

**THE OIL PALM PLANTATION INDUSTRY IN MALAYSIA: A STUDY OF
SUSTAINABLE MANAGEMENT**

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2013

ABSTRACT

The palm oil plantation industry in Malaysia has been striving to make production sustainable but land issues have been its consistent bane for the last few decades. The industry stakeholders have set-up various schemes of sustainability for palm oil, but none seem to meet the ever-changing sustainability demands by different consumer groups. Perception of the industry from the media, NGOs and social groups seem to indicate that palm oil will never be sustainable, and thus should reduce its overall production. This study reviewed perception trends with regards to oil palm plantations, and analysed the related variables (economic, social and environmental) that are important for palm oil production in Malaysia. The study also prioritized important variables in measuring sustainability correctly. First, a perception survey of 742 stakeholders was carried out. The analysis shows that within the palm oil industry, stakeholders regard different issues as important for their groups. The perception for the growers and traders/manufactures stated that behavior and perception does not tally with the view of non-Malaysian NGOs, media, literature and third parties. There are obvious gap between what the industry perceives and reality. Lack of measurable variables clearly shows the gaps and the need for sustainability science, especially for the agriculture sector. The industry has set-up its principles and criteria, yet it differs with stakeholder groups, geographical difference and priority in requirements. Sustainable requirement needs to have locality specifications, and not driven by generality or unsubstantiated science or “scientific assumptions”. The perception issues are linked with the lack of measurable variables for sustainability. These variables were considered not important previously. The perception issues and history of the industry are the key determinants now for oil palm's lack of sustainability. In the case of Malaysia, important sustainability criteria would include: greenhouse gas management,

good forestry program and communicating sustainable efforts. However, some of these variables are recent in their importance. Second, a simple regression was run to prioritize important variables for sustainability. There were 120 variable across 3 sectors (social, environment and economy) that are important for the palm oil industry. From the perception survey and analysis, two most important variables (dependent variables) were selected: palm oil price per year and total planted area for oil palm in Malaysia (deforested area). Other important variables were harvested area, local crude palm oil (CPO) delivery price, total agriculture land and total arable land. The overall conclusions and implications show that sustainable science is an important element for oil palm management issues. However it is linked with the lack of measurable variables. Perception is an important tool in oil palm sustainability. Lack of measurable variables for sustainability creates unwarranted demands and survey shows palm oil price and total planted area are important variables, whereas total harvested area , agriculture land available, local CPO delivery price and total arable area are the most important variable statistically for Malaysia.

ABSTRAK

Industri perladangan kelapa sawit di Malaysia telah berusaha untuk membuat pengeluaran mapan tetapi isu tanah telah menerima kritikan konsisten untuk beberapa dekad yang lalu. Pihak-pihak berkepentingan industri telah menubuhkan pelbagai skim kemampanan bagi minyak sawit, tetapi tiada yang memenuhi permintaan kemampanan yang sentiasa berubah-ubah mengikut kumpulan pengguna yang berbeza. Persepsi industri daripada media, NGO dan kumpulan-kumpulan sosial seolah-olah menunjukkan bahawa minyak sawit tidak akan dapat dikekalkan, dan dengan itu perlu mengurangkan pengeluaran keseluruhan. Kajian ini meneliti tren persepsi berhubung dengan ladang kelapa sawit, dan menganalisis pembolehubah berkaitan (ekonomi, sosial dan alam sekitar) yang penting untuk pengeluaran minyak sawit di Malaysia. Kajian ini juga mengenalpasti pembolehubah yang penting dalam mengukur kemampanan betul. Pertama, tinjauan persepsi daripada 742 pihak berkepentingan telah dijalankan. Analisis menunjukkan bahawa dalam industri minyak sawit, pihak berkepentingan menganggap isu-isu yang berbeza sebagai penting bagi kumpulan mereka. Persepsi bagi penanam dan peniaga / pengeluar menyatakan bahawa tingkah laku dan persepsi tidak padan dengan pandangan organisasi asing bukan kerajaan, media, sastera dan pihak ketiga. Terdapat jurang yang jelas antara tanggapan industri dan realiti. Sekiranya, persepsi media serong, ia perlu diperbetulkan dengan komunikasi strategik melalui penyelidikan dan jangkauan kerajaan. Kekurangan pembolehubah yang boleh diukur jelas menunjukkan jurang dan keperluan untuk kemampanan sains, terutama bagi sektor pertanian. Industri telah menyediakan prinsip dan kriteria, namun ia berbeza dengan kumpulan berkepentingan, perbezaan geografi dan keutamaan dalam keperluan. Kehendak lestari perlu mempunyai spesifikasi lokaliti, dan tidak didorong oleh keluasan atau sains berasas atau andaian saintifik. Isu-isu persepsi dikaitkan dengan kekurangan pembolehubah diukur bagi kemampanan. Pembolehubah ini dianggap tidak penting

sebelum ini. Isu-isu persepsi dan sejarah industri adalah penentu utama sekarang kekurangan kemampanan dalam isu minyak sawit. Dalam kes Malaysia, kriteria kemampanan yang penting termasuk: pengurusan gas rumah hijau, program perhutanan yang baik dan berkomunikasi usaha mampan. Walau bagaimanapun, beberapa pembolehubah ini adalah terkini mengikut kepentingan mereka. Kedua, regresi mudah telah dijalankan untuk mengutamakan pembolehubah penting bagi kemampanan. Terdapat 120 pembolehubah merentasi 3 sektor (sosial, alam sekitar dan ekonomi) yang penting bagi industri minyak sawit. Dari kajian dan analisis persepsi, dua pembolehubah yang paling penting (pembolehubah bersandar) telah dipilih: harga minyak sawit/setahun dan jumlah kawasan penanaman kelapa sawit di Malaysia (kawasan hutan yang ditebang). Lain-lain pembolehubah penting adalah kawasan boleh ditanam, harga tempatan penghantaran minyak sawit mentah (CPO), jumlah kawasan pertanian dan jumlah kawasan “arable”. Kesimpulan dan implikasi keseluruhan menunjukkan bahawa sains mampan merupakan satu elemen penting untuk isu-isu pengurusan minyak sawit. Walau bagaimanapun, ia dikaitkan dengan kekurangan pembolehubah yang boleh diukur. Persepsi adalah alat penting dalam kemampanan minyak sawit. Kekurangan pembolehubah diukur bagi kemampanan mewujudkan permintaan yang tidak wajar dan kajian menunjukkan harga minyak sawit dan jumlah kawasan yang ditanam adalah pembolehubah penting, manakala jumlah kawasan ditanam, jumlah kawasan pertanian, harga minyak sawit mentah (CPO) dan jumlah kawasan “arable” adalah pembolehubah yang paling penting secara statistik bagi Malaysia.

ACKNOWLEDGMENT

To God Almighty the creator of Heavens and Earth belongs all glory and thanks for His providence and grace to walk this path of knowledge. The scholarship and assistance from Malaysian Palm Oil Council (MPOC) gave the crucial support for making this study financially and physically viable. I am grateful to MPOC for providing data, staff assistance and avenue for conferences and surveys throughout this study.

The study would not be have been possible without the following persons' participation at different times in this last three years. My appreciation and deep gratitude goes to Dr Santha Chenayah, Dr A. Sasekumar, Dr Kalyana Sundram and Prof. Datuk Norma Mansor who gave me their time, insight, comments, advice, opinions and were patient with me again and again throughout this programme.

Thanks also goes to friends who helped me overcome various hurdles, Margaret Fong, Allan Asir, Adrian Asir, Sandeep Joseph, Jane Teh, Thilagavathi Chandran, Navaz Naghavi, Mina Sabaghpour, Hashim Salarzadeh, Seeku Jaabi, Rash Behari and many others for being there at different junctures of the PhD program. My PhD was never a lonely journey as confessed by many prior to me.

Special appreciation goes to staff members at the Faculty of Economics and Administration and various departments at University of Malaya who have helped me through the numerous processes required for the administration of the study. To BURSA KL, The Planters Association and MPOA also have my kind appreciation for their help during surveys and meetings.

Finally, I would like to dedicate this PhD to my late father, Aikanathan Palaniandy who passed away on 9 March 2012, who was relentless in wanting me to do well in this undertaking and to my beloved and dearest mother, Saradha and sisters (Vimala and Sheila) belongs all that I am from this life's long journey.

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LIST OF ABBREVIATIONS

ASEAN	Associations of South-east Asian Nations
CDM	Clean Development Mechanism
CPO	Crude Palm Oil
EFB	Empty Fruit Bunch
EPA	Environmental Protection Agency
EU	European Union
FAO	Food and Agriculture Organization
FELDA	Federal Land Development Authority
FDI	Foreign Direct Investment
FFB	Fresh Fruit Bunch
FSC	Forestry Stewardship Council
GDP	Gross Domestic Production
GDI	Gross Domestic Income
GHG	Greenhouse Gasses
GMO	Genetically Modified Organism
HDI	Human Development Index
IMF	International Monetary Funds
ISCC	International Sustainability and Carbon Certification
ISPO	Indonesian Sustainable Palm Oil
ISO	International Organization for Standardization
LCA	Life Cycle Analysis
MPOA	Malaysian Palm Oil Association
MPOB	Malaysian Palm Oil Board
MPOC	Malaysian Palm Oil Council
NEP	New Economic Policy
NGO	Non-government Organizations
P & C	Principles and Criteria
PKO	Palm Kernel Oil
PO	Palm Oil
POME	Palm Oil Mill Effluent
POIC	Palm Oil Industrial Cluster
R & D	Research and Development
RM	Ringgit Malaysia
RSPO	Roundtable on Sustainable Palm Oil
SPSS	Social Science Statistical Package
UN	United Nations
UNDP	United Nations Development Programme
UNEP	United Nations Environmental Programme
UNFCCC	United Nations Framework Convention on Climate Change
USA	United States of America
WTO	World Trade Organisation

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