Environmental Management tools

- how to go about environmental management.
- Tools that an organization can use to effectively manage its environment.

Tools:

- Environmental Policy
- Environmental management systems (EMS)
- Environmental auditing
- life cycle assessment (LCA)
- Environmental Impact Assessment (EIA)
- GIS and Remote Sensing
- environmental labelling
- environmental indicators
- environmental reporting

- Social Impact Assessment (SIA)
- Biodiversity Impact Assessment (BIA)

1. Environmental policy

- An environmental policy is a document which clearly sets out the overall aims and intentions of an organisation with respect to the environment.
- An environmental policy signals a commitment to environmental management and can prepare the way for further environmental management activities.

2. Environmental Auditing

- Environmental auditing is a tool for checking whether an organization is doing what it should be doing.
- legislative compliance audits.
- An environmental audit

3. Environmental Management Systems (EMS)

- An EMS consists of a number of interrelated elements that function together to achieve the objective of effective environmental management.
- The system aims to provide a methodical approach to planning, implementing and reviewing an organisation's environmental management issues.

- An EMS enables an organisation to identify its environmental aspects and determines which of them can have a significant impact on the environment.
- This in turn guides an organisation in determining where environmental controls or improvements are needed, and in the setting of priorities for action to improve environmental performance.

- Environmental aspects of an organisation are those activities, products and services of an organisation that have or can have an impact on the environment.

Common elements of an EMS

- The International Organization for Standardization (ISO) formulated a model for an EMS.
- The model is applicable worldwide and to organizations of all types and sizes and is set out as a standard.
- **ISO 14001 ENVIRONMENTAL MANAGEMENT SYSTEMS**

Elements of EMS ACCCORDING TO ISO 14001

- ENVIRONMENTAL POLICY
- PLANNING
- IMPLEMENTATION AND OPERATION
- CHECKING AND CORRECTIVE ACTION
- MANAGEMENT REVIEW

(i) ENVIRONMENTAL POLICY

- The policy must contain commitments to:

  i. continual improvement

  ii. prevention of pollution

  iii. compliance with relevant environmental legislation and other legal requirements.

(ii) PLANNING

- The organisation must set itself objectives and targets relating to its policy commitments and devise a plan to meet these objectives and targets.

(iii) IMPLEMENTATION AND OPERATION

- the organisation must put in place the various elements necessary for its successful implementation and operation.

(iv) CHECKING AND CORRECTIVE ACTION

- Having implemented its plan, the organisation must then check to see if it has been successful in meeting its objectives and targets.
- audits
- If any have not been met, then corrective action must be taken.

(v) MANAGEMENT REVIEW

- Management must periodically review the system to ensure its continuing effectiveness and suitability.
- Changes are made to the system as and when necessary.

4. Life Cycle Assessment

- Life cycle assessment (LCA) is a tool for identifying and assessing the various environmental impacts associated with a particular product.
- LCA takes a “cradle to grave” approach looking at the impacts of the product throughout its life cycle i.e. from the raw materials acquisition (the “cradle”) through its production and use to its final disposal (the “grave”).

- LCA allows manufacturers to find ways of cost-effectively reducing the environmental impact of a product over its life-cycle and to support their claims about the environmental impact of their products.

5. Environmental Impact Assessment (EIA)

- EIA - a tool used to identify the environmental, social and economic impacts of a project prior to decision-making.
- Aims of an EIA:

- to predict environmental impacts at an early stage in project planning and design,
- find ways and means to reduce adverse impacts,
- shape projects to suit the local environment and
- present the predictions and options to decision-makers.

6. GIS and Remote Sensing