

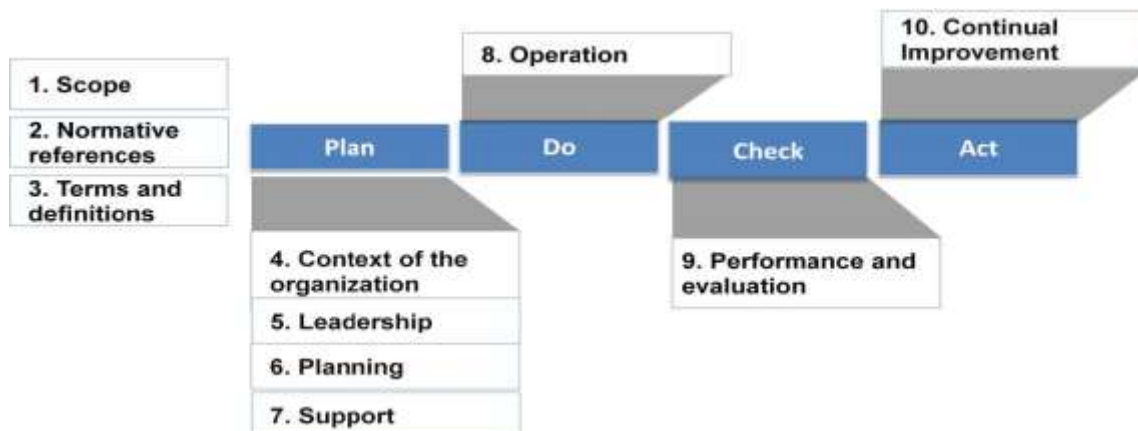
## ENVIRONMENTAL MANAGEMENT SYSTEM

An environmental management system helps organizations identify, manage, monitor and control their environmental issues in a **“holistic”** manner.

Other ISO standards that look at different types of management systems, such as ISO 9001 for quality management and ISO 45001 for occupational health and safety, all use a High-Level Structure. This means that ISO 14001 can be integrated easily into any existing ISO management system.

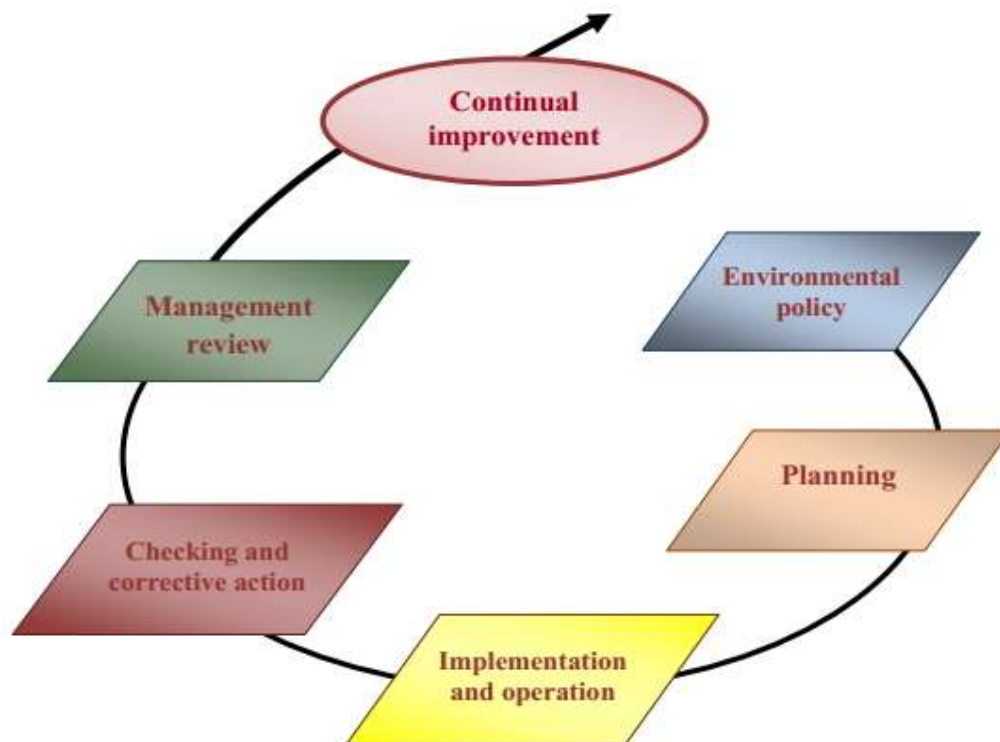
ISO 14001 is suitable for organizations of all types and sizes, be they private, not-for-profit or govern-mental. It requires that an organization considers all environmental issues relevant to its operations, such as air pollution, water and sewage issues, waste management, soil contamination, climate change mitigation and adaptation, and resource use and efficiency.

Like all ISO management system standards, ISO 14001 includes the need for continual improvement of an organization’s systems and approach to environmental concerns. The standard has recently been revised, with key improvements such as the increased prominence of environmental management within the organization’s strategic planning processes, greater input from leadership and a stronger commitment to proactive initiatives that boost environmental performance.



## ISO 14001:

ISO 14001 is an internationally agreed standard that sets out the requirements for an environmental management system. It helps organizations improve their environmental performance through more efficient use of resources and reduction of waste, gaining a competitive advantage and the trust of stakeholders.



## List of ISO 14000 series standards:

- **ISO 14001**- Environmental management systems-Requirements with guidance for use.
- **ISO 14004**- Environmental management systems-General guidelines on implementation.
- **ISO 14006**- Environmental management systems-Guidelines for incorporating ecodesign.
- **ISO 14015**- Environmental assessment of sites and organizations.
- **ISO 14020**- series (14020 to 14025) Environmental labels and declarations.

- **ISO 14030**- discuss post-production environmental assessment.
- **ISO 14031**- Environmental performance evaluation—Guidelines.
- **ISO 14040**- series (14040 to 14049), Life Cycle Assessment, LSA, discusses pre-production planning and environment goal setting.
- **ISO 14046**- sets guidelines and requirements for water footprint assessments of products, processes and organizations. Includes only air and soil emissions that impact water quality in the assessment.

## **Benefits of ISO 14001:2015**

Using ISO 14001:2015 has many benefits for organizations with environmental management system. Organizations and companies find that using the standards helps them:

1. Improves resource efficiency.
2. Reduce waste.
3. Drive down cost.
4. Provide assurance that environmental impacts are being measured.
5. Gain competitive advantages in supply chain design.
6. Increase new business opportunities.
7. Meet legal obligations.
8. Increase stakeholder and customer trust.
9. Improve overall environmental obligations with consistency.
10. Manage environmental obligations with consistency.

## **Functions covered by an EMS:**

1. Unless the top management is fully committed and involved with the organization of the environment system and provides necessary support to it, the desired results would never be achieved. The person who is in charge of the environment function should be of the level of a senior manager.

2. It is also necessary to obtain sufficient information and data about local conditions such as, quality and availability of water, nature of vicinity, pollution laws applicable and various facilities to be developed to overcome pollution. A testing laboratory for the environment may be envisaged in the corporate plan of the company. The equipment and machinery to be procured for pollution control and should be efficiently used and maintained for long life.
3. Once the environment control and management system has been incorporated, it must take all necessary measures to ensure that rigid controls are exercised over the entire system, necessary tests conducted periodically as prescribed and level of all pollutants kept within the allowable values as per regulations. Noise control is also very relevant in certain industries.
4. Due attention to training and development of personnel at various levels, who are responsible for pollution control or those who work in pollution generating areas is very important. The skills available also may have to be upgraded in case of plant and machineries using new technology for energy conservation and pollution control.
5. Waste disposal apart from the disposal of effluents must be looked after and regularly monitored.

### **Steps to Implementing ISO 14001 EMS:**

1. Get commitment and support from senior management.
1. Engage the whole business with good internal communication.
2. Compare your existing quality systems with ISO 14001 requirements.
3. Get customer and supplier feedback on current.
4. Establish an implementation team to get the best results.
5. Map out and share roles, responsibilities and timescales.
6. Adapt the basic principles of environmental management to your business.
7. Motivate staff involvement with training and incentives.
8. Share ISO 14001 knowledge and encourage staff to train as internal auditors.
9. Regularly review your ISO 14001 system to make sure you are continually improve it.

## **Elements of ISO 14001 EMS:**

Within the standard following are the elements of **ISO 14001** that are required to be met by organizations seeking formal recognition for their EMS. ISO 14001 requirements are as follows:

1. An environmental policy supported by senior management.
2. The identification of environmental aspects and impacts, and the identification of significant environmental impacts that the organization may cause.
3. Identification of environmental compliance requirements.
4. The development of objectives of targets, and their environmental management programs.
5. Defined resources, roles, responsibilities and authorities for environmental management.
6. The development of competence, training and awareness procedures.
7. A communication process of the EMS to all stakeholders and interested parties.
8. The development of EMS documentation as required by the standard.
9. The development of document control procedures.
10. The development of operational control procedures.
11. The development of emergency preparedness and response procedures.
12. The development of procedures to monitor and measure operations that can have significant impact to the environment.
13. An evaluation of compliance procedure.
14. Procedures developed for the management of non-conformance, corrective and preventive actions.
15. The development of a records management procedure.
16. A program for completing internal EMS audits and corrective actions.
17. The development of procedures for management review by senior management.

## **ISO 14001 Audits:**

There two types of ISO 14001 audits, Internal and external. An internal ISO 14001 is an audit which fulfils the requirements of elements 4.5.5 Internal audit of the ISO 14001 standard. An external ISO 14001 audit is an audit which is typically conducted for the purpose of ISO 14001 certification and completed by an Accredited Certification Body.

A typical audit usually involves the following stages:

1. Scheduling the audit at a convenient time for auditing the desired areas.
2. Defining the purpose and scope of audit.
3. Making pre-audit notification.
4. Preparing an audit plan and a check list; conducting a preliminary review of pertinent documents.
5. Holding an audit entrance briefing with senior executives to introduce the auditors; identifying necessary resources for the audit.
6. Performing audit; collecting objective evidence through interviews and reviews.
7. Holding audit exit briefing to identify preliminary results and findings, getting clarifications, if needed.
8. Documenting the results of the audit in an audit report.
9. Presenting the report to the management.
10. Taking up follow-up action on any corrective or preventive actions suggested in the report.

Submitting the audit report to the management is the most important part of the work as the value of the work comes from its assessment and presentation. The measure of success of the audit report depends on the management's awareness and acceptance of conclusions and its prompt action in response to reported problems or non-conformities. The basic purpose of an audit is to inform, persuade and get results.

## **ISO 14001 Training:**

ISO 14001 training can be provided from a recognized training body, informally by an ISO 14001 experienced practitioner or internally within an organization as part of meeting their training requirements.

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