
Absolute globalization: The way to confront the global challenges

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Abstract

The world is currently confronted with multidimensional challenges which are cause of concern for the earth's all living creations. The most remarkable challenges are global warming and global climate changes, tremendous poverty, environment pollution, warfare, antibiotic resistance, migration problems, and the spread of contagious and deadly diseases etc. The adverse effects of these are very devastating. They will affect hydrology and biology of earth, everything including economy, ecosystem, and the substances. The challenging factors are interconnected, and acceleration and minimization are interlinked.

The study is to analysis the challenges the world is currently confronting with and their potential impacts, the reasons behind the challenges and the potential way to overcome the challenges. The study is based on secondary sources of data and information including scientific and academic journals, articles, research papers, books, and other relevant sources to make a deep analysis, interpretation and re-interpretation and describe and explain the issue of this proposed study.

The study recommends 'Absolute Globalization,' an integration of global economic, education, political, and social institutions where regionalism will be the cornerstone of the integration, as the way to confront the challenges.

Introduction

We are in ever-changing and ever-competitive global arena and the world is currently confronted with multidimensional challenges. The most remarkable of them are, global warming and global climate changes, global poverty, high rate of unemployment, environment pollution, warfare, antibiotic resistance, migration problems, natural disasters, ecosystem destruction, ozone depletion and the spread of contagious and deadly diseases. The challenges have been arisen from human activities and we human being are accountable for these. The impacts of the challenging factors are extensively wide range and devastating. The effects span on physical, environment, ecosystem, and human society. Draught, heavy rainfall, very devastating floods, more frequent cyclones and various natural calamities, mass poverty, water and food crisis, mass displacement and climate migration, collapse of ecosystem are the ultimate consequences. Some of the events are already on earth and creating devastation consequences on earth. Now it's time to confront the challenges before going beyond control.

The future impacts of climate change depend on how much nations reduce GHGs (Greenhouse gases) emission and adapt to climate change (Oppenheimer, M., *et al.* 2019). The logical and effective application of proportional power and tactics are also needed to address the global challenges.

But the present world is fragile and divided into many blocks. In tackling global challenges, the poor countries are less capable, in some cases completely incapable, than the rich nations. E.g., the developed world is thinking, planning, and applying green economy, green technology as well as renewable alternative sources of energy to reduce GHGs emissions while the developing and least developed

countries have neither the technology nor the resources regarding these. As a result, the entire effort is going in vain.

Collective efforts and mutual co-operation are mandatory to save the green planet and keep it remain inhabitable.

Absolute globalization, an integration of global economic, education, political, and social institutions where regionalism is the building block of the integration, is the way to confront the challenges.

Objective of the study

The study is to prescribe mechanisms to overcome the challenges the world is currently confronted with. Taking into account of the above challenges, the following tasks were solved in the research process:

To examine the challenges the world is currently confronted with and the level of threat they are imposing on the earth planet.

To diagnosis the areas they are affecting and the nature of threat they are imposing.

To detect the reasons behind the challenges and their origin.

To figure out the way to confront the challenges; and

To develop a mechanism to over the challenges.

Research Methodology

The study is 2 phases. The first stage is the diagnosis of the problems, and the second stage is finding the solutions of the problems. The study is based on secondary sources of data and information including scientific and academic journals, articles, research papers, books, and other relevant sources to make a deep analysis, interpretation, and re-interpretation, and describe and explain the issue of this proposed study. The study also includes qualitative and quantitative methods to understand the global challenges and their adverse impacts on socio-economic and environment spheres on earth. Some rudimentary aspects of quantitative tool, like economics data, are also used in the study.

Literature Review

Many surveys have been conducted globally by many scholars and scientists on global warming and environment pollution, their responsible factors, and their adverse impacts on socio-economic and environmental areas. Some of the findings are as follows:

A survey conducted by Dennis Bray and Hans Von Storch undertook over climate scientists on attitudes towards global warming and related matters in 1996. In the Bulletin of the American Meteorological Society the results were subsequently published. The paper addressed the views of climate scientists, with a response rate of 40% from a mail survey questionnaire to 1000 scientists in Germany, the United States and Canada. All the respondents (100%) accepted that global warming was occurring, the impacts are devastating, and appropriate policy and actions should be taken immediately to solve the problems.

Another study conducted by Bart Verheggen of the Netherlands Environmental agency in 2014 on 1,868 climate scientists found that, consistent with other research, the level of agreement on anthropogenic causation correlated with expertise - 90% of those surveyed with more than 10 peer-reviewed papers related to climate (just under half of survey respondents) explicitly agreed that greenhouse gases were the main cause of global warming and human activities are mainly accountable.

In an October 2011 paper published in the International Journal of Public Opinion Research from George Mason University analyzed the results of a survey of 998 scientists working in academia, government, and industry. The scientists polled were members of the American Geographical Union (AGU) or the American Meteorological Society (AMS) and listed in the 23rd edition of the American Men and Women of Society, a biographical reference work on leading American scientists, and 489 returned completed questionnaires. Of those who replied, 97% agreed that global temperatures have risen over the past century. 84% agreed that "human-induced greenhouse warming is now occurring," 5% disagreed, and 12% didn't know.

On the contrary, a 2022 study published in Environmental Science and Technology of USA found that the level of anthropogenic chemical pollution have exceeded planetary boundaries and now threaten the entire ecosystems around the world.

It has been discovered over the literatures that almost all societies have been agreed that global warming is occurring and its impacts on earth is adverse, human activities are mainly accountable for the temperature rising and immediate and effective action plans are needed to minimize the global temperature to save the green planet.

Global Challenges and Their Impacts

Global warming and its impacts

Global warming is the most discussed global issue and cause of concern for earth's all living creations. Since the pre-industrial period, Earth's global average temperature increased by about 1°C. According to the NASA (2000), since 1991 the global average temperature has been rising by 0.2°C every year. If this trend continues, then the global average temperature will rise by 2.4 to 4.6°C by 2050, which is a matter of great concern for earth's all living creatures. It will affect hydrology and biology on earth, everything including economy, ecosystem, and the substances.

Various adverse climate events including, heatwave and wildfires, draught, heavy rainfall, devastating floods, frequent cyclones and various natural calamities are the ultimate aftermaths (IPCC 2018), will be cause of massive loss of lives and resources.

According to IPCC (2007), a third of the total global land will be submerged due to rising the sea level by 2.5 mm from melting the ice of north pole, resulting a mass displacement and climate migration, mass poverty, destruction of ecosystem and ecological balance and lose of many species. According to Jackson R (2019) "a 2.5 mm sea rise is the cause of massive land losses the world is currently heading to be occurred by 2100".

Table1: Shows the Growing Number of Natural Calamities

No.	Segments	2010	2015	2020
1	Cyclone	68	95	104
2	Floods affected (million population)	188.8	27.4	34.2
3	Volcano eruption	77	88	73
4	Wildfire	71,971	61,992	58,258

Source: National Interagency Fire Centre 2021, Global Volcano Program 2022, Statista 2022

An increase in ground level temperature will reduce food grain production by 10% by 2050 when growing number of populations, projected to be 9 billion, will increase the demand for food at a significant level. Moreover, many surface water sources will be dried up and underground water level (layer) will deepen to pump water, resulting a severe food and water crisis (Rosenzweig, C., et al. (2007). Some of the events are already on earth and creating heavy consequences on earth.

Global pollution and its impacts

Environment pollution is a growing concern, and its level is growing rapidly globally. Pollution including air, water and land, is being cause of various fatal and incurable diseases not only for human beings rather for all living substances.

Plastic pollution, which has been spread from land to sea, is one of the biggest threats the world is facing today. Plastic is not perishable, which is on one hand, reducing the fertility of arable land and on the other hand is being responsible for sea and environmental pollution. Plastic fibers eaten by marine lives are ended up to the stomachs of humans and other animals, is being cause of various complex and incurable diseases that is a great threat at the entire ecosystem.

Chemical, hospital, thermal, zoogenic, and sulphuric pollutions are also remarkable threat at earth's all leaving creations.

Table 2: Shows the Growing amount of Plastic pollution from 2010-2020

Year	Amount of plastic waste (million tons)
2010	310

2015	353
2020	400

Source: OECD Global Plastics Outlook Database

A 2019 paper published in the journal of Environmental Science and Technology of USA, revealed that the level of anthropogenic chemical pollution have exceeded planetary boundaries and now threaten the entire ecosystems around the world.

Adverse air quality is killing many organisms, including humans. Ozone pollution is being cause of respiratory disease, cardiovascular disease, throat inflammation, chest pain and congestion. Water pollution is being causes of approximately 14,000 deaths per day, mostly due to contamination of drinking water by untreated sewage in developing countries.

An empirical study conducted by the Lancet Commission on Pollution and Health found that global pollution, specifically toxic air, water, soils and workplaces, kills 9 million people annually, which is triple the number of deaths caused by AIDS, tuberculosis and malaria combined, and 15 times higher than deaths caused by wars and other forms of human violence. The study concluded that "pollution is one of the greatest existential challenges of the Anthropocene era. Pollution endangers the stability of the Earth's support systems and threatens the continuing survival of human societies."

Global Poverty and illiteracy

Poverty, illiteracy, and unemployment are very remarkable challenges the world is currently confronted with, mostly the developing and list developed part of the world. Despite the progress made in reducing poverty, 9.4% of the world's total population still live on less than \$1.90/ day (World Bank 2020).

Table 3: Global poverty Rate 2010-2020

Year	(% of total population)
2010	15.7
2015	10.1
2020	9.4

Source: World Bank 2020

A World Survey of 2019 found that more than 350 million children are out of school. Of them 130 million are girls. More than 150 million children are engaged in child labour, of them 15% engaged in hazardous works (World Bank 2019).

A third of the total deaths around the world – some 18 million people/year or 50,000/day – are due to poverty-related causes. People living in developing nations, among them women and children, are overrepresented among the global poor and these effects the severe poverty. Hunger and malnutrition are the single gravest threats to the world's public health and malnutrition is by far the biggest contributor to child mortality, present in half of all cases (WHO 2019).

Almost 90% of maternal deaths during childbirth occur in Asia and sub-Saharan Africa, compared to less than 1% in the developed world (The Economist 2020). Those who live in poverty have also been shown to have a far greater likelihood of having or incurring a disability within their lifetime (BBC 27 August 2012).

A survey conducted by WHO (1998) found that there is a high risk of educational underachievement for children who are from low-income housing circumstances and among the poor, girls tend to suffer even more due to gender discrimination.

The extreme poverty keeps pressure on development plan & potentiality, infrastructure, environment, economic, education and political spheres of the host countries and around the world. So, the problem should be solved for a better world.

Reasons behind the Challenges

Human Activities: Unconsciousness and Irresponsibility

Earth atmospheric Greenhouse gases (GHG) Which include Carbon dioxide (CO₂), Methane (CH₄), Nitrous oxide (N₂O), Industrial gases: Hydrofluorocarbons (HFCs) Perfluorocarbons (PFCs), Sulfur

hexafluoride (SF₆), Nitrogen trifluoride (NF₃) are mainly responsible for the global warming and global climate changes and we human being are accountable for this. We are combusting growing amount of fossil fuel through industrial, economic, commercial and household activities which are emitting huge amount of GHGs in the earth atmosphere, blocking and reflecting the outgoing sunray from the space to the earth surface causing extra warming of earth surface.

A study conducted of NASA 2018 found that CO₂ produced by human activities is the largest contributor to global warming. By 2017, its concentration in the atmosphere had risen to 48% above its pre-industrial level (before 1750). Other greenhouse gases emitted by human activities are in smaller quantities.

A survey conducted by Krista Myers on 2780 Earth scientists found that earth atmospheric GHGs are mainly responsible for the global temperature rising examining highly empirical 50 research works in 2015 concluded that human activities are reason behind the climate changes.

Harris Interactive in 2007 surveyed 489 randomly selected members of either the American Meteorological Society or the American Geophysical for the Statistical Assessment Service (STATS) at George Mason University. The survey found that 97% of the respondents agreed that global temperatures have increased during the past 100 years; 84% say they personally believe human-induced warming is occurring, and 74% agree that "currently available scientific evidence" substantiates its occurrence. Only 5% believe that human activity does not contribute to greenhouse warming; 41% say they thought the effects of global warming would be near catastrophic over the next 50-100 years; 44% say said effects would be moderately dangerous; 13% saw relatively little danger; 56% say global climate change is a mature science; 39% say it is an emerging science.

However, it is clear that global warming is occurring, creating enormous challenges on earth and we human being are mainly accountable for global temperature raising due to our excessive emission of GHGs through our inconsiderable economic, commercial, industrial and day-to day activities.

Natural Incident

Together with manmade reasons natural reasons are also accountable for gradual acceleration of earth surface temperature raising and global climate changes.

A group of astronomers of the University of Washington in 2009 discovered that the sun is being more matured, aggregating huge hydrozoan atoms, creating massive fusions and hit, causing global natural temperature raising.

Solar radiation is also accountable for the acceleration of global temperature. Scientists including Florides L. A., Christodoulides, P. and Massarottis, V., (2010) argue that the heat trapping by the CO₂ is not significant and rather it is likely that sun radiations are responsible for the global temperature rising. Again, the debate on whether the sun radiations or GHGs is responsible for the global temperature continues, recently, Herring D., (2020) refuted the claim that likeliness of sun radiation as the cause of global warming might not be true. He argues that it is possible that sun can warm the earth provided that the pattern of the solar intensity increases over the years. Likewise, the sunspot data do indicate that there was a small increase in the amount of sunlight from late 1800s to the mid-1900s which experts estimate that it could have contributed at the most up to 0.1°C of the 1.0°C (1.8°F) of warming observed since the pre-industrial period. However, there has been no significant net change in the sun's energy output from the late 1970s to the present, which is when the most rapid global warming was observed. Further, scientists rule out the significant role of sun in global warming due to the fact that if the sun energy output had intensified then it is logical to expect all the layers of earth's atmosphere to be warmed, which is not the case that has been observed. Rather, satellite and weather balloons observation showed that more warming is in the lower atmosphere (troposphere) and cooling is in the upper atmosphere (stratosphere) (Herring D., 2020). This pattern of differential warming is what is been expected due to result of increasing GHGs trapping heat.

A study conducted by German Scientist Hans Von 2011, found that natural causes, such as changes in solar radiation or volcanic activity are estimated to have contributed less than plus or minus 0.1°C to total warming between 1890 and 2020.

Natural reasons for global warming including solar radiation or volcanic activity are controversial and possess very minor impact of global warming, 0.1 of 1°C in a century and it's absorbed by the natural process and can't impose significant threats.

Way to Confront the Challenges

Collective Effort and Co-operation: A Comprehensive Way to Confront the Challenges

To overcome the challenges the world currently confronted with, collective effort and mutual co-operation is indispensable. To confront the global challenges a range of initiatives including alternative renewable source of energy, greenization of economic activities, changing food habits, infrastructure development, standard education as well as employment and opportunity creations in developing and list developed nations are indispensable. But all countries are not equally capable to implement the projects.

To deter the global warming and global climate changes, we need to reduce GHGs emission significantly through a range of initiatives including alternative renewable source of energy, greenization of economic activities, changing pattern of food habits, stopping deforestation and introduce forestation etc.

Alternative Renewable Sources of Energy

Alternative renewable sources of energy including solar power, wind power, hydroelectric power etc. is the first and most effective component to confront the global temperature raising challenge. But the developing and list developed countries neither have technology nor have resources to substitute their traditional power grids to renewable ones. Co-operation between poor and rich countries in the area is a way for a permanent and sustainable solution.

Plastic Pollution

Plastic pollution is enormous challenge not only for human beings rather for whole living creations. The danger of plastic pollution has been spread from space to surface to the beneath of the ocean and it is a growing treat. In this era of competitive global market without global effort it is imposable to confront the challenge. Plastic is an affordable and easily useable substance and its substitution with disposable substances is tough. E.g if a company use disposable substance to substitute plastic for packaging or other purposes the cost of the products will be accelerated, and the company won't sustain in the competitive global market arena. When all companies and all countries will collectively ban the plastic use imposing law or state order only then we'll get rid of the plastic danger.

Deforestation

Some people of some country are completely dependable on the resource of forest for their livelihood, and they are destroying the forest, the biodiversity, and the ecosystem in very usual ways. Without international co-operation and sustainable rehabilitation program this problem won't be solved.

Poverty Reduction

9.4% of the total world population live below the national poverty line (\$1.9/day) while 99% of the global assets is occupied by 1% people. Moreover, global military spending is 2 trillion, 2.9% of global total GDP. In 2020 US military budget was \$900 billion (3.7% of the total GDP), followed by China \$293.35 billion, Russia \$65.9 billion and India \$49.6 billion. If half of the total military budget (\$1 trillion) is spending for poverty and illiteracy reduction purpose, then the problem will be solved permanently and we will get a better world free from hunger, homeless illiteracy and poor. To solve the issue we need absolute globalization, and proper utilization of assets.

Absolute Globalization, an Effective Way for Collective Effort and Global Co-operation

'*Absolute Globalization,*' an absolute integration of global economic, education, political, and social institutions are comprehensive ways to solve the global challenges. Absolute globalization can be shaped and solve the global problems in the following ways:

Regionalism: Globalization has to be shaped with regionalism. Regionalism is the cooperation, collaboration and mobilization of policy, resource and human capital of the regional states for regional security, peace and prosperity. The regional union's policy, diplomacy, and development initiatives are

more effective than that of single state or the global organizations. E.g., European Union Association Agreement is very strategic, effective, and very successful to its agendas. The regional organization will confront the global challenges through solving the regional problems and securing their own interests. Moreover, a global organization can be formed with the regional state to deal with the greater issues like global warming, global security and pollution problem to get more effective results.

Globalization of labor market and Single Global Currency: Globalization of labour market and single global currency could be a cornerstone for absolute globalization. The world commodity market has been globalized by the name of economic globalization, but the labor market and the production facilities have not been globalized. By the name of economic globalization, the developed countries are occupying the markets of developing and least developed countries with their products and services, destroying the production facilities, industrialization and investment opportunity, diversity, and development potentiality of their developing and least developed counterparts. As a result, the developing and least developed countries are being poorer and losing their capability to fight against global challenges. Labor market globalization and Global single currency will spread the industrialization globally and minimize the wage discrimination and the cost of products and services and bring a balance between developed and developing countries to minimize the migration and poverty problem.

Borderless world: state border is the cause of conflicts including arm conflicts, resulting massive destruction of resources, lives and inhabitants. It hinders the productivity and growth not only for the conflicted parties rather for the rest of the world and cause of economic slowdown, financial crisis and inflation. It is the impediment for international cooperation and development. It prevents the free movement of goods, service, capital and people. Moreover, a large segment of arable lands is used as no man's land between the borders of many countries. The cultivation of that lands can increase the global food growth and increased the global food security.

On the contrary, the largest portion of global GDP is spent for military purpose and the most capable human resources and technologies are used in the area. In 2020 Global military spending was \$2 trillion (2.9% of global total GDP) when 9.4% of total global population live below the poverty line (World Bank 2020) and 13.7% are illiterate (UNESCO 2019).

If half of the global military budget (\$1 trillion) is spent for poverty and illiteracy reduction purpose, then the problem will be solved permanently and we will get a better world free from hunger, homeless and illiteracy and poverty and achieve better capability to confront the global challenges like global warming and pollution. To solve the issue, absolute globalization, and proper utilization of assets.

Conclusion

To confront the global challenge, we need global integrity and global co-operation. Global safety, global peace and global prosperity are our common interest. We must have common mentality, common ethics, common ideology and combined effort to protect it. An effective action plan and its proper implementation are disposable for these. Absolute globalization, an integration of global economic, education, political, and social institutions could bring a potential breakthrough. Regionalism, which is cooperation, collaboration and mobilization of policy, resource and human capital of the regional states for regional safety, security and prosperity, could be the building block for absolute globalization.

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