UNIVERSITI PUTRA MALAYSIA

ECONOMIC IMPACT OF THE IMPLEMENTATION OF CHAIN OF CUSTODY (CoC) CERTIFICATION IN SAWMILLING IN MALAYSIA

NOR SURYANI BINTI AB GHANI

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By

NOR SURYANI BINTI AB GHANI

Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia, in Fulfillment of the Requirements for the Degree of Master Science

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Specially Dedicated to:

My beloved father Ab Ghani b. Awang Ahmad and mother Norizan bt. Abd Rahman

Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment of the requirement for the degree of Master Science

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Nor Suryani binti Ab Ghani

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Chairman: Prof. Mohd Shahwahid Bin Hj Othman, PhD

Faculty : Economics and Management

Chain of Custody (CoC) certification has influenced the market of forest products since the establishment of forest certification in early the 1990s. CoC certification is one way for companies to promote and market their forest products from a sustainably managed forest. Furthermore, the supply and demand of certified forest products have also grown significantly corresponding to the increase in the numbers of certified companies. However, the costs of CoC certification are perceived to be crucial for the companies to become certified.

The main objective of this study is to determine the costs of obtaining a CoC certification from the MTCC for sawmills and to estimate the economic impact of CoC certification in sawmilling in Malaysia. A survey was conducted on

sawmilling companies with CoC certificate from the MTCC. The results from the data analysis indicate that there exist three types of cost in obtaining the MTCC-CoC certificates namely (i) cost to meet CoC standard or requirement, (ii) auditing cost and (iii) surveillance visit cost. Cost to meet the CoC standard is categorized as an indirect cost and was the major certification cost (95% of the total cost of certification) whereas auditing cost and surveillance visit cost are direct costs for the firms. It is argued that, these costs mainly depend on the size of the companies. However, the chi squares test has found that the relationship between costs of CoC certification with the size of companies, as measured by total workforce and annual sales turnover is not significant in the case of sawmills. Estimations of econometric relationships also shows that the cost in obtaining CoC certification for sawmills is not related to annual sales turnover, number of years in operation. But there was a statistically significant relationship between surveillance visit cost and the level of annual production.

The second objective of this study is to ascertain the economic impact of CoC certification in the sawmilling industry in Malaysia. The input-output analysis showed that certified sawntimber has led to significant impacts on total output, income and employment to the Malaysia. These economic impacts were distributed in many sectors that helped to stimulate the nation's economic growth.

CoC certification can play an important role in the development of the Malaysian forest sector. Hence, effort should be made by relevant agencies to improve the

certification process in order to minimize the costs and to enhance the benefits to sawmillers. Promotion should be enhanced to raise the adoption of CoC certification among timber industry. Ways and means have to be provided to support the holders of CoC certification to reap the benefits from certification.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk Ijazah Master

KESAN EKONOMI DARIPADA PENSIJILAN CHAIN OF CUSTODY (CoC) DALAM INDUSTRI KAYU GERGAJI DI MALAYSIA

Oleh

Nor Suryani binti Ab Ghani

Ogos 2010

Pengerusi: Prof. Mohd Shahwahid Bin Hj Othman, PhD

Fakulti : Ekonomi dan Pengurusan

Pensijilan *Chain of Custody* (CoC) telah mempengaruhi pasaran produk berasaskan hutan sejak pensijilan hutan diperkenalkan pada awal tahun 1990-an. Pensijilan CoC merupakan satu alternatif kepada syarikat dalam mempromosi dan memasarkan produk mereka dari hutan yang diuruskan secara lestari. Selain daripada itu, penawaran dan permintaan hasil hutan yang disijilkan juga telah berkembang selaras dengan peningkatan jumlah syarikat-syarikat yang memperolehi sijil CoC. Walau bagaimanapun, kos pensijilan CoC dilihat penting kepada syarikat untuk memperolehi sijil CoC .

Objektif utama kajian ini adalah untuk menentukan kos memperolehi pensijilan COC daripada MTCC dan untuk menganggarkan kesan ekonomi dari pensijilan CoC dalam industri kayu gergaji di Malaysia. Kajian ini telah dijalankan ke atas syarikat-syarikat kayu gergaji dengan sijil CoC daripada MTCC. Keputusan

daripada kajian ini telah menunjukkan bahawa terdapat tiga jenis kos untuk memperolehi sijil CoC daripada MTCC iaitu: (i) kos untuk memenuhi piawaian atau keperluan pensijilan CoC, (ii) kos mengaudit dan (iii) kos lawatan pemerhatian. Kos untuk memenuhi piawaian CoC dikategorikan sebagai kos tidak langsung dan ianya adalah kos utama pensijilan CoC, sedangkan kos mengaudit dan kos lawatan pemerhatian adalah kos langsung kepada syarikat-syarikat tersebut. Hujahan daripada kajian-kajian lepas mengatakan bahawa kos-kos ini bergantung kepada saiz sesebuah syarikat. Walau bagaimanapun, analisis mendapati bahawa tiada hubungkait di antara kos untuk memenuhi piawaian atau keperluan pensijilan CoC dan kos mengaudit dengan saiz syarikat, yang diukur dengan jumlah tenaga kerja dan penjualan tahunan untuk kilang kayu gergaji. Analisis ekonometrik juga menunjukkan bahawa kos untuk memenuhi standard atau keperluan pensijilan CoC dan kos audit tiada pertalian dengan saiz syarikat dan jumlah tahun syarikat mula beroperasi tahunan untuk kilang kayu gergaji. Walau bagaimanapun, secara statistik bahawa terdapat hubungan yang signifikan di antara kos lawatan permerhatian dengan saiz syarikat.

Objektif kedua kajian ini adalah untuk menganggarkan kesan ekonomi dari pensijilan CoC dalam industri kayu penggergajian di Malaysia. Analisis input-output menunjukkan bahawa eksport kayu gergaji yang disijilkan telah memberi impak yang signifikan dari segi jumlah output, pendapatan dan pekerjaan kepada ekonomi Malaysia. Kesan ekonomi ini diagihkan kepada pelbagai sektor

dalam ekonomi Malaysia yang membantu untuk merangsang pertumbuhan ekonomi negara.

Pensijilan CoC boleh memainkan peranan penting dalam pembangunan sektor perhutanan di Malaysia. Oleh kerana itu, satu usaha harus dilakukan oleh institusi yang berkaitan untuk memperbaiki proses perlaksanaan persijilan ke arah yang lebih baik dalam rangka untuk meminimumkan kos dan untuk meningkatkan manfaat kepada “sawmillers”. Satu promosi yang besar-besaran diperlukan untuk meningkatkan pelaksanaan pensijilan CoC di kalangan industri kayu. Cara dan saranan harus diberikan untuk menyokong pemegang pensijilan CoC mendapat kebaikan dan manfaat daripada pensijilan.

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I certify that a Thesis Examination Committee has met on 19 August 2010 to conduct the final examination of Nor Suryani Ab Ghani on her Master Science thesis entitled "Economic Impact of the Implementation of Chain of Custody Certification in Sawmilling in Malaysia" in accordance with Universities and University Colleges Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U (A) 106] 15 March 1998. The Committee recommends that the student be awarded the Master of Science.

Members of the Thesis Examination Committee were as follows:

Dr. Khairil Wahidin Awang
Jabatan Hospitaliti dan Rereasi
Fakulti Ekonomi dan Pengurusan
Universiti Putra Malaysia
(Chairman)

Dr. Mohd Rusli Ya'cob
Jabatan Hospitaliti dan Rereasi
Fakulti Ekonomi dan Pengurusan
Universiti Putra Malaysia
(Internal Examiner)

Prof. Dr. Khalid bin Abdul Rahim
Jabatan Hospitaliti dan Rereasi
Fakulti Ekonomi dan Pengurusan
Universiti Putra Malaysia
(Internal Examiner)

Dr. Santha a/p Chenayah @ Ramu
Jabatan Ekonomi
Fakulti Ekonomi dan Pentadbiran
Universiti Malaysia
50603 Kuala Lumpur
(External Examiner)

This thesis submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfillment of requirement for the degree of Master of Science. The members of the Supervisory Committee were as follows:

Mohd Shahwahid bin Hj Othman, PhD
Professor School of Management
Universiti Putra Malaysia
(Chairman)

Hj Ahmad Fauzi bin Puasa, PhD
Head
Economics and Analysis Strategic Programmme
Forest Research Institute Malaysia (FRIM)
(Member)

Alias Radam, PhD
Associate Professor
Faculty of Economic and Management
Universiti Putra Malaysia
(Member)

HASANAH MOHD GHAZALI, PhD
Professor and Dean
School of Graduate Studies
University Putra Malaysia

Date:

DECLARATION

I declare that the thesis is my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously, and is not concurrently, submitted for any other degree at Universiti Putra Malaysia or other institutions.

_____

NOR SURYANI BINTI AB GHANI

Date: 19 August 2010

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