

# Chapter 7

## Development Standards and Stages of Application of ISO 14000 Environmental Management System in Enterprises

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### ABSTRACT

*The increase in environmental pollution, the decrease in resources, and legal obligations that came with globalization, industrialization, and economic developments increased the responsibilities of individuals, societies, and managers at all levels regarding environmental issues. For the future of societies and the world and to ensure the existence and sustainability of a healthy and safe environment to minimize environmental problems, organizations should take environmentally sensitive approaches. Environmental management systems are useful and important in many ways such as reducing the adverse impacts of the organizations on the environment, creating safe work environments, preventing pollution, lowering costs, reducing risks, improving environmental performance, improving corporate image, improving the success and reputation of organizations. The aim of this chapter is to emphasize the importance of ISO 14000 environmental management system standards in organizations and to evaluate its characteristics, implementation stages, and development.*

### INTRODUCTION

In recent years, the pollution in our environment resulting from the increase in energy consumption, the reduction in resources due to environmental degradation, and growing impacts of production processes (Hikichi, Salgado, & Beijo, 2017; Tepedelen & Özdemir, 2003) increased environmental concerns considerably. In many countries of the world, especially in the past 30 years, the responsibility towards the environment affected politicians, organizations, and societies. Therefore, organizations became sensitive

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to their environmental impacts because of the pressure coming from consumers, investors and consumer markets (Akküçük & Gencer, 2017; Mazzi, Toniolo, Manzardo, Ren & Scipioni, 2016). In the context of environmental responsibility and environmental safety, organizations have made considerable efforts to minimize environmental impacts of their activities in order to ensure the protection of the environment through environmental management policies (Tambovceva, 2016 & Akküçük, 2017). The Environment Management System (EMS) has been developed, which is the most popular tool on the international market to support organizations that want to manage their environmental issues and take measures to reduce environmental impacts. ISO 14000 standards provide guidance to organizations that want to create an environmental management system within their internal structure. ISO 14000 standards are globally accepted and, for this reason, certified organizations can take advantage of the features of ISO 14000 to improve their image and enhance their corporate reputation (Turhan, 2010).

## **ENVIRONMENTAL MANAGEMENT SYSTEM (EMS)**

### **Environmental Management System (EMS) and Its Characteristics**

The Environmental Management System is a management tool that provides the necessary methods and conditions (Artene, Domil, & Știrbu, 2011) for organizations to identify their environmental risks; manage their environmental objectives; and document, evaluate, and continuously improve their environmental activities (Almallah, 2016). According to another definition, it is a part of the management system that is used in developing and implementing the environmental policy, and managing the environmental aspects of an organization (Yurtsever, 2017, p. 24).

The United Nations defines the Environmental Management System as “systematic planning, implementation, and supervision of corporate environmental performance for continuous improvement” (Sitnikov, 2012). The Environmental Management System (EMS) is a structure that requires facilities to implement an environmental policy, identifies environmental objectives (Ferrón-Vílchez, Darnall & Aragon-Correa, 2017), and consists of organizational structure, planning activities, responsibilities, practices, procedures, and processes of the general management system (Ertuğrul & Şavlı, 2013). This is a process of developing and implementing an environmental policy, which covers a wide range of applications, customers, and suppliers (Sitnikov, 2012).

The standardization, systematic progress, and organizational implementation of ISO 14001 Environmental Management Systems (Ruzevicius, 2009) ensure improvement of eco-efficiency, corporate image, and reputation (Hikichi et al., 2017) and the harmony between institutional objectives, process, and resources. At the same time, there are many benefits such as recovery and development in all processes, and reduction in costs (Tambovceva, 2016).

Environmental management system is a management system that controls the environmental impacts of the organizations in all types of activities (Ertuğrul & Şavlı, 2013) and reduces the negative effects they may have on the environment (Mazzi et al., 2016). Environmental management system is a sustainable development plan that meets the need for environmental protection in the present time (Ertuğrul & Şavlı, 2013) and for future generations (Christini, Fetsko, & Hendrickson, 2004), and continuously improves the environmental performance of the organization (To & Lee, 2014). The most important standards of EMS are ISO 14001 at the international level and Eco-Management and Audit Scheme (EMAS) at the European level. In many countries, the tendency to adopt these standards is steadily increasing (Mazzi et al., 2016).

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