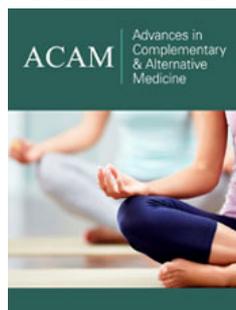


Development of Plant and Human Health and Climate Change at this age of Corona Virus Disease

P Pushpangadan* and TP Ijnu

Amity Institute for Herbal and Biotech Products Development, India

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***Corresponding author:** P Pushpangadan, Amity Institute for Herbal and Biotech Products Development, 3- Ravi Nagar, Peroorkada, Trivandrum, India

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Abstract

Man is a passive agent for all the natural events. If man is inactive for all the natural hazards then how can he be active only for one climatic event i.e. global warming? Due to global warming temperature is increasing and the situation is deteriorating day by day. It is believed that there is increase in the percentage of carbon dioxide in the atmosphere and so the global warming is taking place. The carbon dioxide traps the long wave terrestrial radiations and increases the temperature. The increase in its percentage is due to automobile and industrialization. It means the increase in the percentage of CO₂ is anthropogenic. Gangotri glacier has attracted international attention because of its rapid rate of retreat. No doubt it is retreating but the rate of retreat is decreasing for the last few years, so it is not in accordance with global warming. If global warming is only reason for the rapid rate of retreat, then all the glaciers should retreat at the same rate, which is not the case. It means there are local reasons other than global warming which are responsible for rapid rate of the retreat. Climate change is significant and lasting changes in the statistical distribution of weather patterns over periods ranging from decades to millions of year that is change in average weather. The most probable cause of climate changes are the human activities which are burning of fossil fuels and deforestation that leads to the increase in carbon dioxide production. There is a sudden outbreak of Corona virus disease which has killed over 2,34,000 people and infected more than 33 lakhs in 212 countries of the world.

Introduction

The remedy for sustainable development is the problem of climate change, pollution, and the depletion of natural resources. And many national education systems, at least in their rhetoric, are attempting to address this area of concern, particularly, but not exclusively, those nations that were signatory to United Nations Conference on Environment and Development (UNCED 1992) Agenda 21 of the 1992 Rio Earth Summit [1-3].

Toxic chemicals released by plastics such as -Styrene Trimmer, Bisphenol - A are deteriorating drinking water situation. It is uncountable to imagine consequences of 5250 billion plastic particles floating in water bodies. Substantial policies are formulated in developing countries against the use of plastic and its product such as complete ban of plastic bags and plastic bottles and imposing fine on usage of plastic. There should be a complete ban on micro beads in cosmetic and other personal care products such as toothpaste, face wash, shampoos. Decision on cutting trees stand between the most desirable development and economy enhancing goals or the continuation or the statuesque with the associated undesired consequences. Such decisions on cutting or trimming are often controversial. However, clear guidelines based on past consideration can help a great deal. Under the effect of global warming radial growth of trees and tree line advancement are being affected at high elevation vegetation in western Himalayan region by soil temperature and moisture. Rapid urbanization, change in income levels and life style resulted increased demand for the flowering potted plants.

Brundtland Commission on Environment and Climate Change

Brundtland Commission on environment (1987: 43) demand that "a development that meets the needs of the present without compromising the ability of future generations to

meet their own needs". It prevents us from seeking to know the world as it is, itself- 'Sustainable development' tends to reinforce the conventional curriculum attitude of regarding nature as most properly revealed. The value is more illogical and it is superimposed with the environmental education [4-7].

Bamboo has several advantages in terms of substantially and carbon fixing capacity compare to the other fast growing species. It can play a significant role in linking climate change mitigation to sustainable ecological balance of an area. The scientists are well aware about the potentials of bamboos and efforts are being made to solve the hurdles in the field of propagation and improvement. The soil physico-chemical characteristics and its constituents interact to each other and affect availability of nutrients to the plant roots. The status of soil provides significant clues to the nutrients availability, management practices for sustainable agriculture and selection of crop cultivars. Climate change is attributed to anomalies in temperature, precipitation, pressure, winds. Human induced global warming has caused rapid climate change and deleterious effects on human health. Climate change has spurred intense heat waves, drought, floods, wildfires, tropical storms, causing innumerable fatalities. Intensity and frequency of which have increased manifolds. Enhanced temperature provides better breeding conditions for microbes and their vector causing dengue, malaria, lyme disease, cholera, diarrhea, leptospirosis, hyper occurrences. There has been an increase in reported Hantavirus related defunct. In plants, secondary metabolites primarily meant for the defense against various stresses and human health. Amongst these, flavanoids have been extensively studied and become the target molecules for metabolic engineering [8-11].

National Environmental Education Advisory Council Report

In 2005, the National Environmental Education Advisory Council submitted a report to Congress on the status of EE in the United States, accompanied by a set of recommendations. The report noted the need to develop evaluation guidelines for environmental education, in order that "outcomes of individual initiatives can be appropriately measured and can contribute to a cumulative body of results that point to the long-term goals of environmental education- environmental literacy and quality of life.

Sairiver is drying up and it may be linked with global warming and declining ground water level. But we knew that the Ganga plain exhibits many abandoned channels indicating that many rivers in the past had dried. To rejuvenate the Sairiver, we should opt for artificial recharging of aquifers and rainwater harvesting. Carbon dioxide and the temperature on the earth were much higher than the present during Cretaceous period (65 million years ago). This period is well marked by marine transgression and there were no glaciers even on Antarctica at that time. Dinosaurs became extinct during the Cretaceous (65 million years ago) much before the evolution and existence of man on the planet earth. It shows that retreat and advancement of glaciers, increase and decrease in the percentage of carbon dioxide, rise and fall of global temperature, extinction and evolution of fauna and flora, dry and humid, cold and

warm climatic stages are natural cycle. So, all the global climatic and environmental changes are natural, not anthropogenic. No doubt humans are acting as a catalyst for these changes. We are developing at the cost of environmental degradation. Therefore, we should try our best to check deforestation and pollution to sustain the environment. It is our fundamental duty to conserve the environment and think about sustainable development so that we can hand over a green earth to our coming generations [12-15].

Contamination of Drinking Water by Arsenic Pollution and Other Environmental Pollutants

Recent research papers say arsenic contamination in ground water has penetrated the food chain. That should have woken up governments. Yet the focus remained on drinking water, and the affected regions became the primary stake holder in the mitigation approach. The government has only been focused on drinking water in the affected regions with Public Health Engineering Department (PHED) being the primary stake holder in the mitigation approach. Mitigation measures are targeted in treatment of ground water or supply of surface water. Similarly, government testing of water sources for arsenic contamination has also been restricted to drinking water sources; it has not widened the scope of investigation to water sources used for irrigation. What has aided in this contamination our dependence on groundwater to cater to water needs. Modern groundwater –based irrigation techniques and a gradual shift from a rain fed crop to multiple irrigated crops has increased the crisis. The environmental pollution has been steadily increasing over the past several decades. Many harmful gases such as CO₂, CO, SO₂ etc. have reached up to dangerous levels. Plants can be successfully used to mitigate all type of pollutions and excessive atmospheric heat. Their leaves intercept, reflect, absorb, and transmit solar radiation. Plant help in controlling air pollution through acting as biological and physical nets. They cleanse the air by absorbing pollutant gases. Shade loving foliage and flowering plants in beds and pots create a great beautiful and healthy atmosphere for living beings [16].

Indiscriminate use of chemical fertilizers reduces soil health by killing the microorganisms that nourish it. The average organic carbon content in soil – an index for soil health –is a low 0.3-0.4 percent, according to Indian Council for Agricultural Research. This is well below the acceptable 1-1.5 percent. Farmers get caught in a vicious cycle when they use chemical fertilizers as it degrades soil quality, which in turn, escalates input use. National Academy of Agricultural Sciences says that NPK use ratio stands skewed at 6:7:2:7:1. The ideal nutrient use is 4:2:1. This is happening more in high urea consuming states, indicating urgent need for restoring soil nutrient balance. India needs to make policy changes to extract nutrients from faecal sludge, as this will serve the dual purpose of reducing its dependency on imports for phosphorus and improve soil health, thus boosting farmer's income.

Environmental conditions are always changing rapidly throughout the world. This is caused by various reasons such as emission of large quantity of green house gases, civilization processes, industrialization etc. These environmental changes

causes alternations in temperature, humidity, moisture status and biological activities, ultimately disturbs various ecosystems. Due to this variable climate changes the incident of pathogenic diseases increases. Though the government has increased the allocation to the Pradhan Mantri Fasal Bima Yojana - a scheme launched in 2016 to secure farmers against natural calamities and crop loss from Rs.14,000 crore in 2019-20.

Human health and Corona Virus disease

The Lunar New year break has been uncomfortably long and quiet for almost 50 million people in China. Since January 23, 2020 the authorities have locked down some 13 cities, including Wuhan in the province of Hubei, which is the epicenter of the deadly Coronavirus outbreak. Public transport and ride –hailing services have been suspended in this city of 11 million people. Trains and flights from the city have been suspended and people have been asked to leave their houses only for essential reasons like stocking up food. At places, the police has employed drones to ensure that people stay indoors. Travel restrictions and quarantine measures have also left streets, parks and shopping centres deserted in a dozen other cities, including Chibi, Zhenjiang, Huangshi, Xiantao, Enshi, Qianjiang and Xianning. The country's largest metropolis, Shanghai, resembles a ghost city. As many criticize the government draconian enforcement of epidemic control laws government says the measures are to contain the spread of the virus that poses a "grave threat" as there is no preventive vaccine or cure for it. It has affected 118 countries with death of 38000 and 199,309 cases. More than a month after the first case was reported from China, there is little the world knows about the new corona virus. It has killed over 2000 people in China and infected more than 1,00,000 in 110 countries.

Scientists and health workers are racing against time to contain its spread. But they are yet to decipher the nature of the virus. The global medical fraternity is shadow boxing' as the basics are still unknown", says WHO Director General Tedros Adhanom Ghebreyesus. So far, the Chinese authorities identified the source of COVID-19 to the Huanan sea food market, where game meat, including live foxes, crocodiles, wolf puppies, porcupines and camel meat are sold. This market could have provided vital clues and helped researchers identify the real source of the virus. But the local authorities quickly cleaned the market and shut it down. The "Jeevani" developed by JNTBGRI Scientist will be used to corona virus as an effective recuperative medicine. The use of "Jeevani" with a modified (turmeric and black pepper) to give it to the corona virus treated and cured people. It is the best known recuperative medicine for corona virus diseases.

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