

Malaysian Criteria and Indicators for Sustainable Forest Management, Including Certification: Its Development and Experiences with Implementation – Thang Hooi Chiew

MALAYSIAN CRITERIA AND INDICATORS FOR SUSTAINABLE FOREST MANAGEMENT, INCLUDING CERTIFICATION: ITS DEVELOPMENT AND EXPERIENCES WITH IMPLEMENTATION
By
Thang Hooi Chiew

1. INTRODUCTION

- Total Forested Land – 19.54 million ha (59.5%)
- Total Land Area – 32.83 million ha
- Permanent Reserved Forests (PRFs) – 14.45 million ha (44.0%)
 - Production Forest : 10.96 million ha (75.8%)
 - Protection Forest : 3.49 million ha (24.2%)
- Totally Protected Areas – 5.43 million ha (16.5%)
- Inland forests are selectively harvested based on prescribe minimum cutting limits with cutting cycles varying from 25–55 years
- Mangrove Forests are clear-felled with cutting cycles varying between 20 to 30 years

- Carried out by a combination of crawler tractor- winch lorry
- Reduce impact logging (ground skidding) being carried out in Peninsular Malaysia and in the state of Sabah
- Low impact logging (helicopter logging) in the state of Sarawak is also being implemented
- Adopted standard road specifications and forest harvesting rules and guidelines to mitigate the adverse impacts of forest harvesting (forest road construction, drainage, tree marking and direction of felling)
- Since 1957, Malaysia had established 270,648 ha of plantation forests and a target of 2.2 million ha has been earmarked for future planting

- Malaysia had also established 32,672 ha of rattan and 2,974 ha of forest fruit trees at the end of 2002
- Currently, efforts are being taken to conserve and establish medicinal plants

2. DEVELOPMENT OF CRITERIA AND INDICATORS

- Established a *National Committee on Sustainable Forest Management in Malaysia* in February 1994
- To co-ordinate the implementation of all the activities required to ensure that the forest resources in Malaysia are sustainably managed

- Hence, in 1994 Malaysia had developed a set of *Malaysian Criteria and Indicators for Sustainable Forest Management (MC&I)* at the national and forest management unit levels, based on the earlier *ITTO Criteria for the Measurement of Sustainable Tropical Forest Management* (1992)
- However, with the adoption of the new ITTO documents on *Criteria and Indicators for Sustainable Management of Natural Tropical Forests* and the *Manual for the Application of Criteria and Indicators for Sustainable Management of Natural Tropical Forests (Part A – National Indicators and Part B – Forest Management Unit Indicators)* action was taken to revise the MC&I
- Revision of the MC&I was co-ordinated by the Malaysian Timber Certification Council (MTCC)

- Preliminary meeting held among the Forestry Departments of Peninsular Malaysia, Sabah and Sarawak in July 1999
- Agreed on a common set of Criteria and Indicators for Sustainable Forest Management for Malaysia, both at the national and forest management unit levels
- Based on the *ITTO Criteria and Indicators for Sustainable Management of Natural Tropical Forests*
- Also Activities required to operationalize these criteria and indicators
- Based on the 'Action To Be Taken' as contained in the *ITTO Manual for the Application of Criteria and Indicators for Sustainable Management of Natural Tropical Forests (Parts A and B)*

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- Followed by sub-national consultations with interested parties to identify appropriate Standards of Performance for each of the Activities
- Conducted by the Forestry Departments of Peninsular Malaysia, Sabah and Sarawak in their respective regions in August 1999
- Regional Standards of Performance were then integrated into a draft MC&I for Malaysia
- Through a meeting held between the 3 Forestry Departments and co-ordinated by the MTCC in September 1999
- Draft MC&I was then tabled at a national-level consultation held in October 1999
- 85 organizations and companies, representing interested parties such as the timber industry, social and environmental non-governmental organizations, trade unions, women's organizations, academic/research institutions and government agencies, were invited to attend

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- 111 participants representing 58 organizations, including 2 representatives from the FSC participated
- Malaysia adopted a set of MC&I for assessing forest management practices in all its forest management units

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Criteria, Indicator, Activities and Standards of Performance for Sustainable Forest Management at the National Level in the MC&I

Criteria	Indicators	Activities	Standards of Performance*
1. Enabling Condition for Sustainable Forest Management	9	31	28
2. Forest Resource Security	5	22	17
3. Forest Ecosystem Health and Condition	5	20	13
4. Flow of Forest Produce	12	37	31
5. Biological Diversity	8	25	22
6. Soil and Water	9	26	29
7. Economics, Social and Cultural Aspects	16	39	38
Total	7	200	170

*For Peninsular Malaysia Only

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Criteria, Indicator, Activities and Standards of Performance for Sustainable Forest Management at the Forest Management Unit Level in the MC&I

Criteria	Indicators	Activities	Standards of Performance*
1. Enabling Condition for Sustainable Forest Management	8	26	17
2. Forest Resource Security	5	22	17
3. Forest Ecosystem Health and Condition	3	12	9
4. Flow of Forest Produce	12	37	31
5. Biological Diversity	7	31	18
6. Soil and Water	9	26	29
7. Economics, Social and Cultural Aspects	12	27	29
Total	7	56	150

*For Peninsular Malaysia Only

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- Adaptation of ITTO Criteria and Indicators**
- Added a number of elements to the ITTO's indicators at both the national and forest management unit levels, such as the rights of forest workers and mortality rate, as well as in addressing gender issue
 - Also included seven additional indicators/items from those proposed by the ITTO to be used only at the national level to the forest management unit level, among others, those dealing with:
 - laws, policies and regulations
 - the *Bali Partnership Fund*
 - statistics of protected areas in each forest type
 - percentage of total number of protected areas connected by biological corridors or 'stepping stones' between them

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- (v) ratio of domestic log production to the processing capacity of wood-based industries
- However, omitted two of the ITTO's indicators from the MC&I at both the national and forest management unit levels, namely:
 - quantity (volume) and value of wood and non-wood forest products for subsistence use, including fuelwood
 - number of agreements involving local communities in co-management responsibilities
- Also omitted four indicators/items at the forest management unit level although they have been proposed by the ITTO, namely:
 - the percentage of original range occupied by selected endangered, rare and threatened species

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- (ii) the item on *ex situ* conservation
 - (iii) quantity (volume) and value of wood and non-wood forest products traded in the domestic and international markets
 - (iv) efficiency of utilization in terms of the percentage of felled volume processed
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- ### 3. IMPLEMENTATION OF CRITERIA AND INDICATORS
- The criteria, indicators, activities, and the standards of performance formulated at the national level would be used for reporting progress towards achieving sustainable forest management, especially to the ITTO and UNFF
 - At the forest management unit level they will be used by the Forestry Departments to monitor and assess progress at the field level, and for undertaking forest management certification by independent third party assessors
 - An assessment on the availability of information was undertaken and it was found that information available at both the national and forest management unit levels include the following :
 - (i) forest laws, policies and regulations
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- (ii) institutions and manpower employed in the forestry sector
 - (iii) financial resources and expenditures
 - (iv) extent of types of forest, including planted forests
 - (v) extent of the Permanent Reserved Forests, including boundaries demarcation, and protected areas
 - (vi) extent of forest land damaged by human activities and natural causes
 - (vii) extent of tenure and user rights documented and recognized
 - (viii) consultative and participatory mechanisms
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- (ix) stand and stocking level of the forest resources
 - (x) pre - planning, post - planning and harvesting procedures, including forest road construction and buffer strips for river protection
 - (xi) forest management plan at the forest management unit level
 - (xii) management and silvicultural prescriptions
 - (xiii) growth and mortality rates
 - (xiv) procedures to control encroachment, fire, pest and diseases, exotic plants and animals, use of chemicals etc.
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- (xv) extent of forest area harvested and silviculturally treated
 - (xvi) volume of log produced, processed, exported and consumed domestically
 - However, currently more studies / research are being undertaken on a number of indicators to enable their full application, as follows:
 - (i) two out of 64 indicators at the national level
 - (ii) ten out of 53 indicators at the forest management unit level
 - Hence, a *phased approach* has been adopted in Malaysia to realize the full implementation of the criteria and indicators for sustainable forest management, at both the national and forest management unit levels
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- ### 4. FOREST CERTIFICATION
- In implementing forest management certification, Malaysia has addressed the following key issues:
 - (i) the criteria, indicators, activities and standards of performance to be used for assessing sustainable forest management at both the national and forest management unit levels, as well as for forest management certification - the MC&I
 - (ii) the forest management unit which will be considered as the appropriate level of management for forest management certification - each state in Peninsular Malaysia, as an example
 - (iii) the mechanisms for monitoring and evaluation of sustainable forest management practices - the Task Force
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(iv) the nature of certification authority and its mode of establishment and funding – the MTCC

- A sub-set comprising 7 criteria, 53 indicators, 162 activities and 142 standards of performance formulated at the forest management unit level was used for assessing sustainable forest management

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Relationship and Number of Criteria, Indicators, Activities and Standards of Performance Formulated at Different Management Levels in the MC&I

Management Levels	Criteria	Indicators	Activities	Standards of Performance
National Level (SFM) [#]	7	64	200	170
FMU [†] Level (SFM)	7	56	171 ^{**}	150 ^{**}
FMU Level (Forest Management Certification)	7	53	162 ^{**}	142 ^{**}

[#] For Peninsular Malaysia only.
[†] (SFM) - Sustainable Forest Management
 FMU - Forest Management Unit
^{**} 80% are identical to those formulated at the National level.
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^{**} A subset of activities/standards of performance taken from those formulated at the FMU level (SFM).

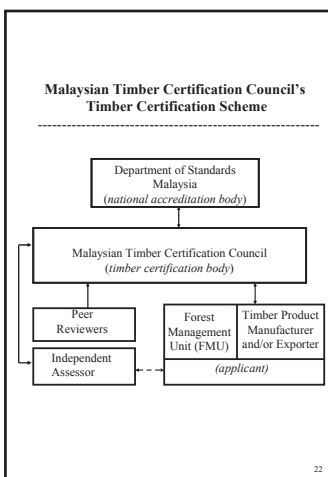
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- An independent third party assessor, SGS (Societe Generale de Surveillance) Malaysia Sdn. Bhd. was appointed to assess 8 forest management units, namely the states of Selangor, Pahang, Terengganu, Johor, Kedah, Perak and Negeri Sembilan in 2000 and 2001, and in Kelantan in 2002 by SIRIM QAS Sdn. Bhd./Scientific Certification System (SCS)
- In the state of Sabah, the Deramakot Forest Reserve (55,084 ha) was certified in July 1997 under the FSC Principles and Criteria for Forest Management (P&C) and the MC&I, while a forest concessionaire, the Perak Integrated Timber Complex (ITC) Sdn. Bhd. in the state of Perak was also certified under the FSC P&C in July 2002

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- The MTCC had launched its Timber Certification Scheme in October 2001 using a sub-set of the MC&I (6 criteria, 29 indicators and 87 activities), and had issued *Certificates for Forest Management* to seven forest management units, namely, the states of Johor, Kedah, Perak, Negeri Sembilan, Pahang, Selangor and Terengganu and *Certificates for Chain-of-Custody* to 45 companies in Malaysia
- Malaysia, through the MTCC, has held discussion with the FSC since 1999 and had adopted a set of MC&I entitled "*Malaysian Criteria and Indicators for Forest Management Certification (MC&I)*" dated 30 October 2002 which was technically compatible with the FSC P&C and will replace the current MC&I in January 2005

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- Malaysia, through the MTCC, has also held discussion with the Programme for Endorsement of Forest Certification Schemes (PEFC) and in November 2002 MTCC was admitted as a member to the PEFC, and will be submitting its timber certification scheme for inclusion in the PEFC framework of mutual recognition

Currently, Malaysia is leading the process to develop a Pan ASEAN Timber Certification Scheme based on the ASEAN Regional Criteria and Indicators for Sustainable Management of Natural Tropical Forests which were developed from the ITTO Criteria and Indicators for Sustainable Management of Natural Tropical Forests

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5. MONITORING AND EVALUATION

- Established a *Task Force* at the Federal level in 1995 to monitor the implementation of the MC&I
- Developed a set of internal assessment procedures for monitoring, evaluating and reporting on sustainable forest management with GTZ, and is fully operational since 1999

6. EXPERIENCES GAINED

- Criteria and indicators have assisted in identifying the elements needed for sustainable forest management in the Malaysian context, and for monitoring and evaluating progress towards its attainment

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- The application of criteria and indicators has:
 - created greater awareness among forest managers and forest workers of their social responsibility in minimizing the loss of biological diversity and in protecting the environment during forest harvesting
 - brought about a shift in focus from the traditional system of sustained-yield management to a new paradigm of multi-resource forest management
 - enhanced a better understanding among the many stakeholders or interested parties through multi-stakeholders dialogues on the need to balance protection and conservation of the forest resources with economic uses

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- The information generated through the use of criteria and indicators in assessing the state of the forests has:
 - helped policy and decision-makers to communicate the status of sustainable forest management more effectively to the public
 - developed policies and strategies for sustainable forest management
 - acted as ingredients for the preparation of forest management plans
 - focused research efforts where knowledge is still lacking and deficient
 - identified areas which need international assistance and co-operation

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- However, the cost required to fully realize the criteria and indicators for sustainable forest management is substantial in the short term- US\$760 million are needed by Malaysia
- Costs are also incurred in :
 - Forest Management Certification
 - main assessment estimated at US\$ 5.30/100 ha
 - yearly reassessment at US\$ 1.30/100 ha
 - Chain-of-Custody Certification
 - first assessment estimated at US\$ 1,580.00/company
 - six-monthly reassessment at US\$ 920.00/company

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- Hence, market prices of forest products should fully reflect their full cost as the revenue generated will provide the much needed financial resources to enable the full implementation of criteria and indicators for sustainable forest management and certification
- The current proliferation of forest management certification schemes using different sets of criteria and indicators to define sustainable forest management has exacerbated the need for a set of internationally agreed criteria and indicators for assessing sustainable forest management practices at the forest management unit level, or at the very least an international framework for their mutual recognition

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8. CONCLUSIONS

- Criteria and indicators developed for application will be reviewed and refined periodically to reflect new concepts of sustainable forest management based on:
 - evolving knowledge about the functioning of forest ecosystem
 - anthropogenic intervention on the forests whether planned or unplanned
 - the changing needs of society for forest goods and services
- Capability to measure indicators will increase and scientific knowledge will improve about the nature of 'best' indicators to assess sustainability of the forest resources

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- The level of management will be refined once the current silvicultural management systems are further developed for application at a lower management level, perhaps at the forest district level, forest reserve level or even at the compartment level
- GTZ project on :
Sustainable Forest Management and Conservation in Peninsular Malaysia which is involved in:
 - (i) the refinement of the current forest management systems
 - (ii) the improvement of silvicultural practices
 - (iii) the development of a cost-effective forest planning system for application at the operational level

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- The implementation of timber certification will continue to be actively pursued to ensure market access of Malaysian timber product, especially in environmentally sensitive markets
- Since 1997 Malaysia has been organizing training courses, workshops and seminars involving staff of the Forestry Departments, as well as forest managers and workers from the logging and the wood-based industries of their roles and responsibilities in implementing the MC&I and the MTCC's Timber Certification Scheme, including Chain-of-Custody Certification and Forest Management Certification, and these will continue to be organized

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THANK YOU