EFFECTIVENESS OF ENVIRONMENTAL CONSERVATION ON HUMAN LIFE

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ABSTRACT

Environmental sustainability, or the long-term management and preservation of the planet's natural resources and ecosystems, is becoming more widely acknowledged as a societal concern influenced by human conduct at all spheres of social interaction, from communities to whole countries. A more nuanced understanding of the ways that both individual and group-level processes can affect conservation efforts is now being incorporated into psychological perspectives on conservation, which traditionally focused on individual determinants of proenvironmental behavior (such as personal environmental concern). Research on social norms and identity-based influences, in particular, indicates that social perceptions, such as beliefs about what behaviors are typical and socially valued, can be stronger motivators of conservation behavior than financial incentives, pro-environmental appeals, or the simplicity of pro-environmental actions.

1. INTRODUCTION

1.1 OVERVIEW

In many OECD nations, political attention has historically been placed on environmental concerns with a focus on health. Environmental risk factors have a very diverse and intricate effect on health, both in terms of their severity and clinical importance. For instance, the impacts of environmental deterioration on human health might vary from psychological issues brought on by noise to cancer deaths brought on by air pollution. The main effects of environmental deterioration on human health are described in this chapter, along with an estimate of the resulting health loss. Environmental policy may be more effectively designed if the economic consequences of health losses caused by the environment are better understood.

1.1.1 Impacts of environmental degradation on human health

A population's health is influenced by a variety of elements, including its nutrition, cleanliness, socioeconomic standing, literacy, and way of life. In the OECD areas, life expectancy has increased dramatically as a consequence of these variables, which have altered significantly over the economic transformations that have defined modern civilization. Recent research indicates that improved working conditions, rising GDP, and higher health spending per capita were the main factors influencing life expectancy in OECD areas from 1970 to 1992. They do, however, also suggest that throughout the same time span, air pollution's detrimental effects on human health grew in OECD nations (Or, 2000). The numerous factors that have an impact

on a population's health state may be combined to assess the "burden of disease," which is represented, for instance, in "disability adjusted life years" (DALYs). They show how the intensity and duration of an illness could impact a person's ability to lead a normal life in comparison to others who do not have the illness. Figure 1.1 displays estimates for the average total burden of illness across all OECD nations, OECD countries classified by income level, and non-OECD countries using the DALYs technique. In terms of both the overall burden of illness and the health disorders linked to environmental degradation, it is evident that OECD nations and non-OECD countries vary significantly from one another (and that income levels within OECD countries have an impact on the burden of disease). Higher environmental shares often occur in lower-income nations, and the burden of sickness associated to the environment is strongly correlated with wealth. This portion of the overall illness burden in OECD nations is estimated to be between 2 and 6%.

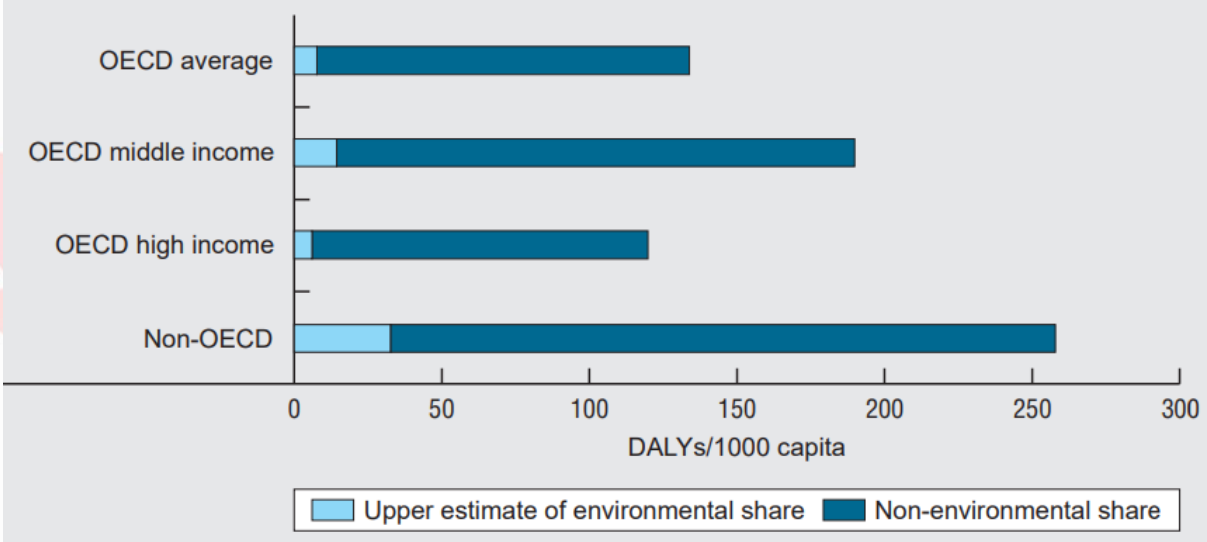

Figure 1.1. Total illness burden, with an estimated percentage attributable to environmental factors, in the middle of the 1990s

1.2 CONSERVATION AND THE ENVIRONMENT

The world's environmental difficulties are some of the most difficult and urgent problems facing society in the modern era. In addition to the physical modifications that are being made to the environment, risks such as those that are presented by global climate change provide daunting obstacles. These issues range from dangers to public health to dangers to social and political institutions, community infrastructure, and livelihoods. These inherently unstable characteristics may have either social origins or social effects, or both. Carbon dioxide, for instance, is being released into the atmosphere at a pace that is nearly twice at least as quickly as it is being naturally eliminated from the atmosphere. Use of fossil fuels has led to this phenomenon. The current age is the warmest on record in the history of modern civilization, and its effects are being felt most acutely in the world's least developed regions. There is a wide variety of environmental dangers that may promote social inequality, and they

disproportionately affect communities of colour, women, and members of other disadvantaged groups within nations. Multiple environmental threats, such as air pollution, water pollution, and noise pollution, have this characteristic. More than ten years after Hurricane Katrina made landfall in the Gulf Coast area of the United States, the economic devastation it wrought on black, Latino, and indigenous communities is still being felt to this day. This is an excellent illustration of the point. It is also anticipated that climate change would exacerbate well-documented causes of human conflict, such as economic shocks, poverty, community dislocation, and water and food shortages. This will make human conflict more severe. Traditionally, Individual-level environmental decision-making has been the primary focus of psychological studies characteristics that promote pro-environmental behavior such as issue awareness and personal concern. This is still a valid area of inquiry. However, environmental conservation may be regarded as a multilevel problem, just like any other social issue, having individual-, group-, and macrolevel (such as economic) causes and effects. This is true for all social concerns. Each round of climate negotiations proves that the responses of others, both inside and outside of one's social group, have a significant impact on one's own understanding and management of environmental issues. Social psychologists are well-suited to investigate such phenomena because of their interdisciplinary training and professional backgrounds.

2. DEPENDENCE OF HUMAN HEALTH ON NATURE

(1) The relationship between humans and nature is one of inherent interdependence. All of the structures and resources that, eventually, contribute to one's state of The connection between humans and the natural environment is a source of health and happiness (2). One of the various ways in which environmental change threatens human health is via the disruption of important natural systems (such as pollination) and the loss of potential (such as new nature-inspired medications). Extreme weather, the growth of mosquito- and tick-borne illnesses, and a lack of clean water are all direct dangers to people's health. Increasing understanding of how the natural environment contributes to, protects against, and presents hazards to human health (4) highlights the need of establishing the links between policy and practise. Most of the Sustainable Development Goals (SDGs) evaluated to date will be hampered by the ongoing destruction of biodiversity and ecosystems, particularly those targets related to poverty, hunger, health, water, cities, climate, oceans, and land (SDGs 1, 2, 3, 6, 11, 13, 14, and 15). Therefore, the loss of biodiversity is not merely an ecological concern; it also has implications for economic growth, national security, social cohesion, and morality (3). The rapid global spread of COVID-19 and the associated costs to human health, societal well-being, and economic activity have led to a growing awareness of the need to redefine human interactions with ecosystems and natural habitats, including the protection of vulnerable natural settings in some cases. Because of this knowledge, people are beginning to realise how crucial it is to redefine human connections with ecosystems and natural environments. Considering

diminishing resource availability, a changing climate, shifting patterns of biological variety, and the emergence of new illnesses, the need to take action is becoming more pressing and urgent. However, it is now also obvious that humans may concurrently obtain significant short- and long-term advantages and co-benefits by better safeguarding the ecosystem and its biodiversity (5). This is something that was previously unclear.

2.1 Meaningful Purpose and Intended Audience

This study gives an overview of the relationships that exist between natural ecosystems, the health of humans, and biodiversity. To be more specific, it focuses on the numerous ways in which the natural world, its biodiversity, and its ecosystems may promote and safeguard human health and well-being. It also discusses the environmental change, deterioration of nature and ecosystems, and loss of biodiversity may constitute a threat to human health, which affects everything from plant and animal species to the microbiomes found in the human gut, and has a significant monetary impact on human health and well-being.

The report is an expansion on the one that was conducted by WHO and the Convention on Biological Diversity in 2015 (2). It was produced with the WHO European Region in mind, considering the most recent evidence. Citations to specific sources have been kept to a minimum both to facilitate reading and because the purpose of this report is to provide an overview of the subject matter. An extensive bibliography of the assembled material that supports this overview is supplied as a separate document for readers who are interested in the topic. At the end of the report, you will find a list of recommended resources. This article's overview is geared for readers who may not have spent much time contemplating the links between the natural world and human health. However, it will also be useful for other fields concerned with environment preservation, ecosystem management, and biodiversity use, as well as for people who are interested in these topics. Its primary goal is to enlighten experts as well as those responsible for making policies and decisions in the health and environment sectors. In addition, it is designed to serve as a resource for local planners and decision-makers who are looking for methods to profit locally from natural and biodiverse ecosystems. It is difficult to integrate such language across disciplines since many essential concepts relating to Many diverse sectors and groups of people have their own unique ways of thinking about and defining nature, biodiversity, and health. Therefore, for your convenience, we have supplied definitions of the terms used throughout this study. This overview report's goal is to help the reader better understand the critical challenges facing the environment and human health in the twenty-first century by highlighting the connections and goals shared by the many different definitions and approaches to nature, biodiversity, and health.

3. ECOSYSTEM SERVICES AND HUMAN HEALTH

3.1 Fresh water

Ecosystem services and the associated geophysical processes (such evaporation and the maintenance of the climate system) are responsible for the regulation of many different parts of the hydrological (water) cycle that occurs on our planet. Deforestation, farming, irrigation, river damming, and extractions from underground aquifers are all examples of human activities that may have a negative impact on watersheds, lakes, and river systems. Wetlands are very important to the process of filtering fresh water, since they are able to remove a variety of pollutants as well as substances that may possibly be harmful (for example, heavy metals like lead and cadmium).

The use of clean water is vital to human health. It is used in the cultivation of food, the consumption of liquids, the maintenance of personal hygiene, the washing and preparation of food, as well as in the dilution and recycling of trash. A lack of available water threatens not just the production of food but also human health, economic growth, and political equilibrium. In recent decades, there has been a significant reduction in the amount of water that is available on a per capita basis around the globe. Today, nations that are facing moderate to high water stress are home to around one-third of the world's population. This proportion will continue to rise as both the overall population and the water demand per person rises. This reflects the rising need for fresh water to meet the requirements of irrigated agriculture, animal production, industry, and the more affluent urban dwellers. Over one billion people do not have access to safe drinking water, and 2.6 billion do not have access to sanitary facilities that is appropriate. This has resulted in the widespread pollution of drinking water with microorganisms. Up to 3.2 million people each year lose their lives to infectious illnesses that are linked to water, which accounts for roughly 6% of all fatalities worldwide. The burden of illness caused by insufficient access to water, sanitation, and hygiene results in more than 54 million healthy life years being lost and 1.7 million deaths per year. Investments in areas such as enhanced sanitation and drinking water that are free from contamination have been shown to have a direct and positive impact on both human health and economic output. Drinking, cooking, and maintaining personal hygiene each day need between 20 and 50 liters (liters) of water that is free of potentially hazardous chemical and microbiological pollutants. In order to achieve MDG-7, the United Nations has set a deadline of 2015 to reduce by half the number of people who lack access to clean water and basic sanitation. The increasing complexity of delivering this vital service to vast swaths of the global population is highlighted by this goal.

3.2 Food

The existence of thriving ecosystems on land and in the sea, both natural and artificially cultivated, is essential to our ability to maintain our health and continue living. At this time, the total amount of food produced around the globe is enough to satisfy the requirements of

everyone. However, out of the current global population of 6.5 billion people, there are approximately 800 million people who do not acquire enough protein and calories for energy. Most of these people live in nations with poor incomes. A comparable (and growing) amount of people all around the world are now overfed. Insufficient amounts of one or more micronutrients are present in the diets of several billion people worldwide (particularly vitamin A, zinc, and iodine). It is frequently the case that the health of human populations in underdeveloped nations, and particularly in rural regions, is strongly reliant on the locally productive ecosystems that provide sources of fundamental nourishment. In regions where the poor do not have the financial means to acquire food from other sources, the local production of food is essential to the prevention of hunger and the promotion of rural development. Wild foods are vital to the local communities of many poor nations because they often fill the nutritional void that is caused by environmental pressures such as droughts and civil turmoil. The degree to which humans are dependent on ecosystems for their sustenance may be less obvious in wealthier urban populations, yet this need is not any less basic.

3.3 Timber, fibre, and fuel

Wind, water, and the burning of biomass are three natural processes and resources that create power that may be exploited by human populations. There are many more natural processes and resources as well. Various forms of power generation are used by distinct geographical locations as well as nations that are at various phases of the development process. This has a variety of effects on people's health, and the availability of power, particularly electricity, is particularly relevant in the field of medical treatment. Even currently, more over half of the world's population uses solid fuels including wood, coal, and dung for domestic use. These fuels, which include agricultural stubble, animal dung, and wood, are a direct result of the ecosystems in which they are found. Indoor air pollution, which is caused by the burning of biomass fuels as well as coal in situations with inadequate ventilation for heating and cooking, is a substantial contributor to the mortality and morbidity rates associated with respiratory disorders, especially to do with kids. Sickness and starvation are more prevalent in areas where the demand for wood has outstripped the local supply and where people cannot afford alternate forms of power due to the consumption of (unboiled) microbiologically contaminated water and food that has not been adequately prepared, in addition to the effects of being exposed to the cold. Women and children living in poverty in rural areas are often the people who are hit the hardest when there is a shortage of fire wood. Many people are forced to go significant distances on foot in order to bring home essentials such as water, gasoline, and firewood. Because of these time-consuming responsibilities, there is less time and energy available for caring to crops, preparing meals, or going to school. In light of this, the supply of appropriate and sustainable energy sources is essential not only to the growth of the economy but also to the health and well-being of people.

The burning of fossil fuels, which are non-renewable, for purposes such as the production of power, transportation, and industry is the primary contributor to outdoor air pollution. Every year, urban air pollution causes a considerable number of deaths throughout the world, the most of which are the consequence of cardiovascular and respiratory illnesses. In addition to this, the associated production of a significant greenhouse gas (CO2) and its subsequent contribution to the acceleration of global warming have additional consequences for human health, the most of which are negative. Air pollution brought on by burning techniques in agricultural and forest management also has the potential to have major negative effects on local and regional health. This was brought to light by the experiences of public health workers in south-east Asia in 1998, which followed massive forest fires in Sumatra and Kalimantan, Indonesia, in the later part of 1997 and the beginning of 1998, which were caused by drought.

3.4 Biological products

Millions of people's physical and mental health and happiness all over the globe is dependent, in whole or in part, on the natural goods that are harvested from ecosystems. Even though there is a wide range of applications for synthetic medications (more than half of which came from natural precursors), there is still a persistent need and demand for natural goods on a worldwide scale. Aspirin, digitalis, and quinine are examples of some of the most well-known conventional medications that originate from natural sources.

3.5 Nutrient and waste management, processing, and detoxification

When it comes to the recycling and redistribution of nutrients, ecosystems are an extremely important factor. This vital function provides the basis for the overall health of the world's plant and animal species. It is possible for the natural cycle of nutrients in the soil to become impaired, which will lead to decreased crop yields. This has a medium degree of confidence of having a negative impact on the nutritional health of families, and deficits in children's diets (of both macro- and micronutrients) may have a negative impact on both their physical and mental development. As a result, this may be detrimental to the lives of farmers and restrict the opportunities available to their offspring. When humans are exposed to toxins that are created by algal blooms, it may be detrimental to their health. These may be caused by the eutrophication of rivers, which occurs when waterways become too laden with nitrates and phosphates because of runoff water being discharged from agricultural, industrial, and household operations.

Inorganic chemicals and persistent organic chemical pollutants both pose a threat to human health when they are present in food and water. Such exposures may take place when efforts to increase water availability led to pollution from natural sources (as happened recently with the arsenic poisoning of tube wells in Bangladesh), and when activities taken by humans release harmful chemicals into the environment (for example, via the use of pesticides). Toxic

substances that are found in food and water may have a negative impact on a variety of organ systems. Low-level exposure to some chemicals, including as PCBs, dioxins, and DDT, has the potential to induce endocrine disruption, which may alter normal hormone-mediated human physiology and affect reproduction.

4. HUMAN REPERCUSSIONS OF NATURE CONSERVATION MEASURES

The World Conservation Strategy was published in 1980 as a joint effort of the World Wildlife Fund (WWF), the United Nations Environment Programme (UNEP), and the International Union for the Conservation of Nature (IUCN). This was the first comprehensive worldwide policy initiative to prioritise the interdependence of environmental protection and economic development. The conservation and development community has been actively working to increase the beneficial effects of environmental preservation on local and global populations since the 1980s and 1990s. Community-based natural resource management, community conservation, and a plethora of other comparable efforts are all examples of this trend. Human rights, particularly those of indigenous peoples and those displaced when they were moved out of protected areas, were a focal point of the conservation movement in the 1980s. In 1975, the IUCN General Assembly adopted a Recommendation that said indigenous peoples' rights should be respected in national parks and other types of protected areas. This was discussed again in the 1982 World Parks Congress and at subsequent IUCN conferences. Human dimensions of conservation have received increasing attention since the turn of the century. The Convention on Biological Diversity, the United Nations Conference on Sustainable Development Rio + 20, the Millennium Development Goals, and their successors have all emphasised the importance of preserving natural ecosystems and their connections to human well-being, and numerous reports, such as the Millennium Ecosystem Assessment and The Economics of Ecosystems and Biodiversity, have attempted to synthesise this knowledge. Ecosystem services such as water purification, fishing, and pollination are interconnected in these systems and are essential to human health, food security, and economic stability. To keep up with the shifting tides of policy, a growing number of major international conservation organisations like Birdlife International, Conservation International, The Nature Conservancy, and Fauna & Flora International now include people and the pursuit of social good within their stated missions and visions. In 2007, Conservation International (CI) made a conscious decision to shift its focus to enhancing human flourishing via the conservation of ecosystems that provide essential resources. In 2007, Conservation International (CI) launched an initiative to improve people's quality of life. Only lately has guidance been developed that specifically targets improvements in social outcomes and human well-being. The purpose of this manual is to aid conservation efforts.

There are a number of factors that have contributed to the recent trend of conservation efforts shifting their emphasis to include humans. Conservation has been portrayed both as a brake

on economic advancement and as a win-win solution for poverty alleviation and sustainable development throughout the years. Since conservation is a win-win solution, this contradiction exists. Loss of access rights, human-wildlife conflict, and, most controversially, evictions from protected areas are only some of the conflicts and negative linkages between conservation and human well-being that have been brought to light. Although many conservation initiatives have been successful in meeting both conservation and development targets, tensions and unfavourable links between conservation and human flourishing have also been brought to light. Therefore, conservation policy has been motivated by a desire to maintain and preserve the durability of natural ecosystems upon which vulnerable populations depend, as well as a need to demonstrate benefits to broader development goals (e.g., USAID's Biodiversity Policy 2012). As a consequence, conservation policy has been impacted by both forces at the same time. Several widely held beliefs speculate on the direct links between conservation efforts and improvements in people's material and immaterial well-being. These include financial and material security, health, and social harmony. These assumptions are what are pushing researchers to pay more attention to the societal aspects of conservation. These facets of a person's health are intertwined and interdependent, one contributing to and bolstering the others. For instance, strong governance can lead to security and access to livelihood resources, which in turn enhances economic well-being, but the availability of concrete well-being advantages like stable employment and excellent physical health may impact the well-being of households and communities. A person's happiness may be affected by both things.

4.1 Protecting the Environment with Human Health

Environmental education, as stated by the Ministry of Education and Training (2018), is meant to provide community members with the skills they will need to safeguard the environment in a more efficient manner. The technique of environmental education that is the most successful is one in which students are taught about the environment in a particular setting in order to encourage the students and other members of tnstructional target audience to take action to protect environmental quality. The Party and the State of Vietnam have implemented extremely specific policies and action plans for environmental education because of its importance in the process of safeguarding the environment, which have resulted in spectacular accomplishments. Environmental education programs, consisting of both those that are required by the curriculum and those that are optional, have been implemented across the board at all levels of the education system in Vietnam. Every year, campaigns are run with the goal of increasing public awareness and mobilizing the general populace in addition to other social groups to take part in environmental conservation efforts. Additionally, there is progress being made towards completion of the environmental data and information system. In spite of these successes, the study's results highlight the need for improvement in environmental education, training, and awareness-building. For environmental education to be successful, it must

inculcate in children a sense of responsibility for the environment the information and abilities necessary to protect, maintain, and make responsible use of the natural world for the benefit of current as well as future generations. It also involves understanding how to employ new technology to boost output and prevent environmental catastrophes, relieve poverty, seize opportunities, and make astute choices on the use of resources. Additionally, it involves the acquisition of the knowledge, motivation, and resolve to take personal or community action to address pressing environmental concerns and prevent other problems from arising. brand new. Therefore, "environmental education is a process through formal and non-formal educational activities aimed at helping people acquire the knowledge, skills, and values that enable them to participate in the development of the environment. an ecologically sustainable society". Everyone who lives in an area that is polluted will have immediate negative effects on their health as a result. Currently, environmental contamination has reached worrisome levels, which has resulted in the emergence of potentially fatal illnesses. The conservation of the environment is an important issue that calls for the participation of everyone. For this reason, it is essential to raise people's knowledge about the need of environmental protection, which is widely regarded as a method that is both successful and sustainable for conserving the environment and safeguarding human health.

5. CONCLUSION

Traditionally, psychological research on conservation has taken an individualistic approach to encouraging conservation behavior and has concentrated on improving personal attitudes, knowledge, beliefs, and behaviors. The goal of this strategy is to increase the likelihood that people would conserve resources. However, treatments that make use of social psychological processes are becoming more popular since they have been shown to be quite successful in persuading people to modify their behavior. When the intentions capitalize on a particular social context and affect habits of mind in ways that may be maintained over time, behavioral interventions are likely to be more effective in altering behavior at a collective level. This is because behavioral interventions target habits of mind. It is essential to include a wide variety of audiences in the decision-making process. This is due to the fact that several environmental issues, such as climate change, call for widespread collective action. It is possible to apply psychological treatments in order to produce environmental choices that are more appealing, prominent, socially relevant, practical, and influential. Research that is guided by psychology may give important insights that can assist communities, organizations, and governments in the development of environmental policies that are both more successful and more socially responsible. These measures are required immediately to safeguard the delicate ecosystems that exist on our planet and to improve the overall health of populations both locally and throughout the world.

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