GUIDELINES FOR ECO-INDUSTRIAL PARKS

In the North Western Province of Sri Lanka

Industrial Services Bureau

EXECUTIVE SUMMARY

This document provides comprehensive guidelines for the development and management of Eco-Industrial Parks (EIPs) in the North Western Province of Sri Lanka. It is adapted from the National Guidelines for EIPs and tailored specifically for implementation by the Industrial Services Bureau (ISB).

Purpose and Scope

These guidelines establish the framework for:

Development of new Eco-Industrial Parks in the NWP

Transformation of existing industrial parks into EIPs

Strengthening environmental and social management systems

Implementation of performance monitoring and reporting mechanisms

Promotion of circular economy and sustainable industrial practices

1. UNDERSTANDING ECO-INDUSTRIAL PARKS

1.1 Definition of Eco-Industrial Parks

An Eco-Industrial Park (EIP) is a community of manufacturing and service businesses seeking common efficiency in the use of environmental resources, including energy, water, and materials. The key characteristics include:

Integrated environmental and social management at the park level

Cooperation and synergy among tenant industries for resource efficiency

Compliance with internationally recognized environmental and social standards

Strong governance and transparent stakeholder engagement

1.2 Strategic Importance for North Western Province

The NWP, with its focus on industrial development in key clusters (coconut, rubber, agri-processing, textiles), requires a systematic approach to sustainable industrial growth. EIPs align with:

National development priorities for green industrialization

Circular economy aspirations and waste-to-value initiatives

Environmental compliance and governance objectives

Attraction of responsible foreign and domestic investment

2. CORE PRINCIPLES FOR EIPs

2.1 Environmental Principles

Resource Efficiency: Optimize use of water, energy, and raw materials through park-level infrastructure and tenant coordination

Waste Minimization: Implement waste segregation, recycling, and recovery systems; promote symbiotic relationships among tenants

Pollution Prevention: Proactive control of air, water, and soil quality through integrated management systems

Biodiversity Protection: Maintain green spaces, protect sensitive ecosystems, and ensure environmental restoration

2.2 Social Principles

Fair Labour Practices: Enforce labour standards, health and safety compliance, and skill development programs

Community Engagement: Establish transparent dialogue with local communities, address grievances, and create shared benefits

Inclusive Development: Support SME participation, local enterprise development, and employment creation

2.3 Governance Principles

Accountability: Clear roles, responsibilities, and performance targets for all stakeholders

Transparency: Public disclosure of environmental and social performance data

Rule of Law: Compliance with national regulations and international best practices

3. SITE SELECTION CRITERIA FOR NWP

3.1 Geographic and Locational Criteria

Proximity to raw material sources (coconut, rubber, agri-produce in NWP)

Access to transport networks (road, rail, port infrastructure)

Availability of reliable water and energy supply

Distance from sensitive ecosystems, residential areas, and water sources

3.2 Environmental Suitability

Soil stability and geology suitable for industrial development

Adequate water resources for industrial use without compromising supply to communities

Wind patterns and air dispersion suitable for industrial operations

Flood risk assessment and climate resilience considerations

3.3 Regulatory and Social Considerations

Alignment with Local Authority zoning and land use plans

Availability of required environmental and investment approvals

Community support and commitment to grievance redressal mechanisms

Access to skilled labour and educational institutions

4. EIP DEVELOPMENT PHASES

4.1 Phase 1: Feasibility and Concept Development

Conduct comprehensive feasibility assessment including market analysis, technical requirements, and environmental screening

Develop EIP concept including industry mix, resource flows, and synergy opportunities

Identify anchor tenants and assess investment potential

Stakeholder consultation and community engagement

4.2 Phase 2: Master Planning and Design

Develop detailed master plan with zoning, infrastructure layout, and utility corridors

Design common infrastructure (utilities, waste management, recycling, treatment facilities)

Environmental and Social Impact Assessment (ESIA) and management plans

Develop Environmental and Social Management System (ESMS) framework

4.3 Phase 3: Implementation and Operationalization

Infrastructure development and tenant recruitment

Establishment of park governance structure and management entity

Implementation of ESMS and stakeholder engagement mechanisms

Capacity building for park management and tenants

4.4 Phase 4: Performance Monitoring and Continuous Improvement

Regular monitoring of environmental and social performance indicators
Annual reporting and third-party verification of performance
Continuous improvement and adaptation of management practices

5. PERFORMANCE STANDARDS AND MATURITY LEVELS

EIPs will be assessed against three maturity levels:

5.1 Level 1: Basic Compliance

Meets all mandatory legal and regulatory requirements
Functional environmental and social management systems
Basic stakeholder consultation mechanisms
Annual reporting on environmental and social indicators

5.2 Level 2: Advanced Practice

Exceeds minimum requirements with proactive environmental and social initiatives
Implementation of advanced resource efficiency technologies
Recognized industry certifications (ISO 14001, OHSAS 18001, etc.)
Active community partnership programs and grievance mechanisms
Third-party performance verification

5.3 Level 3: Best-in-Class Leadership

Integration of sustainability across all park operations
Circular economy implementation with significant waste reduction and resource recovery
International certifications (e.g., LEED ND, Living Building Challenge)
Sector leadership in environmental and social innovation
Public disclosure and engagement as industry model

6. PARK GOVERNANCE AND MANAGEMENT MODELS

ISB may adopt one or more of the following governance structures based on park characteristics:

6.1 Public Sector Model

ISB directly manages the EIP
Advantages: Public accountability, alignment with development objectives
Challenges: Operational efficiency, resource constraints

6.2 Private Sector Model

Private developer/operator manages the EIP with ISB oversight
Advantages: Operational efficiency, innovation, financial sustainability
Challenges: Alignment with public interest, profit motives

6.3 Public-Private Partnership (PPP) Model

Shared responsibilities between ISB and private partners with clear contractual obligations
Advantages: Risk sharing, operational efficiency, public oversight

Challenges: Complex management, dispute resolution mechanisms needed

7. ENVIRONMENTAL AND SOCIAL MANAGEMENT SYSTEMS

7.1 Core Components of Park-Level ESMS

Environmental Management

Energy management and renewable energy integration

Water management including conservation, treatment, and recycling

Waste management including segregation, recycling, and disposal

Air quality monitoring and pollution control

Soil and groundwater protection

Social and Labour Management

Occupational health and safety standards and monitoring

Fair labour practices and grievance mechanisms

Community engagement and consultation

Local employment creation and skill development

7.2 ESMS Documentation and Implementation

Environmental and Social Policy: Park management must establish and publicly commit to an environmental and social policy

Impact Assessment: Baseline studies and impact assessments for the park and major tenants

Management Plans: Specific plans for identified risks and impacts

Monitoring and Reporting: Regular monitoring with annual public disclosure

8. FINANCING AND INVESTMENT STRATEGIES

8.1 Financing Sources

Government Budgets: National and provincial government allocations

Development Financing: World Bank, ADB, bilateral development agencies

Green/Sustainability Bonds: Debt financing linked to environmental and social objectives

Private Investment: Direct private sector participation through PPP models

Tenant Contributions: User fees and facility charges for common services

8.2 Financial Sustainability

Cost Recovery: Establish fee structures that enable operational and maintenance cost recovery

Revenue Diversification: Develop multiple revenue streams (land sales, service fees, utilities revenue)

Operational Efficiency: Implement asset management systems to optimize infrastructure utilization

9. MONITORING, REPORTING AND VERIFICATION (MRV)

9.1 Performance Indicators

Environmental Indicators

Energy consumption (per unit of industrial output)

Water consumption and wastewater treatment performance

Waste generated and percentage diverted from landfill

Air quality index and emissions monitoring

Social and Governance Indicators

Local employment and wage levels

Occupational safety performance (accident rates, training hours)

Community grievance and complaint resolution

Tenant environmental and social compliance

9.2 Reporting Framework

Annual Performance Reports: Park management must prepare comprehensive annual reports with environmental and social data

Third-Party Verification: Independent auditors to verify data and assess compliance

Public Disclosure: Summary reports accessible to stakeholders including community

10. TENANT REQUIREMENTS AND STANDARDS

10.1 Mandatory Tenant Requirements

Environmental Compliance: All tenants must obtain and maintain environmental permits and comply with national/provincial standards

Social Compliance: Adherence to labour laws, occupational safety standards, and community engagement principles

Clean Production: Implementation of cleaner production practices and waste reduction strategies

Performance Monitoring: Annual reporting of environmental and social performance data to park management

10.2 Incentives and Support for Tenants

Technical assistance for environmental and social compliance

Access to common facilities (utilities, waste treatment, recycling)

Capacity building and training programs

Recognition and certification for best performers

11. IMPLEMENTATION ROADMAP

ISB will implement these guidelines through a phased approach:

Phase 1 (Year 1): Institutional Setup

Establish EIP Steering Committee with stakeholders

Develop operational guidelines and procedures

Conduct capacity building for ISB staff

Identify priority EIP locations in NWP

Phase 2 (Years 2-3): Pilot Development

Conduct feasibility studies for selected sites

Develop master plans and ESMS frameworks

Begin infrastructure development

Establish tenant recruitment process

Phase 3 (Years 4-5): Expansion and Replication

Operationalize pilot EIPs and monitor performance

Develop additional EIPs based on lessons learned

Establish industry networks and synergy opportunities

Promote private investment and partnerships

12. CONCLUSION

These guidelines provide a comprehensive framework for the development and management of Eco-Industrial Parks in the North Western Province. Successful implementation will require commitment from ISB, tenant industries, Local Authorities, and community stakeholders. EIPs represent a strategic opportunity for the NWP to achieve sustainable industrial growth while maintaining environmental integrity and social responsibility.

Through systematic implementation of these guidelines, the ISB aims to:

Transform industrial parks into models of sustainable development

Attract responsible investment aligned with national development priorities

Create quality employment and support community development

Advance the circular economy and resource efficiency across NWP industries

Establish the NWP as a leader in sustainable industrial development in South Asia

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