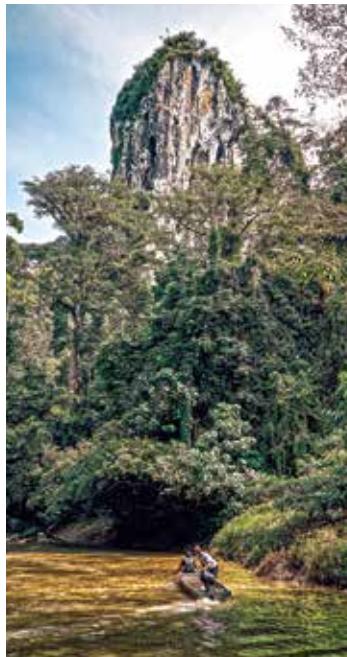




MALAYSIA POLICY ON FORESTRY



MINISTRY OF ENERGY AND NATURAL RESOURCES



MALAYSIA POLICY ON FORESTRY



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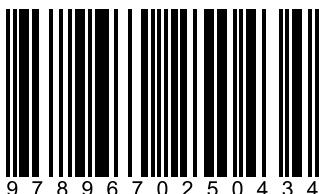
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AKRONIM

AAC	Annual Allowable Coupe
CBD	Convention on Biological Diversity
CFS	Central Forest Spine
CoC	Chain of Custody
CSO	Civil Society Organisation
DFR	Deramakot Forest Reserve
DHS	Dasar Hutan Sabah
DWNP	Department of Wildlife and Bational Parks Peninsular Malaysia
ERT	Endangered, Rare & Treathened
FDS	Forest Department of Sarawak
FDPM	Forestry Department of Peninsular Malaysia
FEP	Forest Eco Park
FLR	Forest Landscape Restoration
FMC	Forest Management Certification
FMP	Forest Management Plan
FMU	Forest Management Unit
FSC	Forest Stewardship Council
GHG	Green House Gases
GTZ	German Agency for Technical Cooperation and currently known as GIZ (German Corporation for International Cooperation)
HCV	High Conservation Value
HoB	Heart of Borneo
ICT	Information and Communication Technology
ITTO	International Tropical Timber Organizations
IUCN	International Union for Conservation of Nature
LEAP	Land Empowerment Animals People
MC&I	Malaysia Criteria & Indicators
MRV	Monitoring, Reporting & Verification
MTC	Malaysian Timber Council
MTCS	Malaysia Timber Certification Scheme
MTCS-PEFC	Malaysian Timber Certification Scheme – Programme for the Endorsement of Forest Certification
NFM	Natural Forest Management

NGO	Non-Governmental Organisations
NLC	National Land Council
NNL/NG	No Net Loss/Net Gain
NTFP	Non-Timber Forest Product
NWRC	National Wildlife Rescue Centre
OSHM	Occupational Safety & Health Management
PES	Payment for Ecosystem Services
PFE	Permanent Forest Estate
PRF	Permanent Reserved Forest
RDC&I	Research, Development, Commercialisation & Innovation
R&D	Research & Development
REDD Plus	Reducing Emissions from Deforestation and Forest Degradation Plus
RIL	Reduce Impact Logging
SDGs	Sustainable Development Goals
SEARRP	South East Asia Rainforest Research Partnership
SFD	Sabah Forestry Department
SFM	Sustainable Forest Management
SFMLA	Sustainable Forest Management Licence Agreement
SLF	Stateland Forest
SMS	Selective Management System
SOP	Standard Operation Procedure
STFD	State Forestry Department
TNC	The Nature Conservancy
TPA	Totally Protected Area
TSI	Timber Stand Improvement
USM	Ulu Segama Malua
WWF	The World Wide Fund for Nature

MALAYSIA POLICY ON FORESTRY

BACKGROUND

Malaysia is a tropical country that covers an area of about 33 million hectares, consisting of three regions; the Peninsular Malaysia, Sabah and Sarawak. Malaysia regards its natural forest as important and valuable resource that contributes significantly towards the country's socio-economy and well-being of the environment. To date, we still uphold our commitment made during the Earth Summit in Rio de Janeiro, Brazil in 1992, to maintain at least 50% of the country's land area to consist of forests and tree cover. This includes permanent reserved forests/ forest reserves/ permanent forest estates, state land forests and totally protected areas.

Malaysia is committed to the implementation of sustainable forest management (SFM) that enables the country continuous enjoy of benefits obtained from the forest. The forestry sector is governed under stringent forest laws and regulations to ensure the sector is managed systematically and that all forest operations are undertaken on the basis of good management practices. Consequently, Malaysia is committed to implement forest certification to ensure SFM is implemented based on international standards. Malaysia have successfully certified our forests under the Malaysian Timber Certification Scheme (MTCS) and the Forest Stewardship Council (FSC). Forest Certification supports trade in timber and timber products that use wood originating from legal and sustainable sources that takes into account environmental, social and economic aspects.

FOREST TYPES

The tropical rainforest of Malaysia comprises primarily mangroves, peat swamp and inland forests. The majority is made up of inland forests consisting lowland and hill dipterocarp forests. These forests are highly complex and rich in a variety of species of flora and fauna. The mangrove forests are situated in the coastal areas, while peat swamp forests are found in the inland swampy areas.

FOREST GOVERNANCE

Under Article 74(2) of the Federal Constitution, forest is under the jurisdiction of the state government. Therefore, each state has the power and freedom to enact laws and manage forestry policies in their respective states. The executive authority of the federal government is limited to providing advice, technical assistance, training, research and development in the forestry sector to the state.

National Land Council

In an effort to facilitate and coordinate the common approach to forestry policy, administration and management, as well as reconcile cross-sectoral policies that interface with the forestry sector, the National Land Council (NLC) was established on 22 January 1958 in accordance with the provisions of Article 91(1) of the Federal Constitution. This council coordinates the management practices and the use of forest resources in a planned, rational and effective manner to ensure forests are conserved as a natural resource.

The Council enables the Federal and State governments to discuss and promote cooperation in land, mining, and forestry sectors. Council members consist of a minister as Chairman, representatives of the Federal Government elected by the Cabinet amounting to no more than 10 members and one representative from each State Government elected by the Sultan or the Governor.

Peninsular Malaysia

The Forestry Department of Peninsular Malaysia (FDPM) and the State Forestry Departments are responsible for the management of forests in the Peninsular Malaysia. This is regulated by the National Forestry Act 1984 (Amended 1993) and guided by the Forestry Policy of Peninsular Malaysia.

Sabah

The Sabah Forestry Department (SFD) is responsible for forest management, control of harvesting operations and royalty payment requirements in line with the Forest Enactment 1968, Forest Rules 1969, Forest (Timber) Enactment 2015 and the Sabah Forest Policy.

Sarawak

The Forest Department Sarawak (FDS) is responsible for forest management and administration of forest resources in the state. This is regulated by Forests Ordinance 2015 (Cap.71), Forests Regulations and the Sarawak Forest Policy.

THE NEED FOR A MALAYSIA POLICY ON FORESTRY

Forests are no longer regarded merely as a source of timber production for socio-economic development of the country. In fact, the protective functions of forest specifically in conservation of biological diversity, environmental stability and preservation of culture have now become more pertinent. The government has realized that the forestry sector needs to take into consideration new and emerging issues such as water and food security, climate change, environmental stability, and improving livelihoods. Consequently, Malaysia has taken into consideration new developments in the policies and legislations related to forestry. This policy will cover key areas which include sustainable forest management, protection and conservation of biodiversity, climate change mitigation and adaptation, application of latest forestry technology, strengthening research and development as well as enhancing sharing of knowledge.

Under the current administration, the three regions; the Peninsular Malaysia, Sabah and Sarawak have their own respective policies and legislation in managing the forests. Peninsular Malaysia adopted the Forestry Policy of Peninsular Malaysia and the National Forestry Act 1984 (Amended 1993); Sabah implements the Sabah Forest Enactment 1968, Forest Rules 1969, Forest (Timber) Enactment 2015 and Sabah Forest Policy; whereas Sarawak adopted the Forests Ordinance 2015(Cap.71), Forests Regulations and Sarawak Forest Policy. Given the many

developments in the forestry sector at the national and international levels as well as the country's commitments to global treaties and conventions, it is appropriate that a forestry policy for Malaysia be formulated to cover the requirements and interests of all the three regions. The three regions are encouraged to strengthen coordination in the implementation of their respective forest policies to address the different needs and interests in the forestry sector.

The Malaysia Policy on Forestry was formulated by encompassing the key aspects of the forest policies of the Peninsular Malaysia, Sabah and Sarawak. The Policy Statement, Rationale and Objectives in this policy are general in nature and serves as a reference and guidance for the three regions to formulate their respective forestry policies and strategies. Review and revision of the forestry policies and legislation will be made from time to time to ensure that the legislation and policies are in line with the latest developments in forest management at the national and international levels.

KEY ELEMENTS OF THE POLICY

POLICY STATEMENT

Malaysia recognizes forest as a strategic national heritage and is committed to securing sufficient forest areas for their ecosystem services, biodiversity conservation, environmental protection and sustainable utilisation of resources towards the socioeconomic development and well-being of present and future generation.

POLICY RATIONALE

This policy statement, in addition to the policies formulated and adopted by the Peninsular States, Sabah and Sarawak in accordance with the provisions of the Federal Constitution, provides direction for the implementation of sustainable forest management through good governance and practices to ensure the forestry sector continues to contribute towards the achievement of sustainable development of the nation.

OBJECTIVES

- 1** Ensure sufficient forest areas are managed through good governance and practices for the conservation of biodiversity and ecosystem services.
- 2** Manage, conserve and rehabilitate the permanent reserved forests or forest reserves or permanent forests based on the principles of sustainable forest management.
- 3** Ensure continuous supply of raw materials from natural forests and forests plantations to sustain the development of wood-based and non-timber forests industries.
- 4** Encourage the participation of indigenous, native and local communities in the protection, conservation and rehabilitation of forests.
- 5** Strengthen capacity building; research, development and commercialisation; and innovation including providing adequate human financial resources to improve forest management and utilisation of forest resources.

POLICY IMPLEMENTATION

The ministry responsible for forestry will coordinate and monitor the implementation of the policy together with related Federal Ministries and State Governments as well as various other stakeholders from civil society, the private sector and researchers. While the Federal Government takes lead in the implementation of this policy, its jurisdiction is limited to providing guidance and support to the states in the three regions.

The Peninsular Malaysia, Sabah and Sarawak will adopt this policy into their respective state forest policies and regulations in accordance to their states' circumstances. The respective targets, goals and strategies will be detailed in the Forestry Policy of Peninsular Malaysia for the states in the Peninsular Malaysia, Sabah Forest Policy for Sabah and Sarawak Forest Policy for Sarawak.

POLICY TO BE READ WITH OTHER POLICIES

This Policy shall be read together with any other written policies relating to forest management, namely Forestry Policy of Peninsular Malaysia; Sabah Forest Policy and Sarawak Forest Policy.

Nothing in this Policy shall be interpreted as restricting the right of a state to take action relating to forest management consistent with the objectives and provisions of this Policy.

The provisions of this Policy shall be complimentary with, and not in derogation of, the provisions in any other policy for the time being in force, relating to forest management.

FORESTRY POLICY OF PENINSULAR MALAYSIA

INTRODUCTION

Malaysian tropical rain forests has been identified as one of the oldest in the world and very rich in biological diversity that recognised as one of the 12 mega biodiversity countries. Apart of that, Peninsular Malaysia is blessed with her tropical rainforest covering 5.76 million hectares or 43.62% of 13.2 million hectares of total land area.

Forest management practices which include conservation and preservation practices emphasis on the ecological and environmental aspects have been formulated to ensure forest products and services are renewable and managed sustainably.

In Peninsular Malaysia, forestry related policy was formulated as National Forestry Policy 1978 substituted the Interim Forestry Policy 1952 and Forestry Policy 1922. National Forestry Policy 1978 is the main thrust spurring on the management, development and administration of forestry sector, in efforts to maintain its important roles towards national economic growth, along with environment stability and social well-being. National Forestry Policy 1978 was amended in 1992 to address current issues on the importance of biodiversity conservation and the use of genetic resources.

The forestry sector in Peninsular Malaysia has undergone some significant changes due to current global issues such as greenhouse gases and climate change that need to be address in line with the development of sustainable forest management. Forest management practices is no longer for timbers but other forest products and services including raw water supply, biodiversity conservation, environment quality preservation, flood control and to address climate change. In order to address the current challenges, new policy known as Forestry Policy of Peninsular Malaysia has been formulated.

BIODIVERSITY

The United Nation Earth Summit in 1992 defined Biological Diversity or Biodiversity as the variability among living organisms from all sources, including, inter alia, terrestrial, marine and other aquatic ecosystems, and the ecological complexes of which they are part: this includes diversity within species, between species and of ecosystems.

The Importance of Forest to the Nation

FOREST RESOURCES IN PENINSULAR MALAYSIA

Forest resources in Peninsular Malaysia include dry inland forests, peat swamp forests and mangrove forests. Forest land status includes Permanent Reserved Forest (PRF), Stateland Forest (SLF), Allienated Land and other reserve / protected areas. Malaysia recognised forest resources as an important and valuable natural resources that will continue to contribute to the socio-economic development, protection of biodiversity, conservation of land and water resources, and environment stabilisation.

Forest resources are evaluated based on its contributions in preserving of carbon stock and subsequently will reduce the impact of climate change significantly. Therefore, it is important that the forest resources are preserved and managed effectively, not only for Malaysians but also for the global community.

THE NATIONAL COMMITMENT

Malaysia's commitment to maintain forest resources can be seen in the national pledged during the Earth Summit at Rio de Janeiro, Brazil, 1992, whereby Malaysia is committed to maintain at least 50% of the country's land covered by forest tree provided that developed countries maintain 30% of their country's land areas as forest areas. The forestry sector in Peninsular Malaysia is an important economic sector that has contributed greatly to the development of the country. The sector is governed by stringent forestry laws and regulations to ensure that it is systematically managed and all the harvesting activities follow the Sustainable Forest Management principles and practices. In this regard, Peninsular Malaysia is committed to implement forest management certification to ensure the implementation of forest management

PERMANENT RESERVED FOREST (PRF)

Any land constituted or deemed to have been constituted as permanent reserved forest under the National Forestry Act 1984 for the Peninsular.

are in compliance with the international standards. Forest area in Peninsular Malaysia has successfully certified under the Malaysian Timber Certification Scheme (MTCS) and the Principles and Criteria Forest Stewardship Council (FSC).

The development of the forestry sector has also taken into consideration the Shared Prosperity Vision 2030 which was launched in 5th October 2019 as forest resources are considered as renewable resources and included in the green economy. This sector can be expanded further to include downstream products and the use of the latest technology and equitable distribution of income. Under this vision, the forestry sector can be improved with the usage of Big Data and in line with the Industrial Revolution 4.0. The development of a global green economy is expected to increase the demand for forest products as well as services from the forests ecosystems. Therefore, higher value assessment will be expected to result in the role of forest services especially in environmental protection and reducing the effect of climate change.

At global level, the forestry sector has an important role in Sustainable Development Goals (SDGs) as agreed by the United Nations in 2015 under 2030 Agenda. A total of 17 SDGs had been established to ensure global development in consideration with the sustainability of all aspects

including social, economy, ecology and environment. There are several SDGs which are related to the forestry such as SDG 1 (No Poverty), SDG 2 (Zero Hunger), SDG 3 (Good Health and Well-Being), SDG 6 (Clean Water and Sanitation) and SDG 13 (Climate Action). Meanwhile, SDG 15 (Life on Land) that related to biodiversity and Sustainable Forest Management is most relevant. Deforestation and degradation of the forest ecosystems have been identified that can affect the environmental stability and the quality of the well-being of the community. The control of forest lost area and forest degradation need to be well managed through good forest governance and best management practices.

Peninsular Malaysia is committed to preserve and conserve her forest resources at its best, taking into consideration of people's interests and the national responsibility as stipulated and ratified in the international multilateral agreements. Forestry Policy of Peninsular Malaysia will strengthen the national aspiration to ensure the national forest resources will be safeguarded as best as possible for the future generations.

INTERNATIONAL RELATIONSHIP

Malaysia plays an active roles in various convention and fora at international, level and ratified the forums as bellows:

CONVENTION	OBLIGATION
United Nations Framework Convention on Climate Change (UNFCCC)	Malaysia is committed to reduce GHGs emissions by 45% in 2030 in line with Malaysia's gross domestic product 2005. This target was set with 35% on unconditional basis and 10% on conditional basis upon receipt of climate finance funding, technology transfer, and capacity development from developed countries. Malaysia enacted the National Climate Change Policy in 2009.
Convention on Biological Diversity (CBD)	Malaysia is committed to achieve three (3) objectives of the CBD namely conservation of biological diversity, sustainable use and sharing benefits in a fair and equitable manner from biological diversity sources. Malaysia has launched the National Biological Diversity Policy (2016-2025) in 2016.
Convention on International Trade of Endangered Species of Wild Flora and Fauna (CITES)	Malaysia is committed to ensure that endangered species trade in fauna and flora does not threaten the sustainability of biological diversity resources. This commitment was disclosed through the formulation of International Trade in Endangered Species Act 2008 [Act 686].

CONVENTION	OBLIGATION
Ramsar Convention on Wetlands	Malaysia is committed to ensure that wetland conservation efforts are implemented through the listing of wetlands in the Ramsar Site list.
Nagoya Protocol Access to Biological Resources and Benefit Sharing of the Convention on Biological Diversity	Malaysia is committed to regulate the access to biological resources and traditional knowledge related to biological resources as well as the fair and equitable sharing of benefits from their use. This commitment was disclosed through the formulation of The Access to Biological Resources and Benefit Sharing Act 2017 [Act 795].
Cartagena Protocol on Biosafety to the Convention on Biological Diversity	Malaysia is committed to regulate the release, importation, exportation and controlled use of modified living organisms for the purpose of protecting human health, plants and animals, the environment and biodiversity. This commitment was disclosed through the formulation of The Biosafety Act 2007 [Act 678].

Besides, Malaysia is involved in international and regional forestry meetings and forums, i.e United Nations Forum on Forests (UNFF), The Committee on Forestry (COFO), International Tropical Timber Council (ITTC), ASEAN Ministerial Meeting on Agriculture and Forestry (AMAF), ASEAN Senior Officials on Forestry (ASOF), Asia-Pacific Network for Sustainable Forest Management and Rehabilitation (APFNet), International Network for Bamboo and Rattan (INBAR) and APEC Expert Group on Illegal Logging and Associated Trade (EGILAT).

Current Forestry Perspectives In Malaysia

POLICY AND LEGISLATION

Clause (2) of Article 74 of Federal Constitution to be read together with List II in the Ninth Schedule of Federal Constitution provides that forest is under the jurisdiction of the state government. Under this provision, the Legislature of a State may make and adopt laws and regulations for the administration and management of forestry matters in the state. Federal Government only provides advice and technical assistance to the states on forest management and development, research and training. Therefore, it is important to have close cooperation between the Federal and State Government pertaining forestry matters.

COORDINATION AT THE NATIONAL LEVEL

The National Land Council (NLC) was established on 22nd January 1958 in accordance with Clause (5) of Article 91 of Federal Constitution to facilitate the coordination and uniformity of the governance policies of the sectors related to lands, mining, agriculture and forestry between Federal and State Government through negotiations. Aiming that all issues and problems can be coordinated and resolved for national interests related to policy, administration and forestry management.

GOVERNANCE

Forestry in Peninsular Malaysia is divided into two (2) levels namely Federal and State. However both Forestry Department of Peninsular Malaysia (FDPM) and State Forestry Departments are responsible for forest management of the state. These are regulated by the National Forestry Act 1984 (Amendment 1993) and National Forestry Policy 1978 (Revised 1992) and subsequently, Forestry Policy of Peninsular Malaysia (FPPM).

At the Federal level, the Forestry Department of Peninsular Malaysia is entrusted with the important role in formulating policies and procedures related to the regulations, providing consultation and technical services to the states. Forest management and it's administration in the state is bound by the State Forests Enactment, State Forests Rules, Wood-Based Industrial Enactment and Wood-Based Industrial Rules to be implemented.

ISSUES AND CHALLENGES

The tropical rainforest despite it has high biodiversity, it also has a fragile ecosystem and it is very difficult to recover if the forest ecosystem has been disturbed especially by persistent disturbances compared to other types of forests. Continuous disturbances will lead the forest values affected and possibly threatened to extinction.

<p>(i) Deforestation</p>	<p>Deforestation is a human caused permanent conversion of forest area to non-forest land use such as agricultural, industrial, mining, roads, dams, municipalities and residential development. Uncontrolled deforestation will have various adverse effects on the ecological system and environmental stability.</p>
<p>(ii) Forest Degradation</p>	<p>Forest degradation is closely related to the progressive loss of forest resources in the context of biodiversity. This often being linked to the degradation quality of forest stocking and other ecosystems components such as flora, fauna, soil and water. Uncontrolled exploitation, excessive harvesting and frequency of forest fires are the main reasons for forest degradation.</p> <p>Other factors including pest and diseases, natural disasters such as sea level rise, landslide and flood.</p>
<p>(iii) Encroachment and Illegal Logging</p>	<p>Encroachment and illegal logging will cause the extinction of flora and fauna. These activities involved forest clearing that will destroy flora and fauna habitats thus affect microclimate in the area.</p>
<p>(iv) Forest Fires</p>	<p>Forest fire not only will destroy the plants in the affected areas but also wildlife due to habitat loss.</p> <p>The slash and burn activities will make the forest area completely destroyed and will affect the ecosystem of the area, even the uncontrolled burning can cause serious forest fire and indirectly lead to the extinction of flora and fauna.</p>

<p>(v) Threats To Biodiversity</p>	<p>Biodiversity refers to the diversity of living species, ecosystems and genetic resources on earth. Humans are highly dependent on this biodiversity for survival especially for maintaining the environment, ecosystem services and natural resources for economic activities.</p> <p>The loss of biodiversity is due to various factors including habitat loss, deterioration in forest quality, and exploitation of excessive forest resources, pollution and climate change.</p>
<p>(vi) Climate Change</p>	<p>Intergovernmental Panel on Climate Change (IPCC) had predicted an increasing in global warming within the range of 2°C to 5°C based on the rate of increasing greenhouse gases at this time. The greenhouse gases especially water vapour and carbon dioxide play a vital role in temperature cycle and earth atmosphere. Without these gases, the average surface temperature on earth which is +15°C will decrease by 33°C to -18°C and this will cause the earth to freeze.</p> <p>Currently, the world's attention is more focused on rising global temperature due to increasing concentrations of various greenhouse gases especially in the form of carbon dioxide that has eroded the ozone layer at the South Pole. This phenomenon will cause the rising of water temperatures and liquidity in the glaciers at the North and South Pole, which result in disaster such as major flood that will submerge many countries.</p>

Basic Principles of Forest Management in Peninsular Malaysia

SUSTAINABLE FOREST MANAGEMENT

Forest management in Peninsular Malaysia during its first inception, was centered around the concept of sustainability, through which forest harvesting operations were executed through a careful balancing of yield with growth, a concept in which timber production outputs were maintained directly proportional to forest growth.

Through the ever-changing market demands and the increasing societal needs of a wide variety of forest related goods and services, have necessitated the broad expansion of the sustainability concept to cover other related fields such as forest protection and non-timber forest products. From which, a new concept known as Sustainable Forest Management (SFM) was created as a new form of forest management that encompasses a vast array of utilities that would bring dividends to social and economical aspects as well as preserving the environment for future generations.

Created with the concept of SFM as its core, preservation and management systems that emphasises ecological and environmental aspects were ratified to ensure a sustainable output of goods and services, such as the Selective Management System (SMS).

The SMS was formally adopted by the year 1978 to enable a more flexible timber felling regimes that satisfies the requirement for environmental preservation with the added benefit of ensuring a sustainable forest production by optimising forest development. SMS was formulated with the intention to sustainably manage forest production within Permanent Reserved Forest (PRF) zones with felling cycles set between the range of 25 to 30 years. Inventories were conducted to determine which trees to be harvested before logging with follow up inventories carried out after the logging phase to determine the residual stand status and silviculture treatments.

In line with SFM's main criteria is to control the opening of the forest areas for production purposes, the Annual Allowable Coupe (AAC) was implemented. This is intended to balance the volume and timber production with the capacity and production forest areas within PRF, which has been decided by the NLC in the period of the Malaysia Five Years Plan. The AAC's were determined based on the natural regeneration capacity of the logging area. Forest harvesting within PRF was carried out in referring to the AAC for the determined area.

Throughout the implementation period of SMS, a number changes have been made based on the current needs and requirements that have arisen during the time period. These were enforced through circular and guidelines that were distributed as needed. Among them, is the allocation of buffer zone according to the PRF functions, the determination of production limit for each logging areas, the determination of tree cutting limit whereby minimum allowable cutting limit is for trees with a diameter of 50 centimetre for non-dipterocarp species and 60 centimetre for dipterocarp species. Apart from that, the allocations made for tree tagging are implemented whereby only the trees that have reached maturity and those marked for felling are allowed to be harvested. Meanwhile, trees with protected values such as mother trees, fruit trees for the sake of wildlife, and trees that are categorised as Endangered, Rare and Threatened – ERT species are not allowed to be felled. In addition, the protected value areas within the production areas like buffer zones along the riverbanks, slopes above 40°, salt licks and sensitive environmental area are to be maintained.

Forest harvesting activities are subject to the concept of Reduce Impact Logging (RIL). It is implemented according to the set of forest harvesting guidelines that are planned and controlled intensively to mitigate and reduce any damage exerted to the residual stand, soil and water for the capacity of production forest after logging and the ecological function will remain. Concurrently, the

harvesting activities must comply with the requirements of Malaysian Criteria and Indicators for Sustainable Forest Management (MC&I SFM), which is a standard used for forest management certification of the natural forest in addition to the implementation of other procedures that have been prescribed.

SUSTAINABLE FOREST MANAGEMENT

The process of managing permanent forest land to achieve one or more specified objectives of management with regards to the continued production forest products and forest based services without undue undesirable effects on the physical and social environment
(International Tropical Timber Organization ITTO, 1992)

Forest management policies are formulated to manage and conserve forest resources in line with the concept of sustainable forest management for the social, economic, cultural and environmental benefits of the country. The policies are as follows:

- Manage and use of forest resources for maximum benefits based on the natural forest capacity and potential use optimally;
- Manage potential use of forest resources based on the comprehensive planning of land use and forest management;
- Determine the potential yields guided by an in-depth and systematic assessment of forest resources, growth potential and related factors based on in-depth scientific studies;
- Control the production of timber based resources based on the balancing of production and demand as well as maximum prospect of use;
- Capitalise on forest harvesting through a selective harvesting method by leaving sufficient stands for the next cycle of production in line with economic harvesting to ensure the sustainability of forest resources;
- Implement the formulated forest management system effectively based on the information derived from an integrated management techniques and operational studies;
- Establishment of forest plantation with fast-growing species, either local or trade species;
- Promote a multipurpose use of forest and conservation of biological diversity and stabilisation of the environment;
- Conduct forest inventory after logging to obtain data on the status of composition, types, contents and size of trees/seedlings in order to determine the appropriate silviculture treatments;
- Conduct research on soil to determine site suitability and tree species to be planted for the forest plantation; and
- Design suitable forest areas for the multipurpose use of forests to enhance recreational facilities, soil and water conservation as well as flora and fauna.

FOREST MANAGEMENT CERTIFICATION

Forest Management Certification (FMC) is one of the quantification mechanisms for forest management based on the set criteria and indicators. The forest management certification aids in reducing the impact of forest degradation process, protect reservoir areas and water quality, conserve nature, maintain the continuity of forest resources and improve the economy of the local community that are dependent upon natural forest products.

Forest certification were comprises of FMC and Chains of Custody (CoC). Both certifications can serve as one of the supporting factor for marketing and expanding the Malaysian timber products market to the international level whereby the CoC and FMC gives the advantage and priority towards timber products exported to the European countries.

PROTECTION AREA

In Peninsular Malaysia, some areas of PRF have been classified according to one or more from the classification of forest functions as required under section 10(1) National Forestry Act 1984 and one of its this class is a protection forest, whose purpose is to control water resources, quality of environmental, soil protection, biodiversity conservation, flood recovery, erosion to the river and agricultural areas.

Wildlife Protection Forest is one of the classes created specifically to preserve and protect the diversity of wildlife species through retaining and managing its habitat. Realising the importance to resolve issues involving the survival of fauna species, the Government has implemented the Master Plan of Central Forest Spine (CFS) Development Initiative through the establishment of ecological corridors and the networking of four (4) main forest complexes from the northern to southern of peninsular landscape.

Moreover, the area of High Conservation Value (HCV) was introduced since 1999 as a requirement for forest management certification under the Malaysian Criteria and Indicators for Forest Management Certification (Natural Forests). The forest area within the Forest Management Unit (FMU) that has economic, environmental and social value as well as areas that is regarded as having uncommon or exceptional qualities or in possession of high value of interest will be identified and marked to ensure the privilege values of the area can be safeguarded and maintained for sustainability and benefit in the future.

Important Elements For Forestry Policy of Peninsular Malaysia

REQUIREMENTS OF FORESTRY POLICY OF PENINSULAR MALAYSIA

Forest are no longer considered as a resource of timber production merely for the socio-economic development of the country. In fact, the protection functions of forest resources such as biodiversity, environmental stability, preserving community culture are becoming more important. The Government has recognised that forest management needs to take into consideration the new emerging issues faced by forestry sectors such as water supply and food security, climate change, environmental stability, and improve the livelihood standards. To address this, Malaysia has taken into account the new developments in the formulation of the forestry policy and legislation. Forestry Policy of Peninsular Malaysia will cover the aspects of sustainable forest management, conservation and protection of biodiversity and forest ecosystem services, mitigation and adaptation of climate change impact, empowerment of research and development as well as information sharing.

POLICY STATEMENT

Malaysia recognises forest as the strategic national heritage treasures and committed to securing sufficient forest areas for their ecosystem services, biodiversity conservation, environmental protection and sustainable utilisation of resources towards the socio-economic development and well-being of the present and future generations.

POLICY RATIONALE

This Policy Statement in line with the provisions of the Federal Constitution, providing the direction for the implementation of SFM through good governance and best practices to ensure the forest sector continues to contribute towards the sustainable development achievement of the country.

POLICY OBJECTIVE

- 1** Maintain sufficient forested areas based on good governance through efficient land use planning;
- 2** Conserve and manage the PRF area based on SFM principles;
- 3** Enhance the use of functional diversity and forest ecosystem services especially to reduce climate change impact, maintain environmental stability, soil protection, raw water resources and food supply sustainability as well as ecotourism development;
- 4** Conserve the forest biodiversity to avoid ecosystem degradation, species extinction and genetic resource depletion.
- 5** Ensure the continuity of raw materials supply from natural forest and forest plantation area to empower the forest industrial development to meet local and international markets.
- 6** Strengthen the legislation and enforcement of laws efficiently and effectively to ensure the sustainability of forest resources.
- 7** Strengthen the collaboration between all the stakeholders at the national and international levels to create synergy towards forestry development.
- 8** Preserve the well-being of indigenous people and local communities in the planning and implementation of forest management and development activities.
- 9** Empower research activities, development and commercialisation, innovation and use of latest technology to generate new wealth from the forest resources.
- 10** Develop a society that appreciates the forest as the country's treasure and encourage participation of the society in the forest conservation and protection.

POLICY IMPLEMENTATION

Forestry Policy of Peninsular Malaysia is intended to assist the government, non-government organisations, academical, research institutes, private sectors and the community in the realisation of all the strategies that had been structured to achieve each objectives in FPPM into action plans. The strategies and action plans have been structured to deal with the current issues and matters related to administration, management and development of forest resources. Its emphasis to restructure work programmes that shall empower the current governance, eliminate gaps and constraints that exist. Forest resources management will be giving priority with the emphasis of the uniformity of legislation, guidelines and standard operating procedure that control the standards and practises as well as strengthening and enhancing the existing of knowledge and technologies.

There are nine (9) main thrusts been formulated and arranged to achieve the objectives prescribed as follows:

- THRUST 1** Sustainability of Forest Resources
- THRUST 2** Conservation of Forest Biodiversity
- THRUST 3** Forest Ecosystem Services Sustainability
- THRUST 4** Economic Well-Being and Industrial Continuity
- THRUST 5** Law and Enforcement
- THRUST 6** Inclusion and Involvement of Stakeholders
- THRUST 7** Social Well-Being and Indigenous People (*Orang Asli*)
- THRUST 8** Research, Development, Commercialisation and Innovation
- THRUST 9** Enlightened Society

A total of 27 strategies with action plans been identified based on thrusts as stated above.

THRUST 1 ➔ SUSTAINABILITY OF FOREST RESOURCES

Forest covers various types such as dry inland forests, peat swamp forests and mangrove forests that have their own unique ecosystem and need to be managed in a planned and systematic manner. Focus will be given to the strengthening of governance especially at Permanent Reserved Forest (PRF) areas.

STRATEGY 1:

Maintain and Enhance the Forest Area and Trees Cover

Forest area need to be maintained, managed and increased in line with the national commitment to maintain at least 50% of the total country land as forest and tree cover for maintaining earth greenery and environmental stability.

ACTION PLANS

- (a) Empower forest good governance for PRF area, State Land, Alienated Land, Reserved Land and strengthen the existing institutional working framework;
- (b) Provide and update the information on forest area and tree cover on a regular basis;
- (c) Implement the evaluation and monitoring the national forest resources status at the macro level;
- (d) Update the procedure of land use and conversion and the development of forested land to deal with conflict of land use and its effect towards the environment;
- (e) Maintain the existing forest area and to replace the PRF areas that been degazatte;
- (f) Identify and gazette forest area as PRF and/or Reserved Land;
- (g) Enhance forested area and tree cover through reforestation programmes, urban forest and tree planting;

- (h) Increase the control and preventions of disease attack, pest and forest fire; and
- (i) Regularly report forest resources information in official meetings regarding natural resources that involved the Federal and the State Governments.

STRATEGY 2:

Sustainable Management of Permanent Reserved Forest

PRF which comprises of dry inland forest, peat swamp forest, and mangrove forest should be managed sustainability under the best forest governance for social benefits, economic necessity and environmental stability. PRF are categorised as production forest are commercially harvested under sustained yield and protection forests for environmental stability, biodiversity and society well-being.

ACTION PLANS

- (a) Categorise PRF as production forest or protection forest that covers multiple forest functions and managed under the sustainable forest management practices;
- (b) Provide the State Forest Management Plan;
- (c) Formulate the forest management procedures according to PRF categories with the consideration of multiple ecosystem services and forest products as well as implementing it effectively;
- (d) Implement evaluation and monitoring changes towards compositions and growth of forest according to the forest management regime practices;
- (e) Measure, marking and maintenance of PRF boundaries;
- (f) Determine and comply with the AAC for production forest harvesting in the natural forest within PRF; and
- (g) Conduct forests conservation and rehabilitation programmes.

STRATEGY 3:**Recognition of Forest Management Practices through Forest Management Certification**

The effectiveness of SFM practices for PRF can be measured through transparent and accountable assessment to enhance local and international community confidence. Forest management certification is based on the international standard to prove the level of achievement in forest management practices.

ACTION PLANS
(a) Provide training to all level of implementers regarding forest management certification standard; (b) Carry out an internal audit; (c) Conduct audit by the Certification Body; and (d) Improvements of weaknesses identified in forest management practices.

THRUST 2 ➤ CONSERVATION OF FOREST BIODIVERSITY

Enhanced focus on conservation of forest biodiversity to prevent degradation of ecosystem, species extinction and depletion of genetic resources.

STRATEGY 1: Conservation of Forest Biodiversity

Forest have a high diversity of flora and fauna and most of them are unique and not found in other parts in the world. Initiatives on information gathering, in-situ and ex-situ preservation have been implemented to intensify, preserve and conserve the biodiversity especially species that are near extinction, endangered, rare and endemic.

ACTION PLANS	
(a)	Identify and evaluate the ecosystem status, habitat, species of flora and fauna that is endangered, threatened, rare and endemic;
(b)	Implement the in-situ and ex-situ conservation biodiversity programmes;
(c)	Control the introduction and threat of invasive alien species as well as genetically modified organisms;
(d)	Identify and implement mitigation steps in the land use planning to reduce negative impacts towards forest biodiversity; and
(e)	Identify, establish and conserve more areas that are suitable for HCV area.

STRATEGY 2:**Improve Knowledge and Scientific Documentation on Forest Biodiversity**

Detailed information regarding diversity of flora and fauna especially of undiscovered species must be acquired and documented as a reference in decision making to ensure that the national biodiversity can be managed sustainably. The enhancement of database capacity on biodiversity will enable the information acquired to be managed effectively and can be shared by various stakeholders.

ACTION PLANS

- (a) Conduct forest biodiversity inventory;
- (b) Enhance the database and documentation on forest biodiversity;
- (c) Increase the data and information sharing with stakeholders regarding forest biodiversity;
- (d) Utilise the information on forest biodiversity to enhance forest management; and
- (e) Establish and empower the expertise in forest biodiversity.

THRUST 3 ➤ FOREST ECOSYSTEM SERVICES SUSTAINABILITY

Exploring other potential sources of ecosystem services and forest biodiversity as an alternative source of income for the community and the nation as a whole while being able to conserve existing forest. The focus on the proposed use of forest ecosystem services and the commercialisation of products from new forest biodiversity resource which is in line with effective forest management and development mechanisms towards achieving sustainable forest management goals.

STRATEGY 1:

Improving the Effectiveness of Water Catchment Forest Area Management

Ensuring the sustainability of water resources is a priority in forest management to ensure continuous supply of raw water for domestic, agriculture and industrial use. Effective conservation and management of water catchment area is essential with the support of sound mechanisms and the involvement of all stakeholders.

ACTION PLANS	
(a)	Identify and gazette areas of water catchment forest;
(b)	Provide and implement the management prescriptions of water catchment forest area;
(c)	Establish and implement a mechanism to charge fees on the use of water resources from the area of water catchment forest; and
(d)	Enhance cooperation between relevant agencies in managing and monitoring the water catchment forest area.

STRATEGY 2:

Enhancing the Forest Capacity in Reducing Climate Change Impacts

Forest play an important roles in absorbing carbon and reducing the impacts of climate change. The existing forest area must be maintained while sensitive of ecosystem conservation efforts need to be stepped up to prevent further forest degradation.

ACTION PLANS

- (a) Conduct an inventory and quantification of forest carbon stock;
- (b) Avoid the activities that caused deforestation and degradation of forest quality;
- (c) Increase tree planting programmes and restore the degraded forest area in order to increase carbon absorption;
- (d) Improve conservation efforts of wetlands and highlands forest that have a fragile ecosystem; and
- (e) Provide and implement forest management plan for carbon contents balance in line with regional or international levels regulations.

STRATEGY 3:

Implement Income Generating Mechanisms from Forest Ecosystem Services

The revenue collection mechanisms generated through forest services need to be emphasised. This can increase financial resources to cover the cost of implementing forest conservation programmes towards achieving SFM goals.

ACTION PLANS

- (a) Review and implement the suitable mechanisms such as Payment for Forest Ecosystem Services (PFES), public payment instrument and carbon emissions reduction incentives;
- (b) Increase promotion and community awareness towards the importance of collecting fees for forest services; and
- (c) Improve cooperation between agencies in implementing fee collection mechanisms for forest services.

STRATEGY 4:**Utilising Forest Biodiversity as New Resource of Wealth**

Forest biodiversity has opened up direct or indirect economic opportunities that has yet to be fully explored. The development of biotechnology from forest biodiversity can produce high commercial value products such as pharmaceutical, antibiotics, vaccines and floriculture. Meanwhile, traditional knowledge of the uses of forest biodiversity needs to be registered as intellectual property for the economic benefit of the country.

ACTION PLANS

- (a) Review and identify the potential forest biodiversity resources as a product for commercialisation;
- (b) Develop and acquire property rights to commercialise technologies and products from forest biodiversity components; and
- (c) Encourage access and sharing benefits towards knowledge and usability of forest biodiversity resources.

STRATEGY 5:

Developing Potential Forest Area as World-Class Ecotourism Destinations, Generate Economic Opportunities and Income through Forest-Based Ecotourism Activities

Forest have unique natural characteristics that can be developed as ecotourism destinations. A well-structured and international standard compliance development plan should be given a priority.

ACTION PLANS	
(a)	Identify the potential forest area to be developed as a world-class ecotourism destination;
(b)	Provide and implement development concept plans to strengthen the management and conservation of forest-based ecotourism area;
(c)	Implement risk assessments and improvement on safety aspect in ecotourism area that has been developed;
(d)	Conduct studies on carrying capacity, customer satisfaction and willingness to pay for every ecotourism area;
(e)	Improve skills for tour guides and related agencies staff through training and courses;
(f)	Implement awareness programmes to preserve the authenticity, cleanliness and safety of the ecotourism areas;
(g)	Effectively promote forest-based ecotourism areas;
(h)	Diversify forest-based ecotourism products and services;
(i)	Increase involvements of local communities, government agencies, private sectors and Non-Government Organisations (NGOs) to provide forest-based ecotourism products and services; and
(j)	Establish and implement forest-based ecotourism mechanism fee activities effectively.

THRUST 4 **ECONOMIC WELL-BEING AND INDUSTRIAL CONTINUITY**

To ensure continuous raw materials supply from natural and plantation forest in strengthening forest industry development to meet the demands of local and international markets

STRATEGY 1: Sustainable Forest Product

Forest products consist of timber and non-timber forest products which its production are up to availability and capability to continue supply. Forest industry demands should take into consideration of efficient and environmental friendly technologies and processing machineries.

ACTION PLANS	
(a)	Identify the forest production as a new resource of wealth;
(b)	Update and strengthen forest product information database;
(c)	Monitor and control forest production to ensure optimum usage;
(d)	Encourage the use of latest and environmental friendly technologies for forest productions;
(e)	Formulate enhanced and updated rules and regulations, charges and revenue collection for forest production; and
(f)	Widen research, development and commercialisation (R, D & C) in forest productions.

STRATEGY 2:

Improve the Efficiency of Forest Industry and Occupational Safety

Efficiency of the forest industry can be improved by using efficient and latest technology without compromising the safety and health of workers. It can also increase the productivity of forest industry productions, minimising material wastage and pollution.

ACTION PLANS

- (a) Encourage the usage of the latest environmental friendly and safe technologies in the forest industry;
- (b) Improve forest industry efficiency through collaboration amongst existing wood-based industries;
- (c) Optimise the usage of raw materials by increasing integrated wood processing industry;
- (d) Improve workers safety and health in forest industry; and
- (e) Enhance networking between forest industry sector and Occupational Safety and Health Agency.

STRATEGY 3: **Regulating Forest Industry Operations**

Streamlined licensing process in forest industry to ensure legality of forest industries operation. The licensing is important for effective monitoring and controlling forest industry operations.

ACTION PLANS

- (a) Streamline institutional framework, legislation and forest industry licensing procedures;
- (b) Enforce current law and legislation; and
- (c) Improve and integrate forest industry licensing between related agencies.

STRATEGY 4: **Increased Bumiputera Participations in the Forest Industry**

Priority of Bumiputera participations in forest industry to increase Bumiputera equity in the national economy.

ACTION PLANS

- (a) Provide mechanisms in forest industry such as financial aid, incentives, technologies, marketing and training skills for Bumiputera; and
- (b) Encourage the involvement of financial institutions and related agencies in providing funds, marketing and promotion for forest industry products.

STRATEGY 5:**Encourage Development of Forest Plantations for Productions of Timber and Non-Timber**

Forest plantation has the potential to supply raw material for forest industry. Intensifying the development of forest plantations in State Land, Reserved Land, Alienated Land and degraded forest in Permanent Reserved Forest (PRF) area to increase productions of timber and non-timber.

ACTION PLANS

- (a) Identify and establish forest plantation development zone in the PRF;
- (b) Identify suitable and commercial valuable species for the forest plantation to increase revenue;
- (c) Encourage the forest plantation development in the designated state land, reserved land and alienated land;
- (d) Identify agroforestry models and guidelines to appropriately implement forest plantation development in PRF, state land, reserved land and alienated land;
- (e) Increase quality seedlings supplies in tree nurseries for forest plantation development;
- (f) Provide incentives to encourage private sectors and individuals in participating forest plantation development;
- (g) Establish Forest Plantation Development Scheme for alienated land;
- (h) Implement Best Management Practices in forest plantation development based on the recognised forest plantations management standards;
- (i) Improve networking between related agencies to strengthen forest plantations development; and
- (j) Provide advisory services and training for forest plantation development.

 **THRUST 5**  **LAW AND ENFORCEMENT**

Formulate forest law and regulation to strengthen enforcement and preventing illegal activities effectively. Existing laws and regulations are dynamic and to be reviewed and amended accordingly along with current issues and needs.

STRATEGY 1:
Enforce Forest Law Efficiently and Effectively

Increase implementation of laws enforcement of various enforcement agencies and community to ensure effectiveness and efficiency.

ACTION PLANS

- (a) Evaluate and review existing forest law to strengthen the implementation of SFM;
- (b) Strengthen laws and procedures to improve enforcement and prevention activities between agencies;
- (c) Enhance organisation structures and logistic need for effective forest enforcement legislation;
- (d) Enhance networking and information sharing between agencies in forest enforcement;
- (e) Improve the involvement of local communities and NGOs in the efforts of prevention and forest regulations violation;
- (f) Use latest technology in enforcement and forest monitoring activities; and
- (g) Provide sufficient resources (human resource, equipment and finance) to enforce related forest laws.

STRATEGY 2:

Empowering Enforcement and Controlling towards Forest Resources Biopiracy

Forest resources biopiracy is an exploitation of forest resources without consent and permission from, and compensation to the owner. This provision are to prevent and solve the issues of forest resources biopiracy in Malaysia. Enforcement activities need to be implemented to protect the interests and rights of the owner.

ACTION PLANS	
(a)	Empower mechanisms and provide controlled conditions in forest resources biopiracy through research, exploration and expedition activities;
(b)	Improve monitoring and law enforcement towards forest resources biopiracy activities; and
(c)	Implement awareness campaigns and programmes in forest resources biopiracy.

THRUST 6 INCLUSION AND INVOLVEMENT OF STAKEHOLDERS

Focus on strengthening the cooperation between all stakeholders in the national and international levels to create synergies towards development of forestry sector.

STRATEGY 1:

Improve and Strengthen National Involvement in Forestry Sector at the International Level

International issues such as climate change, loss of biodiversity and forest degradation need to be addressed wisely and effectively to safeguard our national interest and sovereignty. Expertise in forestry sector needs to be strengthened in order to effectively deliver national stand in international negotiations.

ACTION PLANS

- (a) Establish forest expert group to address current forestry issues;
- (b) Execute continuous capacity building programmes to support negotiation and international obligations and agreements; and
- (c) Develop mechanism to coordinate national stand in international negotiations.

STRATEGY 2:

Strengthen the Involvement of Private Sectors, NGOs, and Public in the Conservation of Forest Resources

The involvement of private sectors, NGOs and public are important to support the efforts of forest conservation in order to sustainably enable its functions and services.

ACTION PLANS

- (a) Improve networking between the private sectors, NGOs and public with related government agencies to conserve the forests through their respective social responsibilities; and
- (b) Improve mechanisms and procedures of accepting contribution and fundraising including the establishment of special funds for forest conservation without compromising the transparency of management and fund expenditure.

STRATEGY 3:

Improve Involvement of Stakeholders through Consultation Process

Gather opinions and inputs related to current forestry issues through public consultation from the stakeholders and other related parties in effort to achieve the objectives of forest management.

ACTION PLANS

- (a) Identify the forestry issues and stakeholders; and
- (b) Implement consultations with the related stakeholders.

THRUST 7 **SOCIAL WELL-BEING AND INDIGENOUS PEOPLE (ORANG ASLI)**

Focus on the rights of indigenous people and the local community to own, use and manage their areas and resources.

STRATEGY 1:

Encourage the Involvement of the Indigenous People and the Local Community in Forest Management and Development Activities

Involvement of the indigenous people and local communities in forest management and development activities including social forestry and agroforestry will increase their incomes. The implementation of these activities will reduce their dependency on the forest area.

ACTION PLANS

- (a) Increase the involvement of the indigenous people and local community in forest management and development activities; and
- (b) Increase the collaboration between government agencies and private sectors in social forestry and agroforestry programmes.

STRATEGY 2:

Maintain Forest Functions and Services for the Indigenous People Benefits

The main forest functions for the indigenous people are shelter, food resources, domestic use and wood supply. Therefore, preserving of forest functions and services are important for the indigenous people livelihood.

ACTION PLANS

- (a) Identify and preserve special sites for the indigenous people in the PRF;
- (b) Streamline the institutional frameworks and mechanisms to solve indigenous people land use conflicts in the PRF; and
- (c) Taking into consideration indigenous people interests and rights for forest management and development in the PRF.

STRATEGY 3:

Reduce Conflicts between Human and Wildlife

Human and wildlife conflicts usually occurred in forest boundary, settlement areas as well as plantation and agriculture areas due to the overlapping interest between human and wildlife and poor development plans that leads to forest fragmentation. Thus, wildlife ecological corridors need to be built to reconnect fragmented forests.

ACTION PLANS

- (a) Identify and maintain suitable forest areas for wildlife protection;
- (b) Intensify the establishment of wildlife ecological corridors network;
- (c) Address human and wildlife conflicts through an appropriate mechanisms; and
- (d) Take into consideration the importance of wildlife habitat in the forest management and development.

THRUST 8 RESEARCH, DEVELOPMENT, COMMERCIALISATION AND INNOVATION

Empowering research, development, commercialisation and innovation (R, D, C & I) to generate new revenue from forest resources and services through the adoption of latest technology.

STRATEGY 1:

Encourage Research, Development, Commercialisation and Innovation (R, D, C & I) of Technology Usage to Support the Achievement Sustainable Forest Management Goals

Forest management has become more challenging due to necessity to meet community needs and demands and to balance environmental protection, economy and the well-being of society. The improvement on the SFM practices supported by R, D, C & I using latest technology need to be prioritised.

ACTION PLANS

- (a) Identify forestry research fields that need to be prioritised;
- (b) Obtain sufficient R, D, C & I funds from various domestic and foreign resources;
- (c) Provide appropriate incentives for R, D, C & I of forestry technologies;
- (d) Apply innovation and research based outcome to improve forest management;
- (e) Acquire property rights and commercialise forestry technologies innovation;
- (f) Establish smart agencies partnership in conducting integrated R, D, C & I;
- (g) Empower forestry research institutes; and
- (h) Increase the use of the latest Information and Communications Technology (ICT) in R, D, C & I for forestry sector.

THRUST 9 ➤ ENLIGHTENED SOCIETY

Understanding and awareness of society towards conservation of forest resources as well as environmental stability are important through efforts and involvements of various agencies.

STRATEGY 1: **Empowering Skills, Capability and Efficiency of Capacity Building**

Capacity building is important to achieve the SFM goals. The comprehensive and continuous development of capacity building programme should be planned and implemented effectively to enhance knowledge, skills and creativity.

ACTION PLANS

- (a) Identify training needs according to the field, skills and demand of the forestry sector;
- (b) Empower the forestry training institutes;
- (c) Enhance networking and collaboration between local and international forestry training institutes;
- (d) Provide and implement training development programmes to produce competent human resources in the identified field; and
- (e) Prioritise the recruitment of trained, skillful and accredited employees, in implementing forest management and development activities.

STRATEGY 2: Streamlining Forestry Knowledge

Public education on the forestry knowledge at the school level is vital to the society in the effort to encourage the appreciation on the importance of forest and environment.

ACTION PLANS
(a) Strengthen the curriculum on forestry in school; (b) Intensify forestry activities at school and higher learning institute level; and (c) Establish Friend of Foresters (Sahabat Rimbawan) club at the school level.

STRATEGY 3: Enhance Society Understanding and Awareness towards Forestry

Society Understanding and awareness towards forestry is important to ensure that all efforts undertaken by the Government can be accepted and supported. Society understanding and awareness can be enhanced by an effective effort and involvements of the related parties.

ACTION PLANS
(a) Continuous awareness programmes and extension activities in forestry; (b) Provide and disseminate publication on forestry to the target group; and (c) Improve cooperation and networking between government agencies, private sectors, NGOs and local communities in forestry awareness and extension programmes.

SABAH FOREST POLICY

Vision

Towards the realisation
of sustainable forest
management

Mission

To effectively and
efficiently plan and
implement the
management of the
State's forest resources
in accordance with the
principles of sustainable
forest management

POLICY STATEMENT

Sabah is committed to ensure that at least 50% of Sabah's land mass is designated and protected for sustainable forest use and tree cover for environmental protection, biodiversity conservation, and socio-economic well-being.

POLICY RATIONALE

The Forest Policy strengthens the commitment and direction in managing designated forest areas and tree cover through sustainable forest management. This policy takes into account environmental, social and economic sustainability, through good forest governance and best management practices, to ensure forestry remains an integral and competitive land use in Sabah. The aim is for institutionalised good governance of forest management.

Background

Sabah is the 2nd largest state in Malaysia with an area of approximately 7.4 million hectares located in the north-eastern tip of Borneo Island. About 59% of the state still remains under forest cover consisting of forest reserves, parks and wildlife sanctuaries and stateland forest. Sabah's tropical rainforests are amongst the most diverse in the world and represent a significant natural wealth in terms of remarkable biodiversity and economic value. Most of Sabah's forests are located within a larger ecological area which is known as the Heart of Borneo (HoB). It is our blessing that, the Government of Sabah recognizes the importance of the state's forest at a very early date and established the Sabah Forestry Department in 1914 whilst Sabah was still under the rule of the British Borneo Chartered Company. The original purpose of the department was to simply collect royalties from logging operators. With the Forest Policy 1954, Forest Enactment 1968 and Forest Rules 1969, the department's role expanded to include the protection and conservation of the state's gazetted forest reserves and other forests.

The SFD's role is further enhanced with the adoption of SFM practices at the state level in 1997. The early experience in implementing the SFM concept began in 1989 when Deramakot Forest Reserve (DFR) was chosen as a model

for a well-managed forest under a collaborative project between the SFD and the German Agency for Technical Cooperation (GTZ). The project was a big success and subsequently duplicated into other Forest Management Units (FMUs) that started in September 1997, when the Sabah Government in a smart partnership with the private sector, signed long-term licence agreement known as Sustainable Forest Management Licence Agreements (SFMLA). Under this FMU system, the SFMLA holders are to carry out their forest management activities based on a 10-year Forest Management Plan (FMP). The plan details how the FMU areas can be sustainably managed through the multiple-use forest management concept where social, economic and environmental requirements are taken on board. This includes zoning in which the FMU areas are divided into production, protection and other specific land uses. It tries to emulate the Deramakot model as much as possible.

Since introduced two decades ago, the implementation of SFM in Sabah has made significant achievements in managing forest resources towards sustainability and good forest governance. It is our target that the Deramakot model be expanded to cover all production forest reserve in Sabah in a step by-step systematic approach.

The recognition of Deramakot Forest Reserve as the world's first tropical rainforest certified under the gold standard of the Forest Stewardship Council (FSC) in 1997, is one of the biggest achievements in the implementation of SFM in Sabah. Meanwhile, work on forest restoration and plantation development is continued as the SFM main activities. This is important to enhance the growing stock of natural and planted forests for future timber supply. The cumulative total forest areas rehabilitated through silviculture treatment, tree planting and forest plantation is approximately 750,000 hectares thus far. Taking into account, the current area under protected forest reserves (Class I, VI and VII), parks and wildlife sanctuaries, the Totally Protected Areas (TPAs) in Sabah is about 26% of its total land area or approximately 1.9 million hectares. It is our target to gazette not less than 30% of Sabah's land mass or 2.2 million hectares as TPAs by 2025.

Currently, a total of 860,519 hectares of Sabah's forests have been certified. This includes 629,015 hectares under the Forest Stewardship Council (FSC), 178,065 hectares under MTCSPEFC (Malaysian Timber Certification Scheme Programme for the Endorsement of Forest Certification), 78,827 hectares under Ramsar Convention, and 149 hectares certified under MSISO 9001:2008. The State Government is committed to certify all of its forest reserves, in stages.

With the decline in wood production from natural forests, planted forests have become an important supply of timber domestically for the future. It is estimated that by 2030 about 2.5 million cubic meters of timber supply will come from planted forests, of exotic and indigenous species. And it is also expected that an increased volume of timber supply by 2030 from natural forests that had been restored through enrichment planting and silviculture treatment. Based on the projection, there will be sufficient raw material for the wood-based industry in Sabah and this industry is expected to flourish once again in time to come. The State Government has also initiated various initiatives to tap on new sources of forest revenue from carbon, PES, and NTFP.

It is therefore crucial that the new Sabah Forest Policy 2018 be aligned to the state's current forestry sector development in order to achieve our vision towards the realization of SFM for sustainable economic, social and environmental benefits of the state. This includes focusing on biodiversity conservation through gazettlement of TPAs and exploring new sources of revenue from forest produce. This policy consists of 7 Thrusts i.e. sustainability of forest resources; protection of biodiversity and environmental services; research, development, commercialisation and innovation; economic well-being; social well-being; human resource development; and state, national and international cooperation and obligations. And under the Thrusts, there will be 28 strategies and 111 action plans in order to achieve the objectives of this policy. The following are objectives of the policy under each Thrust:

Thrust 1: SUSTAINABILITY OF FOREST RESOURCES

1. To maintain at least 50% of Sabah's land mass under forest reserves and tree cover for long term multiple forest use;
2. To ensure the systematic and transparent administration and management of forest reserves;
3. To strengthen forest enforcement and laws; and
4. To create public awareness on the importance of sustainable forest resource management.

Thrust 2: PROTECTION OF BIODIVERSITY AND ENVIRONMENTAL SERVICES

1. To allocate adequate areas under Totally Protected Areas (TPAs) for environmental services;
2. To ensure all forest types, ecosystems and their biodiversity are adequately represented and protected;
3. To ensure all degraded forests are restored to enhance their ecological functions; and
4. To minimize the impact of forest management activities on environmental services.

Thrust 3: RESEARCH, DEVELOPMENT, COMMERCIALISATION AND INNOVATION

1. To strengthen research, development, commercialisation and innovation (RDC&I) programmes in support of forest management; and
2. To explore and apply the use of new technologies and innovation.

Thrust 4: ECONOMIC WELL-BEING

1. To ensure the sustainability and viability of the wood-based industry;
2. To optimise forest rent captured from natural forests and forest plantations;
3. To explore the potential of Payment for Ecosystem Services (PES) for generating revenues;
4. To explore alternative revenue sources from Non-Timber Forest Produce (NTFP);
5. To promote forest recreation and nature-based tourism; and
6. To advance Sabah towards receiving carbon and climate change related payments.

Thrust 5: SOCIAL WELL-BEING

1. To strengthen the participation of local communities in the implementation of forest management activities.

Thrust 6: HUMAN RESOURCES DEVELOPMENT

1. To strengthen skills and competency of human resources at all level through continuous capacity building; and
2. To strengthen organisational structure to support efficiency and innovation in all core administration and management activities.

Thrust 7: STATE, NATIONAL AND INTERNATIONAL COOPERATION AND OBLIGATION

1. To observe compliance to all state laws, federal laws and binding international convention; and
2. To encourage collaboration at the state, national and international level for long term mutual benefits.



SUSTAINABILITY OF FOREST RESOURCES

OBJECTIVE 1:

To maintain at least 50% of Sabah's land mass under forest reserves and tree cover for long term multiple forest use.

STRATEGY	ACTION PLANS
(1) to ensure the optimal and productive use of forest reserves.	(a) to survey, demarcate on the ground and regularly maintain and monitor forest reserve boundaries; (b) to carry out periodic forest resources assessment to support prudent forest management planning; and (c) to regularly update the forest resource management information system.
(2) to ensure no reduction in the area under forest reserves.	(a) the establishment and excision of forest reserves shall be discussed and refined by the State Technical Committee prior for submission to the State Assembly for decision and approval; and (b) to replace any excised forest reserves with areas of comparable size and quality, in line with Managed Retention Policy towards achieving No Net Loss/Net Gain (NNL/NG).

OBJECTIVE 2:

To ensure the systematic and transparent administration and management of forest reserves.

STRATEGY	ACTION PLANS
(1) to strengthen the implementation of responsible forest management and its transparency.	<ul style="list-style-type: none">(a) to promote and enhance private sector participation in long term forest management;(b) to prepare Forest Management Plan for all forest reserves;(c) to strengthen internal and independent 3rd party auditing of forest management;(d) to promote the participation of Civil Society Organisations (CSOs) in forest management;(e) to encourage the independent certification of forest management, to ensure high quality management standards;(f) to strengthen forest fire protection and management; and(g) to cooperate with credible partners for sustainable financing in Sustainable Forest Management (SFM) implementation

OBJECTIVE 3:

To strengthen forest enforcement and laws.

STRATEGY	ACTION PLANS
(1) to ensure the strict enforcement of forest laws and regulations.	<ul style="list-style-type: none">(a) to carry out regular monitoring activities;(b) to strengthen enforcement teams and activities;(c) to conduct regular training on enforcement, investigation and prosecution procedures;(d) to empower local communities on forest protection activities;(e) to strengthen collaboration with other states and national enforcement agencies; and(f) to strengthen forest laws, other relevant enforced rules and regulations [Forest Enactment 1968, Forest Rules 1969, Forest (Timber Enactment) 2015], through periodic reviews.

OBJECTIVE 4:

To create public awareness on the importance of sustainable forest resource management.

STRATEGY	ACTION PLANS
(1) to ensure public awareness programmes are properly formulated and adopted.	<ul style="list-style-type: none">(a) to conduct regular conferences, workshops and consultations involving relevant stakeholders;(b) to conduct environmental awareness campaigns;(c) to develop and disseminate educational and environmental awareness materials;(d) to support environmental education programmes for relevant target groups; and(e) to strengthen networking with other relevant agencies and stakeholders.
(2) to ensure the effectiveness of Nature Centres in creating and instilling public awareness.	<ul style="list-style-type: none">(a) to identify new forest areas to be developed as nature centres;(b) to improve interpretation skills and knowledge; and(c) to enhance existing facilities of Nature Centres.



PROTECTION OF BIODIVERSITY AND ENVIRONMENTAL SERVICES

OBJECTIVE 1:

To allocate adequate areas under Totally Protected Areas (TPAs) for environmental services.

STRATEGY	ACTION PLANS
(1) to ensure sufficient TPAs for the protection and enhancement of the environmental services.	<ul style="list-style-type: none"> (a) to identify forest reserves suitable to be reclassified as TPAs; (b) to identify potential forested areas to be constituted as TPAs; and (c) to have not less than 30% of Sabah's land area under TPAs by the year 2025.

OBJECTIVE 2:

To ensure all forest types, ecosystems and their biodiversity are adequately represented and protected.

STRATEGY	ACTION PLANS
(1) to establish and determine the conservation status of each forest type and their biodiversity.	<ul style="list-style-type: none"> (a) to identify and map out forest types within forest reserves; (b) to protect rare and endangered flora and fauna; (c) to document biodiversity for each forest type; (d) to ensure forest management planning takes into account connectivity of protected areas; and (e) to identify and conserve endangered forest ecosystem based on Managed Retention Policy towards achieving No Net Loss/Net Gain (NNL/NG).

OBJECTIVE 3:

To ensure all degraded forests are restored to enhance their ecological functions.

STRATEGY	ACTION PLANS
(1) to identify areas of degraded forests in need of restoration.	<ul style="list-style-type: none"> (a) to formulate and implement restoration plan for degraded forests; (b) to monitor the effectiveness of the restoration activities; and (c) to map out and record the restored forest areas.

OBJECTIVE 4:

To minimize the impact of forest management activities on environmental services.

STRATEGY	ACTION PLANS
(1) to employ best management practices in harvesting operations.	<ul style="list-style-type: none"> (a) to ensure RIL guidelines are enhanced; (b) to identify and protect High Conservation Value (HCV) sites within forest areas; (c) to establish Standard Operating Procedures (SOPs) for relevant forest management activities; and (d) to explore the use of new low impact harvesting technologies.



RESEARCH, DEVELOPMENT, COMMERCIALISATION AND INNOVATION (RDC&I)

OBJECTIVE 1:

To strengthen research, development, commercialisation and innovation (RDC&I) programmes in support of forest management.

STRATEGY	ACTION PLANS
(1) to ensure forest policies and their implementation are supported by scientific research.	<ul style="list-style-type: none"> (a) to identify and incorporate relevant research programmes to support SFM implementation; (b) to engage with the private sector on RDC&I; (c) to develop collaborative research with the private sector; (d) to publish and disseminate research results; (e) to patent and commercialise research and development outputs; and (f) to engage at the local and international levels on scientific research.
(2) to ensure competency of researchers.	<ul style="list-style-type: none"> (a) to conduct training to ensure skills and competency of researchers are enhanced; and (b) to collaborate with local and international institutions on the implementation of research programmes.

OBJECTIVE 2:

To explore and apply the use of new technologies and innovation.

STRATEGY	ACTION PLANS
(1) to employ the appropriate technology and innovation to improve management efficiency.	<ul style="list-style-type: none">(a) to develop, enhance and continuously apply best forest management techniques to reduce adverse impacts on the forest environment;(b) to apply the latest Geographical Information System and Remote Sensing technologies; and(c) to optimise the utilization of the latest Information and Communication Technology (ICT) hardware and software.


ECONOMIC WELL-BEING
OBJECTIVE 1:

To ensure the sustainability and viability of the wood-based industry.

STRATEGY	ACTION PLANS
(1) to improve the productivity of natural forests for sustainable timber production.	<ul style="list-style-type: none"> (a) to intensify Timber Stand Improvement (TSI) activities; (b) to enhance the utilization of fast growing indigenous species; and (c) to explore new incentives for forest restoration.
(2) to encourage and strengthen the development of forest plantations for safeguarding the sustainability of timber supply.	<ul style="list-style-type: none"> (a) to provide financial incentives and new innovative tax relief for forest plantations establishment; (b) to allocate sufficient areas for forest plantation establishments; (c) to determine site suitability for various forest plantation species; (d) to control pest and diseases in forest plantations; (e) to improve technology for forest plantations establishment; (f) to certify forest plantation areas with any internationally recognized certification scheme; and (g) to emphasize site-species matching.

STRATEGY	ACTION PLANS
(3) to optimise and improve the utilization of raw materials.	<ul style="list-style-type: none"> (a) to engage vertical integration of the upstream and downstream wood-based industries; (b) to reduce timber wastage in harvesting operations; and (c) to use improved and new technology in wood-based processing and products diversification.
(4) to restructure the wood-based industries based on comparative advantage.	<ul style="list-style-type: none"> (a) to encourage horizontal integration of wood manufacturers towards manufacturing of high value-added products; (b) to encourage the use of green technology in the wood-based industries; and (c) to create “unique branding” for wood products produced in line with good forest governance.

OBJECTIVE 2:

To optimise forest rent captured from natural forests and forest plantations.

STRATEGY	ACTION PLANS
(1) to maximise the collection of forest rent to the government.	<ul style="list-style-type: none"> (a) to continuously review the forest rent structure in line with market forces; and (b) to explore potential sources of revenue that can be derived from timber and non-timber products.

OBJECTIVE 3:

To explore the potential of Payment for Ecosystem Services (PES) for generating revenues.

STRATEGY	ACTION PLANS
1) to develop a state-wide scheme for PES.	<ul style="list-style-type: none"> (a) to identify opportunities for PES; (b) to develop institutional mechanisms to support PES; (c) to enact laws related to PES; (d) to create public awareness on the importance of PES; and (e) to intensify marketing of PES.

OBJECTIVE 4:

To explore alternative revenue sources from Non-Timber Forest Produce (NTFP).

STRATEGY	ACTION PLANS
(1) to optimise utilisation of NTFP.	<ul style="list-style-type: none"> (a) to identify forest species with potential commercial value; (b) to develop technology for commercialising NTFP; and (c) to explore potential market for NTFP.

OBJECTIVE 5:

To promote forest recreation and nature-based tourism.

STRATEGY	ACTION PLANS
(1) to optimise revenue generation from forest recreation and nature-based tourism.	<ul style="list-style-type: none">(a) to identify and develop potential sites for forest recreation and nature-based tourism consistent with the state tourism development policy;(b) to encourage private sector participation in the development of forest recreation and nature based tourism;(c) to promote local community participation in forest recreation and nature-based tourism;(d) to intensify marketing promotion for forest recreation and nature-based tourism products; and(e) to provide accessibility to key forest recreation and nature- based tourism areas.

OBJECTIVE 6:

To advance Sabah towards receiving carbon and climate change related payments.

STRATEGY	ACTION PLANS
(1) to further explore the feasibility of carbon project, REDD+ and climate change initiatives to generate revenue for the state.	<ul style="list-style-type: none">(a) to advance the development of policy structures related to carbon, REDD+ and climate change;(b) to develop legal and institutional mechanisms and framework to support the implementation of carbon project, REDD+ and climate change initiative;(c) to improve laws related to REDD+;(d) to prepare comprehensive environmental and social safeguards related to carbon project, REDD+ and climate change;(e) to prepare access and benefit sharing procedures related to carbon project, REDD+ and climate change related payments;(f) to put in place Sabah forest monitoring system as part of the Monitoring, Reporting and Verification (MRV) related to carbon project REDD+ and climate change; and(g) to explore carbon project, REDD+ and climate change related payments.


THRUST 5 ➤ **SOCIAL WELL-BEING**
OBJECTIVE 1:

To strengthen the participation of local communities in the implementation of forest management activities.

STRATEGY	ACTION PLANS
(1) to recognise community engagements in forest management activities	<ul style="list-style-type: none"> (a) to carry out regular consultations and dialogues with local communities; (b) to give employment preference to local communities; (c) to give preference to local communities in providing contract services related to forest operations; (d) to consolidate a people-centric approach in forest management planning and decision making process; and (e) to institutionalise social impact assessment in the implementation of any forest management activities.
(2) to encourage Native participation in forest industries.	<ul style="list-style-type: none"> (a) to promote participation of Native entrepreneurs in the forest industries; and (b) to assist Native entrepreneurs on matters related to the management of forest industries by providing the appropriate incentives and mechanism.



THRUST 6 HUMAN RESOURCE DEVELOPMENT

OBJECTIVE 1:

To strengthen skills and competency of human resources at all level through continuous capacity building.

STRATEGY	ACTION PLANS
1) to ensure training programmes are developed and executed to improve skills and competencies of the human resource.	(a) to identify and develop training modules for the enhancement of skills and competencies at all level; (b) to ensure that training keeps abreast with advancement in knowledge and technologies; and (c) to ensure forestry training meets occupational skills standard.

OBJECTIVE 2:

To strengthen organisational structure to support efficiency and innovation in administration and management.

STRATEGY	ACTION PLANS
(1) to periodically evaluate and review the organisational structure and its requirements.	<ul style="list-style-type: none">(a) to optimise potential capabilities of human resources;(b) to observe career development of human resources;(c) to provide incentives on new ideas and innovation;(d) to strengthen the implementation of Occupational Safety and Health Management (OSHM); and(e) to strengthen the process of succession planning in ensuring organisational efficiency.



STATE, NATIONAL AND INTERNATIONAL COOPERATIONS AND OBLIGATIONS

OBJECTIVE 1:

To observe compliance to all state laws, federal laws and binding international conventions.

STRATEGY	ACTION PLANS
(1) to ensure observance of all state laws, federal laws and binding international conventions.	<ul style="list-style-type: none">(a) to create public awareness and enhance understanding on relevant state laws, federal laws and binding international conventions;(b) to ensure forest management planning incorporates all relevant state laws, federal laws and binding international conventions; and(c) to formulate and implement continuous capacity building programmes to support negotiations and obligations of binding international agreements.

OBJECTIVE 2:

To encourage collaboration at the state, national and international level for long term mutual benefits.

STRATEGY	ACTION PLANS
(1) to strengthen national and international collaboration in the forestry sector.	<ul style="list-style-type: none">(a) to institutionalise and promote transparency in the implementation of sustainable forest management;(b) to strengthen networking with relevant multi-stakeholders through participation at state, national and international forums; and(c) to identify, initiate and implement suitable projects for collaborative partnerships.

THE SARAWAK FOREST POLICY

POLICY STATEMENT

The Sarawak Forest Policy 2019 is an official statement of the State Government on forestry and related issues for the needs of managing forest and marine in Sarawak, which consists of:

1. Provision of sufficient forest area and marine ecosystems for the benefit of the present and future generations of Sarawak to:
 - Ensure sound environment and climate of the State; safeguarding of soil fertility, and continuous supplies of water for domestic and industrial use, irrigation and general agricultural purposes; and prevention of damage by flooding and erosion to rivers and to agricultural land;
 - Supply in perpetuity all forest resources for the benefit of economy, agriculture, inland fisheries, domestic and other industries; and
 - Maintain and preserve the marine ecosystem for the benefit of economy, fisheries, domestic and industries related to forestry.
2. Management of Permanent Forest Estate (PFE) for the benefit of economy, social and environment in accordance with the principles of Sustainable Forest Management (SFM).
3. Emphasis on good management of forest areas within the state land and alienated land.
4. Sustainable production of forest resources for the needs of domestic and export markets.

POLICY OBJECTIVES

- 1** To maintain the existing permanent forest estates, totally protected areas and forest cover through better and more efficient governance and planning;
- 2** To increase the area of permanent forest estates and totally protected areas in the State;
- 3** To preserve and manage permanent forest reserves in accordance with the principles of sustainable forest management whilst optimising its contribution to socioeconomic developments of the State;
- 4** To strengthen forest legislation and enforcement for the sustainability and conservation of forest resources;
- 5** To preserve and conserve biological diversity to prevent extinction and deterioration of species, loss of ecosystems and genetic resources;
- 6** To enhance the management of forest resources through research and development;
- 7** To foster community and urban forestry programme for community well-being through eco-tourism, education and training;
- 8** To restore degraded forest areas through reforestation and rehabilitation programme in order to increase the area of forest cover and trees;
- 9** To rationalise and strengthen the development of woodbased industries;
- 10** To optimise on updated technology applications for improving the effectiveness of forest management;
- 11** To strive to fulfil obligations under international treaties and conventions;
- 12** To strengthen national and international collaborations on knowledge and technology transfer in forestry; and
- 13** To develop and enhance human and financial resources in sustainable forest management.



SUSTAINING FOREST RESOURCES

The establishment and conservation of forest area and its resources must be guaranteed in ensuring their optimal contribution towards the State's socio-economic development, environmental stability and well-being of the citizens. These resources can be continuously beneficial for the present and future generations.

STRATEGY 1:

Establishment, Maintenance and Protection of Permanent Forest Estate Areas (PFE), Totally Protected Areas (TPA) and Other Forest Areas

Forest areas and forest cover must be maintained, managed and developed in line with the State's commitment on Permanent Forest Estate Areas (PFE) and Totally Protected Areas (TPA). The PFE areas are meant for production forests while TPAs are for conservation and protection of forest and wild life. Other forest areas will be managed for environmental wellness.

ACTION PLANS

- (a) Identify and constitute forest areas as permanent forest estate and totally protected area;
- (b) Strengthen the governance of PFE, TPA and other forest areas;
- (c) Retain the existing PFE and substitute the PFE which has been excised or revoked; and
- (d) Increase the acreage of forest area and tree cover.

STRATEGY 2: Enhance Forest Governance

PFE, TPA and forest areas in State Land shall be managed systematically through good governance to ensure optimal contribution to socioeconomic and environmental wellness.

ACTION PLANS	
(a) Delineate and properly manage forest boundaries;	(b) Enhance implementation of Forest Management Plan or Forest Harvesting Plan for timber license areas; and
(c) Implement forest resource inventory and forest stand assessment.	

STRATEGY 3: Strengthening Forest Management in Water Catchment Areas

Management and conservation of forest in water catchment areas is vital to ensure its contribution in providing an adequate supply of clean water for domestic and commercial purposes. All these forest areas also serve to stabilize the environment, preserve and conserve biological diversity as well as social well-being.

ACTION PLANS	
(a) Enhance strategic partnerships among relevant agencies in managing, protecting and monitoring water catchment areas; and	(b) Implement sustainable forest management practices through Reduced Impact Logging (RIL) and other relevant guidelines.

STRATEGY 4:

Strengthening Forest Landscape Restoration

Forest Landscape Restoration (FLR) will act as a solution to the loss and degradation of forests and as a contribution to sustainable development through the ecological, social and economic values and functions of degraded landscapes. FLR plays a major component in restoring functional forest ecosystems within landscapes so that forests can co-exist and subsist in a landscape mosaic together with other land uses, thus addressing the wider issues of encroachment, local disputes and habitat management of endangered species.

ACTION PLANS

- (a) To identify, quantify and evaluate restoration opportunities;
- (b) Implement restoration and rehabilitation of targeted FLR areas using various approaches including agroforestry systems, enrichment planting, etc;
- (c) Encourage participation of public in restoration and rehabilitation programme; and
- (d) To provide enabling conditions for the implementation of FLR.

STRATEGY 5:

Recognition of Forestry Best Management Practices

The effectiveness of sustainable forest management practices for PFE has to be measured through transparent and accountable assessments. Good forest management practices can be measured through forest management certifications based on international standards.

ACTION PLANS

- (a) Enforce policies on forest management certification practices;
- (b) Provide enabling conditions for the implementation of forest certification; and
- (c) Strengthen forest best management practices through international collaborations.

THRUST 2 ➤ FOREST LAW ENFORCEMENT

Prevention and enforcement activities should be implemented effectively and efficiently to guarantee the protection of forest resources. Existing forest legislation should be updated in line with current challenges to ensure the effectiveness of enforcement activities.

STRATEGY 1: Strengthening Forest Legislation

Existing ordinances, regulations and relevant procedures need to be regularly revised to ensure their relevance with the current challenges and developments.

ACTION PLANS

- (a) Strengthen relevant ordinances, rules and regulations related to forestry;
- (b) Build the capacity of officers on forest legislation; and
- (c) Enhance awareness and continuous dissemination on the latest legislation to stakeholders.

STRATEGY 2:

Enhancement on the Efficiency of Law Enforcement

Forest law enforcement should be implemented through proper training and understanding of existing ordinances, regulations and relevant procedures. Effectiveness of enforcement operation can be enhanced through close collaboration with all stakeholders and application of advanced technology.

ACTION PLANS

- (a) Enhance integrity of enforcement officers;
- (b) Strengthen coordination committee for combating illegal logging and illegal trading of wild life;
- (c) Formulate policies, strategies and action plans for license holders to establish their own Compliance Unit;
- (d) Implement effective and efficient monitoring, prevention and investigation activities;
- (e) Strengthen enforcement in revenue collection system;
- (f) Strengthen collaboration with other relevant enforcement agencies; and
- (g) Equip officers with comprehensive knowledge and skills in enforcement.

THRUST 3 ➤ FOREST AND WILD LIFE CONSERVATION

Effective and efficient forest land use and marine habitats planning are essential for protection and conservation of forest and wild life. Forest and wild life are State's heritage which are highly valuable and need to be conserved and managed for the benefit of present and future generations. Balancing nature conservation and development requires integrated planning, management action and continuous monitoring.

STRATEGY 1: Strengthening Conservation Plan

Success and effectiveness of the integrated management of forest and wild life habitats should be supported by a comprehensive conservation plan. Wild life conservation management, including endemic and threatened species, needs to be implemented efficiently and systematically.

ACTION PLANS

- (a) Develop strategic wild life conservation and management plan;
- (b) Identify high biodiversity areas to be constituted for conservation;
- (c) Rehabilitate Endangered, Rare and Threatened (ERT) species and their habitats;
- (d) Develop and implement monitoring programme on ERT species and TPA; and
- (e) Enhance strategic management of wild life within logging concessions areas.

STRATEGY 2:

Establishment of Protected Areas Corridor

Protected areas corridor is established to reduce pressure on wild life habitats and to maintain the sustainability of biological diversity. This includes the establishment of buffer zones.

ACTION PLANS

- (a) Identify, establish and manage corridors linking protected areas including High Conservation Value (HCV) areas; and
- (b) Establish buffer zones for every TPA and relevant HCV areas.

STRATEGY 3:

Management of Human and Wild Life Conflict

Conflict between humans and wild life may occur when there are interactions between wild life and people in a given area and resulting in negative impacts on people, their resources, wild life or their habitats. The importance of wild life habitats should be given priority in land use planning and development.

ACTION PLANS

- (a) Enforce relevant laws effectively;
- (b) Revise and formulate relevant laws and regulations; and
- (c) Establish and upgrade wild life rescue and rehabilitation centre; and
- (d) Manage, monitor and control existence of foreign and invasive wild life species.

STRATEGY 4:

Management and Development of Totally Protected Areas

TPAs shall be properly managed to maintain and enhance their integrity and ensure protection of forest resources. Such management shall include development programmes with the participation and engagement of local stakeholders in the management and monitoring of TPAs.

ACTION PLANS

- (a) Prepare and implement Management Plan and Annual Operation Plan for each TPA;
- (b) Develop and upgrade infrastructure and interpretation centre in TPA areas;
- (c) Promote the usage of green technology for infrastructures in TPA; and
- (d) Enhance the capacity and capability of Special Park/Wild Life Committee and Honorary Wild Life Ranger.
- (e) Strengthen community participation and engagement in management and monitoring of TPAs.

STRATEGY 5:

Management of Wild life

A comprehensive wild life management is needed to ensure the sustainability of wild life species in the State. This shall be reflected in the plan to improve the existing Wild Life Protection Ordinance and the Master Plan for Wild Life in Sarawak. At the same time, plan must provide for the enhancement of existing facilities and capacity.

ACTION PLANS

- (a) Revise and formulate relevant laws, regulations and procedures related to wild life;
- (b) Promote conservation and compliance of laws related to wild life;
- (c) Develop capacity in wild life biology and forensic; and
- (d) Establish rescue centers and formulate translocation programme for wild life species affected by certain development.

THRUST 4 FOREST REVENUE MANAGEMENT

Forestry sector is one of the major contributors to the State's economic development. Planning, management and administration related to the revenue collection should be transparent and conducted systematically. Potential new revenue from the forestry sector shall be explored to maximise the State's revenue.

STRATEGY 1: Strengthening Revenue Collection

Effective mechanism through holistic approach in revenue collection will ensure reduction of leakages and enhance revenue collection.

ACTION PLANS	
(a)	Implement revenue assessment within timber license area;
(b)	Implement effective and efficient audit programme on revenue collection;
(c)	Establish strategic collaboration between relevant agencies to ensure efficient monitoring and revenue collection; and
(d)	Review and improve revenue collection system.

STRATEGY 2:

Diversification and Optimisation of Forest Revenue

New revenue sources should be explored and diversified in order to ensure the continuation and increased contribution of forestry sector in driving the State's economy. Besides, the existing forestry revenue shall be reviewed in line with current development. In addition, the existing charges and rates including royalty, premium and cess as well as new revenue sources should be compatible for the sustainable development of forestry industry.

ACTION PLANS

- (a) Review existing charges and rates for forest products and services;
- (b) Identify new sources of income from forestry sector; and
- (c) Strengthen promotion and marketing of forest-based eco-tourism.



RESEARCH, DEVELOPMENT, INNOVATION AND COMMERCIALISATION

Research and development is the backbone to the implementation of sustainable forest management practices through systematic and integrated research with the application of latest technology. In addition, innovative research findings have the potential to be commercialised.

STRATEGY 1:

Strengthening Research and Development (R&D) in Sustainable Forest Management Implementation

Research and development programme in the forestry sector continues to be enhanced to ensure the implementation of sustainable forest management practices for both natural forests and planted forests to achieve their objectives.

ACTION PLANS

- (a) Conduct research programmes in production forest areas;
- (b) Apply research findings for sustainable forest management;
- (c) Strengthen collaborations in research with all the relevant parties;
- (d) Intensify research and development for suitable planting materials for planted forests and restoration programmes;
- (e) Establish nurseries and seed orchards for high quality planting materials with disease and pests resistance; and
- (F) Enhance collaboration with industry players on R&D.

STRATEGY 2:**Strengthening Research and Development in Forest and Marine Biodiversity Conservation**

Research in forestry and marine sectors should be continuously strengthened for their contributions to the State's sustainable development. Preservation and conservation of forest and marine biodiversity should also be diversified and enhanced in a holistic manner.

ACTION PLANS

- (a) Enhance research and inventory of forest and marine biodiversity resources;
- (b) Intensify multidisciplinary research on forest and marine biodiversity resources; and
- (c) Conduct forest and marine conservation programmes.

STRATEGY 3:**Strengthening Flora and Fauna Integrated Information Centre**

Comprehensive documentation of forest biodiversity resources should be emphasised in implementing sustainable forest management. Data and information should be updated continuously as a reference for various agencies concerned.

ACTION PLANS

- (a) Strengthen integrated database management system;
- (b) Integrate information and research findings to support development of forest management, planted forests and wild life; and
- (c) Strengthen research data and information sharing through collaborations with relevant research institutions.

STRATEGY 4:

Commercialisation of Research and Development (R&D) Products

New approach in research programme should be developed through innovative, creative and competitive research. Major focus is given to commercialise research products with added value and are capable of delivering high economic impacts. Collaboration with other research agencies should continue to be expanded for the purpose of technology and information transfer.

ACTION PLANS	
(a)	Develop R&D programmes which have commercialisation potential;
(b)	Identify potential products from planted trees;
(c)	Implement innovative research to improve development of forest management, planted forests and wild life;
(d)	Improve research capabilities through knowledge sharing and capacity building;
(e)	Encourage intellectual property registration (e.g. patent) of research findings with commercial potential; and
(f)	Intensify international research collaboration for research capacity development.

THRUST 6 ➤ PLANTED FOREST DEVELOPMENT

The establishment of planted forest aimed to reduce dependency on timber resources from natural forests as well as supplementing raw materials for timber-based industries in Sarawak. The development of planted forest areas also include non-timber forest products which has commercial values to meet market demand.

STRATEGY 1: Strengthening the Development of Planted Forest

The existing planted forest should be strengthened through the implementation of comprehensive and effective action plans to ensure that the objectives of planted forest establishment are achieved. Priorities should be given to the management, implementation and monitoring aspects.

ACTION PLANS
<ul style="list-style-type: none">(a) Review existing planted forest policies, rules, regulations and guidelines;(b) Plant various fast growing timber species with high yield and commercial value;(c) Implement and enforce best management practices in planted forest;(d) Prepare emergency response plan for planted forest;(e) Encourage community involvement through establishment of community planted forest; and(f) Strengthen planted forest development monitoring system through various mechanisms.

THRUST 7 ➔ FORESTRY INDUSTRY

Forestry industry is one of the main contributors to the socio-economic development of Sarawak. Therefore, adequate and sustainable forest resources are essential to ensure the continuity of downstream activities. This includes timber and non-timber based raw material supply.

STRATEGY 1: Sustainable Timber Supply to Timber Industry

Continuous timber supply from either natural forest or planted forest is essential for the survival of downstream industries.

ACTION PLANS

- (a) Control and monitor timber production from natural forest and planted forest in accordance with sustainable forest production and industrial requirements;
- (b) Identify alternative sources of raw materials including import of raw materials; and
- (c) Review policies and guidelines related to the import of timber-based raw materials.

STRATEGY 2:

Development of Non-Timber Forest Product Industry

Non-timber forest products have the potential to contribute to the development of the State's economy, including livelihood improvement of local communities. These products need to be intensively developed and explored by providing various incentives to the stakeholders.

ACTION PLANS

- (a) Encourage participation of all parties in the development of non-timber forest products industry;
- (b) Collaborate with relevant agencies and industry players to strengthen the development of non-timber forest products industry;
- (c) Provide policies and guidelines related to non-timber forest products industry; and
- (d) Strengthen promotion and marketing of non-timber forest products.



THRUST 8 ➤ SOCIAL AND URBAN FORESTRY

Social forestry programme is beneficial to the communities that depend on forests as a source of livelihood. Urban forest programme seek to improve the communities' quality of life while providing recreational facilities and serve as 'green lung' to the cities.

STRATEGY 1: Strengthening Social Forestry

Social forestry is an important forest management approach to ensure the well-being and to uplift the livelihood of communities. In addition, it contributes to the protection, conservation and productivity of the forests.

ACTION PLANS

- (a) Strengthen the institutional framework and functions of social forestry;
- (b) Prepare, review and evaluate long-term plan of communal forest utilisation for socio-economic development and capacity building; and
- (c) Implement and monitor social forestry and community development programmes and activities.

STRATEGY 2:

Strengthening Urban Forestry

Urban forestry plays a vital role in enhancing the quality of life and provide urban communities with recreational places and also serve as a ‘green lung’ to the cities. These areas add to the acreage of forest cover in the State.

ACTION PLANS

- (a) Provide technical advice for green city programme and implement urban forestry activities;
- (b) Identify and establish ‘green lung’ in urban areas; and
- (c) Develop urban forest management plan with stakeholders.

THRUST 9

TECHNOLOGY APPLICATION IN FORESTRY MANAGEMENT

The use of advanced technology is able to improve efficiency in management, research and conservation of forest resources as well as contributing towards effective land use planning.

STRATEGY 1:

Leverage on Advanced Technology

Ability to apply advanced technology in forestry can help provide timely and accurate information on land use planning and forest management. Such information can be applied by relevant agencies in making decisions as well as assisting in preparation of state or national level forestry programme and policies.

ACTION PLANS

- (a) Develop advanced technology system related to forestry;
- (b) Apply advanced technology for better and efficient forestry activities including management and planning, enforcement, revenue collection, research and conservation, planted forests and non-timber forest processing;
- (c) Strengthen collaborations with various stakeholders in the application of advanced technology related to forestry; and
- (d) Establish integrated technology control centre.



Active involvement in forestry issues is very important to improve State's image in sustainable forest management. The government is striving in implementing various obligations and realisation of international agreements that have been signed. Collaboration at regional and international levels in the field of forestry allows for transfer and sharing of knowledge, skills and new technologies.

STRATEGY 1:

Implementation of Commitment Under International Agreements

The state government is committed in implementing obligations and international treaties, which have been agreed according to State current constitutions, policies and legislations.

ACTION PLANS

- (a) Establishment of State International Agreement Evaluation Committee to review and evaluate issues related to treaties on forestry and biodiversity; and
- (b) Plan and implement programmes related to commitment of international agreement

STRATEGY 2:**Strengthening International Collaboration Related to Forestry Management and Research**

International collaboration in the aspect of preservation, conservation and sustainable management of forest resources is essential in enhancing acquisition and adaptation of knowledge and expertise from other countries. This is to elevate the management standards of the forests in the State.

ACTION PLANS

- (a) Review the effectiveness, benefit and opportunities of international collaborations to the State government;
- (b) Identify new aspects and needs of collaboration and initiate new projects while ensuring continuous source of funds and other assistance in support thereof;
- (c) Enhance collaborations and strategic partnerships with stakeholders; and
- (d) Strengthening monitoring of compliance to terms and conditions of collaboration agreements.

THRUST 11 ➤ FINANCIAL AND HUMAN RESOURCE

Human resource and sufficient financial provision are important in realising efficient and effective forest management implementation.

STRATEGY 1: Strengthening Financial Resources

Prudent management of financial resources is necessary to ensure all forestry programmes and activities can be properly implemented.

ACTION PLANS

- (a) Secure sufficient internal financial resources;
- (b) Identify and secure external financial resources; and
- (c) Establish special fund for forest enforcement.

STRATEGY 2: Strengthening Human Resource Development

Efficient and competent human resource is vital to ensure the success of forest management implementation.

ACTION PLANS

- (a) Enhance the capability and capacity of human resources in various forest management activities through appropriate training and exposure; and
- (b) Inculcate moral values in human resource management.

THRUST 12 COMMUNICATION, EDUCATION AND PUBLIC AWARENESS

Awareness on the importance of forests and wild life continues to be disseminated through communication, education and public awareness programmes. Planning and implementation of these programmes encompass all levels of stakeholders including communities in Sarawak in line with the current challenges and developments.

STRATEGY 1:

Strengthening Communication, Education and Public Awareness Programme

Stakeholders participation should be enhanced through continuous education and awareness programmes to ensure the sustainability of forests and wild life. Existing programmes needs to be strengthened and be more impactful to the stakeholders.

ACTION PLANS

- (a) Strengthen communication programme including dialogue, consultation and etc. with public and other stakeholders;
- (b) Conduct education and awareness programme on the importance of forest and environmental protection;
- (c) Encourage continuous participation of non-government organisations (NGOs) and timber industry players; and
- (d) Strengthen functions and enhance participation of Special Park/Wild Life Committee and Honorary Wild Life Rangers.

MALAYSIA POLICY ON FORESTRY



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