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Environmental Sustainability And Its Relationships With Human Development: An Analysis

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ABSTRACT

Sustainability is one the newest degree subjects that attempts to bridge social science with civic engineering and environmental science with the technology of the future. When we use the word "sustainability" then we think of renewable fuel sources, reducing carbon emissions, protecting environments and a way of keeping the delicate ecosystems of our planet in balance. In short, sustainability looks to protect our natural environment, human and ecological health, while driving innovation and not compromising our way of life. Development Index is one of the most widely used measure of well-being. The Human weak point of this index is that it does not take into account the concept of sustainability and, more precisely, it is lacking in the environmental component specification. On the other side of the spectrum, some indicators provide useful information about the environmental health of countries but not about human development, such as the Environmental Performance Index. The necessity of the HDI empowerment with environmental dimensions was a theme of discussion during the most recent Rio 20-United Nation Conference on Sustainable Development,2012 as part of Millennium Development Goals post-2015.

This paper will try to focus necessity of sustainable environment, relationships between the environmental sustainability and human development and new initiatives taken by the world community for sustainable environment for human development through global summit in different conferences.

Key Words: Environment, Sustainability, Human Development, HDI, MDGs, Global Summit, Conferences etc.

1. Introduction:

Sustainability is a broad discipline, giving students and graduates insights into most aspects of the human world from business to technology to environment and the social sciences. The core skills with which a graduate leaves college or university are highly sought after, especially in a modern world looking to drastically reduce carbon emissions and discover and develop the technologies of the future. Sustainability draws on politics, economics and, philosophy and other social sciences as well as the hard sciences. Sustainability skills and environmental awareness is a priority in many corporate jobs at graduate level and over as businesses seek to adhere to new legislation. Therefore, Sustainability graduates will go into many fields but most commonly civic planning, environmental consultancy (built and natural environment), agriculture, not for profit, corporate strategies, health assessment and planning, and even into law and decision making. Entry-level jobs are growing and over the coming years, bachelors' graduates can expect more and more options and opportunities. Sustainability is one the newest degree subjects that attempts to bridge social science with civic engineering and environmental science with the technology of the future. When we hear the word "sustainability" we tend to think of renewable fuel sources, reducing carbon emissions, protecting environments and a way of keeping the delicate ecosystems of our planet in balance. In short, sustainability. The definition of "sustainability" is the study of how natural systems function, remain diverse and produce everything it needs for the ecology to remain in balance. It also acknowledges that human civilisation takes resources to sustain our modern way of life. Sustainability takes into account how we might live in harmony with the natural world around us, protecting it from damage and destruction. Human Development Index (HDI) is one of the most widely used measure of well-being. The weak point of this index is that it does not take into account the concept of sustainability and, more precisely, it is lacking in the environmental component specification. On the other side of the spectrum, some indicators provide useful information about the environmental health of countries but not about human development, such as the Environmental Performance Index (EPI). The necessity of the HDI empowerment with environmental dimensions was a theme of discussion during the most recent Rio 20-United Nation Conference on Sustainable Development (2012), as part of Millennium Development Goals (MDGs) post-2015.

1.1: Impact of Climate on Human Development

The influence of our physical environment and climate on human development outcomes such as educational attainment and child mortality has been studied by researchers in different contexts and regions of the world. While weather changes can directly affect human development outcomes by disrupting access to infrastructure such as schools or hospitals, availability of staff (teachers, doctors and nurses, etc.), and increasing incidence of diseases, research in countries across the globe has shown that changes in weather patterns can also affect cognitive performance, rate of skill formation, work behavior, workforce migration, and labor market participation (see Deuster 2021; Das 2020; Li 2020; Zivin and

Neidell 2014). Park et al. (2021) use data for 58 countries and 12,000 US school districts with detailed weather and academic calendar information to show that the rate of learning decreases with an increase in the number of hot school days. These negative effects are further compounded in poorer countries and can be up to three times higher for students from low-income groups. Zivin et al. (2018) in their study further show that even though the negative effect of long-term temperature changes may be reduced due to compensatory behavior, short-run changes can lead to statistically significant decreases in cognitive performance (also see Zivin et al. 2020). A similar study by Cook (2021) using the difference-in-difference methodology to assess the impact of flooding on education outcomes and cognitive performance among school children in Canada finds that exposure to floods can reduce performance by up to 7 percent of a standard 3 deviation. However, the effects are less pronounced for students living in high-rise apartment buildings and newer construction areas that are less prone to flooding, thus suggesting that adaptive measures can play a role in reducing the impact of climate change on human development outcomes. Similarly, research on health outcomes also indicates that negative environmental conditions can create long-term negative impact on health indicators of citizens. Researching the link between temperature inversion events and air pollution in Sweden, Jans et al. (2018) show that such events can increase air pollution (PM10 levels) by 25 percent and children's respiratory health problems by 5.5 percent with low-income children being the worse affected. Arceo et al. (2016) have previously shown that the effect of air pollution on infant mortality can be higher in developing countries as compared to developed countries. Studying the impact of increasing oceanic acidity on early-childhood mortality and development, Armand and Taveras (2020) have gathered data on more than 1.5 million births taking place over the last 50 years in 36 developing countries. The study finds that in coastal areas, a 0.01 unit increase in acidity can lead to 2 additional neonatal deaths per 1,000 live births. Ebi and Hess (2020) further suggest that increased exposure to climate hazards has increased risks of deaths and injuries from extreme events, infectious diseases, and food and water insecurity in Europe. They propose simultaneous government policies and investments in social and health protections aimed at reducing inequities and investments in climate change mitigation and adaptation to reduce these health risks.

1.2 Necessity of the study:

Climate change is the most urgent issue affecting the whole planet right now. Climate change-related hazards are ongoing and increasing. They pose a serious threat to the achievement of the MDGs as they have the potential to reverse years of development gains. Tackling the climate is a need for justice: developing countries have 98 percent of the seriously affected and 99 percent cv of all deaths from weather-related disasters, along with over 90 percent of the total economic losses, while the 50 Less Developed Countries contribute less than 1percent of global carbon emissions. Climate change and global poverty must be combated simultaneously. 75percent of the world's poor live in rural areas and largely depend on natural resources for their livelihoods and income. They suffer the most from natural disasters due to poor infrastructure and systems that are not equipped to deal with the drastic impact of major catastrophes such as the 2004 tsunami or Haiti earthquake. Sustainable development is the organizing

principle for meeting human development goals while at the same time sustaining the ability of natural systems to provide the natural resources and ecosystem services upon which the economy and society depend. The desired result is a state of society where living conditions and resource use continue to meet human needs without undermining the integrity and stability of the natural system. Sustainable development can be classified as development that meet the needs of the present without compromising the ability of future generations. While the modern concept of sustainable development is derived mostly from the 1987 Brundtland Report, it is also rooted in earlier ideas about sustainable forest management and twentieth century environmental concerns. As the concept developed, it has shifted to focus more on economic development, social development and environmental protection for future generations. It has been suggested that "the term 'sustainability' should be viewed as humanity's target goal of human-ecosystem equilibrium (homeostasis), while 'sustainable development' refers to the holistic approach and temporal processes that lead us to the end point of sustainability".[1] The modern economies are endeavouring to reconcile ambitious economic development and obligations of preserving the natural resources and ecosystem, the two are traditionally seen as of conflicting nature. Instead of holding climate change commitments and other sustainability measures as a drag to economic development, turning and leveraging them into market opportunities will do greater good. The economic development brought by such organized principles and practices in an economy is called Managed Sustainable Development (MSD). The concept of sustainable development has been—and still is—subject to criticism. What, exactly, is to be sustained in sustainable development? It has been argued that there is no such thing as a sustainable use of a non-renewable resource, since any positive rate of exploitation will eventually lead to the exhaustion of earth's finite stock. This perspective renders the industrial revolution as a whole unsustainable. It has also been argued that the meaning of the concept has opportunistically been stretched from "conservation management" to "economic development", and that the Brundtland Report promoted nothing but a business-as-usual strategy for world development, with an ambiguous and insubstantial concept attached as a public relations slogan.

2. Objectives of the study:

This study has tried to highlight the following objectives:

1) To study changing scenario of environment in global context.
2) To study the interlink between environmental sustainability and human development.
3) Hypothesis of the study:

- Environmental degradation has taken place
- There are positive relationships between the environment and human development

3. Methodology

a) Method: The present study has taken the descriptive method to give final shape of the research work

b) Data: The present study has adopted the secondary data to synchronise interlink between environmental sustainability and human development

4. Analysis of the study:

4.1 The concepts of environmental sustainability and human development are commonly referenced in politics, business, and social sectors worldwide. Although they are in often associated with each other, these two ideas have largely been conceptualized researched and measured separately. If we see historically, great differences have been made between the disciplines of environmental sustainability and human development, which has contributed to communication barriers between the fields and research that has been narrowly focused within each discipline. Thus, large gaps exist in our understanding of how to balance human development and environmental sustainability. In order to develop practical field such policy gaps, the Advanced Consortium on Cooperation Conflict, and Complexity and the 'Agirre Lehendakaria Centre for Social and Political Studies have been collaborating to build a new framework for sustainable human development (SHD). Broadly defined, SHD is the resulting synthesis of human development and environmental sustainability. It generally emphasizes equitable human and social development, maintaining environmental integrity, and ensuring that these conditions also be attainable for future generations. In this regard, we can add that, many studies in earlier tried to promote, measure of environmental sustainability only but at present it has tried to connect human development and environmental sustainability jointly. Indices such as the HDI and the World Happiness Report comprehensively measure various aspects of human well-being. Meanwhile, indices like the Environmental Performance Index, Environmental Vulnerability Index, Sustainable Society Index and the Environmental Sustainability Index assess socio-economic and ecological components of sustainability. Although these indices enable us to observe and measure characteristics of human development and environmental sustainability which had indicated the lack of unified theoretical framework. Rather, existing indices and measures were developed in response to a variety of international, national and programmatic development agendas. This leads to inconsistencies in their theoretical backgrounds and broader goals. In 1992, the United Nations Conference on Environment and Development – UNED took place in the Rio de Janeiro where, among the documents that were adopted, there was also the Rio Declaration, the first consistent statement on sustainability and which proposed the development of sustainable national strategies. 10 years after the conference in Rio de Janeiro, the UN Summit on

Sustainable Development, or "Rio + 10" took place at Johannesburg and the Johannesburg declaration on sustainable development and the plan of implementation of the world summit on sustainable development were adopted. One of the main discussions of the summit focused on the concept of "sustainable development" by highlighting the main connections between poverty, environment and resource utilization. The Johannesburg Declaration [6] on Sustainable Development showed the importance of sustainable development in the fight for environmental protection and against poverty at global level and assumed collective responsibility for the progress and development of the three interdependent

4.2 The Linkages between Education and Climate Change:

Toward a Conceptual Framework Establishing the impact of schooling on climate also requires understanding the pathways that could lead from increased educational attainment to improved environmental outcomes. Authors have previously established the role that increased schooling can play in changing an individual's cognitive skills (e.g., Pekkala Kerr 2013). Dahmann (2017) further suggests that cognitive skills, which includes innate abilities to reason and process information as well as learned knowledge or behavior, can improve through increased instructional time and a multiplier-effect on the skills gained during the early years. Other authors such as Mcguire (2015) and Powdthavee (2021) have suggested that improved cognitive skills, especially attitudes and behaviors gained through schooling can equip individuals to process information on climate change better and faster thus providing one pathway from schooling to pro-environmental behavior. While improved cognitive skills provides one direct pathway, there are other indirect pathways that may be at play as well. Hwang et al. (2000) in their study based at the Kwang-Reung Arboretum in the Republic of Korea suggest that in addition to cognitive factors, there are affective and situational factors that play a role in ensuring responsible environmental behavior. Affective factors include feelings and emotions whereas situational factors include economic conditions and access to information or resources. The study finds that an individual's belief in their ability to bring about change plays a critical role in determining their actions and hence education should focus on building critical thinking and action skills that can enable individuals to take their own decisions. Levy et al. (2016) in their study with approximately 3,000 adults in Israel further analyze 7 how different dimensions of cognitive and affective factors relate to environmental behavior. The study finds that affective factors (environmental concern and a willingness to act) are the strongest predictors followed by cognitive aspects such as action-related knowledge and social knowledge. Besides the cognitive and affective factors, the role of situational factors has also been studied in some detail. Chankrajang and Muttarak (2017) suggest that better education results in better earnings, improved access to information, and increased access to resources that can enable individuals to take mitigating action. For example, higher earning households have command over resources such as installing renewable energy sources at home or willingness to pay carbon taxes. Also, knowing where to get information on how to reduce emissions or what adaptations to take can allow individuals to change behavior appropriately. With the causal effect of education on income previously well established in literature (see Heckman et al. 2016)

this establishes an indirect pathway from education to improved environmental behavior (Figure 1). Increased Earnings (Access to resources and information) Improved Education Cognitive Skills Ability to act (Adaption and Mitigation) (Attitudes and Behavior) Decision making ability Pro-Environmental Behavior Increased Demand (for environmental action) Figure 1: Direct and Indirect pathways from improved education to pro-environmental behaviour While the model provides a possible framework to establish the role that education can play in addressing climate change, determining direction of causality requires more evidence from large scale studies in an analytical model with variations in educational attainment where environmental behaviour is an outcome variable and might lead to improved environmental outcomes.2 2For example, increased willingness to pay for green electricity can lead to faster decarbonization, resulting in improved air quality and mitigation of climate change. The linkages between changes in behaviour and environmental outcomes need to be further examined.

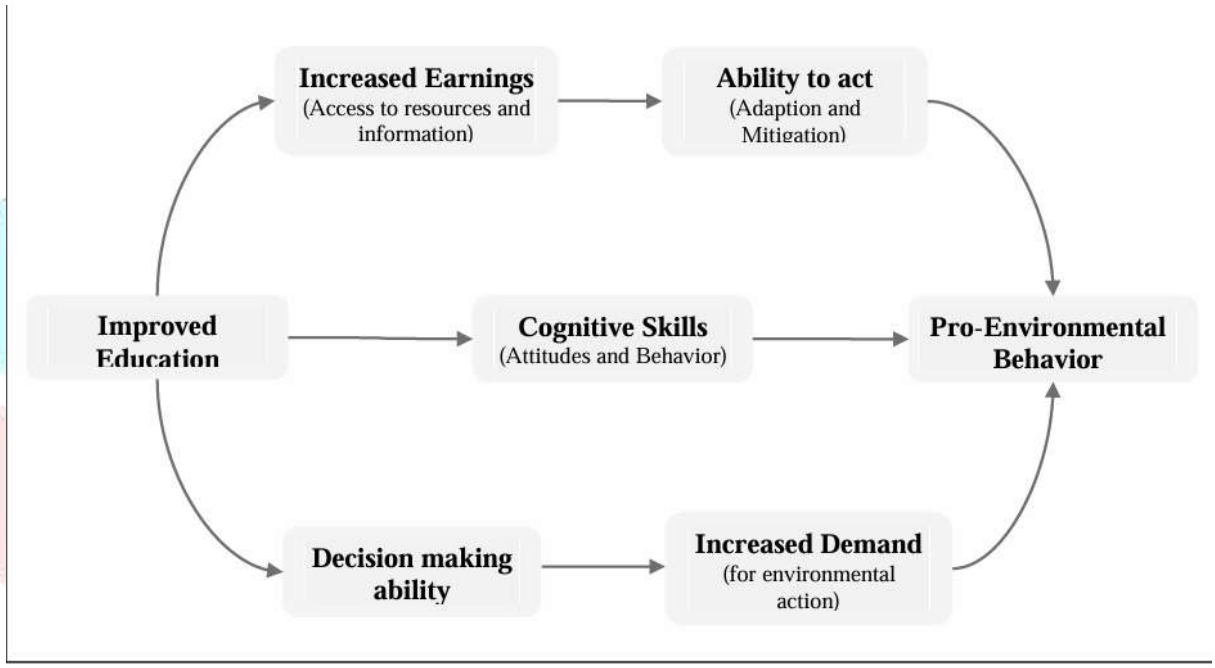

Figure 1: Direct and Indirect pathways from improved education to pro-environmental behavior

6.Conclusion

This paper has tried to highlight the interlink between the environmental sustainability and human development. In the present scenario we have seen that most of the world countries have used the natural resources both directly or indirectly to meet up human needs which have degraded the environment. From our above analysis, it has seen that less develop and developing countries of the word have used natural recourses larger than developed countries which bring the differences in percentage regarding the environmental degradation between the two. Therefore, to reduce difference between the two kinds of countries in percentage ratio, the United Nations have been discussed in different conferences to minimize the environmental degradations and ensure the safety to the future generations among the world countries.

7.References:

1. Acemoglu, D. and Angrist, J. (2001). How large are human–capital externalities? Evidence from compulsory-schooling laws. NBER Macroeconomics Annual 2000 15: 9-74.
2. Albouy, V. and Lequien, L. (2009). Does compulsory education lower mortality? Journal of Health Economics 28(1): 155-168.
3. Anderson, A. (2012). Climate change education for mitigation and adaptation. Journal of Education for Sustainable Development 6(2): 191-206.
4. Angrist, J.D. and Krueger, A.B. (1991). Does Compulsory School Attendance Affect Schooling and Earnings? Quarterly Journal of Economics 106 (4): 979–1014.
5. Bingley, P., Christensen, K., and Walker, I. (2007). The Returns to Observable and Unobservable Skills over time: Evidence from a Panel of the Population of Danish Twins. Working Papers 200723, Geary Institute, University College Dublin.
6. Black, S.E., Devereux, P.J. and Salvanes, K.G. (2008). Staying in the classroom and out of the maternity ward? The effect of compulsory schooling laws on teenage births. Economic Journal 118(530): 1025-1054.
7. Cavaille, C. and Marshall, J. (2018). Education and Anti-Immigration Attitudes: Evidence from Compulsory Schooling Reforms across Western Europe. American Political Science Review 113(1): 254-263.
8. Chankrajang, T. and Muttarak, R. (2017). Green returns to education: Does schooling contribute to pro-environmental behaviours? Evidence from Thailand. Ecological Economics 131: 434 448.
9. Dahmann, S. C. (2017). How does education improve cognitive skills? Instructional time versus timing of instruction. Labour Economics 47: 35–47.
10. Das, S. (2020). The Heat is On: The Long-term impact of Heat Stress during Primary School Leaving Examinations in Indonesia.
11. Ek, K. and Soderholm, P. (2008). Norms and economic motivation in the Swedish green electricity market. Ecological Economics 68(1-2): 169-182.
12. Fukuda-Parr, Sakiko (2011), "Theory and Policy in International Development: Human Development and Capability Approach and the Millennium Development Goals", International Studies Review, Vol. 13, pp. 122-132.
13. Fukuda-Parr, Sakiko. Alicia, Ely Yamin and Joshua Greenstein (2014), "The Power of Numbers: A Critical Review of Millennium Development Goal Targets for Human Development and Human Rights", Journal of Human Development and Capabilities, Vol. 15, No. 2-3, pp. 105-117.
14. Osmani, S.R. (2007), "Employment and Human Development: Promoting the Millennium Development Goals", Indian Journal of Human Development, Vol. 1, No. 2, pp. 320-348. 11.
15. Roldan and Henao (2017), Sustainable Development and Human Development, Evolution or Transition in the Scientific Conception of Sustainability. Production + Limpia - Julio. Vol.12, No.2, pp.103-117.