

# Chapter 16

## Environmental Management Accounting

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### ABSTRACT

*Living with carrying capacity of natural resources of the Earth and keeping and improving the quality of human life are the most important environmental issues that we face today. Implementation of numerous arrangements to decrease the negative effects of industrialization have become a serious current issue. These regulations aim to push responsibility to the firms for the wellbeing of the public. Accounting, which is the language of business in numbers, needs to complete the adoption to the new situation for producing environmentally related information. Environmental Management Accounting (EMA) is needed as an application of accounting that is concerned with the environmentally induced impacts of companies, measured in monetary units or in physical units. In this chapter, the emergence of environmental information is discussed, and it is followed by definition and framework of environmental accounting, environmental costs, and EMA. In addition, the new environmental issues, especially in international financial reporting standards, are presented.*

### INTRODUCTION

Living with carrying capacity of natural resources of the Earth with keeping and improving the quality of human life is the most important environmental issue that human being face today. Rapidly growing industrialization, facilitation of international trade due to technological improvements and expansion of national and international markets which depend on growth of population cause depletion of sources offered by the Earth.

Living with carrying capacity of the Earth is directly related with the sustainability issue. In the 1<sup>st</sup> World Commission on Environment and Development Report (1987) sustainability is defined as “Development that meets the needs of the present without compromising the ability of future generations to meet their own needs” In other terms, corporations of today must not decrease the resources and they should leave the environment without any damage than they began operations.

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The regulations issued by local governments, global agreements such as the Montreal Protocol, the Rio Declaration, and the Kyoto Protocol to prevent future environmental damages (with the increase in public awareness for environmental matters) push responsibilities to the firms for the wellbeing of the human being and the World. So with the help of world-wide regulations and national regulations environmental information has increasingly become economically relevant information for decision makers.

Environmental information which is the output of environmental accounting becomes important. Application and adoption of environmental accounting as a tool of managerial accounting for reporting and for company decisions is required. For accurate, reliable and relevant environmental information presented and used in annual reports, corporate sustainability and corporate responsibility reports, environmental reports and in any reports in any format or under any name, businesses should try to define environmental costs incurred while providing goods and services to their customers. At this point, environmental accounting is a necessary tool for the businesses.

### **BACKGROUND**

At the beginning of the industrial revolution; air pollution, waste water, depletion of natural resources seemed as necessary adverse impacts of growing economic activities but they were accepted as inevitable for the positive change of the industrial world.

With the foundation of International Union for Conservation of Nature in 1948, the rise of environmentalism<sup>1</sup> in 1960s, environmental issues, environmental performance, environmental information have grown to become major concerns for businesses. Sustainable development – afford

the needs of today without compromising the ability of future resources for next generations-, eco-efficiency-producing or/and giving same or more goods and services with less ecological impacts are started to be discussed in boardrooms.

Governments, investors, the media, shareholders, environmental funds, non-governmental organizations and pressure groups play an important role in turning environmental issues to business issues. Many advantages, not only protecting companies from penalties or fines for undesirable environmental impacts of business, but also taking advantages of being green-lover business such as decreasing environmental costs, producing environmentally friendly products, improved corporate image take management attention. Growing importance of environmental information creates a new requirement for calculating and identifying costs related with environment. New accounting practice named environmental accounting, dealing with this requirement, identification and calculation of environmental costs is one the possible ways for responding.

### **ENVIRONMENTAL ACCOUNTING**

Accounting which is the language of business in numbers measures business activities, and communicates these results to decision makers as financial reports.

These financial statements are used by external and internal decision makers such as present and potential investors, lenders, managers, employees, owners, creditors, taxing authorities, and governing organizations.

Accounting can be divided into two fields, financial accounting and managerial accounting. Financial accounting provides information for external decision makers, such as outside investors and lenders. Managerial accounting focuses on

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