards the implementation of forest certification. While the forests in Malaysia are owned by the government but in certain cases the rights to harvest and manage these forests are usually allocated to private companies which also known as the forest concessionaires. These

companies are allocated with forest areas, usually referred to as concession areas, of a certain size to be harvested and managed over a certain period of time and, in return they have to pay certain charges for the timber to the government (Rusli et al., 2002). The staffs of the concessionaires are involved in the management of the forest land allocated to them. Among the responsibilities involved are the forest activities that ensure the economic, ecological, biological and socio cultural sustainability of the area (Thang, 2003).

Hence, the greatest factor contributing to the success of forest certification is the commitment from the people that deal with the forest itself. In order to achieve the required standard in forest certification, the objective is not only the forest concessionaires' company management sole responsibility but the contributions from the forest concessionaires' staffs are essential to achieve it. This is because in ensuring the success of forest certification in a concessionaires' company, the staffs are needed to cooperate and work together with their company's management to fulfil all the criteria that had been set up by the certification bodies so that it can be achieved and leads to the awarding of certification. The forest concessionaires' staffs play an essential role in ensuring the sustainability of the forests that they managed. This is because they are involved in various aspects of forest management such as in planning, monitoring, operating, inventoring and harvesting. Furthermore, when the forest certification is sought, there will be direct or indirect impacts towards the concessionaires' company and the staff. It is not a surprise that forest certification and its impacts have drawn the interest of many researchers but little research that focused it from the perspective of forest concessionaires' staff. This study is hoped to help in analyzing the impacts of forest certification from the perception of forest concessionaires' staff. This study focused on the perspectives of forest concessionaires' staffs towards the implementation of forest certification. Hence, the objective of this paper is to analyses the impact of the forest certification towards social, economy and environment from their view.

Study population

The respondents selected are the staff of the forest concessionaires that had been granted concession areas by their respective State Government. Besides, the companies had been certified as "well-managed forest" lands for meeting the international standards in Forest Stewardship Council (FSC) for their forest management operations. This certificate had enabled the use of the FSC endorsement and logo in the marketplace. As of June 2009, there

are four companies in Malaysia that had been certified as “well managed forest lands” by FSC (SCS, 2009). However, only three companies which are situated in Peninsular Malaysia that had been chosen as the respondents for this study. These companies had been evaluated by Scientific Certification System, a certification body accredited by the FSC. The companies are 1) Kumpulan Pengurusan Kayu Kayan Terengganu (KPKKT), Dungun, Terengganu, 2) Perak ITC Sdn. Bhd., Ipoh, Perak and 3) Asia Prima RCF Sdn. Bhd., Mentakab, Pahang. Out of 109 respondents, a number of 68 staffs had taken part in the survey.

Methods

Data were collected through face-to-face, from September to November 2009 which centered on a questionnaire. In addition to some questions on demographic background, a section consists of 37 statements were given to the respondents to analyse their level their perception on the impacts of forest certification towards social, economy and environment. 37 of the statements were needed to be rank to a five-point Likert Scale in which respondents had been given a range of possible replies to each impact with a scale ranging from “strongly agree” to “strongly disagree”.

In order to determine the impact, indexes of impact value were computed as perceived by the forest concessionaires’ staff. The method used is adopted from Mohd. Ghazali. et al. (1994) and it was amended to suit the terms of definition of categories to suit the objective of this study. The unadjusted index value was derived from the five-point Likert scale by calculating the average score of the scale for those agreeing with each of the individual statements. Babbie (2001) had stated that Likert scale is reliable to use in determining the relative intensity of different statements and demonstrate the difference in intensity of the statements. The result of the statements is rescored in creation of simple indexes which in this case the unadjusted index value. The unadjusted index value which derived from each of the statements then where calculated to the adjusted index value as follows:

$$\text{Adjusted index} = \frac{\text{Unadjusted index} - \text{Minimum score}}{\text{Maximum score} - \text{Minimum score}}$$

The adjusted index value was constructed to reflect via a single composite measure, the degree to which the individual staff of the companies could be considered to be following sustainable practices. The unadjusted index values ranging from 1 to 5 were converted to a scale ranging from a possible minimum of 0 to a possible maximum of 100. The calculated adjusted index value then is assigned to five discrete impact categories, with the ranges of; quite positive impact (>70), somewhat positive impact (60.01 – 70.00), intermediate (50.01 – 60.00), possibly negative impact (40.01 – 50.00) and possibly quite negative impact (0 – 40).

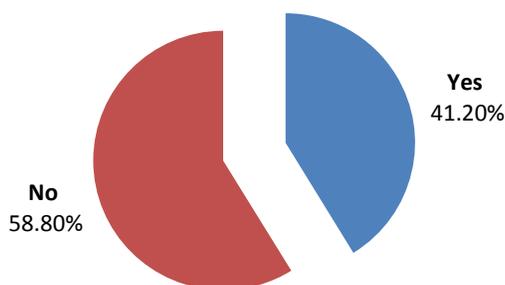
Results and Discussions

Respondents Profile

Approximately 76.5% of the respondents are male and about 72% of the respondents are involved in forest related job. As seen in Figure 1, about 41.2% of the respondents had received training on forest certification while more than 50% of them never receive training on forest certification.

Figure 1

Training Received on Forest Certification



Although these companies had been certified, they did not provide their staffs with proper training in order to increase their staffs knowledge and skill especially in the subject concerning forest management and certification. Attention on capacity building through training programmes and related courses are extremely important to improve the staffs' proficiency.

Based on the interviews with the respondents, the training programmes and courses that they had attended are mainly on reduced impact logging, forest management and criteria and indicator of forest certification. Most of these training programmes were conducted by the States' Forestry Department and the purpose on the training is to prepare the respondents to a good practice of forestry while giving exposure on forest certification. Related training such as reduced impact logging will help in providing important insight in managing the forest in a sustainable manner. Other advantages of training related to forest certification include supporting the development of more sustainable and profitable forest sector thus improving forest management.

Forest Certification Impact Index

The unadjusted total index values for the impact of forest certification ranging from 1 to 5 points (1;strongly disagrees, 2;disagrees, 3;neutral, 4;agrees and 5;strongly agrees) were converted to a scale ranging from a possible minimum of 0 to a possible maximum of 100. The calculated adjusted index value then is assigned to five discrete impact categories, with the ranges of; quite positive impact (>70), somewhat positive impact (60.01 – 70.00), intermediate (50.01 – 60.00), possibly negative impact (40.01 – 50.00) and possibly quite negative impact (0 – 40). The index values for the 68 respondents are range from 17.6471 to 83.0882.

IMPACT OF FOREST CERTIFICATION	Index
<i>SOCIAL</i>	
Increased reputation of the company at the international level.	80.1471
Increased reputation of the company towards States' Forestry Department.	81.6176
Increased reputation of the company towards NGOs.	71.3235
Increased reputation of the company towards local communities.	70.9559
Increased awareness in abiding forest policies.	79.7794
Increased awareness in following the guidelines in forest management.	81.25
My motivation to do job professionally had increased.	83.0882
Increased experiences in forestry.	81.25
Increased chances to receive training in forestry.	79.0441
Increased staffs' safety and health.	79.7794
Local communities get chance to involve in forest management	71.6912

plan.	
Increased job opportunities to local communities.	75.3676
Availability of information on the forest concessionaires' company and its management system.	71.3235
<i>ECONOMY</i>	
Increased in wages for staff that had training and qualification.	67.6471
Increased company's profit.	77.9412
Increased market opportunities for certified products.	79.4118
Increased company cost in process to get certification.	23.1618
Increased company cost in the process of annual auditing.	20.9559
Increased company cost in getting consultation for forest management/forest certification.	25.3676
Increased company cost to provide training to the staffs.	21.6912
Increased company cost to pay salary for well trained staffs.	22.7941
Increased company cost to provide safety equipment for staffs' usage.	17.6471
Increased company cost to provide infrastructures and facilities for staffs' usage.	17.6471
Increased local communities' economic status through business opportunities.	66.9118
<i>ENVIRONMENT</i>	
Increased awareness in environmental importance.	81.25
Reduced deforestation.	78.6765
Increased conservation of endangered species of flora and fauna.	76.4706
Reduced negative impact towards soil structure and buffer zone.	76.8382
Reduced soil damage and erosion.	81.9853
Reduced the usage of chemical in the forest activities.	77.2059
Increased company effort to conserve forest biodiversity.	80.1471
Forest regeneration was done naturally.	72.4265
Increased the tree diversity in the forest.	73.8971
Tree harvesting was done selectively.	81.25
Reduced the opening of forest canopies.	75.7353
Reduced the loss and destruction of the smaller trees.	76.8382

Among the impact of adopting forest certification is increase in the reputation. In this study, the increase in reputation referred to a boost in professional image where it demonstrates example of excellent in forestry practices by the company. Adopting forest certification in a way contributes to a good public image to the company for practicing a sustainable forest management. The index scores for increased in company reputation (towards organizations) were as follow; international level (80.1471), states' forestry department (81.6176), non-

governmental organization (71.3235) and local communities (70.9559). From the results, the statements shows values more than 70 were it shows that the increase of reputation are possibly positive impact to the company.

The staff perceived that by adopting forest certification will surely benefited the reputation of the company. At the international level, a good reputation and image is crucial for a company to establish and recognize in the international market and trade while to the states' forestry department it represent the commitment of the company to manage the forest area awarded to them sustainably. Towards NGOs and local communities a good reputation is needed to show that the company is considerate not only the forest but also the environment and communities surrounding it.

Most of the benefits of forest certification are indirect especially to the staff as they are directly involve in managing the forest. Among the benefits include the benefit to the staff itself such as improved safety and training, better morale among the staffs and others. The index score below demonstrate the impact of forest certification to the staff indirectly. From their point of view, forest certification had increase their awareness in abiding forest policies (79.7794), increase awareness in following the guidelines in forest management (81.25), increased motivation to do job professionally (83.0882), increase experience in forestry (81.25), increase chances to receive training (79.0441), increase safety and health (79.7794), increase wages for well trained staffs (67.6471) and increased awareness in environmental importance (81.25). The above statements index score is more than 70 indicating possibly positive impact except for one statement which is increase wages for well trained staffs where it is the range of somewhat positive impact of forest certification.

Implementing forest certification will increase the management cost for several aspects. From the table above, the index for management cost were as follow; process to get the first certification (23.1618), process of annual auditing (20.9559), process of consultation in getting certification (25.3676), providing training to the staffs (21.6912), increases in wages for well trained staffs (22.7941), providing safety equipment for staffs' usage (17.6471) and providing infrastructures and facilities for staffs' usages (17.6471). In this section, the overall statement mentioned above ranked below an index of 40, where it is considered possibly quite negative impact.

When the company management first decided to adopt forest certification, a major cost is needed to be spent in the cost to prepare and getting ready for the first certification audits. The cost includes shift in company management where several standards and practices are imposed to meet the criteria of a certification program. The changes in the company practices will require more time and funds while additional costs is needed to train staffs.

In adopting certification, the company management for sure needs to incur additional cost for the certification inspections and preparation for the first process in getting certified. Among the additional cost the management need to spend is the cost of certification and the annual revisits by the certification team (auditor) will surely add annual management cost. In addition, major site visits for recertification will again require costs for the company. Nevertheless, the company also needs to spend money on consultation with infrastructures and facilities in obeying the safety regulation and also provide training to improve the staff competency. Once, the staffs are well trained then the company needs to increase the salary.

However, adopting forest certification did not only lead to increase in additional cost but also to the increased in profit to the company. The index of score for increased in company's profit is 77.9412. Apart from that, the staff believed adopting this program had increased market opportunities for certified products. This is revealed by index score of 79.4118. Both of the index score for the statements are more than 70 which indicate a possibly positive impact of forest certification on the company. Market opportunities are a known positive impact of forest certification where certification is a must criteria in timber trade especially in the Europe countries.

Forest certification also impacted the society and surrounding. It improves the quality of life and creating job opportunities to the local communities. The score index for impact of forest certification to the local communities are as follow; chances in involving in forest management plan (71.6912), increase in job opportunities to local communities (75.3676) and increased local communities economic status (66.9118).

Towards the environment, forest certification is mean to enhance forest protection with a practice of sustainable forest management. From the table above, the index for impact on environment were as follow; reduced deforestation (78.6765), increased conservation of endangered species of flora and fauna (76.4706), reduced negative impact toward soil

structure and buffer zone (76.8382), reduced soil damage and erosion (81.9853), reduced the usage of chemical in the forest activities (77.2059), forest regeneration was done naturally (72.4265), increased tree diversity in the forest (73.8971), tree harvesting was done selectively (81.25), reduced the opening of forest canopies and reduced loss and destruction of the smaller trees (76.8382). The index score for all of the statements are more than 70 indicating a possibly positive impact. In addition, forest certification had increased the company effort to conserve forest biodiversity. An index score of 80.1471 indicates a possibly positive impact score.

So, in the intention of meeting the conditions to get certified, there are a lot of new procedures and changes are needed in forest management that leads to require more time and expenses to the company. The staffs also need to learn and adapt to a new system in managing forest therefore leads to opportunities in training and also learning. These overall processes take time especially to the staffs as they need to get used to the whole new standard and system. On the other hand, the companies have to spend more time preparing for the audit and it seems to be a problem in the early years of certification but in years to come it will become a routine and responsibility instead of liabilities to the company.

Conclusion

Based on the study, the impacts are high. Most of the positive impacts on social aspects were related to improvement in company's relation to the public and in health and safety, the enhancement of worker's right, increasing training for the staff, increasing contribution to the local communities and educating the public. The economic factors that were included are cost of the certification itself such as cost for auditing, staffs' training, the consultation on forest certification and so on. The final factor is environmental which included the ecological considerations such as improving biodiversity conservation, reducing deforestation, raising awareness on environment and so on.

It has been reported that forest certification had effectively work on different sector. It surely has impacted the way forest are managed whilst integrated all the important aspects (environmental, social and economic). The highest reason for the company to certify are to improve the company's forest management system and also because of the demand from

market. The demand from market is usually because the environmentally sensitive markets are demanding certified products for the timber trade.

As a conclusion, this research exposes the impacts of forest certification in Peninsular Malaysia and hopefully had present a useful information for the forest concessionaires' company, forestry departments and certifying bodies regarding the issues about forest certification from the perspective of forest concessionaires' staffs.

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