

CHAPTER SEVENTEEN

GLOBAL WARMING IN AN INCLUSIVE COMMUNITY: POLLUTION IMPLICATIONS FOR THE RIVERS STATE CHILD BEYOND COVID 19 CHALLENGES

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Introduction

Rivers State is one of the highly industrialized locations in Nigeria. With vast occupations and business activities of government and private sectors, the human resource component has achieved tremendous success, contributed to developmental structures and produced manpower in different aspects. However, these great achievements by products, have redefined the weather, air, environment and exposed mankind particularly children to health hazards beyond Covid 19 challenges. Technology is designed to improve lifestyle and promote activities for resource development and not to pose a threat or to destroy entire safety provisions by nature for Homo-sapiens. Addressing the concept of global warming, its causes and danger to the child, implications reveal that, the pollution in Rivers State is extremely dangerous to the child. Feasible solutions exist but to what extent are authorities concerned ready to apply these solutions?

The hazard faced by the surviving humans in present times is posing devastating health cases and thus have drawn the attention of the world's global government. It is not a strange experience to observe drastic changes in environmental events across the globe. Human actions and governmental proceedings are not relative to seasonal differences noticed in decades. Everything in nature, animate and inanimate are virtual contributors to environmental change. The eminent scare and concern henceforth arises when occurrences pose a threat to total human survival, particularly children, worst also to children with special needs. Recreation of existence will gradually come to a halt when children are directly affected. Special needs children, who by world records, makes up about 45% of gifted individuals will be worst hit in areas where the natural sources of life nourishment can no more be relied on or even expected to be in supply for minimal survival. The child has the freedom to enjoy the access to and health provisions of nature which are paramount like air, water and necessities of the natural vegetation.

Global warming is one of the most vulnerable against human resources compared to other crises like terrorism, corruption and illiteracy. These directly

affect the child whose worth is outstandingly invaluable to individual human sustenance and continuity. An experience Dakolo, (2021) titled, *The Riddle of the Oil Thief*. Global warming or climate change is simply the effect of human industrial activity on nature. This artificially influenced effect deadens natural history thereby constituting a danger to both the lives of plants, animals, humans and reversibly human business as well as the source from where the menace is being generated.

Moore, (2015) interprets global warming as a myth and hysteria rather than a legitimate environmental concern. For young adults and adult readers who wish to examine both sides of the global warming issue, the visible reality and extreme effects reveals more its existence rather than the mythical claim. The child is that individual below 18yrs who should be well protected and provided for by law in the society for the continuity of human existence. Special needs children are children with one form of disability and constrain that function exceptionally and differently from all others who do not require or express the same needs. These include, blind, deaf, dumb, autistic and physically challenged children. Inclusive community is a community of various indigenous representations, vast cultural differences and individual characteristics around the world. It includes the entire human resource organisation across the globe without differentiations. All humans in essence, with or without special needs are welcome to the community without discrimination.

Pollution is a form of contamination that suppresses normal access, use and effect of natural and manmade products or provisions. For example, the air we breathe could be polluted by poisonous gas, the environment could be polluted by trash and the like. Covid 19 which is a world devastating and catastrophic epidemic and mostly deadly virus that shut the world down with its extreme challenges and constrains which are yet to be overcome are indeed mild to the health challenges of pollution.

Sources, features, causes effects and risk posed by global warming in an inclusive community

Global warming could be traced particularly from human generated activities which are encased in what scientist call greenhouse effect. Christianson, (2019) refer to Greenhouse as a rapid warming brought on by rising levels of heat-trapping gases in the atmosphere. These gases occur naturally, and without them the planet would be too cold to sustain life as we know it. Silverstein et al (2023) states greenhouse gases include Water vapour, carbon dioxide, methane, ozone, Nitrous oxide and sulphur hexafluoride. These gases occur naturally in the environment, but they are however produced by human activities. The gases reflect and react like glass in a greenhouse that is why they are referred to as greenhouse gases. These natural gases that are increased in the atmosphere by human activities are being blamed as the primary causes of global warming. Houghton, John. (2015) and Maslin, (2023) share the view therefore that global warming has been noted to

cause the following effects. Health hazards, drastic weather change, business ache, economic seizure and death. Most are endemic and prohibitions in growth of children. The effects are worst on special needs children whose disability may have also been caused by the effects of global warming. The potential consequences are so great that many of the world's leading scientists and increasingly, politicians, business leaders, and other citizens are calling for international cooperation and immediate action to counteract the problem while in reverse these are also beneficiaries of the end product. As Bill Gates 2023 would respond in an interview on the side effect of Covid 19 vaccine, 'it is how the world works.'

Water Vapour is steam generated from heating or boiling water. This steam could be produced too frequently and in mass quantity that would in reverse expire to melt the cloud thus resulting to relief rainfall. While **Carbon Dioxide** is a colourless, odourless gas, a waste product generated from inside the body by respiration and also produced by burning carbon and organic compounds. Carbon dioxide travels in the blood from the body's tissues to the lungs. Breathing out clears carbon dioxide from the lungs. About 0.03% is also naturally present in the air and is absorbed by plants in photosynthesis. **Methane**, is released into the atmosphere during the mining of coal and the production and transport of natural gas and oil. Methane also comes from rotting organic matter in landfills, rice paddies, and wetlands, as well as from certain animals, especially cows, as a by-product of digestion. Live plants also emit small amounts of methane.

Ozone is both a natural and human-made greenhouse gas. Ozone in the upper atmosphere is known as the ozone layer which shields life on Earth from the heat of the Sun's harmful rays. The ozone in the lower atmosphere is generated by smog or smoke which is a severe type of air pollution. Part of this experience is what is commonly called "kpofire" in Rivers State. An illegal but ignored private crude oil refining business which has been booming for more than 15 years but have claimed several lives, even that of the stakeholders and have de-regularised the health of adults and many children and to some extent subsidised kerosene and petrol prices till recently when the governor of Rivers state waged a war against illegal refineries. This ozone however is a poison that damages vegetation, kills trees, irritates lung tissues, and attacks rubber. It is also a greenhouse gas that contributes about a fourth as much as carbon dioxide to global warming. Ozone in the lower atmosphere is limited to industrialized regions such as Rivers state.

Nitrous oxide is a potent greenhouse gas that is released primarily by ploughing farm soils and burning fossil fuels. Nitrous oxide traps about 300 times more heat than does the same amount of carbon dioxide. The concentration of nitrous oxide in the atmosphere has increased 18 percent over preindustrial levels. Nitrous oxide contributes about a tenth as much as carbon dioxide to global warming. While **Sulphur hexafluoride** is another human-made chemical, which is one of the most potentially destructive greenhouse gases ever produced.

The experience of warming and cooling of planet earth has not been strange since its formation. Global warming has been in existence for more than 350 years. In the past, volcanic eruptions were consistent. This natural mishap resulted to much emission of carbon dioxide in the atmosphere; which missed up with the heat produced from the Sun. Scientists have observed that melting mountain glaciers and polar ice, rising sea level, more intense and longer droughts, more intense storms, more frequent heat waves, and changes in the life cycles of many plants and animals was as a result of global warming.

Every year the risk posed by global warming becomes alarming and gradually uncontrollable. The knowledge and survival patterns of man were invariably different in many respects. Man's techniques for accomplishing necessary research and projecting his characteristics gradually improved till human technology started indicating serious danger to business and human subsistence. Global warming in parity with natural occurrence became a product of human unswerving and huge industrial activity.

Human activities contribute gases into the atmosphere on hourly bases. For example, levels of carbon dioxide, a powerful greenhouse gas, have risen by 35 percent since 1750, largely from the burning of fossil fuels such as coal, oil, and natural gas to about 76% presently. (International Energy Agency 2021) Contaminants pouring from industrial smokestacks contribute to the world's atmospheric pollution. Some of these contaminants are greenhouse gases such as carbon dioxide and nitrous oxide.



Pictures showing air and water pollution in Rivers state



Illegal refineries in Rivers state contributing to black soot air pollution

As Stanfield (2011) and Schneider, (2013) stipulate, global warming is the major reason for changes in temperature and rainfalls. If these changes are above global average levels of natural occurrence they could result to the following:**Damage of food crops** which will in turn interrupt food production in some parts of the world. Plants and animal species will migrate to areas with cooler temperatures and species that cannot do so may become extinct. Increasing levels of carbon dioxide in the atmosphere also leads to increased ocean acidity, damaging ocean ecosystems. Shells, fishes and other edibles from the ocean will die as is regularly seen in Rivers state

Human beings face global warming with a huge population at risk. Human health, business, schedules, convenience in social activities. UNICEF (2021) record that children in Nigeria at 'extremely high risk' of the impacts of the climate crisis suffer from pneumonia and other disabling cases. Unicef added that, out of 163 countries, Nigeria ranked second in terms of risk that climate change poses to children. During hostile periods of weather change, greenhouse gases such as carbon dioxide and methane naturally increase in the atmosphere from increased plant and animal life. This hostility triplicates due to the rapid growth of human population combined with developments in technology and agriculture. Watervapour, carbon dioxide, and methane, once in the atmosphere, these gases act to retain the long-wave radiation (heat) emitted by Earth in a process known as the greenhouse effect. Only greenhouse gases, which make up less than 1 percent of the atmosphere, offer the Earth any insulation.

Philander, (2023) takes the middle ground between the extremes of the global warming controversy by stating that all life on Earth relies on the greenhouse effect, without it, the average surface temperature of the planet would be about -18°C (0°F) and ice would cover Earth from pole to pole. So fuel combustion, and to a lesser extent agricultural and industrial processes, produce not only gases but also tiny solid and liquid particles called aerosols that remain suspended in the atmosphere. Although aerosols are not considered greenhouse gases, they do affect global warming in several ways. Diesel engines and some types of biomass burning produce black aerosols such as soot, which absorb the Sun's energy and therefore contribute to warming.

Human Contributions, Factors Threatening the Environment and How Global Warming Affects the Child

Scientists are growing increasingly concerned that human activities may be modifying this natural process, with potentially dangerous consequences. Human activities now are a powerful factor influencing Earth's dynamic climate. Humans are significantly increasing the amount of carbon dioxide released to the atmosphere through the burning of fossil fuels (such as coal, oil, and natural gas), solid wastes, and wood and wood products to heat buildings, drive vehicles, and generate electricity.) At the same time, the number of trees available to absorb

carbon dioxide through photosynthesis has been greatly reduced by deforestation, the widespread cutting of trees for lumber or to clear land for agriculture and living and commercial outfits are on the increase.

Human activities are causing carbon dioxide to be released to the atmosphere much faster than Earth's natural processes can remove it. In addition, carbon dioxide can remain in the atmosphere a century or more before nature can dispose of it. As industrialization and fossil fuel-based transportation and electricity generation have spread around the world, concentrations of carbon dioxide have risen. Harvey, (2018) revealed that "In 2007 the Intergovernmental Panel on Climate Change (IPCC), a major scientific organization, reported that levels of carbon dioxide had risen to a record high of 379 ppm and are increasing an average of 1.9 ppm per year. Scientists are increasingly concerned about the release of methane and carbon dioxide from melting permafrost, areas of frozen ground in the tundra. Methane released from these areas as they melt would contribute to further warming and further melting, in what scientists call a feedback process."

If greenhouse gas emissions continue to increase, scientists project severe climate changes. Based on these models, scientists have made many projections about how global warming will affect weather, glacial ice, sea levels, agriculture, wildlife, and human health. Many changes linked to rising temperatures are already being observed. Significant reductions in carbon dioxide emissions can only be achieved by switching away from fossil-fuel energy sources. Nuclear power plants release no carbon dioxide at all, but nuclear energy is controversial for reasons of safety, security, and the high costs of nuclear waste disposal. Global warming, the depletion of the ozone layer in the atmosphere, and destruction of the world's rain forests, outbreak of diseases consequential to climate are just some of the problems that many scientists believe will reach critical proportions in the coming decades. All of these problems will be directly affected by the size of the human population which unfortunately is exploding irrespective of death rate. Roberts (2022) reports how children are torn apart by these effects which are worst in Africa. No one can possibly underestimate the relevance of a child in an inclusive community. The impact of educating the child goes beyond the measurable benefits in business.



A farm land covered by oil spillage in Ogoni land

In essence it is fact that education given to a child for the establishment of literacy skills is precisely what a nation requires for the sustenance of human discipline and functions for the future. The entire human capital is simply thinking towards the wrong direction of educating the young for the production of skilled labour to increase profits in industry. The primary reason for educating the child does not rest on the promotion of commerce but rather for individual survival through the maintenance of natural resources. This fact is not in any respect tuned towards destroying neither the ecosystem nor man himself for whom business investments are enacted. The Childs curriculum therefore emphasises first the discovery of knowledge which in return is used through application to change society naturally.



Children exposed to environmental pollution and the consequent disabilities caused by global warming adopted from WHO &Unicef 2022

The world needs to pay a bit more attention to the child. Industrialists are focused more on making outstanding gains from fast improving technology without the least regard for the personnel and the patronage. Several businesses crumble at puberty due to common weather hazards that could have been departmentalised for proper control. The implication stands that the child is that individual that would grow into the adult industrialist. This same child is the investor and the investee. If present business peril destroys this individual at prime both the business and its sustaining power dies. Interest in business is good, success in industry smells like usable oxygen but the hazards accrued liquidates the gains faster than realised. The child requires to be secured against the dooms of high industrialisation.

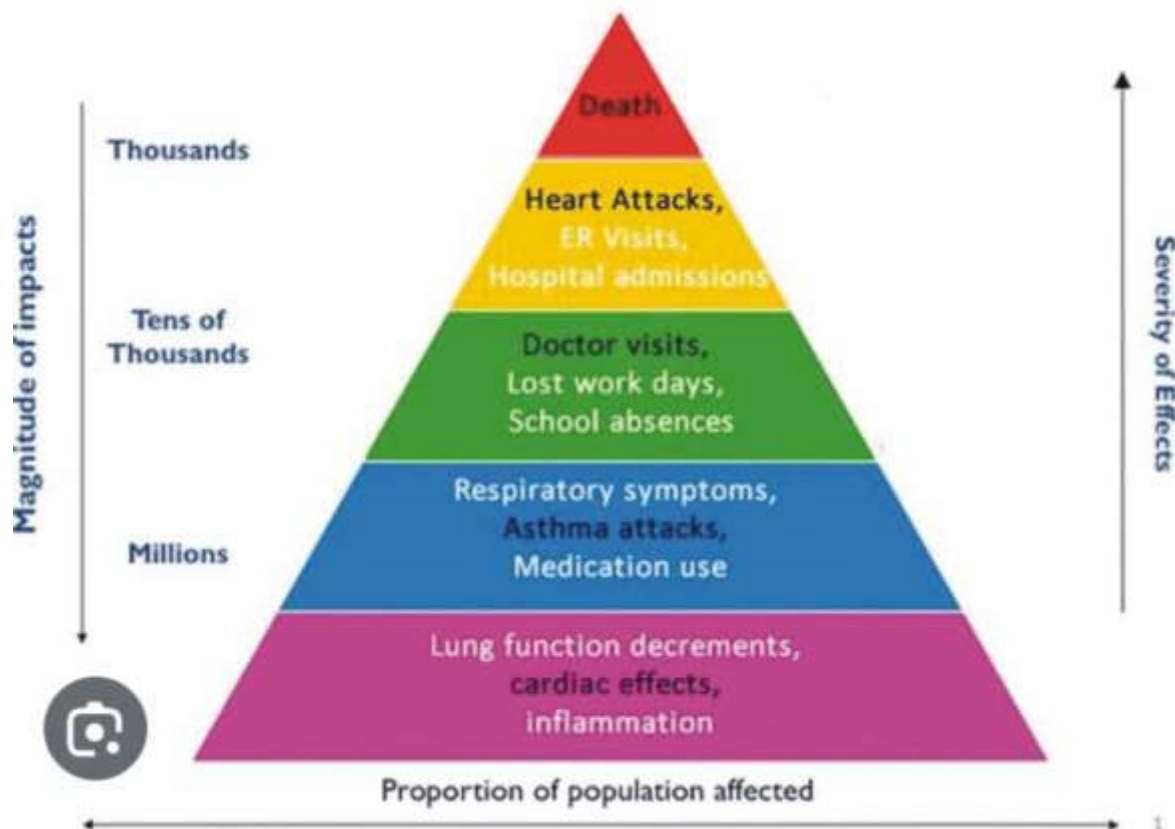
The child is a reproduction of existence. It is only by reproduction that humanity could be sustained. Global warming as hazardous as it could be affects the child more and aging adults who have used up their existence. Everything about the child stands the risk of being destroyed if not carefully handled. In this respect global warming poses, a threat to the child's health, nutrition, development, environment, the child's future, education and the child's freedom. The child directly faces extreme vulnerabilities to himself and education if the environment of both residence and schooling is not conducive for studies. If nature poses a menace to the child, it is believed that there would be a seasonal change to relieve the expected discomfort. The Child's curriculum therefore is planned to observe seasons for studies and holidays. Periods when it would be appropriate for both teachers and the child to interact. Global warming however does not have a season. At all times industries are bound to produce and expire waste into the atmosphere hence the direct and alarming effect on the Child's developmental timetable. In present times, animals migrate to more comfortable regions as a result predators feed on virus carrying preys and implicate humans in pandemics as a result of exposure.

In a warmer world, scientists predict that more people will get sick or die from heat stress, due not only to hotter days but more importantly to warmer nights (giving the sufferers less relief). More frequent and intense heat waves will further contribute to this trend. At the same time, there will be some decreases in the number of cold-related deaths. Diseases such as malaria, now found in the tropics and transmitted by mosquitoes and other animal hosts, are projected to widen their range as these animal hosts move into regions formerly too cold for them. Other tropical diseases may spread similarly, including dengue fever, yellow fever, and encephalitis. Scientists also project rising incidence of allergies and respiratory diseases as warmer air grows more charged with pollutants, mold spores, and pollens. (James L. Stanfield 2023).

Implications

Poor adherence by manufacturers to checking hazards of global warming holds the following implications against children:

1. High infant mortality
2. Child brain malfunction
3. Cancellation of children recreation
4. Deformation of human and plant growth.
5. Degeneration of some major businesses like production of writing materials, education of the child, drug industries and nutritionist advice.
6. Poor agricultural production and harvest
7. Child malnourishment
8. Children physical disabilities
9. Epidemic and pandemic
10. Death



Pyramid showing effects of global warming adopted from UNICEF 2022



Picture showing the differentiation between the effect of pollution in the environment. This same effect is applicable to children.

Unicef (2021) record shows that Children's Climate Risk Index (CCRI) reveals globally:

- 240 million children are highly exposed to coastal flooding;
- 330 million children are highly exposed to riverine flooding;
- 400 million children are highly exposed to cyclones;
- 600 million children are highly exposed to vector borne diseases;
- 815 million children are highly exposed to lead pollution;
- 820 million children are highly exposed to heatwaves;
- 920 million children are highly exposed to water scarcity;
- 1 billion children are highly exposed to exceedingly high levels of air pollution

In this report, Nigeria has the highest number of air pollution-related child pneumonia deaths in the world. Air pollution, especially in the home, biggest driver of child deaths from pneumonia in Nigeria(Unicef 2021).

Prevention of global warming effect.

Can global warming be stopped? The response is hell no. Global warming rather could be minimized through the use of modern technology for waste expiration. However, the use of this technology, as much as it requires high expenditure does not provide any economic input to business hence is being

ignored. McKibben, (2022). Emphasises that responding to the challenge of controlling global warming will require fundamental changes in energy production, transportation, industry, government policies, and development strategies around the world. These changes take time. The challenge today is managing the impacts that cannot be avoided while taking steps to prevent more severe impacts in the future.

Reducing emissions of greenhouse gases, also called greenhouse gas mitigation, is a necessary strategy for controlling global warming. There are two major approaches to slowing the build-up of greenhouse gases. One is to reduce the consumption of fossil fuels, thereby reducing greenhouse gas emissions. The other is to keep carbon dioxide out of the atmosphere by storing the gas or its carbon component somewhere else, a strategy known as carbon sequestration or carbon capture.

Johnson, (2022) Narrates that the first international conference addressing the issue was held in 1992 in Rio de Janeiro, Brazil. At the United Nations Conference on Environment and Development, informally known as the Earth Summit, 150 countries pledged to confront the problem of greenhouse gases by signing the United Nations Framework Convention on Climate Change (UNFCCC). To date, more than 180 nations have ratified the UNFCCC, which commits nations to stabilizing greenhouse gas concentrations in the atmosphere at a level that would avoid dangerous human interference with the climate. This is to be done so that ecosystems can adapt naturally to global warming, food production is not threatened, and economic development can proceed in a sustainable manner.

The nations at the Earth Summit agreed to meet again to translate these good intentions into a binding treaty for emissions reductions. In 1997 in Japan, 160 nations drafted an agreement known as the Kyōto Protocol, an amendment to the UNFCCC. This treaty set mandatory targets for the reduction of greenhouse gas emissions. Industrialized nations that ratify the treaty are required to cut their emissions by an average of 5 percent below 1990 levels. This reduction was to be achieved in 2012, and commitments to start achieving the targets started in 2008. Developing nations are not required to commit to mandatory reductions in emissions. Under the Kyōto rules, industrialized nations are expected to take the first steps because they are responsible for most emissions to date and have more resources to devote to emissions-reduction efforts. The bottom line fact is that no nation complied which shows a neglect and complete lack of concern for the child. An act environmentalists refer to as global philosophy. (Michael Zimmerman 2023).

Conclusion

The child is an adorable individual. Investing in the child is a perfect route to a nation's developmental advancement. Giving birth to a child and nurturing such individual up to adulthood is not an activity supervised in a factory. It is a natural phenomenon. The child therefore should not be subjected to suffering to

attain adulthood before he could take over adult responsibilities for which those that have contributed to global warming have ruined. Though Speth, (2005) has cried out that a call for action to stop the global warming which is trending is not halting attention. It is most alarming hence that children who are expected to sustain humanity are crippled from birth in every respect due to pollution. Using the face mask and washing hands regularly becomes an easier practice against Covid 19 than getting protection from global warming which is both a natural occurrence and a manmade experience.

Suggestions

To protect the child from the hazards of global warming the following recommendations are worth considering:

1. Companies involved in high chemical waste production should introduce convenient and very safe measures for waste disposal.
2. Flaring of usable industrial products should stop and the proceeds converted for either domestic use or industrial funding.
3. The Childs learning environment should be designed to be very safe for learning and sited far from places of high weather and industrial risk.
4. Children teachers should be advised to instil in children the awareness of weather change for the sake of precautions when need be.
5. Informative and educative workshops should be organised by government and non-governmental agencies to assure the child of high measures adopted for the observation and implementation of the Childs rights.
6. Every government of every nation should see the education of the child as paramount and a sole responsibility of the government.
7. A concern for the child should be every industrialist priority not gain.
8. The child holds the key to continuity in business investment tomorrow. Violation of the Childs total rights should be severed from pity and upheld promptly by law.
9. Safety in industrialisation, production and utilisation of pollution eventualities should be predominant in the child's curriculum as to establish early enough the hazards and preventive measures for global warming.
10. Also, Rees, (2021) who is of the opinion that, the climate crises is a child rights crises so must be attended to as top priority.

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