

Effects of Climate Change on Earth: Solutions from Islamic Perspective

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ABSTRACT

Nowadays, societies are overwhelmed by the euphoria of achievements of man in economics, politics, science, ICT, medicine, space exploration, artificial intelligence among others. A careful study of these so-called achievements, despite their glamorous outlook, are not entirely representative of what they portray. They are unequitable and unbalanced achievements, and therefore, not without their serious problems of disturbing proportion and consequences to mankind. The Islamic principle of treading the middle course, of fairness and justice in all aspect of human endeavor is almost missing. Indeed, “a one sided”, pursuit of growth and development can never be all encompassing and/or inclusive. A cursory scrutiny of the celebrated achievements cannot stand the test of equity, especially of the scale of objectivity of Islamic point of view. The research adopts descriptive approach, and the use secondary sources as the means for data collection. This work highlights the inconsistencies inherent in the fundamental concepts, underlying these contemporary human achievements. In addition, the findings clearly indicate the negative consequences of global warming, it also reveals the pathetic trend, of those who suffer the most from its crises, are those poorer countries, that contribute the least to its causes, and unfortunately, the least able to protect themselves against its destructive effects. It offers potential solutions to the challenges posed by climate change, focusing on the teachings, norms, and values found in the Qur'an and Sunnah. These Islamic principles address the effects of human actions on global warming and the environment, providing a framework for mitigating the impacts of climate change from an Islamic perspective.

Keywords: Climate Change, Effects, Human Actions, Global Warming, Environment, Islamic perspective.

INTRODUCTION

Corruption has appeared in both land and sea because of what people's own hands have brought, so that they may taste something of what they have done So that hopefully they will turn back¹.

In human existence, the pursuit of a better life is an inherent and continuous struggle, driven by a natural desire for improved living conditions, often pursued without sufficient regard for the methods used to achieve them. Unfortunately, the notion that “the end justifies the means” frequently prevails. Humanity's quest for a better life began at creation and has evolved alongside human civilization, with this drive expected to persist until the end of time. Today, this relentless pursuit has led to urgent global concerns, particularly in the realms of climate change management and sustainable development. Numerous summits, conferences, and discussions have been convened to reconcile economic growth with the protection of the increasingly fragile environment. Despite considerable efforts from experts and stakeholders, the consequences of climate change continue to spiral out of control. The root cause of this escalating environmental crisis, now a global emergency, is clear: the global community has

struggled to make significant progress or reach consensus on addressing global warming and climate change. This failure persists despite decades of international efforts, including prominent gatherings such as those in Davos, Switzerland, and other major capitals over the past 30 years.²

The most recent example is the just-concluded COP27, held in Sharm El-Sheikh, an annual United Nations conference on climate change that has been ongoing since 1992. Its main objective has always been to reach agreements on policies that limit global warming and to adopt a unified strategy by all nations. Like its predecessors, the 2022 conference aimed to break away from past failures by emphasizing concrete actions rather than empty promises. Yet, as usual, the goals remained unattainable due to self-interest, inequity, and the injustice of developed nations. On November 10, 2022, the BBC reported that Global Witness revealed the presence of 200 fossil fuel lobbyists in national delegations, with another 436 representing trade groups, international bodies, or other non-governmental organizations. Rachel Rose Jackson of Corporate Accountability remarked that "COP27 looks like a fossil fuel industry trade show." Similarly, data released by Corporate Europe Observatory highlighted that "we're on a carousel of madness rather than climate action," stressing that the fossil fuel industry is driven by profit and greed, with no real commitment to addressing climate change.³

Guterres, the Secretary General of the United Nations in his opening remarks at the last annual conference on climate change, held at Sharm El-Sheikh Egypt, said: "Greenhouse gas emission keep growing, global temperatures keep rising, and our planet is fast approaching tipping points, that will make climate chaos irreversible... it is the defining issue of our age..... humanity has a choice: cooperate or perish."⁴

Given this attitude of self-interest and the injustice perpetrated by powerful nations and their multinational fossil fuel corporations, the annual climate conferences continue to be little more than a spectacle, just like the past 30 years. These gatherings fail to address the root causes of climate change, sidelining the urgent discussions needed to forge genuine, actionable solutions to mitigate its devastating effects.

The reality remains that "man, driven by selfish desires," is incapable of undertaking this monumental task alone. The solution lies in turning to the guidance and commands of the One who created and sustains the entire universe—Allah (SWT). As He says in the Glorious Qur'an:

So judge between them by what Allah has revealed and do not follow their inclinations away from what has come to you of the truth. To each of you, We prescribed a law and a method"⁵.

CLIMATE AND CLIMATIC CHANGE

Climate is simply the general weather pattern of an area over a long period of time. In the context of Global Environmental Management, Climate is the connected system of the sun, earth and oceans, wind, rain and snow, forests, deserts and savannas. Climate change, therefore refers to significant, long-term recorded transformation to global climate. The difference between climate and weather is that; weather is short term condition that can change quickly, it can be from hour to hour, day to day, month to month, or even year to year. A region's weather pattern usually tracked for at least 30 years, can be considered at its climate. Therefore, weather can be described as a subset of climate⁶.

Global warming is the slow increase in the average temperature of the earth's atmosphere. It represents increase in amount of energy (heat) striking the earth, which is being trapped in

the atmosphere and therefore, not radiated out into space. The global temperature has already risen 1.1°C above the pre-industrial level i.e. 1850-1900⁷. The major impact of this change in climate are; melting of glaciers and rise in sea level, with the devastating effects that cause the displacement of millions of people, and push them into position of hunger, denying them access to basic services of; health, education and average living standard. Thereby, expanding the levels of inequalities between nation states/individuals, increase in poverty, that result in rampant insecurity and several forms of conflicts.

The years from 2015 to 2021 were the warmest on record, as they represent the worst affected by the effect of climate change, arising from the highest level of concentration of heat (temperature) into the atmosphere. Unfortunately, this trend may keep rising as the annual min temperature is projected to rise beyond 1.5°C above pre-industrial level, in at least one of the next five years⁸. The Sustainable Development Goal (2022) also estimated that; by 2030, 700 million people will be at risk of displacement by drought alone⁹.

Therefore, the consequences of such climate change include, among many others:

- Severe wildfires, mainly in USA, Australia, New Zealand, several European and so many other countries of the globe.
- Massive flooding and monsoon that almost crippled Pakistan and other countries all over the globe, in last raining season alone. Other countries include India, Bangladesh and Sri-Lanka. In fact, the devastating flood recently in Nigeria and other African countries are never seen in recorded history, with huge loss to lives, properties, farm lands, roads and other infrastructural facilities.
- Persistent droughts as a result of water-shortages, as we are witnessing in Somalia, Ethiopia, other East African countries, and also in Europe and so many countries all over the world.

Others include:

- Melting of ice in Polar Regions.
- Catastrophic tsunami, hurricane, tornadoes and thunder/wind/sand storms.
- Heat-waves and
- Declining biodiversity¹⁰

Causes and Effects of Climate Change

Mechanization and Industrial Revolution in Europe of the 1800 have remain the trigger for environmental pollution and resultant climate change. The industrial revolution gave rise to large scale production by manufacturing industries. These and related activities involved requirement of large volume of fossil fuels as energy, including disposal of huge amount of industrial waste products. However, with the passing of time, emissions and pollution have gradually assumed alarming proportion, to the extent of threatening human survival. as a result of rise in temperature of the earth's atmosphere¹¹. These manmade emissions involve the release of Carbon dioxide (CO₂), Methane (CH₄) and Nitrous oxide (N₂O) and other toxicants that adversely affect the climate¹². Followings are the detailed explanation of such emissions:

1. The emission of CO₂ or carbon dioxide is by way of burning of fossil fuels, such as coal, petrol or gasoline, melting of permafrost (permanently frozen soil), and decomposition of organic matter.

2. CH₄ or methane, is 30 times more potent than that of CO₂, it is created in a place with no access to oxygen. It is highly flammable and its main constituent are; natural gas (NG), liquefied natural gas (LNG) etc.
3. While N₂O or Nitrous oxide is 30 time more potent than CH₄. These are Nitrogen fuels that are extremely dangerous and destructive

However, the Human Action on climate is dangerously affecting the atmosphere in particular "The Ozone Layer". Ozone layer is that divine shield which Allah SWT provided for the protection of earth and its creatures therein. The effect of concentration of fossils and other forms of emissions is causing damage to the Ozone layer, which in turn translate into global warming, that is giving rise to the devastating consequences that are affecting all facets of human and other living things on earth. Allah SWT said in the Glorious Qur'an:

Corruption has appeared in both land and sea Because of what people's own hands have brought So that they may taste something of what they have done So that hopefully they will turn back¹³.

The following are just some recorded effects of climate change:

- ✓ Dangerous level of Air Pollution including Acid Rains, in major cities of the world, resulting from the burning of fossil fuels, for purposes of several types of production, transportation, and other related human activities.
- ✓ Deforestation that involves wanton destruction of trees for the supply of timber for building construction industry, and uses as raw material for other manufacturing plants. In third world countries application of wood as a means of cooking and other commercial activities is also a major cause for deforestation.
- ✓ Agricultural production that requires massive clearance of land for cultivation of farms and large plantations, including use of highly toxic chemicals as insecticide, herbicides and fertilizers among others.
- ✓ Constant accidents and mode of operation in manufacturing industries, mining, extraction activities and transportation also account for sizeable emissions of hydro carbon and related pollutants into the atmosphere¹⁴.

Incontrovertible fact from proven researches have confirmed that developing countries suffer more from the devastating effects of climate change, whereas their contribution to climate change is miserly meagre. Their poor living standard and less productive economies left them with no option than to face the consequences that are of permanent and temporary nature. World Health Organization (WHO) reported that the people whose health is being harmed first and worst by the climate crises are those who contributed least to its causes, and who are least able to protect themselves and their families against it. On the other hand, the least vulnerable to the effects of climate change are considered the world's largest polluters. stated that; Europe and United State only are responsible for releasing about more than 90% of all emissions, followed by China in recent years, which is undergoing an unprecedented economic transformation of this modern time. Is this the kind of the so-called successes achieved by the contemporary stride of mankind in social, political, economic, scientific, cultural and other field of endeavor, and worthy of celebration¹⁵.

It is nothing other than the age-long gross exploitation of the strong developed countries over the weak underdeveloped ones. No wonder there is worldwide condemnation of the inhumane injustice of the weak, poor and most vulnerable. Despite persistent calls at several conferences and fora on climate change, for a compensation to the poor, there is still no tangible

progress that addresses this inequity. Only at the last conference in Egypt, the developed polluting countries accept the responsibility, for making funds available to the least polluting poor and underdeveloped. However, the developed countries still refused to put a figure on amount of compensation, and in addition, decline to specify the time, beneficiaries shall begin to receive such palliative. Another example of the reckless attitude of the few rich over the majority poor. Therefore, there has to be a deep rethinking, if humanity is to be saved from itself, arising from penchant for achieving constant growth and development of the very few, that only promote the exploitation and marginalization of the most vulnerable poor.

SOLUTIONS TO THE EFFECTS OF CLIMATE CHANGE FROM ISLAMIC VIEW POINT
In His Infinite Mercy and Wisdom, Allah (SWT) perfected the creation of the heavens and the earth, ensuring that all living beings are sustained and protected. The earth's atmosphere is precisely designed to shield all organisms residing within it. As Allah (SWT) says:

Verily, all things We created in proportion and measure... (Qur'an 54:49).

This atmospheric protection is meticulously crafted to absorb the intense heat of the sun, maintaining a temperature conducive to the survival of mankind and all other creatures. This protective layer, known as the "Ozone Layer," is beautifully referenced in the Glorious Qur'an:

The sun and the moon (move) by precise calculation. And the stars and trees prostrate (glorifying Him). And the heaven He raised and imposed the balance, that you do not transgress within the balance. And establish weight in justice and do not make deficient the balance. And the earth He laid out for the creatures. Therein is fruit and palm trees having sheaths (of dates), and grain having husks and scented plants. So which of the favors of your Lord would you deny?" (Qur'an 55:5-13).

Allah SWT in His Infinite Mercy and Wisdom perfected the creation of the Heavens and the Earth that mankind and all other creatures are sustained and protected. The earth's atmosphere is meticulously designed in order to shield all organism that are living in it. As Allah Says:

Verily, all things We created in proportion and measure¹⁶.

The protection in the design of earth's atmosphere is done in such a way that it shelters the surface of the earth, by absorbing the intense heat from the sun, to the level of the temperature that is resistible to the survival of mankind and all His creations. This protective cover otherwise known as "Ozone Layer", is explained in the Glorious Qur'an:

The sun and the moon (move) by precise calculation. And the stars and trees prostrate (glorifying Him). And the heaven He raised and impose the balance. That you not transgress within the balance. And establish weight in justice and do not make deficient the balance. And the earth He laid (out) for the creatures. Therein is fruit and palm trees haven sheath (of date). And grain having husks and scented plants. So which of the favor of your Lord would you deny?¹⁷

However, as clearly indicated, that Human Actions on climate is dangerously affecting the Ozone layer, and its consequential disasters are recorded in various forms and shapes all over the world. Therefore, whether we like it or not, this task of attaining equilibrium, and delicate balancing of relationship between man and his environment can only be achieved from the guidance of Allah SWT. The most suitable and durable sustainable development that can be attainable by mankind, without all the negative consequences, such as climate change, must only come from submission to, and in compliance with divine guidance of Allah SWT. Allah SWT commands:

And cause not corruption upon the earth after its reformation, and invoke Him in fear and inspiration. Indeed, the mercy of Allah is near to the doers of good¹⁸.

Man as Allah SWT's Trustee on Earth

It is narrated in the Hadith, Abu Sa'id al-Khudhri (R.A) reported that the Prophet PBUH said: The world is sweet and green, and verily Allah is going to install you as vicegerents in it, in order to see how you act¹⁹.

Therefore, man as a trustee and/or vicegerent of Allah on earth must receive constant reminder on his roles and responsibility on earth. The reminder that can save him from extinction by obeying the injunctions and guidance of Allah SWT and His Messenger PBUH, that his exploitation of the earth, for the discharge of his need, must stopped at the point where his duty of protecting and preserving it begins. It is by so doing the destructive action of mankind on climate change and several others like it can meet up with mitigation, as can be further explained:

- **The Purpose of Creation of Man:** The concept of vicegerent outlines the mission behind the creation of mankind, the purpose for his life and manner of his living on earth. Allah SWT designed a special relationship between man and his environment. The Universe and its resources are only provision for mankind, as Allah SWT said: And We bestowed upon you all what is in the heaven and the earth²⁰
In order to use and enjoy the benefit therefrom, and to carter for his needs, thereby creating the conducive environment necessary for fulfilling the purpose of his creation. Allah SWT said:
And We do not create man and jinn except for (the purpose of) worship²¹
I.e., to worship Allah SWT only and alone. That means man should be fully aware that the whole Universe and its contents are created for his need in order to discharge of the mandate of his creation, and equally entrusted with its protection.
Indeed, in the creation of the heavens and the earth and the alteration of the night and the day are signs for those of understanding. Who remember Allah while standing or sitting or (lying) on their sides and give thought to the creation of the heavens and the earth...²²
A believer is expected to have a good knowledge and understanding of the requirement of fulfilling the purpose for his existence on earth, and the twin duty of a responsible vicegerent of Allah SWT on earth²³.
- **Man and His Environment:** The relationship between humankind and the quest for satisfying his need for a better living standard on earth, is supposed to be an interaction between his entire activities, and also, of his duty of ensuring the sanctity of the environment, which is not only limited to the rights of his other fellow human beings but also shall include that of all other creatures. Allah SWT provided mankind with ability to command, explore and exploit all the resources on earth in order to derive the needed peace and harmony required to fulfill the purpose of his creation. Allah SWT says:
And do good as Allah has done good to you. And desire not corruption in the land.
Indeed, Allah does not like corrupters²⁴.
- **Resources Management:** Man as the vicegerent, is also entrusted and charged with the responsibility of its care and protection, such that in its utilization and enjoyment of its benefit, does not go beyond the limit and bounds set out by Allah SWT:

O children of Adam! eat and drink: but waste not by excess, for Allah loves not the wasters²⁵.

Therefore, usage and enjoyment of all resources available on earth, provided by Allah SWT to mankind, should avoid and abhor the unrestricted, unguarded exploitative tendencies of the uncontrollable, extravagant behavior of the greedy attitude of man.

- **Good Conduct:** Prophet Muhammad PBUH demonstrate good conduct and called the attention of Muslim to maintain them in all their daily interactions with each other, and even with animals. He forbids killing of sport animals or to overload them, or even staying at their back for a long period. In addition, planting of trees and cultivation of agriculture are highly encouraged and considered as good acts in Islam. As the Prophet PBUH said:

There is none among the Muslims who plants a tree or sow seeds, and then a bird, or a person, or an animal eats from it, but is regarded as a charitable gift of him²⁶.

Islamic Doctrine of Public Interest (Al-Maslahah al-Mursalah)

Islam is not a dogmatic or an inflexible religion except where it contradicts its basic principles. It is only to those who have insufficient knowledge of the religion of Allah SWT that find difficulties in understanding the flexibility inherent in Islamic religious guidance to mankind.

Islam being the last guidance of Allah SWT to entire universe has perfected it with leeway, to address any challenge that can confront mankind until the last day. A big window of opportunity is divinely left opened to all successive generation of mankind, in the quest for seeking Allah SWT's guidance in all circumstances that may confront him, and without compromising on the basic fundamental teachings of Qur'an and Sunnah. "The doctrine of al-Maslahah a-Mursalah, i.e., the doctrine of Public Interest"²⁷.

Al-Maslaha literally means: interest or benefit, when the two words are combine together i.e. (al-Maslaha-al-Mursala): refer to unrestricted public interest. Therefore, despite the fact that the concept was not specifically mentioned in Qur'an and Sunnah, but there is a consensus of the majority of Ulama' of Usul that considered it as one of the principles of Islamic Shari'ah. Since the basic fundamental objective principles of Islamic law itself i.e., (Maqasid As-shar'iyya), are based on what benefit the people²⁸.

Therefore, the Doctrine of Maslahah al-Mursalah has provided the opportunity for promoting Islamic models that shall incorporate adequate protection of general interest of man and his entire living environment, and of all other areas of contemporary issues of similar nature, in so far as, limits set by Qur'an and Sunnah are strictly adhered.

CONCLUSION

Contemporary achievements by mankind, mainly arising from progress in Science and Technology, is the foundation for the monumental growth and development, which is regarded by many as the pride of this modern civilization. However, the effect and nature of this hysteria of modern civilization, has left mankind with far reaching consequences that if left unchecked, can consume him. Global Environmental Mismanagement is the most negative effect of modern civilization. Concentration of Greenhouse Gasses (GHGs) into the atmosphere, has

given rise to the change in climate. The uncontrolled emissions of hydro carbons and other pollutants into the atmosphere is adversely affecting the “Ozone Layer”, given rise to the dangerous trend of “Global Warming”, with all the attendant devastating effects, that is causing alarming destruction, at an increasing magnitude all over the world. Ozone layer is that divine structure that keep balancing the earth’s temperature that is neither too cold nor too hot, for survival of mankind and all other creations, whether in space, sea, air, land or underground. This important divine gift is not without a serious warning to mankind. Nevertheless, not only did mankind refuse to heed to this divine warning, but finds difficulty in agreeing to arrive at consensus that can mitigate the catastrophic effects of climate change for a period of over three decades.

What has become obvious and very clear as noted in the paper is that man by himself alone cannot resolve the overwhelming crises of climate change. As a Khalifa (Vicegerent) of Allah SWT man is left with no choice than to become conscious of his position as a trustee of his environment, and wakeup from the evil slumber of his uncontrolled greed and selfishness that blinded him, and with the attendant magnitude of global destruction.

RECOMMENDATIONS

- ✓ This paper recommends that it is a duty of Muslim scholar to expand on the principles of Islamic concepts and participate more actively in providing Islamic alternatives, not only on the crises of climate change, but also of the so many several others of our contemporary times. Issues on climate change among others, has clearly indicated the requirement on Ulama’ to dwell on emphasizing the need for coming up with Islamic ideas and concepts, that can contribute on showing the best alternative for mankind. More so, that they have a direct bearing on “life al-Dunyawiyyah” (worldly life), upon which the “life al-Ukhrawiyyah” (life after death) depends. The issue of the struggle to pursue living on earth, in order to make ends meet, and by all means, if neglected, can impose more disruption and misery to the Ummah, general public, and societies at large.
- ✓ Therefore, Islamic Sharia provides for the promotion of essentials and protection from any threat or harm that can undermine the safety of individual and public, such as the effects of climate change we are witnessing today. It is only by doing so, and not from shying away, that Ulama’ should undertake the work of value that can guide towards the kind of growth and development in all fields of endeavors. Such that progress so achieved, shall be in accordance with due respect to the needs of all others, and not the type that is unfair, unjust, one sided, and with enormous devastating consequences, not only to the individuals, societies, but whose effects is of far wider global repercussions.
- ✓ Finally, this paper recommends that Muslim scholars shall pursue their onerous task of *Da’awah*, that shall keep evolving and reflecting on the various challenges of changing times. Islam as a complete way of life, and final guidance shall continue to remain the panacea for all periods and generations, as contained in the Qur’an and Sunnah and the path of the righteous companions. For Ulama’ to remain representatives of the Messenger PBUH, they must wake-up and not shy away from the responsibility of ensuring that Da’awah must keep pace with the changes of this contemporary era and events.

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