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A mini-review

Transition from environmental protection to environmental sustainability

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Abstract. The multiplication of sources of pollution and the increase and diversification of forms of environmental pollution have made environmental protection one of humanity's most important and serious problems in recent decades, affecting human life and the economic development of countries and the whole world. Protection of the environment serves to maintain the quantity and quality of life on Earth, being assumed, through the Declaration of the United Nations Conference on the Human Environment in Stockholm in 1972, as the major desire and interest of the peoples of the whole world and, at the same time, becoming a duty of all governments. Alongside economic and social development, environmental protection is one of the three interdependent and complementary pillars of sustainable development, defined for the first time in the Brundtland Report of the World Commission on Environment and Development as development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs. Clear and time-bound sustainable development goals have been set, global targets for a sustainable and prosperous future, but these are now proving elusive as the challenges are growing ever greater and more dangerous. The effects of global warming can be seen and felt everywhere, the climate crisis is increasingly being talked about, biodiversity and nature are in steadily increasing decline, a water crisis, a food crisis, and dangerous critical points are being predicted. In this context, the transition from environmental protection to environmental sustainability is essential to respond to contemporary global challenges, and requires a concerted effort from all of us - governments, institutions and companies, civil society and every individual. Sustainability is a proactive approach that is crucial for our survival and that of future generations and implies a responsible commitment to the planet, to conserve natural resources and ecosystems and to maintain ecological balance.

Keywords: environment, pollution, environmental protection, sustainable development, sustainability.

Introduction

What kind of environment do we want to live in?

What kind of environment do we want to leave to our children and grandchildren?

We all believe that the air we breathe, the water we drink and the food we eat should be clean. A clean and healthy environment is vital to the standard of living we want for ourselves today and for our children in the future. Protecting the planet creates both challenges and opportunities. Through greater efficiency and better use of natural resources, we can break the link between economic growth and environmental destruction. We can be both prosperous and ecologists.

Many people have become aware that we need to act to protect the planet and use natural resources much more rationally and efficiently. We are beginning to take responsibility for our own behavior and the impact we have on the environment. Individuals, families, businesses, public institutions and environmental associations are joining forces to recycle waste, save energy, buy green products and protect nature. In short, we need to move towards a society where cars do not pollute the atmosphere, waste can be recycled or disposed of properly and energy production does not lead to climate change. Our children must not come into contact with hazardous substances through toys or food. Landscapes and wildlife must not be affected by development.

The challenges we face are global challenges. They do not respect national borders. The degradation of environmental factors in some countries can affect the environment and influence quality of life in others. We cannot solve environmental problems alone, but a sustained, international effort is needed in which we all have a role to play - as individuals, employees and employers, governments, consumers and parents. It is about our future and that of our descendants.

The key to long-term well-being is "sustainability", finding new ways to improve the quality of life without degrading the environment for future generations.

Literature review

Environment, pollution and environmental protection

Although the term 'environment' has been used for a long time and with multiple meanings, apparently to the point of erosion and devaluation, it needs to be updated in contemporary society, at a time when the sharp degradation of the quality of the earth's structures is sometimes reaching alarming levels. The term 'environment' originally originated from the English noun 'environment', which was then used in French as 'l'environnement' and in other languages, and was intended to designate the space surrounding human beings. In the legal literature and existing regulations in various countries and in some documents of international organizations, terms such as "biological environment" or "ambient environment" or even "human environment" are used as variants of the environment. The environment has been defined in Le Grand Larousse as "all the natural and artificial elements that condition human life". Although he notes that the environment cannot be defined in a strictly legal sense, however, taking into account the formulations used in specialized literature and those found in legislation, Professor Ernest Lupan defines the environment as "the totality of natural factors and those created by human activities which, in close interaction, influence the ecological balance, determine the conditions of life for humans and the conditions of development of human society as a whole" [1]. Many natural, social and economic sciences address environmental issues, but from unilateral, limited points of view. As Mrs. Irina Ungureanu points out, geography is the only science able to investigate in a complex and interactive way the whole issue of what we call "environment", in order to reach conclusions with objective

diagnostic value, of great fundamental and applied scientific importance [2]. Oriented by the nature of its object of study on the Earth as a unitary system, situated at the interface between natural and social sciences, geography is by right an environmental science, in the broadest sense of the word. Within geography, a discipline dedicated to the environment, environmental geography, has been developed, with geosystems as its specific object of study. The geosystem should be understood as defining the planet Earth with all its components - internal and external, abiotic, biotic and human - and the relationships between them, which give it the character of a cybernetic system. We can therefore say that when we refer to the environment we take into account the structure, dynamics and functionality of the systemically conceived environment (geosystem), with all its social-economic implications, with the need for continuous monitoring and awareness-raising of the entire human society.

The word 'pollution' is of Latin origin; *polluero-ere* means to defile, to defile, to defile. Pollution can be both the result/effect of natural phenomena and, more importantly, of human activity, when man 'dirties' his own environment. But pollution can be/is the result of the existence and activity of any living being, which "produces" waste, making life in the given environment difficult or even impossible. In other words, pollution is the act of intoxication produced by pollutants, and it is all the more serious the greater the difference between the concentration of the pollutant in the environment and the tolerance limit. Pollution - as a natural, but above all as an artificial phenomenon - appears as a barrier to economic and social development and at the same time constitutes a warning, drawing attention to the fact that natural resources cannot be exploited ruthlessly and irrationally for long, that natural, material and energy resources are not inexhaustible, that they must be used rationally and efficiently in the interests of people, without waste and with good thought. The multiplication of sources of pollution, the increase and diversification of forms of environmental pollution, of all the components of the natural and man-made environment, have led to the conclusion that pollution has become a permanent threat to human health and life, to all living things, and has hindered the normal course of economic and social activity. In today's world, when economies, countries and human societies no longer exist in isolation, but are mutually interconnected, the problem of environmental pollution - considered to be a disease of the 20th and 21st centuries - has taken on international significance and importance.

Although the idea of protecting nature is an ancient one, the seeds of which have been recognized since antiquity in certain philosophical and religious principles professed by enlightened representatives of various cultures in Asia and Europe, the multiple causes of pollution have, in recent decades, made environmental protection one of the most important and serious problems of humanity, affecting human life and the economic development of countries and the entire world; environmental protection serves to maintain the quantity and quality of life on Earth. Protecting the environment today corresponds to the burning desire and interests of the peoples of the whole world and is a duty of all governments [3]. Since the restoration of the ecological balance affected by pollution is no longer achieved automatically, through the spontaneous functioning of various natural factors - also due to the fact that in all areas the consequences of human activity are felt not only positive but also negative - all mankind must intervene consciously and effectively to restore the disturbed ecological balance, to protect the natural and anthropic environment. Thus, environmental protection can be defined as "a conscious, scientifically based human activity, directed towards the realization of a concrete goal, consisting in the prevention of pollution, maintenance and improvement of living conditions on Earth" [1]. Achieving real, multiply-beneficial and sustainable protection effects requires concerted action, from local to global, by social-educational, economic and political factors. The most appropriate actions are: the proper management of natural and human potential, the prevention of all forms of degradation and the conservation of the structures concerned. Each of these actions is strictly necessary, but not sufficient when taken individually, without the others they lose their effectiveness and meaning.

Sustainable development

The Declaration on the Human Environment of the United Nations Conference on the Human Environment held in Stockholm on 16 June 1972, which, recognizing the fundamental human right to freedom, equality and adequate conditions of life, in an environment of a quality that permits people to live in dignity and well-being, proclaimed the related solemn duty to protect and improve the environment for present and future generations. This was only the beginning, since the 'rights of future generations' have been increasingly recognized in numerous international documents and in national regulations, in addition to and as an extension of the fundamental human right to a healthy environment. In 1986, the United Nations established the World Commission on Environment and Development to study the dynamics of environmental degradation and to provide solutions for the long-term viability of human society. The Brundtland Commission, in 1987, drafted and published "Our Common Future" (the Brundtland Report), which provided the first accepted definition of sustainable development as "development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs". The concept of sustainable development is the result of an integrated approach of policy and decision-makers, in which environmental protection and long-term economic growth are seen as complementary and mutually dependent. It implies a synergistic approach to economic, social and environmental policies.

Alongside economic and social development, environmental protection is one of the three interdependent and complementary pillars of sustainable development. The direction of the evolution of the geosystem as a whole depends, to a large extent, on how human society finds and implements those measures that lead to a balanced equilibrium between the sociosystem and the other components of the geosystem. Thus, in the case of maldevelopment, the development-society-environment relationship will spiral downwards, with maldevelopment having negative impacts on the environment and, by extension, on individuals in society, who in turn inhibit development, leading to environmental degradation. In the case of sustainable development, however, the development-society-environment relationship takes the form of an upward spiral, in which sustainable development contributes to protecting and even improving the environment, which in turn supports and enables development, which in turn supports and enables development, which in turn improves health and quality of life, making it possible to continue sustainable development [4].

Environmental sustainability

Over time, there have been numerous meetings of heads of state and government global summits on sustainable development, at which principles and strategies have been set out and updated, targets have been set, and commitments have been made. Short-, medium- and long-term sustainable development goals have been set, as well as global goals for a sustainable and prosperous future, but unfortunately, these have not been fully achieved. There have been many adverse effects of pollution, manifested on a global scale, such as global warming and other climate changes, a growing decline in biodiversity, a predicted water crisis, a food crisis and the reaching of specific dangerous critical points for humanity. To respond to all these global challenges, moving beyond environmental protection goals to more complex ones leading to ecological sustainability is imperative. This approach is essential and requires a concerted effort from all of us - governments, institutions and businesses, civil society and every individual.

The transition from environmental protection to environmental sustainability represents a fundamental change in how we approach our relationship with nature. Thus, while environmental protection focuses on preventing and reducing pollution, conserving natural resources and protecting biodiversity and involves short-term solutions or regulations to

address immediate problems, environmental sustainability involves not only protecting resources but also ensuring a long-term balance between ecological conservation, economic development and social inclusion and focuses on long-term strategies, such as renewable energy, sustainable agriculture, and circular economies, that ensure resources are used responsibly and replenished [5-9]. While environmental protection utilises existing technologies to prevent or limit harm, environmental sustainability drives innovation in sustainable technologies and practices, promoting research and development in sustainable materials, green energy and waste reduction [10-14]. Regarding education and awareness, environmental protection focuses on raising awareness about environmental issues. In contrast, environmental sustainability promotes education that empowers individuals and communities to make sustainable choices, fostering a culture of sustainability. By moving towards environmental sustainability, resilient ecosystems and communities can be created that thrive in a healthy environment in harmony with nature and the planet. A comprehensive analysis for understanding the evolution and impact of environmental sustainability initiatives is presented in [5], providing valuable information that can inform future policy decisions, research and practical applications to promote a more sustainable and harmonious coexistence with our planet.

Conclusion

A change of 'philosophy' in the way we produce and consume is imperative, moving from production and consumption at any price' to sustainable production and consumption, with 'environmental costs included in the price', thus avoiding passing the 'bill' on to others, in other geographical areas or the future. Sustainability is a proactive approach that is crucial for our survival and that of future generations. It implies a responsible commitment to the planet, conserving natural resources and ecosystems and maintaining ecological balance.

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Қоршаған ортаны қорғаудан экологиялық тұрақтылыққа көшу

Аңдатпа: Ластану көздерінің ұлғаюы, қоршаған ортаның ластану формаларының көбеюі және әртараптандырылуы қоршаған ортаны қорғауды адам өмірі мен елдердің және бүкіл әлемнің экономикалық дамуына әсер ететін соңғы онжылдықтардағы адамзаттың маңызды мәселелерінің біріне айналдырды. Қоршаған ортаны қорғау 1972 жылы Стокгольмдегі Біріккен Ұлттар Ұйымының адам қоршаған ортасы жөніндегі Конференциясының декларациясында бүкіл әлем халықтарының басты қалауы ретінде қабылданып, сонымен бірге барлық үкіметтердің міндетіне айнала отырып, Жердегі тіршіліктің саны мен сапасын сақтауға қызмет етеді. Экономикалық және әлеуметтік дамумен қатар, қоршаған ортаны қорғау Дүниежүзілік қоршаған орта және даму комиссиясының Брутланд баяндамасында болашақ ұрпақтың өз қажеттіліктерін қанағаттандыру қабілетіне нұқсан келтірместен қазіргі ұрпақтың қажеттіліктерін қанағаттандыратын Даму ретінде алғаш рет анықталған тұрақты дамудың өзара тәуелді және бірін-бірі толықтыратын үш тірегінің бірі болып табылады. Тұрақты дамудың нақты және шектеулі мақсаттары, тұрақты және гүлденген болашақ үшін жаһандық мақсаттар белгіленді, бірақ қазір олар қиынға соғады, өйткені проблемалар барған сайын күрделі және қауіпті болып келеді. Жаһандық жылынудың әсерін барлық жерде көруге және сезінуге болады, Климаттық дағдарыс туралы жиі айтылады, биоәртүрлілік пен табиғат тұрақты түрде төмендейді, су дағдарысы, азық-түлік дағдарысы және қауіпті сыни нүктелер болжанады. Бұл тұрғыда қоршаған ортаны қорғаудан экологиялық тұрақтылыққа көшу қазіргі жаһандық сын — қатерлерге жауап беру үшін өте маңызды және бәрімізден-үкіметтерден, мекемелерден және компаниялардан, азаматтық қоғамнан және әрбір жеке адамнан келісілген күш-жігерді қажет етеді. Тұрақтылық-бұл біздің өмір сүруіміз бен болашақ ұрпақтарымыздың өмір сүруі үшін өте маңызды және планетаның жауапты міндеттемесін, Табиғи ресурстар мен экожүйелерді сақтауды және экологиялық тепе-теңдікті сақтауды білдіретін белсенді тәсіл.

Түйін сөздер: қоршаған орта, ластану, қоршаған ортаны қорғау, тұрақты даму, тұрақтылық.

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Переход от охраны окружающей среды к экологической устойчивости

Аннотация. Увеличение источников загрязнения, увеличение и диверсификация форм загрязнения окружающей среды сделали защиту окружающей среды одной из важнейших и серьезных проблем человечества в последние десятилетия, влияющих на жизнь человека и экономическое развитие стран и всего мира. Защита окружающей среды служит поддержанию количества и качества жизни на Земле, будучи принятой в Декларации Конференции Организации Объединенных Наций по окружающей среде человека в Стокгольме в 1972 году как основное желание и интерес народов всего мира и в то же время становясь обязанностью всех правительств. Наряду с экономическим и социальным развитием, защита окружающей среды является одним из трех взаимозависимых и взаимодополняющих столпов устойчивого развития, впервые определенных в Докладе Брунланд Всемирной комиссии по окружающей среде и развитию как развитие, которое удовлетворяет потребности нынешнего поколения, не ставя под угрозу способность будущих поколений удовлетворять свои собственные потребности. Были установлены четкие и ограниченные по срокам цели устойчивого развития, глобальные цели для устойчивого и процветающего будущего, но теперь они оказываются неуправляемыми, поскольку проблемы становятся все более серьезными и опасными. Последствия глобального потепления можно увидеть и почувствовать повсюду, о климатическом кризисе говорят все чаще, биоразнообразии и природе неуклонно сокращаются, прогнозируется водный кризис, продовольственный кризис и опасные критические точки. В этом контексте переход от защиты окружающей среды к экологической устойчивости необходим для реагирования на современные глобальные вызовы и требует согласованных усилий от всех нас — правительств, учреждений и компаний, гражданского общества и каждого отдельного человека. Устойчивость — это проактивный подход, который имеет решающее значение для нашего выживания и выживания будущих поколений и подразумевает ответственную приверженность планете, сохранение природных ресурсов и экосистем и поддержание экологического баланса.

Ключевые слова: окружающая среда, загрязнение, охрана окружающей среды, устойчивое развитие, устойчивость.

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