

# EXECUTIVE SUMMARY

The Forest Management Plan (RPH) of Perak State for the period 2026–2035 is an official, comprehensive document and nationally recognised, prepared by the Perak State Forestry Department (JPNPk) to ensure that the management of permanent reserved forests (HSK) is carried out in a planned, sustainable, and efficient manner. This document serves as an important guide for the state authorities, JPNPk, and all stakeholders in ensuring sustainable forest management, in line with the Malaysian Forestry Policy (DPM), the Peninsular Malaysia Forestry Policy (DPSM), and the state's aspirations through the Perak Sejahtera 2030 Plan, particularly the Perak Bumi Lestari framework. The preparation of this RPH fulfils the legal provisions under Section 2(1) and Section 4 of the National Forestry Act 1984 (Application) 1985. The State Government is committed to maintaining international recognition through the Malaysian Timber Certification Scheme (MTCS). This RPH is also crucial to comply with new international regulations such as the European Union Deforestation-Free Products Regulation (EUDR), proving that forest product harvesting activities are conducted legally and responsibly.

The HSK of Perak, covering 987,963.09 ha (as of 31 December 2024), includes natural forests (inland and mangrove) and plantation forests, focusing on mega biodiversity conservation, while also providing timber, herbs, medicines, food sources, and playing a vital role as water catchment areas and oxygen suppliers.

## a. Management Objectives

The plan is designed to achieve sustainable management and development of the forestry sector in line with the policies, strategies, and goals that consider socio-economic needs, environmental concerns, and biodiversity. The main mission of JPNPk is to strengthen sustainable management of the multiple functions of forests for community well-being, ecosystem resilience, and economic sustainability.

There are nine specific objectives under this plan:

1. Ensuring sufficient forest areas are sustainably managed while maintaining their diverse functions.
2. Expanding protected areas and connecting isolated forests to secure wildlife habitats.
3. Strengthening conservation, restoration, and sustainable forest harvesting as climate change mitigation.
4. Enhancing forest services and ecotourism activities.
5. Transforming forest management practices through technology and digitalisation.
6. Empowering integrated and environmentally friendly forest plantation management.
7. Ensuring more efficient use of forest resources for forest-based industries.
8. Encouraging participation of local communities, indigenous peoples, and NGOs in forest management.
9. Developing competent, innovative, and competitive human capital.

Other objectives include preserving biodiversity, water, and soil sustainably, and improving the quality and efficiency of forest-based processing industries.

## **b. Administration, Forest Resources, Environmental Constraints, Land Use, Socio-Economic Conditions, and Surrounding Land Profile**

- Administration: JPNPk advises the state authorities in forest resource administration and manages HSK sustainably, collaborating with agencies such as JAKOA, PERHILITAN, PDRM, ATM, FRIM, JMG, DOE, and NGOs. Staffing approved in 2025 totals 767 positions, with 695 filled (90.6%).
- Forest Resources: Covers all HSK in Perak (987,963.09 ha), including natural forests, plantations, and state parks. Classified into 11 forest function classes under Section 10(1) of the National Forestry Act.
- Environmental Constraints: Includes management of environmentally sensitive areas (ESA) such as the Central Forest Spine (CFS), water catchments, and steep terrain prone to erosion. Quarry activities near Ulu Kinta Eco-Park have affected river water quality.
- Land Use and Ownership: Forests dominate Perak's land use (50.39%), followed by agriculture (37.60%). Land administration is under state jurisdiction.
- Socio-Economic Conditions: Perak has ~2.54 million people. Services contribute 61.4% to GDP, while forestry/logging contributes ~2.7% of agriculture. Indigenous peoples (62,134) and local communities near HSK depend heavily on forest resources.
- Surrounding Land Profile: Includes indigenous villages (some within HSK) managed by JAKOA, and traditional Malay villages outside HSK. Communities have traditional rights to access non-timber forest products (NTFPs) and engage in eco-tourism.

## **c. Silviculture & Forest Management Systems**

- Natural Forest Management: Based on Sustainable Forest Management (SFM) standards under MC&I SFM. Historically evolved from the Malayan Uniform System (MUS).
- Silvicultural Treatments: Conducted 3–5 years after logging, either climber cutting (CL) or enrichment planting (TM), based on post-harvest inventory analysis.
- Mangrove Forest Management: Matang mangrove forest is globally recognised for best practices, guided by the Matang Mangrove Forest Working Plan 2020–2029.
- Fire Prevention & Control: Strategies include satellite monitoring (ForFIS), patrols, firefighting teams, and cooperation with agencies (Fire Dept, NADMA).

## **d. Harvesting Rates & Species Selection**

- Annual Harvesting Rate: Based on forest growth to ensure sustained yield. Annual allowable cut (AAC) determined by pre-harvest inventory.
- Species Selection (Timber): Minimum cutting limits: Dipterocarps  $\geq 65$  cm dbh; non-dipterocarps  $\geq 55$  cm dbh.
- Species Selection (Fauna): 38 fruit/food tree species protected for wildlife.
- Non-timber forest products (NTFPs): Key commercial products include petai, rattan, bamboo, durian, and wild honey.

## **e. Forest Growth Monitoring**

- Growth Plots: 15 permanent plots established since 1992 to monitor recovery, productivity, and mortality.
- Census Frequency: Every two years.
- Post-Harvest Inventory: Conducted 2–5 years after logging, with 10% sampling intensity.

## **f. Environmental Protection**

- Environmental Impact Assessment (EIA): Mandatory for logging under the Environmental Quality Act 1974.
- Implementation: 28 EIAs completed up to 2024.
- ESA Management: Development discouraged in highly sensitive areas; controlled development allowed in low-sensitivity ESAs.

## **g. Rare, Endangered & Threatened Species Protection**

- Special Habitats: High Conservation Value Forests (HCVF) and Wildlife Protection Forests (HPHL).
- Key Species: Tiger (*Panthera tigris*) as umbrella species; Asian elephant, gaur, tapir. Endemic flora includes *Shorea lumutensis*, *Johannesteijsmannia perakensis*, *Rhizanthus infanticida*.
- Protection Activities: Rapid assessments, biodiversity inventories, Bio-Blitz programmes, and integration with CFS ecological networks.

## **h. Basic Forest Resources, Protected Areas & Planned Management**

- Forest Resources: 987,963.09 ha of HSK under JPNPk.
- Protected Areas:
  - Water Catchment Forests: 159,866ha
  - Royal Belum State Park: 117,500 ha
  - Virgin Jungle Reserves: 6,605.63 ha
  - Eco-Parks: 13 sites for recreation/education
- Planned Activities: Sustainable timber harvesting, silviculture, plantation establishment, ecotourism development.

## **i. Harvesting Techniques & Equipment**

- Techniques: Reduced impact logging (RIL) guidelines.
- Justification: Minimises damage to residual stands, soil, and water.
- Equipment: Emphasis on efficiency and compliance. Digital systems (E-Forlog, Pre-F/Post-F inventories) used for monitoring.

## **j. Stakeholder Consultation**

- Formal Sessions: Social impact assessments (SIA) mandatory before, during, and after harvesting.
- Indigenous Peoples: Free, prior, and informed consent (FPIC) required. Conflict resolution via regular meetings with JAKOA.
- Community Engagement: Encouraged in forest management, community-based eco-tourism (CBET), and social forestry programmes.

## **k. High Conservation Value (HCV) Forests**

- HCV Areas: 13 plots identified (as of April 2024).
- Management: Boundary marking, monitoring, and integration into CFS ecological planning.
- Enhancement: Species-specific conservation action plans (e.g., tapir).

## **l. Other Relevant Information**

- Forest Certification: Perak certified under MTCS/PEFC until 31 May 2029.
- *Payment for Ecosystem Services (PES)*: Potential revenue from recreation, carbon storage, and water catchments. Proposed buffer zone fee of RM1,000/ha/year for hydroelectric dam operators.
- Digitalisation: ICT systems include e-GP, E-Forlog, FMRS, and e-Permit.
- Forest Education: Proposed gazettement of eco-education centres in Matang Mangrove, Ulu Kenas, and Kledang Saiong.

In summary, this Forest Management Plan (RPH) contains eight (8) key chapters: Introduction (Chapter 1), Implementation Strategy (Chapter 2), Physical and Socio-Economic Environment (Chapter 3), Gap Analysis (Chapter 4), Quantitative and Qualitative Assessment of Forest Resources (Chapter 5), Forest Management Prescriptions (Chapter 6), Monitoring, Control and Evaluation (Chapter 7), and Budget (Chapter 8).

The implementation strategy emphasises a balance between environmental, social, and economic aspects. Perak also focuses on strategies for generating new economic resources under the concept of Forest Beyond Timbers. This includes the potential for carbon offsets in protected areas to contribute to the national net zero target by 2050. In addition, the initiative of Payment for Forest Ecosystem Services (*PFES*) is seen as having the potential to generate additional income for JPNPk, applied through public, private, or public-private payment schemes. The socio-economic analysis shows that the RPH supports the Social Well-being and Economic Well-being under Perak Sejahtera 2030, including through sustainable destination management and community involvement.

Based on the Gap Analysis (Chapter 4) of the previous RPH period (2016–2025), JPNPk has successfully implemented the plan, although improvements are needed in the implementation of the annual allowable cut (AAC). Compliance with AAC during RMK12 (2021–2025) only reached 69.36% (22,888 ha) of the quota of 33,000 ha, indicating the need to review AAC management. In terms of conservation, JPNPk has identified and established 13 High Conservation Value Forest (HCVF) plots up to April 2024, protecting endemic species such as *Shorea lumutensis* and *Rhizanthus infanticida*, and these areas have been integrated into the planning of the Central Forest Spine (CFS) ecological network.

The quantitative assessment of forest resources (Chapter 5) in 2025 showed positive results in forest stand content. Inventories conducted on forests logged more than 30 years ago found that the net volume potentially harvestable (for trees >60 cm dbh) was 61.8 m<sup>3</sup>/ha, exceeding the economic harvesting threshold of 28 m<sup>3</sup>/ha. Based on this information, the projected AAC for RMK13 (2026–2030) is 6,100 ha per year, or 30,500 ha for five years. For 2026–2035, the total net AAC area available for harvesting is 187,019 ha. Assessment of forest ecosystem services estimated potential annual revenue between RM3.16 million and RM4.38 million from PES mechanisms based on recreation and eco-tourism. JPNPk is exploring carbon projects based on Nature-Based Solutions (NBS), including collaborations with Yayasan Hasanah/SEARRP and preliminary studies with Petronas in the Matang Mangrove Forest and Amanjaya Forest Reserve.

The Forest Management Prescriptions (Chapter 6) outline various key activities. For Production Forests, the pre-felling inventories (Pre-F) will be conducted over an estimated 30,500 ha (6,100 ha/year) during 2026–2030, prioritising the remaining unlicensed Pre-F areas (19,885 ha). Harvesting will follow minimum cutting limits of 65 cm dbh for dipterocarps and 55 cm dbh for non-dipterocarps, in compliance with Reduced Impact Logging (RIL) guidelines. Silvicultural treatments such as Climber Cutting (CL) and Enrichment Planting (TM) will be carried out after post-felling inventories (Post-F), expected to cover backlog areas totalling 72,768 ha up to 2027.

Management of special areas includes forest plantations (approved area of 32,375 ha) and soil protection forests (HPT), where 190,598.10 ha have been identified as of December 2024. JPNPk plans to review HPT boundaries, including removing areas already approved for forest plantations (e.g., in HS Kledang Saiong). Management of eco-parks (TER) or recreational forests focuses on sustainable, data-driven eco-tourism product development, including implementation of Carrying Capacity Studies and use of digital technologies such as QR codes/e-permits for visitor control. TER Kledang Saiong, Ulu Kenas, and Lata Iskandar are prioritised for rebranding and facility upgrades. In terms of production, HSK remains the main source of timber in Perak, contributing 82% of the total 3.5 million m<sup>3</sup> recorded from 2015–2024. Social forestry is mainstreamed through the approach One Forest District, One Social Forestry Project (1PHD–1SF Project) to improve livelihoods and reduce poverty among local communities and indigenous people.

The chapter on Monitoring, Control and Evaluation (Chapter 7) emphasises the importance of proper documentation and record-keeping, including compartment data, research records, and operational costs. Forestry law enforcement is strengthened under Act 313, granting forest officers powers of arrest and seizure. JPNPk also implements a transparent and systematic public complaint management system. To ensure effectiveness, a mid-term review is mandatory after five years of implementation to assess physical and financial performance and address emerging issues.

Chapter 8 (Budget) projects financial stability. The estimated annual revenue collection of JPNPk is RM36,831,800.00, with total royalty collection projected at RM104.0 million over 2026–2035. The total expenditure (Operating, Development, and KWPH) for 2026–2035 is estimated at RM798.7 million. Operating expenditure (B25) is estimated at RM578.7 million, while Development expenditure (P05 and P23) for RMK13 (2026–2030) is RM64.015 million, covering projects such as upgrading the Sg. Siput Training Complex and constructing the Hulu Perak District Forest Office. Efficient, transparent, and strategic budget management is essential to ensure forest resource sustainability and support the objectives of Perak Sejahtera 2030.

This RPH serves as a holistic framework for managing Perak's forests, shifting from a timber-centric focus to the management of high-value ecosystem services, supporting the green economy, and safeguarding natural heritage for the future.