

Environmental Conservation and Sustainable Development in Global Businesses

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ABSTRACT

Sustainability has become the most corporate concern globally. For an environmental, social and financial gains, focus on long-term return on investment is inevitable. Sustainability is achieved through protection or conservation of environment. To maintain diversity and integrity of the ecosystems, sustainability or sustainable development is of essence. Natural resources such as air, water, soil, and plants, are taken care for continuity of human life and the planet. Other resources such as oil, coal, natural gas, metals, stone and sand or sunlight are modified for commercial and industrial use. All these resources are fundament to business operation and growth. Sustainable development practice is human rights, the concept focusses on "meeting the desired present needs without compromising the future generation efforts to meet their essentials". The players direct their attention on maintaining a society harmony between access to human needs and protection of the planet which is the platform for business operation. In this study environment conservation and sustainable development are integrated and presented as interdependent and complementary concepts that add to notable values both to human life, business man and to the earth's natural systems. The study brings out the image on how conservation provides the basis for sustainable development, guaranteeing availability of life to natural resources and the ecosystem. The image refutes the vicious circle that causes pressure to human and planet triggered by climate change, soil erosion, poor air quality and contaminated water. The study caution organization to employ digital technology to reduce carbon footprint and ensure sustainability. This is a secondary data research which was carried out in the library. Data collection method involved studying and analyzing information from books, international published journal papers, theories and published legal documents. The analysis of the study may benefit policymakers responsible of environmental conservation, hence increase more efforts for environmental conservation and sustainable development. The study may create awareness to public and encourage them to take responsibility on environmental conservation and sustainable development practices. The study may also motivate governance structures to see the need for putting more resources on the enforcement of environmental laws.

Key words: Environmental, conservation, sustainability development, global business,

INTRODUCTION

The world is perturbed by the rate of environmental degradation, disappearance of forest, carbon emission and general emitted toxins in our surrounding. High technology, industries, wide human's inventions and ingenuity is causing hazard to the natural resources globally (Rhodes, & Naser, 2021). Practices such as environmental conservation are key to prevent more havoc on air pollution that is affecting ozone layer resulting to global warming (Niesenbaum, 2019). Through conservation, damages on habitats, extinction and distortion on biodiversity, the world can restore the desired order natural environment (Borges, Gabriel, & Fattorini, 2020).

Continued practices of environmental conservation can produce sustainable development (Ruggerio, 2021). In this way the world advance to meet the its current needs without compromising the ability of future generation to meet their own needs. In other words, environmental conservation integrated with sustainable development concept, create an avenue where living conditions endow the world with ability to meet human and the biodiversity needs without undermining planetary integrity. These fundamentals directly impact human activities and industries hence resulting to sustainable development.

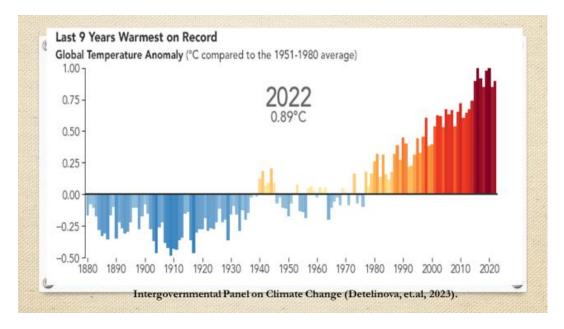




Many industries depend on biological resources to produce assorted goods such pharmaceutical products and fabrics. In an effort to provide human needs, profits and growth of industries, health and safety measures are incorporated in environmental conservation and sustainable development (Sangwan & Bhatia, 2020). Conservation of plants and animal life, referred to as biodiversity, will definitely sustain the future generations and certainly cater for current consumer goods, service organization as well as the information technology sector (Thomsen & Thomsen, 2021).

Artificial intelligence is taking up quickly and industries growing at high rate, but human factors are certain in all these processes. Robots are active in manufacturing industries with a lot of flexibility, they can be programmed to switch between processes to meet changes in product design or provide feedback to customers with minimum efforts. No matter how successfully technology has taken over, in pursuit of quality, speed, flexibility, sustainability or even reduction of manufacturing costs, this technology has a human touch. If there is destruction or construction of any kind to the environment, the human factors are the ultimate responsible for the outcome. Reasoning in business considers 'economic growth and environmental protection as harmonious and both aiming at longer-term prosperity'. A mistake caused by human error may cause huge damage to future generation and need be avoid at all costs. As responsible generation we focus on maintaining harmony between technology embracement, economic growth, environmental conservation and sustainable development.

Climate change has been reported for causing all this menace and disasters and the highest hindrance of poverty reduction, leaving millions of households poorer and suffering (United Nations report, 2024). Studies also indicate that acid rain caused by Sulphur and oxides in the air, is killing freshwater lakes in Scandinavia and North America and in some Swedish lakes acid has increased 100-fold over the 30 years (Tolba, 2013). There is every indication that the opportunity costs of negative environmental impacts are high (Mahajan, 2024). The figure below indicates the rate at which the temperature are raising at a very high rate causing severe heat globally.



Statement of the Problem

In 2019 world health organization reported a 37% of outdoor air pollution related to premature death as a result of ischemic heart disease and stroke. More deaths were reported such as those caused by chronic obstructive pulmonary disease and acute lower respiratory infections were estimated at 28% and 23% respectively, while 11% of death were as a result of cancer within the respiratory track. These disastrous occurrences are severely experienced in low and middle-income countries, where 89% (4.2million people) die prematurely. In April 2024, Tanzania heavy rain killed 155 people and affected more than 200,000 who were reported missing (CNN May, 2024). In the same month in Kenya floods claimed more 300 lives and over 300,000 people displaced (IFRC May, 2024). All the calamities are attributed to climate change due negligence of environmental conservation



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and sustainable development efforts. This study is set to examine the effect of environmental conservation on sustainable development, moderated by management actions.

Research Objectives

Main Objective

The main objective of this is to assess the effect of environmental conservation on sustainable development in global businesses.

Specific Objectives

- (i) To determine the effect of sustainable economy on sustainable development in global business
- (ii) To examine the effect of ethical economy on sustainable development in global business
- (iii) To assess the moderating effect of management action between environmental conservation and sustainable development in global business

Theoretical Review Theories

The background of this discussion is on care for 'mother earth', a place where all life comes. Suitable theories to discuss this phenomenon therefore, include the stakeholder theory and sustainable development theories. On Stakeholder theory, Freeman (1984) postulate that corporates should create value to its customers for sustainability of their businesses, Freeman emphasis that it's equally important that same corporates create safe avenues for society and ecological environment for sustainability. According to Bocken, & Short, (2021) there's no business that can survive in a poor natural environment. Thus, care for stakeholder is equally care for environment and a practice for sustainable development. The interdependence and mutual co-exist between the organizations and its society and the natural environment is what that may lead to sustainable development.

When Brundtland Commission in 1987 presented the theory for sustainable development, they focused basically on exploring this theory and its relationship to economic growth and environmental protection and also examined the impact of human activities on the planet. The main aim was to mitigate negative impacts that threatened the current co-existence and future life in the planet earth.

Both theories; stakeholder theory of management and sustainable development focus on eco-centric, placing value and importance on the entire environment and all life in it. The two theories are intertwined in exploring environmental conservation and sustainable development in global business undertaking.

Edward Freeman viewed a capitalism as a business whose purpose is to make money through its customers, suppliers, employees, investors, communities and others who have a stake in organization. Accordingly, he views business success as a results of care and value for stakeholders, Edward's theory of organization management and business ethics emphasizes that morals and values in managing a business with stakeholder in mind, hence creating a two-way value is an assurance for a future of the business. The theory suggests that ethics in business is the way we affect each other. Both stakeholders and the corporates owners and the business at the center.

Edward emphases that business is about purpose that is alive, it's about creating value that lives, and this is possible by valuing the client. The theory suggests businesses must put ethics and value together and see conflict and challenge as important in all activities, still look at all things as a source of value creation and expect more from business' stakeholders.

The theory has gained popularity in business ethics and saves as a platform for more researches for business growth. Stakeholder theory postulate that a business that does not think of its stakeholders is a business in decline. Stakeholders are partners in implementing sustainable initiative, and sustainability is generally a social goal for corporates and its stake to co-exists in a health business environment. The same group of people are



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charged with responsibility to conserve the natural resources at their disposal in order to protect the global ecosystems for sustenance of future and current health and life, which is regarded as "sustainable development".

Sustainable development practices are sources for business, country and global future life. Protection of natural resources guarantees, safety on food, shelter, clothing and other basic needs to both current and future generation. To guarantee sustainability therefore global businesses must aim to meet the needs of the present without compromising the ability for future generations to meet their own. This was the focus for Brundtland Commission report on global agenda for change proposed long-term strategies for achieving sustainable development (Brundtland Commission,1997). The businesses must think of coexistence with their natural environment. Brundtland Commission report suggest that legal laws on environment conservation are not the only solution to sustainable development (Brundtland Commission,1997).

A health environment and well-being is essential for all human beings including future generation. The current global efforts to embrace renewable energy holds tremendous promise for future green economy. Advocacy on environmental conservation, maintenance of biodiversity and safeguarding natural resources, is sustainable development. Conserving ecosystems, afforestation, educating communities on sustainable living, protecting water bodies, promoting ethical consumerism, promoting ethical business practices, avoiding toxin emission from industries; these are some of the ways of implementing sustainable development agenda for change, proposed by the Brundtland Commission.

Borowy, (2013) suggests that sustainable development can easily be explained as the capacity of any stem to exist and reproduce on a long-term, implying that sustainability is a continuous evolution of life of the planet. A compost, for example, has a direct and positive effect on human lives and a long-term environmental conservation, which in broad term, this may be a cartelist for sustainable development.

LITERATURE REVIEW

Literature review analyses published information particularly on global sustainable development, environmental conservation, ethical economy, and management action. The discussion in this paper is based on the 2030 agenda for sustainable development, adopted by United Nations members in 2015. The whole emphases are to create a peaceful environment with prosperous opportunities, where people and the planet enjoy life. The 17 world sustainable development goals aim to deal with climate change and care for oceans and forests (Lucatello, & Alcántara-Ayala, 2023). This ensures economic sustainability, social sustainability, health communities, and environmental sustainability, guaranteeing future life of both human and the planet.

Sustainable Development

As this paper discus sustainable development, end of hunger and the emission of greenhouse gasses are the main subject of concern. Sustainable development model emerged as a result of worsening environmental situation and concerns for future generation (Hague, 2000). To end hunger therefore, caution must be taken towards the current climate crisis, which is already undermining the crop yields worldwide. This will happened when the world jointly responds to climate-smart forms of agriculture, reduce global greenhouse gas emission and support the regeneration of the ecosystems. The United Nations report (2024) indicate that ending poverty comprise employing efforts on social protection systems, inclusive policies, investment in human capital, embrace equality, investing on climate change initiative, and general global responsibility on environmental conservation.

According to Montagnini & Metzel, (2024) afforestation plays an important role on health soil restoration and end of hunger. Sustainable development is the economic sustainability which encompasses establishing sustainable industrialization, while fostering health innovation.

Sustainable development ensures water safety, access to modern energy, productive employment and safe environment for the ecosystem (Sangwan & Bhatia, 2020). Moreover, sustainable development is also social sustainability, where the society uphold universal human rights and people meet their current basic needs while taking caution not against endangering the future generation's needs.



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Sustainable development is environmental sustainability where human consumption does not exceed nature's rate of replenishment, where also when human generate pollution at maximally high rate it does not exceed nature's rate to restore it back to its normal state (Xu & Zhao, 2023). Practicing Sustainability, and minding sustainable development in business operations, is that process reduces waste, efficient energy consumption, and production of cost savings products which results competitiveness in business. The sustainable development centers around intergenerational equity anchored essentially on environmental care, economic development and society concern (Mensah, 2019).

Management Role, Environmental Conservation and Sustainable Development

The management role in sustainable economy implies prioritizing the long-term environmental, social, and sustainable business focusing on long-term stakeholder well-being. Human factors have been identified as key in innovation potential and economic activities which cannot be achieved without protecting the environment from which these activities take place (Klimovskikh, 2023). A study by Zhao *et.al.* (2023) set to investigate whether the quality management system within an organization helps in achieving environmental conservation and sustainable development goals. The researcher took six quality management practices from America on environmental, social, and economic dimensions.

Results from non-probability convenience sampling technique indicated quality management facilitated firms' achievement of environmental conservation and sustainable development goals, though environmental innovation was found to have a negative impact on social sustainability, hence the researcher caution the manufacturing and services firms to be cautious about environment in their production. Another research was conducted by Carballo-Penela and Castroman-Diz (2015), the results indicated that policy-makers, investors and other stakeholder were interested in environmental management. However, there was a feeling the with tax exemption or tax holiday they would greater results.

Environmental Conservation

Environmental conservation encompasses the efforts of global community to protect the environment (Wali *et.al.*, 2017). This implies that sectors such as energy, transport, waste management, urban planning and agriculture are managed in such a way that they should not toxify the air (Hajam, *et.al.*, 2023). A study carried out Malaysia by Amin *et.at* (2022) indicated that industry such as those that manages agriculture wastes can capture methane gas to use as biogas hence reducing toxic air in the environment. This can save on cost for fuel, but also reduce the industrial smokestack and decrease respiratory diseases (Muhammad, 2020).

Delhi Technological University noted that, renewable combustion-free power acquired from solar, wind or hydropower, green min-grids which generate their power from renewables are all sources of energy which are safer and environmental friendly (Baghel, Manjunath & Kumar, 2024). Hadi, Hamdani, & Roziqin, (2023), conducted a study in Indonesia and discovered that access to cost-effective clean household energy has a positive macroeconomic impacts in terms of increased economic activities and jobs creation. A study carried out in Nigeria by Akande, *et.al.* (2023), found that the use of chargeable electronics, cheap lighting, heating and cooling gargets reduce costs and contribute highly to environmental conservation. Shifting from clean modes of generation is another creativity for a long-term solution as a result of shunning away from heavy-duty diesels vehicles and replace them with reduced sulfur content (Luo, 2023).

Environmental Conservation and Sustainable Development in Global Business

Environmental conservation is practice focused towards preserving the natural habitat, while sustainability is a practice that focus on improving environment to cater for human health. The two concepts are directed towards protecting planate in relation to human wellbeing. The globalization initiative that lack compensating results, hence destroying environment and earth's natural resources' increases poverty in the "name of world capitalism" (Valadbigi & Ghobadi, 2010). According to the study carried out by (Wu, Qing and Jin, (2022), enterprises' cautiousness on environmental conservations by avoiding carbon trading can promote sustainable development. Moreover, emphasis on strong networks and advocacy on environmental conservation, using different channels of communication such as print media, may result to sustainable development and capabilities of enterprises.



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The main objective of this study was to investigate the effect of environmental protection on enterprises growth. The methodology comprised the use of fixed effect regression method and the researcher presented the data of the listed companies in China, from 2016 to 2019.

Another study by Jie, and Jiahui (2023) set to explore the relationship between media attention, green technology innovation and enterprise sustainable development. The sample data was from 415 China listed companies of between 2015-2021. Results showed a strong positive relationship between media attention, environmental regulation, and sustainable development of industrial enterprises. Moreover, media positive attention on economic performance has greater impact on sustainable development of industrial enterprises than its negativity. Other researchers found that sustainable economic development can be achieved through efficiency utilization of renewable energy, and also that sustainable financial development increases energy efficiency (Zakari, et.al, 2022; Pan et.al, 2023)

On the hand, though the discussion environmental conservation and sustainable development are clear, still the expected results from many discussions are yet to be achieved, hence human are continuously violated lead to undignified life (Nath, & Bhatnagar, 2013). The most unfortunate scenario is that human activities are the greatest contributor to environmental degradation and hindrance to sustainable development goals (ZIAUL, Islam & SHUWEI, 2023). Some scholar argue that poverty is the major cause of failures to conserve environment which results to poor climate change hence endangering sustainable development globally (Elliott, 2012).

However, this notion has been contested and the findings are that, economically disadvantaged people often are the most affected by the climate change due to failure to conserve environment global gas emitters. At the same time, examples are that, poor farmers adopt resource conserving practices and the long-run results are increased productivity (Rai, 2019). More sentiments are raised on urban population density as the main cause for causing poor environment for human and planet and endangered sustainable development goals (Dewan et.al, 2012: Tyagi, Garg & Paudel, 2024). Minimizing exposure to environmental risk factors by enhancing air quality and access to improved sources of drinking and bathing water, sanitation and clean energy is found to be associated with significant health benefits and can contribute significantly to the achievement of the Millennium Development Goals of environmental sustainability, health and development

However, Ruggerio, (2021) criticizes the motion, accordingly, he suggests that a bibliography on the concept of sustainable development shows that there is strong imprecise definition as presented in the debate of 1990s, and that the concept is still in development stage for scientific research and environmental management. More critique suggests that sustainable development goal fail to monitor absolute trend in resources use instead give more emphasis on economic growth while ignoring ecological integrity (Eisenmenger *et.al.*, 2020), again that in some cases sustainable development concept may be blamed on contributing to the menace caused by industrialization in early stages of advocating for economic growth and resource use.

METHODOLOGY

This study used desk review methodology, and through systematic and scoping, the researcher obtained previously published materials. Data was collated, written up, reviewed and finally presented according to guideline given by Snyder (2019), as cited by (Kori, & Muathe, 2022). The scholarly surveys data journals article whose findings were reviewed, re-analyzed and interpreted informed the research. More sources of information were obtained from the relevant books, government printing and various websites. Google scholar search engine was the main tool for mining the data from journals and books online. The Google scholar search engine facilitated the re-generation of new insight on environmental conservation and sustainable development. The scholarly books and journal articles were of between the years 2016-2024.

FINDINGS DISCUSSION

Trees cutting was found to be the worst enemy to environmental conservation. Trees cutting may lead to deforestation and consequences are devastating to all living things (Butler,2019). Deforestation caused climate change, desertification, soil erosion, fewer crops, flooding, increased and flooding (Azare, et. al. 2020). Human activities were also found to have a major contributor to climate change hence endangering environment and





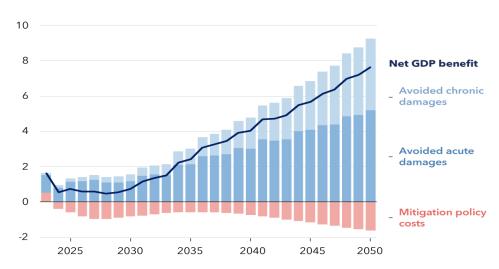
sustainable development. Increased greenhouses which cause toxin gases in the atmosphere affecting the ozone layer bar any sustainability to the planate and human life (Pandya, 2023). More reports indicate that over 80% of deforestations is caused by agricultural activities (Arnold, 2010). Suggestion to solve this problem is by implementing eco-friendly agriculture which also agroforestry activity, combines agriculture and forestry technologies results to a farm workers' safety measure and a food security assurance, sustainable development.

Research has also shown that human efforts on agroforestry improves biodiversity, productivity, sustainable, and health to land users (Castle *et.al*, 2021). As a results, it enhances soil structure and boosts crop yields due to rained waters, while diversifying sources of income to a household. The best practice is to replace one tree cut with two more to help purify air to avoid pollution, providing shade and cool weather, while releasing water vapor to cause rain fall (Nowak & Heisler, 2010). This study has also found that, low-carbon contribute highly to "green economic investment" as a result of organic sustainably grown products, while providing positive physical impacts of climate change and cost-effective macroeconomic activities (Wanyonyi, 2020).

The governments and other parties concerned about future of business such as the United nations and the Climate and Clean Air Coalition are coming up with powerful initiative to reduce short-lived climate pollutants (Cherian, 2022). Their main aim is to mitigate the effects of methane, black carbon, hydrofluorocarbons, and tropospheric ozone, from harmful global warming potential. Researchers have discovered that these molecule, each can warm the earth faster than carbon dioxide (Arshad,2024). The CCAC work in over 70 countries worldwide and together they work hard work hard to reduce anthropogenic methane emissions by at least 30% by 2030 and maintain the global temperature rise below 1.5degrees centigrade (Environment and Climate Change Canada, 2022).

The International Monitory Fund (IMF) is a member of Network for Greening the Financial System (NGFS) which is currently made of 20 international organizations (Knaack, 2024). Together with the IMF, the NGFS discovered that adoption of Low-carbon economy, Climate finance, safe guard Climate change and maintenance of good weather, will have a positive long-term effect on the economy by the year 2050 (Demekas & Grippa, 2021). Policies such as increasing taxes on carbon emitters fossils, reducing fuel subsidies and improving regulations on supporting the low-carbon technology products, hence producing less pollution, are some of the measures adopted for solid solution for climate change (Bassi *et.al.*,2023). Some reports indicate that low-carbon technology products are more valued to export and import in many countries compared to those without this kind of technology. Some legal laws prefer enforcing laws to adopt technologies which will contribute to reaching net-zero emission model by 2050 (Pan *et.al.*,2023). The graph below the shows the world potential GDP benefit net zero carbon emission by 2050.

World potential GDP benefit under net zero carbon emissions by 2050 (percent deviation from reference scenario)



Adopted from: https://climatedata.imf.org/

Despite the noted efforts on environmental conservation, there is still a lot of disasters world wild which means that humanity need be sensitized more of the same.





Conceptual Framework

Sustainable development is being society needs conscious, environmental, conserver, and economic minded as depicted on the conceptual framework below. The conceptual framework indicate that sustainable development is attained through putting more efforts on sustainable economy where combined efforts of local communities, governance and decarbonisation initiatives succeed. The impact of rule, virtue and good economic action and management ethical practices, is another important aspect that predict sustainable development. Further, management actions on preservation of planet and its resources to ensure wellbeing of humanity is what will result to sustainable development.

Sustainable Economy Local initiatives Governance standards Decarburization initiative Global Sustainable Development Current society needs Future society needs Future society needs Virtues based Virtues based Policies implementation

Source Literature Review; (data 2019-2024)

CONCLUSION AND RECOMMENDATION

This study concludes that environmental conservation has great impact on sustainable development. The absence of it therefore, is dangerous to human well-being, planate but also to economic sustainability. More so, to achieve sustainable development will depend significantly on clean air, where human activities should be those that avoid contamination. Harmful gasses and chemicals are main contributors to air pollution, where human activities are the extremely blamed.

The study recommends that caution must be taken by human being against air pollution and that they should must embrace the values to sustainable development through environmental conservation. Business organizations must take responsibility and employ digital technology to reduce carbon footprint and ensure sustainability.

REFERENCES

- 1. Akande, O., Emechebe, C., Lembi, J., & Nwokorie, J. (2023). Energy demand reduction for Nigeria housing stock through innovative materials, methods and technologies. Journal of Sustainable Construction Materials and Technologies, 8(3), 216-232.
- 2. Amin, M. A., Shukor, H., Yin, L. S., Kasim, F. H., Shoparwe, N. F., Makhtar, M. M. Z., & Yaser, A. Z. (2022). Methane biogas production in Malaysia: challenge and future plan. International Journal of Chemical Engineering, 2022(1), 2278211.
- 3. Arnold, C. A. (2010). Fourth-generation environmental law: integrationist and multimodal. Wm. & Mary Envtl. L. & Pol'y Rev., 35, 771.
- 4. Arshad, K., Hussain, N., Ashraf, M. H., & Saleem, M. Z. (2024). Air pollution and climate change as grand challenges to sustainability. Science of The Total Environment, 172370.





- 5. Azare, I. M., Abdullahi, M. S., Adebayo, A. A., Dantata, I. J., & Duala, T. (2020). Deforestation, desert encroachment, climate change and agricultural production in the Sudano-Sahelian Region of Nigeria. Journal of Applied Sciences and Environmental Management, 24(1), 127-132.
- 6. Baghel, N., Manjunath, K., & Kumar, A. (2024). Assessment of solar-biomass hybrid power system for decarbonizing and sustainable energy transition for academic building. Process Safety and Environmental Protection, 187, 1201-1212.
- 7. Bassi, A. M., Pallaske, G., Bridle, R., & Bajaj, K. (2023). Emission Reduction via Fossil Fuel Subsidy Removal and Carbon Pricing, Creating Synergies with Revenue Recycling. World, 4(2), 225-240.
- 8. Bocken, N. M., & Short, S. W. (2021). Unsustainable business models-Recognising and resolving institutionalised social and environmental harm. Journal of Cleaner Production, 312, 127828.
- 9. Borowy, I. (2013). Defining sustainable development for our common future: A history of the World Commission on Environment and Development (Brundtland Commission). Routledge.
- 10. Borges, P. A., Gabriel, R., & Fattorini, S. (2020). Biodiversity erosion: causes and consequences. In Life on land (pp. 81-90). Cham: Springer International Publishing.
- 11. Butler, R. A. (2019). Consequences of deforestation. Mongabay: Menlo Park, CA, USA.
- 12. Carballo-Penela, A., & Castromán-Diz, J. L. (2015). Environmental policies for sustainable development: an analysis of the drivers of proactive environmental strategies in the service sector. Business Strategy and the Environment, 24(8), 802-818.
- 13. Castle, S. E., Miller, D. C., Ordonez, P. J., Baylis, K., & Hughes, K. (2021). The impacts of agroforestry interventions on agricultural productivity, ecosystem services, and human well-being in low-and middleincome countries: A systematic review. Campbell Systematic Reviews, 17(2), e1167.
- 14. Cherian, A. (2022). Air Pollution, Clean Energy and Climate Change. John Wiley & Sons.
- 15. Cvjetković, B., & Mataruga, M. (2020). Afforestation and Its Climate Change Impact. In Life on Land (pp. 13-26). Cham: Springer International Publishing.
- 16. Detelinova, I., Thomas, T. S., Hammond, W., Arndt, C., & Hartley, F. (2023). From climate risk to resilience: Unpacking the economic impacts of climate change in Kenya. Intl Food Policy Res Inst.
- 17. Demekas, D., & Grippa, P. (2021). Financial regulation, climate change, and the transition to a lowcarbon economy: A survey of the issues. International Monetary Fund.
- 18. Dewan, A. M., Kabir, M. H., Nahar, K., & Rahman, M. Z. (2012). Urbanisation and environmental degradation in Dhaka Metropolitan Area of Bangladesh. International Journal of Environment and Sustainable Development, 11(2), 118-147.
- 19. Ecology, C. (2020). Sustainability and Sustainable Development—What Is Sustainability and What Is Sustainable Development. URL: https://circularecology. com/sustainability-andsustainabledevelopment. html (accessed: 15. 02. 2023).
- 20. Eisenmenger, N., Pichler, M., Krenmayr, N., Noll, D., Plank, B., Schalmann, E., ... & Gingrich, S. (2020). The Sustainable Development Goals prioritize economic growth over sustainable resource use: a critical reflection on the SDGs from a socio-ecological perspective. Sustain Sci 15: 1101–1110.
- 21. Environment and Climate Change Canada. (2022). 2030 Emissions Reduction Plan-Canada's Next Steps for Clean Air and a Strong Economy. Government of Canada.
- 22. Hadi, S. P., Hamdani, R. S., & Roziqin, A. (2023). A sustainability review on the Indonesian job creation law. Heliyon, 9(2). S. P., Hamdani, R. S., & Roziqin, A. (2023). A sustainability review on the Indonesian job creation law. Heliyon, 9(2).
- 23. Hajam, Y. A., Kumar, R., & Kumar, A. (2023). Environmental waste management strategies and vermi transformation for sustainable development. Environmental Challenges, 100747.
- 24. Haque, M. S. (2000). Environmental discourse and sustainable development: Linkages and limitations. Ethics and the Environment, 5(1), 3-21.
- 25. Imperatives, S. (1987). Report of the World Commission on Environment and Development: Our common future. Accessed Feb, 10(42,427).
- 26. Jaumotte, M. F., Liu, W., & McKibbin, W. J. (2021). Mitigating climate change: Growth-friendly policies to achieve net zero emissions by 2050. International Monetary Fund.
- 27. Elliott, J. (2012). An introduction to sustainable development. Routledge.
- 28. Jie, G., & Jiahui, L. (2023). Media attention, green technology innovation and industrial enterprises' sustainable development: The moderating effect of environmental regulation. Economic Analysis and Policy, 79, 873-889.

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- 29. Klimovskikh, N., Sekerin, V., Makushkin, S., Kuzmicheva, A., Leontev, M., & Kochetkov, E. (2023).
- Impact of human resource management on improving the innovation potential of an enterprise to achieve the principles of sustainable development. Journal of Law and Sustainable Development, 11(1), e0274-e0274.
- 30. Knaack, P. (2024). Global Financial Governance: A US Perspective on Europe. In Europe in an Era of US-China Strategic Rivalry: Challenges and Opportunities from an Outside-in Perspective (pp. 161-176). Cham: Springer Nature Switzerland.
- 31. Kori, B., & Muathe, S. (2022). Diversity and Financial Inclusion: The Role of Microfinance Institutions in the Growth of SMEs in Kenya. International Journal of Economics, Commerce and Management, 10(6), 115-129.
- 32. Lucatello, S., & Alcántara-Ayala, I. (2023). Addressing the interplay of the Sendai Framework with sustainable development goals in Latin America and the Caribbean: moving forward or going backwards?. Disaster Prevention and Management: An International Journal, 32(1), 206-233.
- 33. Luo, H. (2023). Comparison of carbon and pollution emissions of conventional diesel and new energy short-haul heavy-duty trucks over their full life cycle based on the GREET model and assessment of influencing factors. In Advances in Traffic Transportation and Civil Architecture (pp. 146-153). CRC Press
- 34. Mahajan, Y. A. (2024). Sustainable Development and Environment Protection.
- 35. Mensah, J. (2019). Sustainable development: Meaning, history, principles, pillars, and implications for human action: Literature review. Cogent social sciences, 5(1), 1653531.
- 36. Montagnini, F., & Metzel, R. (2024). The contribution of agroforestry to sustainable development goal 2: end hunger, achieve food security and improved nutrition, and promote sustainable agriculture. In Integrating landscapes: Agroforestry for biodiversity conservation and food sovereignty (pp. 21-67). Cham: Springer International Publishing.
- 37. Muhammad, M. (2020). Impact Of Biomass Fuel On Health And Willingness To Pay For Improved Cooking System: A Case Study Of Rural Areas Of District Khairpur.
- 38. Nath, M. U., & Bhatnagar, S. K. (2013). Sustainable Development and Human Rights: An Overview. for Legal Studies.
- 39. Ngcamu, B. S. (2023). Climate change effects on vulnerable populations in the Global South: a systematic review. Natural Hazards, 118(2), 977-991.
- 40. Niesenbaum, R. A. (2019). The integration of conservation, biodiversity, and sustainability. Sustainability, 11(17), 4676.
- 41. Nowak, D., & Heisler, G. (2010). Air quality effects of urban trees and parks. Research Series Monograph. Ashburn, VA: National Recreation and Parks Association Research Series Monograph. 44 p., 1-44.
- 42. Pan, X., Shao, T., Zheng, X., Zhang, Y., Ma, X., & Zhang, Q. (2023). Energy and sustainable development nexus: A review. Energy Strategy Reviews, 47, 101078.
- 43. Pan, X., Wang, Y., Shen, Z., & Song, M. (2022). Technological progress on embodied carbon emissions in G7 countries' exports: a structural decomposition analysis. Journal of Cleaner Production, 372, 133800.
- 44. Pandya, J. B. (2023). General Concept Of Environmental Sciences. Academic Guru Publishing House.
- 45. Rai, J. (2019). Understanding poverty-environment relationship from sustainable development perspectives. Journal of Geography, Environment and Earth Science International, 19(1), 1-19.
- 46. Rhodes, E. R., & Naser, H. (Eds.). (2021). Natural Resources Management and Biological Sciences. BoD–Books on Demand.
- 47. Ruggerio, C. A. (2021). Sustainability and sustainable development: A review of principles and definitions. Science of the Total Environment, 786, 147481.
- 48. Sangwan, S. R., & Bhatia, M. P. S. (2020). Sustainable development in industry 4.0. A roadmap to industry 4.0: Smart production, sharp business and sustainable development, 39-56.
- 49. Thomsen, B., & Thomsen, J. (2021). Multispecies livelihoods: Partnering for sustainable development and biodiversity conservation. Partnerships for the Goals, 758-768.
- 50. Tyagi, S., Garg, N., & Paudel, R. (2014). Environmental degradation: Causes and consequences. European researcher, 81(8-2), 1491.
- 51. Tolba, M. K. (2013). Sustainable development: Constraints and opportunities. Elsevier.



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- 52. United Nations. (2024). The sustainable development goals report 2024.
- 53. Valadbigi, A., & Ghobadi, S. (2010). The Tragedy of Halabja: A Pathological Review on Social-Legal Aspects of the Case from Historical and International Points of View. OIDA International Journal of Sustainable Development, 2(2), 59-68.
- 54. Wali, Alaka, Diana Alvira, Paula S. Tallman, Ashwin Ravikumar, and Miguel O. Macedo. "A new approach to conservation: using community empowerment for sustainable well-being." Ecology & Society 22, no. 4 (2017).
- 55. Wanyonyi, S. A. (2020). The Acceptability of the Use of Carbon Taxes for Climate Change Mitigation in Kenya: a Political Economy Assessment (Doctoral dissertation, University of Nairobi).
- 56. Wu, L., Qing, C., & Jin, S. (2022). Environmental protection and sustainable development of enterprises in China: The moderating role of media attention. Frontiers in Environmental Science, 10, 966479.
- 57. Xu, Y., & Zhao, F. (2023). Impact of energy depletion, human development, and income distribution on natural resource sustainability. Resources Policy, 83, 103531.
- 58. Zakari, Abdulrasheed, Irfan Khan, Duojiao Tan, Rafael Alvarado, and Vishal Dagar. "Energy efficiency and sustainable development goals (SDGs)." Energy 239 (2022): 122365.
- 59. Zhao, L., Gu, J., Abbas, J., Kirikkaleli, D., & Yue, X. G. (2023). Does quality management system help organizations in achieving environmental innovation and sustainability goals? A structural analysis. Economic research-Ekonomska istraživanja, 36(1), 2484-2507.
- 60. ZIAUL, Islam Md, and Wang SHUWEI. "Environmental sustainability: A major component of sustainable development." International Journal of Environmental, Sustainability, and Social Science 4, no. 3 (2023): 900-907.