

SAMPLE Procedure: Environmental Aspect–Impact Analysis

1. Purpose

The purpose of this procedure is to:

- Identify environmental aspects arising from organizational activities, products, and services
- Evaluate associated environmental impacts
- Assess risks using defined criteria
- Determine **significant environmental aspects** requiring control and monitoring

This supports compliance with **ISO 14001 (Clause 6.1.2)** and ensures effective environmental management.

2. Scope

This procedure applies to:

- All operational activities (production, utilities, storage, logistics, etc.)
 - All life cycle stages (raw materials, production, transport, use, disposal)
 - All environmental conditions including:
 - Climate change
 - Pollution levels
 - Resource availability
 - Biodiversity and ecosystems
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3. Responsibilities

Role	Responsibility

Top Management	Ensure resources and approval of significant aspects
EHS/EMS Manager	Lead aspect identification, evaluation, and updates
Department Heads	Provide process inputs and identify aspects
Employees	Support identification of environmental aspects
Internal Auditors	Verify effectiveness and compliance

4. Procedure

4.1 Identification of Environmental Aspects

- Identify all activities under:
 - Normal conditions
 - Abnormal conditions
 - Emergency situations
 - Determine environmental aspects such as:
 - Emissions (air, water, land)
 - Resource consumption (water, energy, materials)
 - Waste generation
 - Consider **life cycle perspective**:
 - Raw materials → Production → Transportation → Use → Disposal
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4.2 Identification of Environmental Impacts

- Define environmental consequences of each aspect, e.g.:
 - Global warming (climate change)
 - Water pollution
 - Resource depletion
 - Biodiversity loss

4.3 Risk Assessment Method

Each aspect is evaluated using **Severity and Likelihood scoring**:

Severity (S)

Score	Description
1	Negligible impact
2	Minor localized impact
3	Moderate environmental impact
4	Major impact (regulatory concern)
5	Severe / long-term environmental damage

Likelihood (L)

Score	Description
1	Rare
2	Unlikely
3	Possible
4	Likely
5	Frequent

4.4 Risk Evaluation Formula

$$\text{Risk Score (R)} = \text{Severity (S)} \times \text{Likelihood (L)}$$

4.5 Determination of Significant Aspects

- Establish a threshold for significance:

Risk Score	Significance
1–10	Not Significant
12–25	Significant

Any aspect with **R ≥ 12 is considered significant**

4.6 Additional Criteria for Significance

Even if scoring is lower, aspects may be significant if:

- Legal or regulatory requirement applies
 - High concern of interested parties
 - Environmental sensitivity (e.g., near protected areas)
 - Climate change or biodiversity impact
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4.7 Control and Action Planning

For significant aspects:

- Define operational controls
 - Establish objectives and targets
 - Assign responsibilities
 - Monitor performance indicators
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4.8 Review and Update

- Review aspect register:
 - Annually
 - When process changes occur

- After incidents or audits
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5. Related Records

- Environmental Aspect–Impact Register
- Risk Assessment Records
- Legal Register
- Monitoring Reports (emissions, waste, etc.)
- Management Review Minutes
- Corrective Action Reports

Environmental Aspect–Impact Register

Process / Activity	Life Cycle Stage	Environmental Aspect	Environmental Impact	Category (Climate / Pollution / Resource / Biodiversity / Ecosystem)	Legal Requirement (Y/N)	Interested Party Concern	S	L	R (S×L)	Significant (Y/N)	Controls	Actions Required	Responsibility