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Introductory Chapter: Carbon Capture

Syed Abdul Rehman Khan and Zhang Yu

1. Introduction

Environmental degradation is not a new problem for this world, while the intensity of the problem is increasing due to non-seriousness and lack of an appropriate plan to protect the natural resources and nourish the earth's sustainability [1, 2]. There are some questions, which need to be answered before making any plan for environmental sustainability. First of all, whether are we serious about protecting the natural resources of the world? Second, can we compromise on economic growth for the sake of environmental sustainability? After answering these two questions, governmental bodies can develop a master plan to address environmental issues effectively.

2. Are we serious?

There is no doubt that the industrial revolution is a prominent cause of global warming and climate change. However, in reality, the problem is older than the industrial revolution. Besides, the industrial revolution only increased the speed of environmental degradation.

Environmental problems cannot be solved overnight. It will take time to restore and nourish environmental beauty through creating awareness in public, which will create indirect pressure on firms to produce eco-friendly products for the sake of their consumers' demand [3–5]. There are many other pro-environmental policies, which can help to improve environmental sustainability. The critical factor, which plays a vital role, is governmental bodies' willingness and seriousness to address the problem.

3. Can we compromise?

The consumption of fossil fuel and energy is not only fueling economic growth but also environmental problems. This is a primary cause why the environmental policies failed in the execution phase, and governmental bodies are unable to enforce it. According to Munir et al. [6], Economic growth and environmental sustainability have an inverse relationship. They also highlighted that economic growth is heavily based on the cost of environmental sustainability in developing nations. Wang and Zhu [7] argue that developed countries shifted their low-tech and labor-intensive manufacturing in developing nations, which is also a significant cause of social and environmental problems. Several researchers highlighted that China is a world-factory and fulfilling the demand of the European and Western world,

while China's social and environmental performance is the worst in the world [8, 9]. Similarly, India and other developing countries are blindly following China to improve their economic performance without catering to social and environmental issues facing the Chinese people and government [3, 6, 10, 11].

4. Conclusion and policy recommendations

To address environmental problems without compromising economic growth, governmental bodies need to prepare a master plan, promoting eco-environmental sustainability. Following are some recommendations:

- Technological advancement in manufacturing practices is highly recommended to reduce carbon emissions.
- Adopting green practices in logistical and supply chain operations will help mitigate the harmful effect on environmental sustainability.
- The continuous invention and innovation process renews the technological process that moves towards green development.
- Provide loans to enterprises for green projects at low-interest rates.
- Increase awareness of environmental issues in public, which will help to create demand for green products.
- The green capital financing in agriculture food production may strengthen the agriculture industry, which will reduce the pressure on the environment.
- Labor productivity may further be improved by providing eco-friendly training and awareness of environmental problems.
- The financial and trade liberalization policies must be scrutinized in a serious node, as both are considered the critical determinants of globalization; thus, the tight environmental policies will effectively reduce carbon emissions and enhance environmental sustainability. Further, governmental bodies need to encourage firms for ISO certifications and eco-friendly practices through financial benefits.

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Author details

Syed Abdul Rehman Khan^{1*} and Zhang Yu²

1 School of Management and Engineering, Xuzhou University of Technology,
Xuzhou, China

2 School of Economics and Management, Chang'an University, Xi'an, China

*Address all correspondence to: sarehman_cscp@yahoo.com

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References

- [1] Ahmed K. Environmental policy stringency, related technological change, and emissions inventory in 20 OECD countries. *Journal of Environmental Management*. 2020;**274**:111209
- [2] Akadiri SS, Lasisi TT, Uzuner G, Akadiri AC. Examining the causal impacts of tourism, globalization, economic growth, and carbon emissions in tourism island territories: Bootstrap panel granger causality analysis. *Current Issues in Tourism*. 2020;**23**(4):470-484
- [3] Anser MK, Khan MA, Awan U, Batool R, Zaman K, Imran M, Sasmoko, Indrianti Y, Khan A, Bakar ZA (2020a) The role of technological innovation in a dynamic model of the environmental supply chain curve: Evidence from a panel of 102 countries. *PRO* 8(9):1033. <https://doi.org/10.3390/pr8091033>
- [4] Anser MK, Yousaf Z, Zaman K. Green technology acceptance model and green logistics operations: “To see which way the wind is blowing”. *Front Sustain*. 2020b;**1**:3 <https://doi.org/10.3389/frsus>
- [5] Kim Y, Rhee DE. Do stringent environmental regulations attract foreign direct investment in developing countries? Evidence on the “race to the top” from cross-country panel data. *Emerging Markets Finance and Trade*. 2019;**55**(12):2796-2808
- [6] Munir IU, Yue S, Nassani AA, Abro MMQ, Hyder S, Zaman K. Structural changes, financial and business regulatory measures, energy and tourism demand: Evidence from a group of seven countries. *International Journal of Finance and Economics*. 2020. DOI: <https://doi.org/10.1002/ijfe.1901>
- [7] Wang Z, Zhu Y. Do energy technology innovations contribute to CO₂ emissions abatement? A spatial perspective. *Sci Total Environ*. 2020;**726**:138574
- [8] Shahnaz R, Shabani ZD. Do renewable energy production spillovers matter in the EU? *Renewable Energy*. 2020;**150**:786-796
- [9] Nassani AA, Awan U, Zaman K, Hyder S, Aldakhil AM, Abro MMQ. Management of Natural Resources and Material Pricing: Global evidence. *Resources Policy*. 2019b;**64**:101500
- [10] Naz S, Sultan R, Zaman K, Aldakhil AM, Nassani AA, Abro MMQ. Moderating and mediating role of renewable energy consumption, FDI inflows, and economic growth on carbon dioxide emissions: Evidence from robust Least Square estimator. *Environmental Science and Pollution Research*. 2019;**26**(3):2806-2819
- [11] Niu T, Yao X, Shao S, Li D, Wang W. Environmental tax shocks and carbon emissions: An estimated DSGE model. *Structural Change and Economic Dynamics*. 2018;**47**:9-17