

NATURE CONSERVATION AS A LEVER FOR SUSTAINABLE DEVELOPMENT

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Abstract

Sustainable development encompasses three dimensions: economic, social, and environmental. Economic growth is necessary but not sufficient for development. The question of conservation and sustainable use of the environment as a lever for development is gradually integrated into development policies.

This paper first provides an overview of the development of the sustainable development concept. It is followed by a historical account of nature and environmental protection from ancient times to the modern era. The next chapter discusses the importance of nature conservation, the environment, and its effects on the environment. Nature conservation and environmental protection are closely linked. With a review of the existing literature and previous research on the need for professionals in sustainable development, which demonstrates the global demand for experts in sustainable development. This is followed by concluding remarks and a list of references used in writing this paper.

Keywords: *sustainable development, environment, nature and environmental conservation*

INTRODUCTION

When it comes to environmental conservation, the approach to nature protection has evolved from ancient times to the present, showing that even the ancient Greeks had their principles of environmental protection. The concepts of the relationship between humans and the environment have changed throughout history, from the first ancient civilizations, through the Middle Ages to mass industrialization and the modern era. Today, environmental protection is discussed much more than before, as we now live in a period following mass industrialization, which in the 1960s led to the emergence of global environmental pollution and the first shortages of some non-renewable natural resources. Indeed, in modern times, the intense development of society has caused a series of ecological problems, from those at a global level such as global warming, depletion of the ozone layer, to regional-level issues such as "acid rains", groundwater pollution, and to local-level problems such as water and air pollution and illegal waste disposal. Therefore, today environmental protection becomes a human priority. However, looking back at history, it is evident that humans have related differently to the environment through various stages of their development. Throughout history, humanity has contemplated its relationship with nature and the environment. This is evident from the earliest books concerning human civilization, showing that one must not relate to the environment recklessly, and this relationship

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culminated in the modern era when the growth of technology led to the first global ecological problems.

1. THE CONCEPT OF SUSTAINABLE DEVELOPMENT

Sustainable development is an integrated economic, ecological, and social development aligned with the needs of preserving and enhancing the environment, which allows both present and future generations to meet their needs and improve the overall quality of life. The concept of sustainable development at the UN level was adopted at the conference in Rio de Janeiro in 1992. It defines sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (UNCED, 1992). This definition was used in the report of the World Commission on Environment and Development (Brundtland Commission) in 1987, one of the preparatory reports for the summit in Rio. Specific goals to be achieved are gradually identified. The Millennium Declaration, adopted by the United Nations General Assembly in 2000, established the Millennium Development Goals for the period up to 2015. Further political support for the principle of sustainable development was given at the World Summit on Sustainable Development held in Johannesburg in 2002. Sustainable development cannot be achieved solely through technological solutions, political regulation, or financial instruments. A change in the way of thinking and acting is required. Such a change demands quality education and learning for sustainable development at all levels and in all social contexts (UNESCO, 2002).

2. HISTORICAL OVERVIEW

2.1. The Ancient Era

In their early period, the Greeks had certain rituals to appease the gods and ensure the founding of cities or the planting of crops, indicating that an irrational vision of the world and nature initially dominated. Only with the appearance of Empedocles, and Leucippus and Democritus as the founders of atomism, were the paths of scientific knowledge laid out. Lucas Thommen, who studied the eco-history of antiquity, notes that the ancient Greeks had a layered relationship with nature, mixing feelings of admiration for life in nature, gratitude towards sources and trees, but also fear towards wild animals, the untamed sea, or dark forests. Greeks were farmers who cultivated cereals and fruits characteristic of the Mediterranean. In addition to engaging in agriculture, they used forests and trees as sources of energy and building materials, and even at that time, deforestation and Plato's concerns about deforestation and soil erosion are mentioned. From a historical context, it is visible that even in antiquity, eminent Greek thinkers dealt with the issue of preserving natural resources, characteristic of the modern era when sustainable development is widely discussed. Already in antiquity, a kind of myth about man's destruction of forests in ancient Greece was created, showing that since antiquity, humans have cared about nature and thought about preserving resources. The issue of preserving forests and

biodiversity is as relevant today as it was in Plato's time. The understanding of nature, which begins with mythological interpretations, comes through the first scientific insights. The relationship of people to the environment can be observed through the consequences, i.e., interventions in the environment and attitudes towards nature (Thommen, 2012).

It has been proven that the Romans cultivated a culture of gardening, particularly evident in Italy, where field research has shown this, and studies in Pompeii have contributed to it. The reason for this can be found in the fact that Rome was the first great metropolis, a city that had a significant ecological problem. When it comes to a city like Rome, which at one time had approximately a million inhabitants, it is logical that problems of urban life appeared, such as noise, crime, stench, and filth, which led to the Roman custom of building country estates in rural areas. A significant number of philosophers of the time supported such a choice with praises for life outside the urban hustle and bustle, and interestingly, the same problems exist today. Nowadays, life in villages and rural areas, where one can enjoy nature, is increasingly encouraged. The issue of Rome and the urban problems it faced during the peak of Roman culture are similar to the problems of large million-plus cities today, which are facing issues on how to make city life better, how to protect green spaces, and how to have gardens and green oases in an urban environment (Thommen, 2012).

Interestingly, the first civilizations, even before the ancient Greeks, were aware of the need to conserve nature. But, in the time before ancient Greece and Rome, there are indications of the necessity for ecological behavior. The ancient Egyptian Book of the Dead taught that whoever cuts down a tree must plant a new one. Also, the Bible, the foundational book on which all books of our civilization lie, says that the land cannot be exploited indefinitely; we will exhaust it, and then we will have no benefit from it. The Book of Leviticus, the third book of the Old Testament, provides advice for successful coexistence of man with his land: "For six years sow your fields, and for six years prune your vineyard and gather its fruits. But in the seventh year, the land is to have a year of Sabbath rest, a Sabbath to the LORD. Do not sow your fields or prune your vineyard. Do not reap what grows of itself or harvest the grapes of your untended vines. The land is to have a year of rest" (Stolac, 2004).

2.2. Middle Ages

A review of medieval statutes can determine that almost all of them contain provisions that, within today's concepts of environmental conservation, can undoubtedly be said to be ecologically oriented. These provisions relate to the management of common pastures and forests, where the rate of exploitation is regulated by determining the order of use and protection from others' livestock. Some statutes also require additional measures for the preservation or planting of saplings. Stolac emphasizes that a review of penal codes from the medieval period reveals provisions that are distinctly ecological in orientation. He cites examples of penalties for deforestation, indicating that in the Middle Ages, trees could not be cut down whenever needed, but rather, it was necessary to plan needs to protect the forest from uncontrolled cutting

and to ensure that logging was done in accordance with the vegetative rhythm (Stolac, 2004).

The reasons for such ecological behavior can also be found in religion. Namely, the Middle Ages in Europe were characterized by Christianity as the dominant religion, so it is important to see what the relationship of Christianity is to ecology, or to nature. The first reflections on the world and life that arose under the auspices of the Church in the Middle Ages begin with St. Augustine in early Christianity. This is not about the problem of ecology in today's sense, but about the problem of life and creation in general. Inspired by St. Augustine, St. Francis considered everything as brother and sister, i.e., he gave equal being to everything because everything has its dignity. Dignity comes from God. We are all creatures, that is what we have in common, we are created. And that is dignity – God guarantees life and leads life, and all beings need to be integrated into this life because we all have equal rights to life. This theological Augustinian-Franciscan idea was developed in modern times. Therefore, it can be said that within the Catholic Church, this kind of eco-theology began (URL1).

2.3. Modern Era

Following the industrial revolutions and the entrance into the modern era, the first significant ecological problems began to emerge, making ecology one of today's central social issues. Without environmental regulations to stop them, factories from the industrial revolution polluted the air and water and began to destroy beautiful agricultural lands. Industrialization led to the era of global environmental pollution and the first shortages of some non-renewable natural resources, prompting a reconsideration of the scarcity of natural resources, similar to how Plato in ancient Greece was concerned about conserving resources like forests. With the development of technology, unintended consequences also arose. The intense "pressure" on the environment caused a series of ecological problems, from those at a global level, such as global warming and the depletion of the ozone layer, to regional-level issues like "acid rain", groundwater pollution, and local-level problems such as water and air pollution and illegal waste disposal. This led many to start thinking more seriously about the environment, with entire branches of science dedicated to nature conservation. Serious consideration began to be given to sustainable development, and green politics developed. So-called green politics began to take shape in the Western world in the 1970s, evolving to the extent that today in the Western world, there are many green parties that act on the political scene with much success. The modern era and modern humans are characterized by an increasing consideration of how to balance development with the conservation of nature. The mass destruction of natural beauties caused by industrialization led to the realization that it is impossible to compete recklessly with natural phenomena. The assumption that industrial development would create global prosperity was wrong and led to a global threat to further human development due to environmental pollution, hence the increased consideration of sustainable development. The concept of sustainable development is based on the assumption that development should meet present needs without compromising the ability of future generations to meet their own needs. Ecology aims

to be introduced into institutions and embedded in the foundations of modern states. All countries in the world have ministries dealing with environmental protection, and many countries have agreed on international conventions with the goal of protecting the natural environment. Today's greatest focus is on achieving sustainable development, creating a cohesion between humans and nature, instead of a relationship in which humans recklessly destroy and deplete natural resources regardless of the consequences (Carter, 2004).

3. THE IMPORTANCE OF NATURE CONSERVATION

The importance of nature conservation is based on scientific knowledge, through which areas are identified, classified, and evaluated regarding their original and altered natural features and vulnerabilities. Based on this, decisions are made about their protection, and measures are determined to maintain and preserve the area from disappearance. Nature conservation is implemented through: assessment of the state of nature and its elements, implementation of specific protection measures for particular areas, incorporation of nature conservation measures into all spatial planning documents, establishment of a management system for natural values, especially those that enjoy protection in one of the categories provided by the Law on Nature Protection. The activity encompasses all tasks related to nature conservation:

collecting and processing data related to nature conservation and creating a database; monitoring the conservation status of biological and landscape diversity and proposing measures for their protection;

preparing and implementing projects and programs in the field of nature conservation, participating in the implementation of international agreements, organizing and conducting educational activities, etc.

3.1. Environment and Its Effects

The environment represents the surroundings in which an organization or community operates. It can be water, air, land, etc. It also includes flora, fauna, and humans, as well as the relationships between them. The environment can be interpreted in a narrower and broader sense. In the first case, it represents the immediate surroundings that include individuals and inanimate nature directly related to them. In a broader sense, the environment can be viewed as a global system. It represents a complex of all influences acting on flora or fauna at the place where they live. These influences come from both non-living and living nature in the environment surrounding plants, animals, and humans (Mijanović, 2011).

Environmental history is a very dynamic discipline that studies human interaction with nature over time and the impact that nature has on human development. Environmental history is a relatively new discipline that emerged during the 1960s and 1970s. It was a direct consequence of the growing awareness of global environmental protection issues such as water and air pollution with pesticides, the destruction of the ozone layer, and the enhanced greenhouse effect caused by human

activity. Environmental history asks how nature affects people, assesses the effects of changes caused by human actions on the natural environment and human societies and their histories, and how nature and humans communicate (Hughes, 2011).

The environment has a huge impact on mankind and includes water, atmosphere, climate, from the simplest to the most complex forms of life. Diseases, fires, volcanic activity, animal migrations are just some changes that have an impact on people. Human civilizations developed in river valleys, Native American tribes depended on animal migrations for food. The colonization of Central America might not have been so successful without the role of various diseases that Europeans brought with them to the New World (Crosby, 2003).

The environment exists for the sole reason that humans exploit it for their needs. As written in Genesis 1:28: "God blessed them and said to them, 'Be fruitful and increase in number; fill the earth and subdue it. Rule over the fish in the sea and the birds in the sky and over every living creature that moves on the ground'" (URL 2).

People simply interpreted the words to suit themselves. The attitude that everything created is meant to be exploited, that everything that grows is raw material, has led the human species into an undesirable situation. The Holy Father said, "We are also responsible for the growth of creation, we need to protect nature by respecting its laws. We are not the masters of creation" (URL 3).

In the book "Wilderness and the American Mind," the role of religion among early settlers and their attitude towards wilderness is discussed. Wilderness, or the forest, was depicted as a godless and evil place and therefore needed to be subdued. Unfortunately, such human activity has brought the environment to the brink of disaster. Fires, floods, droughts, melting ice, rising sea levels, hurricanes, and epidemics are frequent news (Nash, 1967).

3.2. Environmental Protection

Nature conservation ("Nature protection" in German "Naturschutz") is a field tasked with preserving rare and endangered plant and animal species, rare, endangered, or exemplary living communities and their habitats (biotopes), remaining, original ecosystems, as well as conserving, caring for, and enhancing landscape areas characterized by special beauty, biodiversity, general economic and recreational significance, or those of general importance to the biosphere due to their size, structure, and functions. In contrast, the term environmental protection ("Environmental protection", "Environmental control" in German "Umweltschutz") refers to the area tasked with preserving a healthy living environment (Carter, 2004). Environmental protection determines the limits of various types of burdens, proposes legal regulations, introduces preventive and reparative technical measures to maintain the necessary quality of air, water, soil, food products, and establishes rules in handling various biotic and abiotic environmental factors. Nature conservation and environmental protection are closely related. The former is more understood as biological, and the latter as technical environmental protection, the former in an ecocentric, the latter in an anthropocentric sense. The difficulty of their distinction lies in the very definition of "nature" and "environment". These are the causes of many

misunderstandings manifested in administrative and political practice. Environmental quality is the state of the environment expressed by physical, chemical, aesthetic, and other indicators. Ecological stability is the ability of the environment to accept changes caused by external influences and retain its natural properties. Biodiversity encompasses all living organisms, including diversity within species, among species, and ecosystems in a given area. An environmental impact is any permanent or temporary human action that can disturb the ecological stability or biodiversity of the environment or otherwise adversely affect the environment (Đikić et al., 2001).

Today, there is an extremely high need for nature conservation, which is increasingly being destroyed due to technological development and economic exploitation. In the last two decades, a large number of areas have been declared national parks precisely for protection and conservation of natural phenomena in their original form. However, the question arises whether what is planned and aimed at when an area is given such a title is implemented in practice. Therefore, cooperation at the global level and among various institutions, as well as a developed awareness of environmental protection among all people, is necessary (Vidaković, 1997).

Conclusion

It has long been concluded that humans have contributed the most to the degradation of the environment, pushed ecosystems to the limits of sustainability, and some have been irreversibly destroyed out of sheer greed, egotism, and financial gain. There is no person in the world who does not express emotions in front of a clear water source, the endless blue, clear dawns, or the autumn colors of the landscape, regardless of the area. Every person on this globe is a part of nature and the environment that surrounds them. Given that humans are beings who want to subdue everything that exists, grows, and lives to their own power and need, it would be appropriate for people to be placed in restricted areas and strictly limit the amount of resources they can use from nature because production is still possible, and there is room on this planet for all people who want and need to work. The problem lies with the few or the minority who want to control the world order not just in the economy but also in birth rates or population numbers, claiming there is no space and food. However, philosophers and thinkers have been grappling with environmental protection issues since antiquity, so it is evident that Plato already criticized excessive deforestation. The relationship between humans and nature can also be traced through the Middle Ages, where many laws and provisions related to the proper management of forests and lands to prevent exploitation were visible. In the modern era, the importance of a proper relationship with nature and the rational use of natural resources is greater than ever because technology has made it possible for some environments to be irreversibly destroyed by harmful human actions. We are witnesses to increasing environmental pollution, uncontrolled deforestation, loss of biodiversity, acid rain, and more. Poor care for the environment and an insatiable desire to create profits have brought us to the high time to wake up and take nature seriously.

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