

# Chapter 1

# Natural Resources Management

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## ABSTRACT

*As a result of the rapidly growing population in the last century, the pressure of people on natural resources has considerably increased. Excessive and wrong use of natural resources leads to occurrence of various human-induced disasters. Global warming, deforestation, floods, air pollution, loss of biological diversity are some of such threats that can be treated within the framework of emergency management. Minimization of human-induced disasters and prevention of such disasters can only be achieved by means of efficient and sustainable management of natural resources. In this chapter, the emphasis will be put on the definition of natural resource management that plans the sustainability of economic activities governing the relationship between humans and the use of nature, such as land use plan, water management, biological diversity and agriculture, mining, tourism, fishing, and forestry, and its importance within the context of emergency management will be discussed.*

## INTRODUCTION

As a result of unconscious and uncontrolled use of rapidly developing industry and technology and human-induced causes such as population growth and urbanization, the pressure on natural resources has increased and the balance naturally existing in the world has started to change in a negative direction. Contamination of resources, desertification, climate changes, endangered species, habitat destruction, erosion, flood, overflow, avalanche, and landslide are accelerated by the activities of humans and rapidly destroying the natural life; namely the biological diversity, of which human is a part. Nearly half of the forest lands in the world have already been destructed and a large part of this destruction has occurred in the last 30 years. Moreover, each year 6 million hectares of forest lands are destroyed. The fact that nearly half of all the biodiversity exists in forests is a clear indication of how this destruction can affect the whole ecosystem. Such natural disasters becoming too severe with the contribution of human-induced activities should be addressed within the emergency management (Kervankiran&Eryilmaz, 2015).

All these negative conditions have become a subject of interest for the concerned circles and the need to take scientific, cultural, educational, visual, and ecological precautions to protect natural resources arose. The primary objective of developing such conservation plans is the prevention of the deterioration and destruction of natural resources and making it possible for future generations to utilize them (Kervankiran & Eryilmaz, 2015). Minimization and prevention of the negative impacts of human-induced disasters can only be achieved through good and sustainable management of natural resources.

In this section of the book, the main focus will be on the definition of natural resources management regulating the relationships between humans and their exploitation of natural resources and planning the sustainability of land use, water management, biological diversity and agriculture, mining, tourism, fishery and forestry and its importance within the context of emergency management.

Moreover, in this section, protected areas one of the most important instruments employed by the traditional use of natural resources and today's resources management and created to ensure the sustainability of natural resources and to enhance environmental quality will also be discussed.

Finally, this section will look at the roles of stakeholders in natural resources management and the importance of participatory planning.

## **BACKGROUND**

There are many studies conducted within the context of natural resources management and emergency management. When some studies on the topic of natural resource management are examined, it is seen that they have focused on the different aspects of the issue; for example, Behnken (2007) conducted a thesis study to investigate the effect of the management decisions made for the Cache River natural resources area on the use of resources by community and long-term management plans. Mountjoy (2014) evaluated the effect of the community-based natural resources management in Illinois on the success of ecosystem management. He worked with 10 different indicators to monitor the changes seen in the ecological unity as a result of the community-based natural resources management. Sanderson (2004) aimed to develop a management plan integrating community and ecological initiatives to ensure the sustainability of the coastal resources in the Olango Island. Jampolsky (2014) wrote in his thesis against the dominant framework by examining Ute Mountain Ute resource management, through the development of the federally funded Integrated Resources Management Plan and Cultural Resources Management Plan, as a proxy for understanding Native property as an enmeshment of law, space, and power. Berg (2015) investigated the effect of two management plans adopting a cooperative approach in the ACE Basin National Estuarine Research Reserve on natural resources. In the thesis study conducted by Sehlke (2016), the main focus is on the benefits of the integrated water resources management to the management of water resources in America. In this thesis, the basic principles of integrated water resources management and water and water-related regulations in America are addressed. In his thesis, Peters (2016), answered these problems: How ecological theory can inform management strategies for achieving specific conservation objectives? How information used to inform natural resource management decisions can be generated through partnerships between volunteers and small conservation organizations? How scientific information is communicated to and shared among natural resource managers in Federal Land Management agencies?

In the doctoral study by Mann (2011) conducted within the context of emergency management, the extent of human resources departments' participation in the process of emergency planning at the

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