ISO 14001

Promote and Support ISO 14001 [EMS] Among Business Sector in Bangladesh

Users’ Guide
What is ISO?
ISO stands for International Organization for Standardization, a worldwide organization founded in 1947. The organization mainly functions to develop technical standards that aim at making the development, manufacture and supply of services more efficient, safe and clean.

ISO is composed of member bodies from more than 120 countries, e.g., ANSI of the USA; BSTI of Bangladesh. ISO receives input from government, industry and other relevant parties before developing any standard.

Purpose and Goals of ISO
- To improve the climate for international trade.
- To reduce trade barriers by encouraging uniform practices around the world.

Key Features of ISO
- ISO standards are purely voluntary; no legal requirements force countries to adopt them.
- ISO standards have, however been adopted by many countries (160) and industries as standard requirements for doing business, thereby making them virtually mandatory.
- 561,747 ISO 9000 certificates had been issued in 160 countries till December 2002 and 49,462 ISO 14001 certificates had been awarded in 118 countries.

Why ISO Certification is Important?
ISO certification is important because it is recognized worldwide as an accepted standard of quality. When companies can accurately document their systems, they can compare them against a recognized standard for improvement. Also, because ISO certification is a recognised standard, companies can use it to gauge and select the vendors or subcontractors they work with.
What is ISO 14000?

ISO 14000 refers to a family of voluntary standards and guidance documents to help organizations with environmental issues. ISO 14000 standards are based on principal assumptions that:

- Better environmental management will lead to better performance and production;
- Promote increased efficiency, and
- Bring greater return on investment.

However ISO 14000 standards do not explicitly indicate how to achieve these goals, nor prescribe what environmental performance standards an industry must achieve.

ISO 14001

ISO 14001 is designed to enable each individual business to create and monitor an Environmental Management System (EMS), which suits its own particular activity.

An EMS is a systematic approach to dealing with the environmental aspects of an organization. It is a “tool” that enables an organization of any size or type to control the impact of its activities, products, or services on environment.

Application of an Environmental Management System (EMS) will ensure practical business results in terms of increased efficiency and reduced costs as well as environmental benefits.

ISO 14001 is, therefore, a practical business tool.

What ISO 14001 is not...

ISO 14001 does not set out environmental performance guidelines. Recognizing that every business is different, the impact it has on the environment and the amount by which each organization can improve its performance will vary. But every business can achieve something, and compliance to environmental performance is critical to business success in many organizations.

ISO 14001 provides a standard framework for management activities that allow access to what you can realistically set out to achieve and how this can be measured and tested over time. You can improve your business results and minimise adverse environmental impact with the aid of ISO 14001.

Aims of ISO 14001

- The requirements against which certification can be obtained.
- Support to environmental protection and prevention of pollution in harmony with socioeconomic needs.

This broad interpretation of 'environment' enables ISO 14001 to be accepted as relevant in all situations, particularly in countries where significant development of human infrastructure and amenities are required in harmony with natural environment.
Cleaner Production and ISO 14001

The goal of cleaner production is to avoid pollution by utilising resources and raw materials to their utmost possibility. This means that a higher percentage of the raw materials are turned into valuable products instead of being wasted. Cleaner production is relevant to all industries, whether they are small or big, or they have a low or high consumption of raw materials, energy, and water. For most of the companies there is a potential of reducing the resource consumption by 10-15%.

Cleaner enterprises are better enterprises, because they have minimised their losses of raw materials and products, thus giving them a higher production yield and an overall better economy and competitiveness.

Benefits of Cleaner Production

Years of experience show that cleaner production yields economic returns as well as environmental benefits. Some of the benefits are:

- Improved production efficiency;
- Better utilisation of raw materials, water and energy;
- Recovery of valuable by-products;
- Less pollution;
- Lower cost for waste disposal and wastewater treatment;
- Improved public image; and
- Improved occupational health and safety

Cleaner production will make it much easier to implement an environmental management system such as ISO 14001. This is because most of the initial work already has been carried out through cleaner production assessment. An ISO 14001 certificate can be a market opener, giving better access to export markets.

International Environmental Standards

Some organizations may wish to gain internationally recognised certification of their EMS. This can have competitive advantages, particularly for companies involved in international trade. The International Organisation for Standardisation (ISO) provides businesses with practical, strategic models for managing the environmental aspects of their operations.

The ISO has established international standards for environmental management with its ISO 14000 series of standards. These are voluntary standards, which provide both a model for streamlining environmental management and guidelines to ensure that environmental issues are considered within core decision making processes. ISO 14001 (Specification for an Environmental Management System) is the first standard in the series.

The process of implementing an EMS based on ISO 14001, will encourage organisations to examine their environmental management, and consider ways and means of improving their performance. As demonstrated by cleaner production, this process of evaluation often identifies not only the environmental, but also financial benefits of improved environmental performance. These potential financial benefits which provide an incentive for firms to actually implement environmental improvements.

Cleaner production concepts harmonise with the goals of ISO 14001 as they require a shift from focussing on end-of-pipe solutions to one in which all phases of processing, service provision, and product life cycles are investigated.
How to install EMS (ISO 14001)

Implementation of ISO 14001 is a cyclical process shown in figure 1.

**Step 1: Environmental Policy**

The first step required to install EMS is development of a comprehensive environmental policy. The environmental policy spells out the requirements to be met under this policy via objectives, targets, and environmental programs.

Three key commitments are required under this component:

- **First**, a commitment to compliance with relevant environmental laws and regulations;
- **Second**, a commitment to prevention of pollution; and
- **Third**, a commitment to “continual improvement” of the Environmental Management System.

**Step 2: Environmental Planning**

The second step is to prepare an environmental planning process to operationalize the policy. The analysis of environmental aspects of the organization including its processes, products and services as well as the goods and services used by the organization. Following activities are required during the planning phase.

**Activity 1**: Identification of all environmental “aspects” associated with activities, products and services that could have significant impacts on the environment, which includes

- Waste generation;
- Use of natural resources;
- Energy use;
- Water use;
- Wastewater discharges;
- Air emissions; and
- Product disposal.

**Activity 2**: Identification of applicable legal requirements (local environmental laws)

**Activity 3**: Identification of key objectives and targets

**Activity 4**: Establishment of environmental management program

Fig 1: Implementation Process of ISO 14001 (EMS)
Step 3: Implementation and Operation

The third step in the process is the policy implementation and operation. Implementation and organization of processes to control and improve operational activities that are critical from environmental perspective (including both products and services of an organization). Following activities are performed during the implementation phase of EMS:

- Review of Structure and responsibility;
- Management must provide necessary financial/personnel resources;
- Training, awareness and competence;
- Communication;
- Environmental Management Systems documentation;
- Document control;
- Operational control; and
- Emergency preparedness and response.

Step 4: Evaluation and Corrective Measures

The fourth step in the process is the checking and implementation of the corrective action when needed. Checking and corrective action including monitoring, measurement, and recording of characteristics and activities that can have significant impact on the environment are:

- Monitoring and Measurement;
- Record Maintenance
  - To demonstrate conformance with ISO 14001 standard
  - Procedures for identifying and maintaining evaluation and corrective action record and
- Environmental Management Systems Audit
  - Conduct periodic EMS compliance audits

Step 5: Management Review

The fifth step in the process is management review which feeds back to environmental policy review and revision. Review of the EMS by the organization’s top management is to ensure its continuing suitability, adequacy and effectiveness. During this phase the top management should perform the following activities:

- Periodically review the EMS system to ensure “continuing suitability, adequacy and effectiveness”;
- Maintain proper allocation of financial, technical and personnel resources to ensure success of the EMS and
- Maintain a commitment to “continual improvement” of EMS.
What ISO 14001 can do for your business?

Although ISO 14000 standards are designed to be mutually supportive, they can also be used independently of each other to achieve environmental goals. The whole ISO 14000 family provides management tools for organizations to control their environmental aspects and to improve their environmental performance. Together, these tools can provide significant and tangible economic benefits, including:

- Reduced raw material/resource use;
- Reduced energy consumption;
- Improved process efficiency;
- Reduced waste generation and disposal costs, and
- Utilization of recoverable resources.

Associated with each of these economic benefits are distinct environmental benefits also. This is the contribution that ISO 14000 series make to the environmental and economic components of sustainable development and triple bottom line.

Installation of ISO 14001 can help your business to achieve the following:

- Improved operational efficiency and cost reduction in areas such as energy consumption and waste minimization;
- Effective cost-benefit analysis for environmental compliance beyond legal requirements;
- Cost-effective consistency in your approach to pollution prevention or reduction;
- Credible environmental claims can be made in a competitive marketplace, maximizing business opportunities;
- Demonstration to regulators, customers, consumers and the financial community of your systematic control and management of environmental effects;
- Manages your legal liability by demonstrating the best management practice;
- Offers independent third-party endorsement of your claims through initial compliance and continuing assessment; and
- ISO 14001 integrates with existing quality management systems.
Does a company need to be in 100% compliance in order to have an EMS?

No. The concept of continual improvement assumes that no organization is perfect. While an EMS should help your organization to improve compliance and other measures of performance. This does not mean that problems will never occur. However, an effective EMS should help you find and fix these problems and prevent their recurrence.

Trade Issues Related to ISO 14001

ISO 14001 is recognized by WTO as an international consensus standard that can facilitate free and open trade.

Difference between ISO 9000 and ISO 14000

ISO 9000 and 14000 standards share the following generic management elements:

1. Setting Policies;
2. Establishing document control, training, corrective action, review, and continual improvement; and
3. Controlling operational processes.

The main difference is that ISO 9000 is designated for system quality while ISO 14000 is targeted at environmental management.

Trends in ISO 14001 Implementation World Wide

Judging by the number and distribution of certified companies worldwide, it is evident that acceptance of ISO 14001 varies considerably across the globe. Of the 49,462 certified companies till 2002 worldwide, 48% are located in Western Europe and 37% in the Far East. A recent literature review has revealed that the variation in acceptance of ISO 14001 can partially be explained by the different corporate cultures, regulatory frameworks, supplier-producer relations, and consumer demands in each country.
Acceptance of ISO 14001 in Asia-Pacific appears rather closely linked to possible trade implications and competitive advantages in international markets. In Japan, India, Korea, and Taiwan, where the majority of certified companies in Asia-Pacific are located, government and industry help to promote ISO 14001 to ensure compatibility of their products with international preferences. For example, the Japanese Industrial Standards Committee is considering adopting ISO 14000 Series into its national standards, while the China Productivity Center in Taiwan provides government-subsidized assistance to encourage ISO 14001 implementation. In addition, Malaysia’s government adopted an aggressive promotion of ISO 14001 because it anticipated that ISO 14001 certification may become a pre-condition for export.

**How Can the British High Commission in Dhaka and Waste Concern Assist You to Install ISO 14001 [EMS]?**

The British High Commission in Dhaka in partnership with Waste Concern, has launched a project since September 2003 to help businesses improve their market potential through the use of ISO 14001. Opportunities available under this project are:

- Information resources on ISO 14001;
- Free consultation workshop to business group interested in ISO 14001 certification; and
- Assessment of industries regarding ISO14001.

### Online Resources

- American National Standards Institute Online: www.ansi.org
- ISO-International Organization for Standardization: www.iso.ch
- Advanced Waste Management Systems, Inc. Registration Services: www.awm.net/iso/
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