Key Lessons to be Learned from Covid-19 Pandemic to Deal with Climate Change: Act Now for Sustainability

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SUMMARY

The present Covid-19 pandemic is probably a most damaging health care crisis in the last hundred years. The nation-wide lock downs imposed by various affected countries across world had negative impact on livelihood of millions of people. This pandemic tested mankind and gradually with vaccine development hopes are brighter to control this global pandemic. Unfortunately, the biggest challenge and threat for mankind is still there for which humans cannot develop a vaccine, i.e. climate change. Through this article authors are attempting to throw a light on some lessons to be learned from this pandemic to deal with climate change and its diverse impacts.

INTRODUCTION

Climate change is inevitable and sooner or later the intensities of impact will magnify. The studies have shown that enormous damage is caused by the impacts of climate change and in India almost 300 million people are affected just only by the draughts (Wallemacq & House, 2018). The studies have show a linkages between climate change and how it will hamper the development of rural areas (Khataniar, 2018). The adverse effects of climate change of agriculture have potential to hamper food production thereby destabilizing the food security (Dawson, Perryman, & Osborne, 2016; Eckstein, Künzel, & Schäfer, 2017). Therefore, urgent and timely interventions are highly needed to deal with climate change to promote sustainable development. The economic development has contributed a lot to the emission of green house gases. This indiscriminate emission was slightly reduced in the current pandemic because of lockdowns. However, in his recent article Bill Gates stated that COVID19 pandemic was awful but by 2060, climate change could be just as deadly as COVID-19, and by 2100 it could be five times as deadly. This shows the magnitude of unseen threat which would be vilest. Therefore, from all sections of society commitments are needed to move cautiously in terms of economic development. Rather, heavy investments and commitments are needed to contribute for sustainable development. In this context authors are attempting to throw a light on some lessons to be learned from this pandemic to deal with climate change and its forthcoming impacts. Because Covid-19 pandemic provided opportunity to rethink the course of progression of mankind. And there are many lessons one can learn from this pandemic. Some of the notable lessons are discussed below to deal with climate change.

Act now for sustainability

Sustainability is an ability to maintain the resources and environment in a good state. In other words, sustainability means meeting our own needs without compromising the ability of future generations to meet their own needs. Covid-19 pandemic has shown the importance of maintaining the socio-environmental equilibrium for collective goals. One single disturbance in ecosystem has potential to affect human beings across the globe. Therefore, there is need to inculcate the sustainable thinking and executing it habitually. In some cases, sustainability remains only as a *catch phrase* in presentations or mere a theoretical chapter in academia. But in real life, decisions are still made based on thumb rule, bureaucratic procedures, established business protocols or as per the demand of other forces with little or no concern to sustainability. Therefore, a time has come to adopt and implement sustainability *"now"*. There is no short-cut for sustainability and it's a collective responsibility.

Use of Artificial Intelligence (AI) and Machine Learning

Artificial intelligence denotes to the simulation of human intelligence in computers or machines that are systematically instructed (programmed) to think and act like human beings. In general AI is applied for developing expert systems, speech recognition, natural language processing and machine vision.

Similarly, Machine learning, a field of artificial intelligence (AI), is the notion that a computer program can adapt to new data independently of human action. In Machine learning computers use the experience of data and improve our understanding of data based on the instructions of algorithm. Jordan and Mitchell (2015) in their study highlighted that an adoption of data-intensive machine-learning methods can be found throughout science, technology and commerce, leading to more evidence-based decision-making across many walks of life, including health care, manufacturing, education, financial modeling, policing, and marketing. Malliaraki (2020) via web article highlighted some of the possibilities of AI applications for sustainable future. Resource decoupling is possible with AI that detaches economic output from the volume of resources. For example, if AI is applied in farming then it can monitor crop yields, decrease the need for chemical fertilizers and insecticides. In fact, irrigation can also be monitored and wastage of water can be minimized through precision agriculture. Similarly, food wastage can be lessened by forecasting demand and identifying spoiled produce. This has massive potential to check the wastage from farming sector.

Decoupling impacts (CO$_2$ Emission) from Economic growth (GDP)

Impact decoupling refers to a decoupling (detachment) of GDP from environmental impacts, that is a decrease in environmental harm per unit of economic output (Parrique, Barth, Briens, Kuokkanen, & Spangenberg, 2019). There is need to focus on business activities that produce similar output with lesser or no emissions. For example, if business unit utilizes green electricity then for similar output, emissions would be heavily reduced. Transport of goods using waterways rather than traditional road transport would need much lesser amount of fuel. These types of green alternatives are needed to decouple impacts from economic growth.

Education with Ethics: Sustainability and planetary conservation

The current education pattern is good for the day. Maybe it was designed by the pioneers of last century wherein industrial revolution took place. And industrialists were looking for punctual, hardworking, non-questioning, obedient workers who can devote themselves at least for eight hours a day to work for industry. To fulfil the labor demand in industry, educational institutions were set up and this pattern was implemented across almost all nations. Third world countries were specifically targeted with this education scheme wherein individuals were oriented to give up their traditional / indigenous knowledge base. Ultimately, individuals were molded to get accommodated in the era of industrialization. But now the era of industrialization is over. Humanity needs educational policy that pays more attention to the implementation of sustainability and conservation of our planet. In the current Covid-19 pandemic many individuals realized that protecting life is the ultimate goal of human civilization. And considering the future uncertainties, there is need to prepare current generation for forthcoming challenges. Therefore, there is need to foster sustainable thinking and executing in the educational programs itself.

Farming for future: Sustainability is a pre-requisite

Several studies have shown that agriculture is contributing to the climate change and vice-a-versa. Therefore, rather than pointing fingers, a firm action is needed to inculcate sustainability as a core foundation for all policies pertaining to agriculture. In this pandemic its noteworthy that farmers were continuously devoted for food grain production. Due to farmers efforts, everyone had enough food and energy to fight this pandemic. Therefore, agricultural sustainability shall be a top priority for attaining food security in difficult times.

Good food – Better health

This pandemic made us realize that good health is important. And only a good food can provide better health and immunity. Therefore, in upcoming days efforts are needed to produce bio-fortified food grains /fruits / vegetables/ food products etc. that would provide optimum nutrition and immunity to consumers. Establishment of good quality food cafeteria / canteens are needed at educational institutions, government offices, religious sites, touristic monuments wherein health and nourishing food can be provided to individuals.

CONCLUSION

The above discussed lessons highlight that sustainability shall be a core of policies pertaining to agriculture, human health and education. Innovations are needed to decouple economic growth from impacts i.e.CO2 emissions. The cautious changes in educational policy are needed to prepare our present generation for facing forthcoming uncertain challenges.

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