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Globalization and Environment: A Discourse on Perspectives, Impact and Future Trajectories

Talreja Sarika Chhabria*

Research Scholar, Department of Chemistry,
Guru Nanak Khalsa College, Matunga 400019, University of Mumbai
Mumbai, IndiaE-mail: sarikachhabriatalreja@gmail.com

ABSTRACT

Globalization alludes to the international integration arising from geographic dispersion and cross-country transactions of industrial and service activities viz. research and development, production and distribution, interchange of world views, products, ideas and culture. It encompasses transnational circulation of ideas and homogenization of popular cultural identity. Globalization is now in common parlance, exploring various manifestations of interconnectedness in the world and contributing to the economic growth through increased specialization and the principle of comparative advantage.

Besides impersonating a cardinal role in juxtaposing the people of varied cultures, it has ushered a new epoch in the economic exorbitance. Although its colossal power and contemporaneous dominance spawns and concocts an impression of prominence, a conjunction of formidable restraining factors particularly the accentuation of environmental degradation is acting as a deterrent to globalization process.

The present study is aimed at assessing the impact of globalization on environment and creating awareness about its profound ecological consequences. It attempts to throw light on perspectives and challenges encountered for developing workable socio-economic and environmentally benign systems. It also focuses on the need for embarking on the future trajectories to curb the chaos of resource exhaustion, ecosystem collapse and climate change in order to build a globalization of cooperation, solidarity and respect for our common planetary environment.

KEY WORDS: Awareness, Ecosystem, Integration, Impact, Sustainability

***Corresponding author**

Sarika Chhabria Talreja

Research Scholar,

Department of Chemistry,

Guru Nanak Khalsa College, Matunga 400019, University of Mumbai

Mumbai, India, E-mail: sarikachhabriatalreja@gmail.com

INTRODUCTION

Globalization refers to the international integration arising from geographic dispersion of industrial and service activities viz. research and development, production and distribution, interchange of world views, products and cultures. It accredits to the increasingly global relationships and cross-country flow of economic activities in which raw materials, manufactured goods, technology, intellectual property and financial transactions flow more swiftly across international borders. It also encompasses transnational exchange of ideas, homogenization of language and popular cultural identity that accompanies this flux of materials, ideas and money.[1]

Over many decades, civilized societies across the globe have successively established proximate contacts. Unprecedented advances in transportation, communication, infrastructure and computer technology has given a new impetus to the process generating further interdependence and exchange of technological, economic, political and cultural activities across the world [2,3] while giving most businesses, a chance to operate internationally and work across time zones and continents. Globalization is now in common parlance, exploring various manifestations of interconnectedness in the world and contributing to the economic growth in developed and developing countries through increased specialization and the principle of comparative advantage.

The present study is aimed at assessing the impact of globalization on environment and creating awareness about its profound ecological consequences. It attempts to focus on the need for shaping the future alternatives to curb the chaos of resource exhaustion, ecosystem collapse and global climate change and to throw light on the challenges encountered for developing workable socio-economic and environmentally benign system.

RESEARCH METHODOLOGY

This paper is essentially a think-piece and is entirely based on qualitative literature review. To avoid omitting critical data, the review of literature did not follow a strict inclusion and exclusion criteria. Thus the literature that contained relevant information focussed on the theme was included. The rigorous desk review was conducted which includes collection of information from various books, reputed journals, relevant research reports and internet websites. The information collected from different sources of the study has been collated and presented herewith.

FINDINGS AND DISCUSSION

Several authors have addressed different aspects of relationship between environmental degradation and economic growth.[4]

Impact of Globalization

Besides impersonating a cardinal role in juxtaposing the people of varied cultures, globalization has ushered a new epoch in the economic exorbitance and has opened up comprehensive developmental and employment channels[5]. Despite the growing vigour, the adverse implications of this persuasive economic blueprint remain poorly understood, presumably due to the fact that a good majority of them are indirect. The promenade of globalization is recurrently described as inexplicable, breeding a final state in which sparse but monstrous corporations monopolize world commerce, under the superintendence of small number of governing bodies. The proliferation of globalization has been so expeditious and comprehensive that its reflexes are being perceived in the smallest and most remote human communities and natural areas. Many of its profound environmental consequences are likely to prove extremely long-lasting. Although its colossal power and contemporaneous dominance spawns and concocts an impression of prominence, a conjunction of formidable restraining factors is presently acting as a deterrent to globalization process. Technological fixes cannot overcome these limiting factors.

Impact of Globalization with reference to Environment

Globalization has accentuated major environmental damages by way of industrialization, exploration of new lands, subsoil and resources, thus weakening many ecosystems. It has been extensively debated by environmentalists and green activists who have highlighted its far-reaching effects. The eventualities include, but are not confined to, downsized agricultural genetic diversity i.e. bereavement of crop varieties and livestock breeds, attenuation of wild species, expansion of exotic species, pollution of air, water and soil, accelerated atmospheric variations, exhaustion of resources etc.

All the environmental effects of globalization cannot be predicted. The following list is necessarily incomplete and brief:

Loss of Biodiversity

Globalization has left an indelible mark on the world's ecosystems by impoverishing its biodiversity. Under the dynamics of globalization, we have been liquidating the finite natural capital at an unprecedented rate[6]. A large number of species have become extinct in recent decades. A profound reduction of genetic diversity in agriculture is now underway. The brunt is being experienced by domesticated varieties and wild relatives of food plants equally. The wild genre of vegetables, fruits, nuts, cereals and other similar crops embody a critical resource, influencing disease and pest resistance, vigour, environmental and transport adaptations, harvest etc. Many of

these wild relatives are strikingly endemic and their spectrum is diminishing sharply owing to development, overgrazing, increased herbicide usage, logging and conversion of marginal lands to production and export agriculture[7]. Open international markets and lower communication prices have made some exotic raw materials and farm products affordable to consumers of developed countries. With the universal spread of technologies and interconnection of all economies, livestock breeds also confront increased perils of extinction[8].

Loss of Wild Species

The present python anthropogenic die-off of plant and animal species surmounts the conventional extinction scales that have prevailed throughout the evolutionary history. Apart from other interrelated factors such as human population growth, globalization is also making profound contribution to the current extinction rate and loss of breed diversity[9].

The negative impact of globalization on wild species is caused by the following factors:

(i) Intensive progression and exploitation of agricultural areas to satisfy new demands of production and trade, including increased logging, land clearing for production agriculture, overfishing of marine fisheries, road-building, mining and construction of dams.

(ii) Consequential effects of pollution from automobiles consuming fossil fuels, appended electricity generation, toxic atomic energy ware and other similar deleterious sources.

(iii) Tertiary reflexes of atmospheric variations due to excess CO_2, CH_4, fluorocarbons and other harmful chemicals.

(iv) Adverse effects of ecotourism on wild flora and fauna.

(v) Causatum of escalating numbers of exotic species, transferred by the humungous global trade, on local flora and fauna.

Even a trade-linked intensive production system like aquaculture, which supposedly subdues the pressure on wild species, may produce antithetical effect.

Environmental Costs of Globalization

The prominent environmental costs of pandemic trade subsume cross boundary water, air and soil quality depreciation, exhaustion of non-renewable or renewable resources and global climatic modulation[10]. The conglomeration of globalization-related upturn in the industrial activity, production agriculture, fossil fuel energy used in trade-related transport of raw and finished materials, overriding of local and national protective laws and customs has hindered the regulation of environmental side effects of globalization.

Repugnant ramification of merchantry on numerous other biotic resources would ostensibly be far more challenging to prove, as will the growing effects of chemical pollution caused by global trade. A few forms of environmental pollution related to globalization are indisputable. Notable is the pollution caused due to the trans-shipment of raw materials and finished goods that were formerly produced and consumed locally. In multitudinous cases, the far-flung products are more economical than the local ones, as social and economic subsidies render transportation energy costs irrelevant, and the cost of pollution is not comprehended in pricing.

Environment enthusiasts have indicated that the appended consumption actuates an upswing in the production of goods, which correspondingly generates stress on the resources and impacts the ecological cycle. Globalization has also engendered an upsurge in the freightage of raw materials and edible consumables form one place to another. The extent of fuel consumption in transportation of these products has caused an increase in this environmental pollution levels. Additional environmental concerns viz. Noise pollution and landscape intrusion are aftermath of such activities. The conveyance has also reposed a strain on non-renewable energy sources like gasoline. The gaseous emissions from the aircrafts have led to the ozone layer depletion apart from increasing the greenhouse effect. The industrial waste procreated as a result of production has been laden on ships and dumped in oceans killing many underwater organisms by depositing many deleterious chemicals in the oceans.

Globalization and industrialization have promoted the disposal of various detrimental chemicals into the soil resulting in unprecedented growth of many noxious weeds and plants. This pernicious waste has caused immeasurable deterioration of foliage by meddling with their genetic make-up and stressing the accessible land resources.

In numerous assorted parts of the world, mountains are being furrowed to make way for a passing tunnel or a highway. Prodigious barren lands have been impinged upon to cut the turf for appended buildings. While humans jubilate on the glimmer with these innovations, ecological degradation as its long-term side effect cannot be negated [11].

Climate Change

Globalization, which is moderately synonymic with up surging international trade, has fostered the rapid formulation, trade and consumption of material goods in an unprecedented volume. This has weighted the ecological footprint of human activities around the world. Climate change, a major environmental problem, stems mostly from the green house effect i.e. excessive retention of solar energy in the atmosphere due to accumulation of certain gases, particularly CO_2. The main sources of CO_2 emissions are industrial production, transportation and more indirectly,

deforestation[12]. While the industrial revolution was a vector of globalization, the growth in cross-border trade and investment in turn fostered industrial activity. This is often a major source of GHG emissions, as in the case of electricity generation, which still largely involves burning coal, oil and derivatives. The intensification of globalization, then, accentuated the greenhouse effect and global warming, thus establishing a relationship between economic growth and environmental degradation[13].

Deforestation

Globalization encourages deforestation, which is an indirect but very significant cause of the greenhouse effect. Clearing and logging reduce the volume of CO_2 that plants convert into oxygen. This translates into an equivalent increase in the volume of CO_2 in the atmosphere and thus adds to the greenhouse effect[14]. Deforestation is mainly due to the conversion of forests into agricultural land, especially in developing countries[15, 16, 17].

Issues and Challenges

Vulnerable sectors of society i.e. racial and ethnic minorities and the poor are more susceptible victims of environmental degradation who regularly carry a disproportionate burden of such abuse[18, 19]. The services of ecological systems are critical to the functioning of earth's life-support system[20]. It is apparent and seemingly realistic to envision the disruption and probable collapse of globalization than to formulate strategies to grapple with the resultant environmental upheavals. Presumably, environmental changes, including increase in atmospheric CO_2, temperature fluctuations, changes in the distribution and abundance of rainfall and storm events, sea level rise and changes in the ozone shield, energy production decline with increasing population[21] will have to be contrived with, primarily on an adhoc basis, to the limited extent possible. Umpteen biological overturns will have repercussions that would be difficult to counter, especially with the available economic resources.

Some companies may feel an ethical responsibility to leave an area unharmed after their work is done, but others may just want to do what the regulations say and move on. Having trade agreements and work permits, increased environmental regulations and requirements to involve the community may help. These protections, however, can hinder economic growth in the short-term. Industries that had to deal with the environmental regulations have slowed in their progress. Having to work through regulations like permits and inspections take both time and money.

Positive Impact

The relationship between people and the environment is very delicate and extremely important. As the world becomes progressively globalized, large number of people begin to exploit the environment and fall out of touch with their relationship with it. Notwithstanding, few companies conventionally producing tons of greenhouse gases have begun to utilize alternative energy sources that are gentler and less harmful to the environment. Wind and solar power as energy precursors have imperceptible environmental concussion. These companies are also looking to replace the fossil fuels with more sustainable energy sources. Alternative energy sources like solar power and trade liberalization[22, 23] would contribute to the irrefutable impact of globalization on the relationship between occupants of the world and their environment.

CONCLUSION

Despite all the adverse environmental effects, globalization has become an unavoidable necessity for economic development[24] and is ostensibly irreversible. The problem resolution would therefore lie in evolving effectual mechanism that can inspect the amplitude of its ecological impingement. Globalization itself can contribute towards constructing an enhanced structure which is economically feasible and environment friendly. Globalization is about competitiveness; if some private firms can initiate environment friendly processes, others may be motivated to follow the suit.

Nonetheless, abolitionists of the worst criticism of globalization have no excuse than to abandon their efforts and wait for the nature bring it to bay. In the realm of social and economic life, much work needs to be done to end the evils of the growing disparities of wealth, community disempowerment as well as cultural and moral impoverishment. The global nature of environment demands global environmental governance, and worldwide infrastructure of international agreements and institutions. However, majority of the present global environmental problems have outgrown the governance systems designed to solve them[25].

Responsible critics with the help of some non-governmental organizations must strive to maintain harmony with the environment[26]. Organic farming practices focussed on agro-ecological health can mitigate climatic change impact[27]. A better understanding of the underlying dynamics of the sustainable development and global environmental negotiations is warranted[28, 29, 30].

Nor is the evocation completely negative; we face the proposition of establishing workable socio-economic systems with a substantial regional element independent of centralized, complex technologies or systems that preserve and enhance wealth in a sustainable way. It is imperative that the task should be accomplished preceding the chaos of resource debilitation, ecosystem collapse and global climatic vicissitude makes the job even more difficult or impossible in future. International

trade in goods and ideas will and should continue, but the only form of globalization that is acceptable is the one that unites nations in meeting the global threats and in preserving the environment, life forms and civilizations. Inhabitants all over the globe can join hands to architect an auxiliary future, to build a globalization of synergism, solidarity and reverence for our common planetary environment.

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