



Workshop on Tracking Technologies for Forest Governance
Kuala Lumpur, Malaysia, 15 – 17 May 2012

Experience of Malaysia with Forest Governance and Tracking Technologies

by

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OUTLINE OF PRESENTATION :

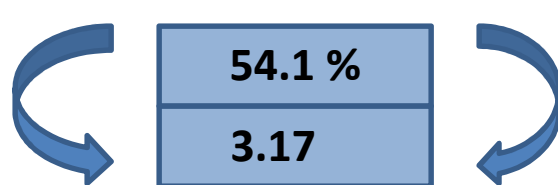
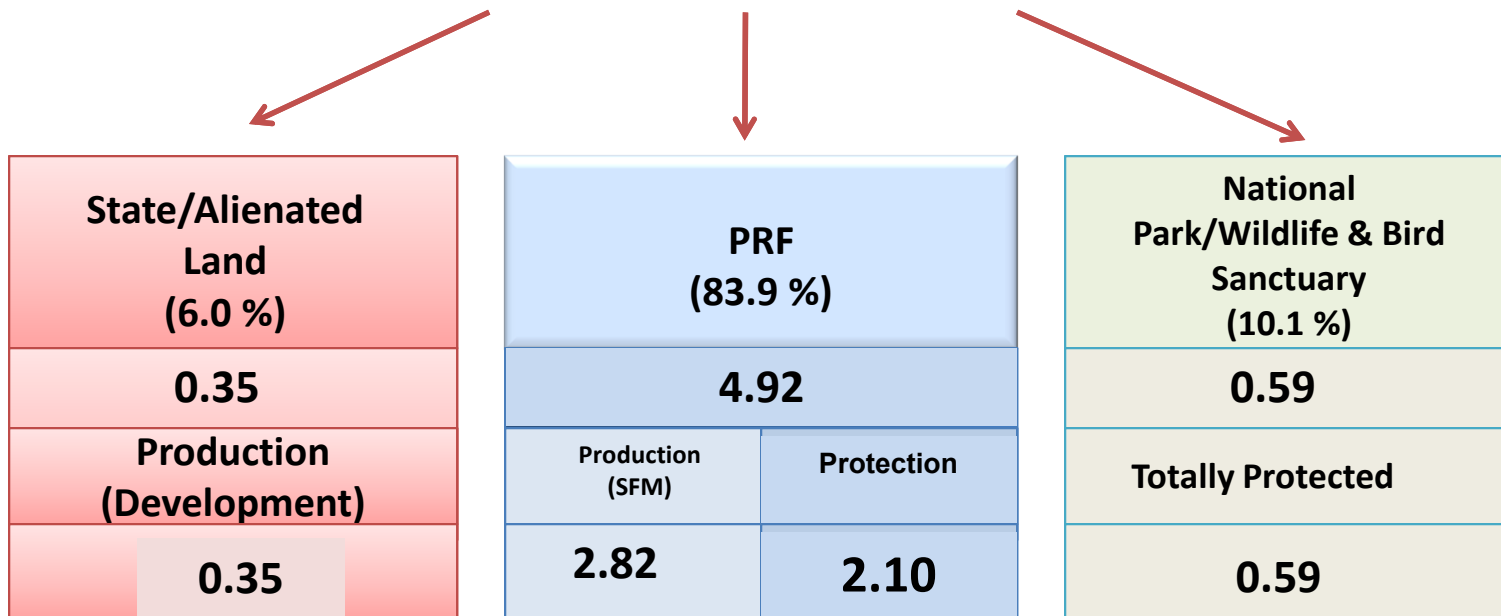
- 1.0 An Overview of Forest Resources in Peninsular Malaysia**
- 2.0 Policy and Legislation**
- 3.0 Forest Management Practices**
- 4.0 Relevance of Tracking Technologies to Forest Governance**
- 5.0 Conclusion**



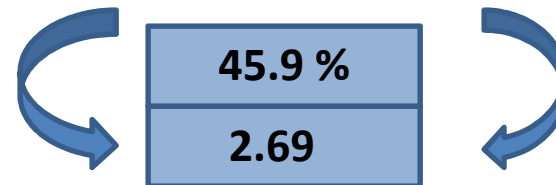
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FOREST RESOURCES IN P. MALAYSIA (million ha) (2010)
5.86 million ha (44.4 %)



Production



Protection



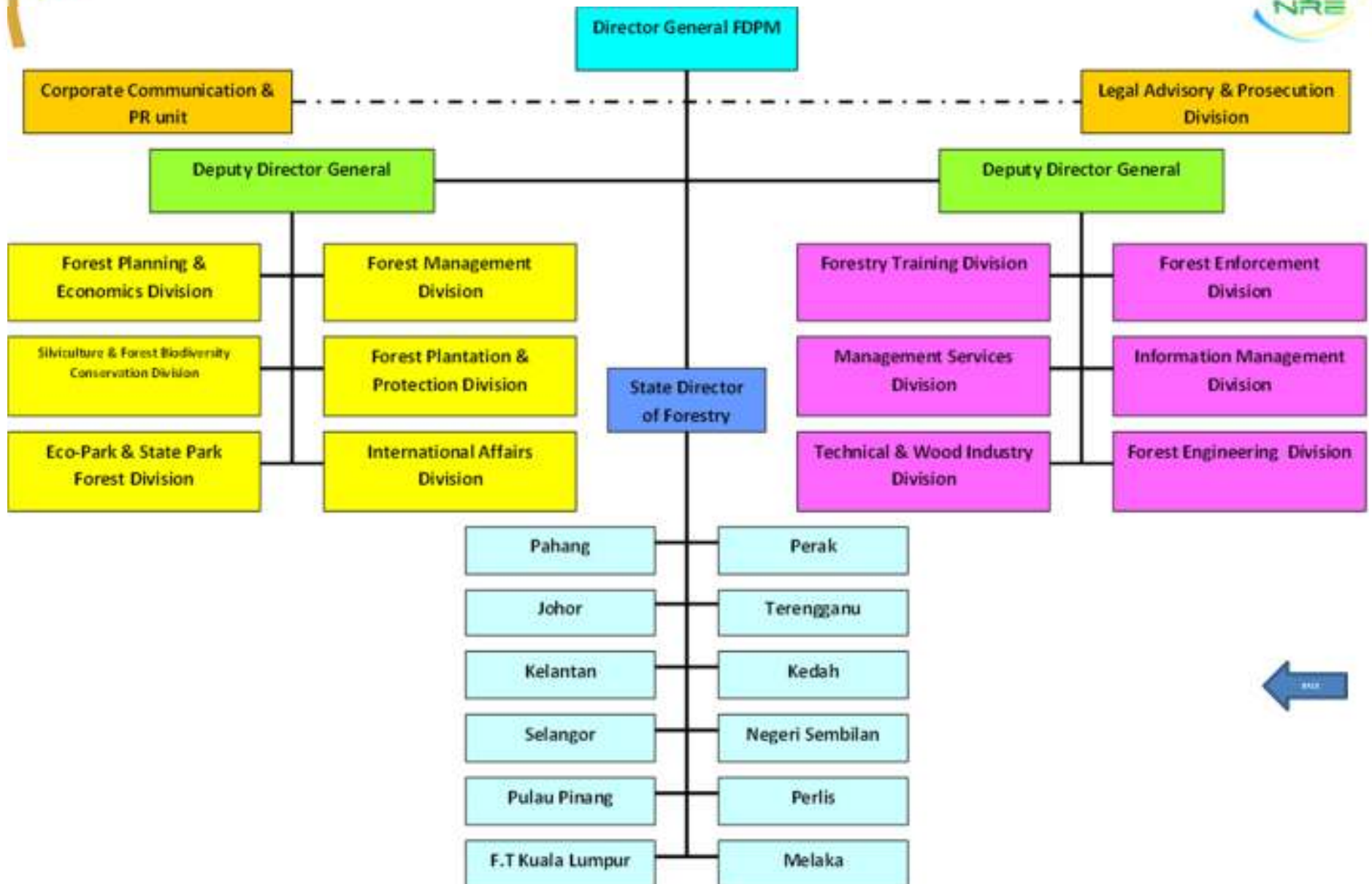
POLICY AND LEGISLATION

- **Article 74 (2) of the Malaysian Constitution:**
 - Forestry is a State matter
 - Federal Government provides technical assistance, training & research

- **National Land Council (NLC)**
 - Coordinates implementation of forest policies & programmes
 - Resolves common problems & issues related to administration, management & development of forest resources



ORGANISATION CHART OF FORESTRY DEPARTMENT PENINSULAR MALAYSIA





POLICY AND LEGISLATION (cont...)

National Forestry Policy, 1978 (revised 1992)

Objectives of the policy:

- to conserve and manage the nation's forest based on the principles of sustainable management;
- to protect the environment as well as to conserve biological diversity, genetic resources, and to enhance research and education.



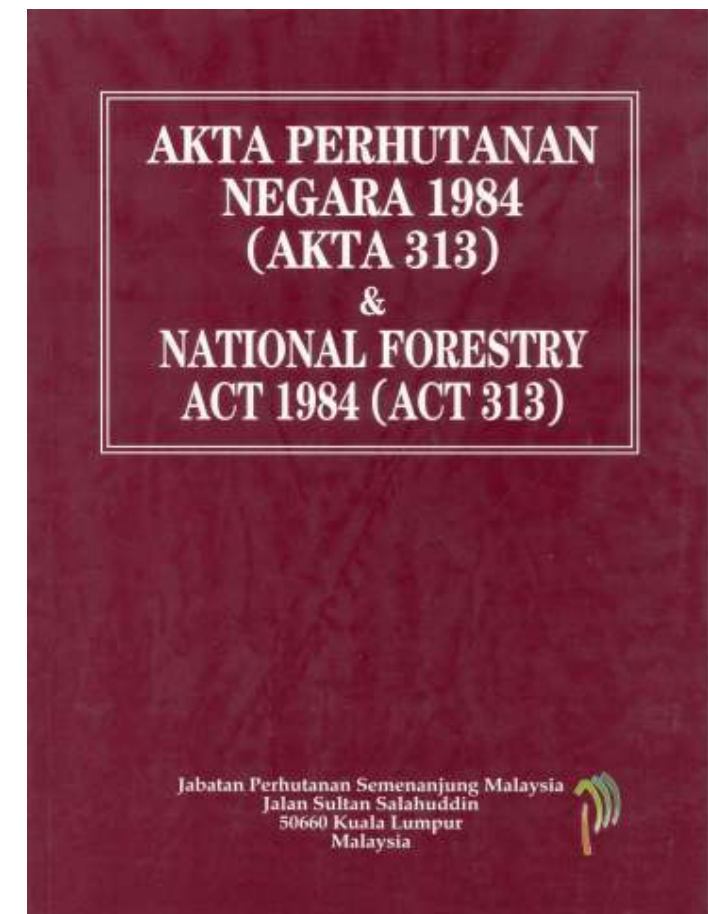


POLICY AND LEGISLATION (cont...)

National Forestry Act, 1984

This Act provides for:

- administration, management and conservation of forests for forestry development within States in Peninsular Malaysia and for related purposes.





POLICY AND LEGISLATION (cont...)

Wood-Based Industry Act, 1984

This Act provides for:

- establishment and operation of wood-based industries.





OTHER RELATED LEGISLATIONS

Peninsular Malaysia

- Water Enactment, 1935
- Aboriginal Peoples Act, 1954
- Land Conservation Act, 1960
- Environmental Quality Act, 1974
- National Parks Act, 1980
- National Policy on Biological Diversity, 1998
- Wildlife Conservation Act, 2010

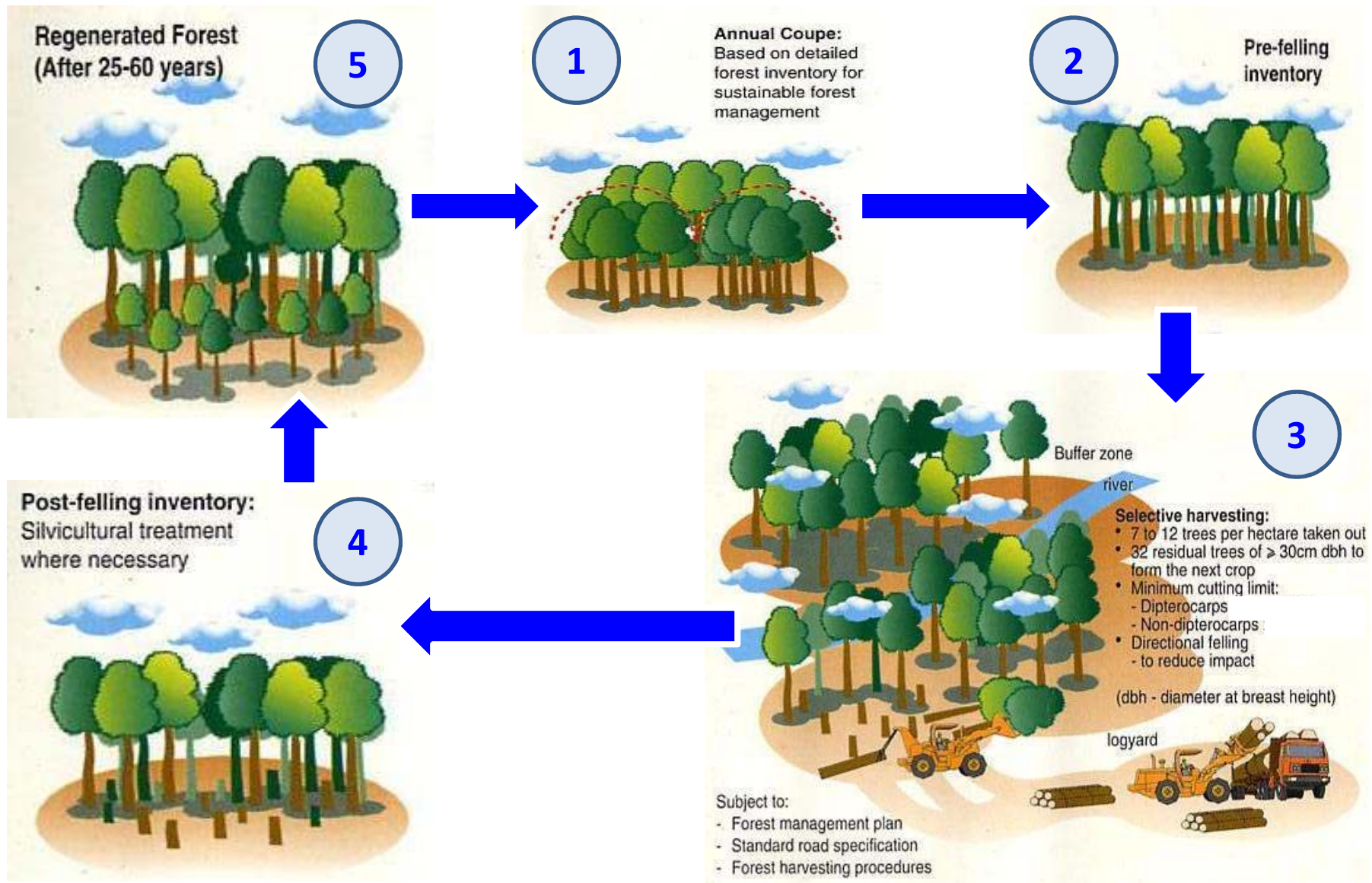


FOREST FUNCTIONAL CLASSIFICATION

Under Section 10(1) NFA 1984, PRFs are classified into 12 functional classes :

- i. timber production forest under sustained yield;
 - ii. soil protection forest;
 - iii. soil reclamation forest;
 - iv. flood control forest;
 - v. water catchment forest;
 - vi. forest sanctuary for wild life;
 - vii. virgin jungle reserved forest;
 - viii. amenity forest;
 - ix. education forest;
 - x. research forest;
 - xi. forest for federal purposes; and
 - xii. state park forest.
- Protection Forests**

FOREST MANAGEMENT PRACTICES

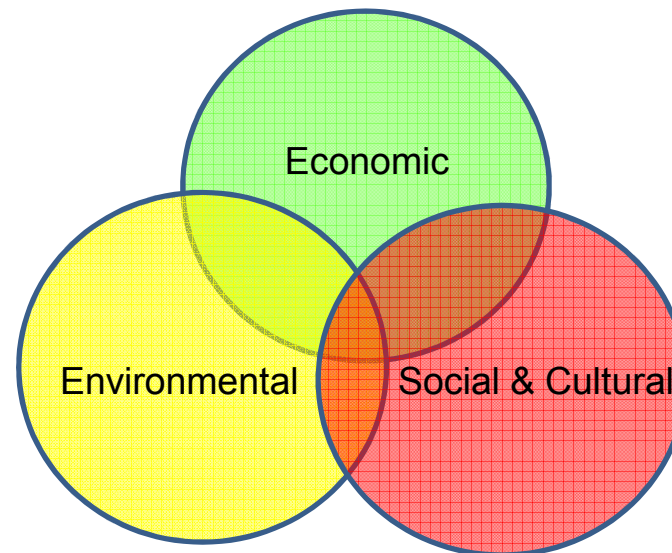




SUSTAINABLE FOREST MANAGEMENT

“The process of managing permanent forest land to achieved one or more clearly specified objectives of management with regard to the production of continuous flow of desired forest products and services without undue reduction in its inherent values and future productivity and without undue undesirable effects on the physical and social environment”

ITTO 1992





FOREST MANAGEMENT CERTIFICATION

- MC&I (2002) based on FSC Principles and Criteria;
- 8 FMU in Peninsular Malaysia have been successfully certified under this standard.





Tracking Technologies

GIS – A computer system that can map and do various task and analysis by overlaying different spatial data of the same geographic reference

Remote Sensing – use of earth images obtained from space either through satellite or airplane to extract information

Integration of GIS and Remote Sensing as tool for forest management

- Forest Mapping (slope mapping, pre-F & post-F plots, tree mapping, licence map, forest cover mapping)
- Forest Planning & Management (updating of forest roads)
- Forest Monitoring

GPS - The Global Positioning System (GPS) is a space-based satellite navigation system that provides location and time information in all weather, anywhere on or near the Earth, where there is an unobstructed line of sight to four or more GPS satellites.



Tracking Technologies (cont..)

Forest Monitoring Using Remote Sensing (FMRS)

- A web-based GIS system jointly developed with Malaysia Remote Sensing Agency (ARSM) to monitor forest changes and illegal logging/ encroachment within PRF

Radio-Frequency Identification (RFID)

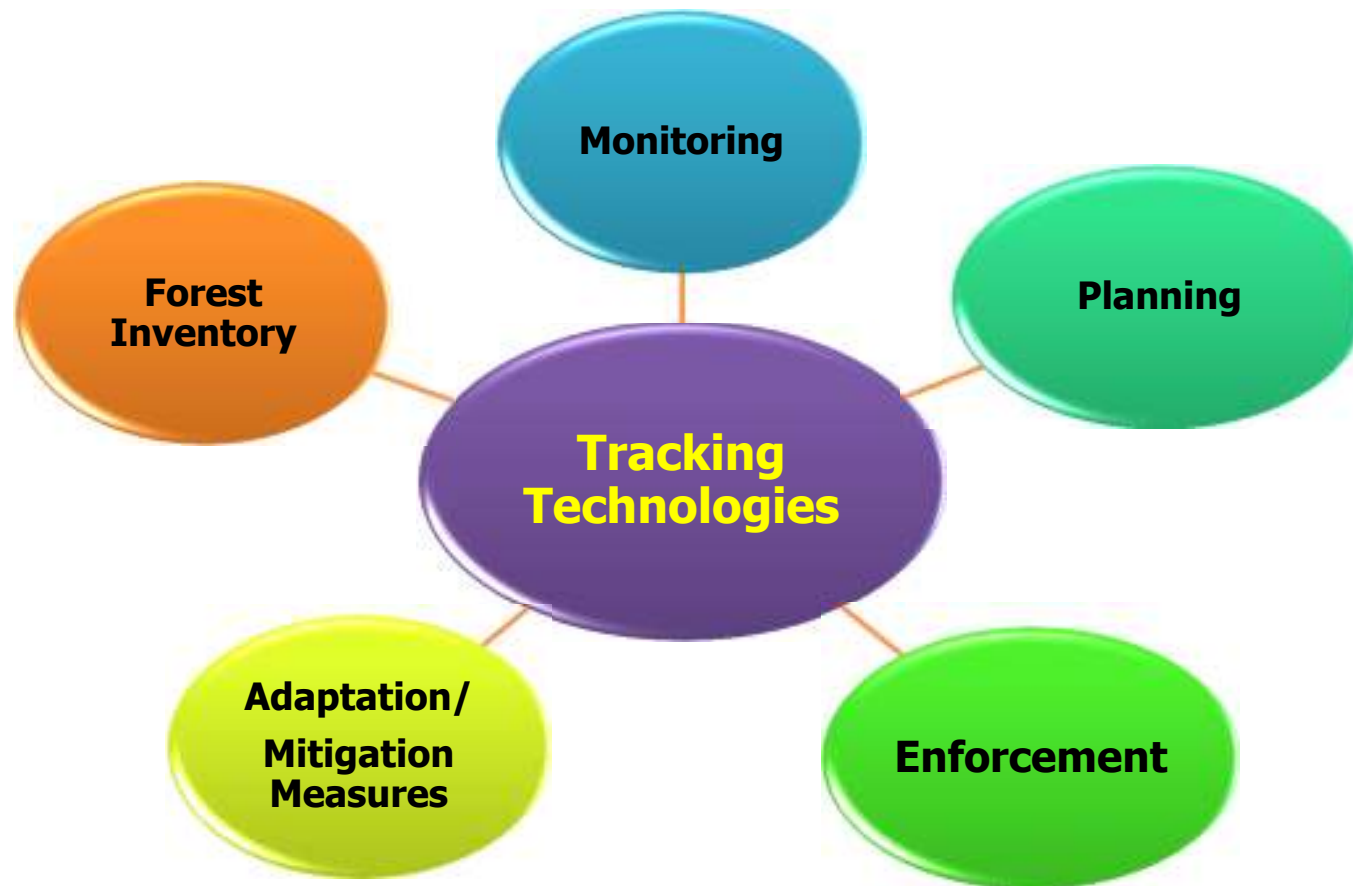
- The use of a wireless non-contact system that uses radio-frequency [electromagnetic fields](#) to transfer data from a tag attached to an object, for the purposes of automatic identification and tracking.
- Can be used for the tracking of timber from forest to saw mill.



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Relevance of Tracking Technologies to Forest Governance





CONCLUSION

- Malaysia is fortunate to be endowed with vast tracts of tropical rainforest rich in flora and fauna. Therefore, it is important that these valuable natural resources be managed through good forest governance to ensure the sustainability of forest resources for the benefits of the present and future generations. Close Federal - State relationship is pertinent to good forest governance.
- Tracking technologies such as GIS, GPS, FMRS & RFID are relevant to forest governance. Continual efforts should be conducted to explore new tracking technologies to further enhance good forest governance.
- Lack of expertise and funds are the constraints for the effective application of tracking technologies in forest management practices.



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THANK YOU

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