# Chapter 2
# The History and Philosophical Changes of the Environmental Reform Movement:
## Events and Paradigm Changes That Led to the US EPA

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## ABSTRACT

*This chapter is an account that provides a chronology of the philosophical evolution of the human viewpoint from the perspective of the apex species on the planet. The gradual change from unrelenting growth and production towards one that embraces conservation, resource management, and the protection of populations from the consequences of rapid technological development came to a inflection point in the mid-20th century that resulted in a revised outlook on mankind's obligations to current populations, including other species, future generations, and Earth as a whole. The chapter will highlight the effects of the Industrial Revolution, expansionism, and the exploitation and mismanagement of resources from overuse and overharvesting of Earth's ecosystems. These practices led to tragedies that shifted the paradigm to environmental responsibility and accountability in the 20th century.*

DOI: 10.4018/978-1-7998-2711-5.ch002

## INTRODUCTION

The ancient ancestors of modern humans many eons ago ascended the evolutionary ladder becoming the apex species on Earth through their development of reasoning and cognitive abilities, which greatly increased their capacity to learn and pass on knowledge of the essential survival skills of harnessing natural resources and predator avoidance. The hominins that became modern humans were initially nomadic tribes of hunter-gatherers. They domesticated animals for food and other resources and began a primitive agricultural practice known as the slash-and-burn method to create more reliable food sources from crops, which allowed for at least temporary settlements. The combined result was using cleared land for crops and the felled trees as an energy source. This delayed their movement for a time because cleared land (slashing removed competing flora) had only limited useful life until soils were depleted of necessary plant nutrients and could no longer support crops. The tribes then moved on to new land to repeat the process. This is one of the earliest examples of small-scale deforestation and the reduction of biodiversity in pursuit of agricultural interests.

Many scholars believe that in the Mesopotamian river valley around 5,000 years B.C.E., the first true agrarian practices started with hydraulic control of the Tigris and Euphrates rivers providing irrigation of areas that had likely been only marginally suited for growing crops or grazing livestock without human environmental intervention. Harnessing and utilizing the seasonal floodwaters of the Nile River in Egypt was also a civilization-building environmental intervention about two millennia later. The city states of Greece and the Roman Empire continued the progression of agriculture and their population distributions reflected their advances which resulted in urbanization. Even before the modern era, some population centers had coalesced into densely inhabited areas such as Athens, Alexandria, and later Rome and smaller cities where deforestation and total human control of the environment gave birth to the first recognition of the concept of pollution, mainly regarding access to clean water and human sanitation issues in areas of high population density. The concept of Earth as a limited resource was still beyond the parochial and regional interests of people's beliefs and of governments. The "wilderness" was essentially everywhere civilizations were not and possessed vast, seemingly limitless potential for exploration, subjugation of indigenous tribes, and exploitation of the resources without any possibility of completely exhausting them because there were always more frontiers for expansion. In Greek and Roman times, water diversion and irrigation advanced to the point where regional semiarid lands were now available for cultivation to support more urbanites (artists, philosophers, clergy, mathematicians, architects, builders, etc.) who were no longer connected to agriculture and could pursue other interests to advance the civilization even more rapidly.