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Original Article/Research

# Public enlightenment and participation – A major contribution in mitigating climate change<sup>☆</sup>

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## Abstract

Significant changes in the conventional weather pattern experienced globally have sparked enormous concerns to environmental stakeholders. Having been established that the main driver of change in our Climate is the result of anthropogenic activities which contribute to the global increase in concentration of Green House Gases (GHG), there is therefore need for effective sensitization and public awareness regarding our actions and how they contribute to the issue of Climate Change experienced globally. For this reason an effective framework needs to be designed for this purpose, hence the objective of this research.

As an effective model for Public enlightenment should be one that will: enable all stakeholders gain easy access to each other to achieve efficient dissemination of information; take into consideration the geopolitical and socioeconomic nature of the region in concern; be sustainable; flexible and adaptable, this research adopted the Integrative Literature Based Research Methodology by analysing articles of renowned authors and organizations published between 1995 and 2016 to gain supportive ideas that are vital towards the design of an effective model for public enlightenment and participation in resolving Climate Change. A model fulfilling the afore mentioned qualities was designed and reviewed for its practicability and effectiveness.

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**Keywords:** Climate change; Sustainability; Energy; Public enlightenment; Anthropogenic activities

## 1. Introduction

Climate change can be regarded as a change in conventional weather pattern of a region over time resulting from human, biotic and abiotic factors (World Wild, 2016; IPCC, 2001). While human factors refer to activities of humans ranging from deforestation to use of fossil fuels for energy

generation, biotic factors refer to the interaction between living organisms and the environment which could possibly result to imbalance in the ecosystem, for example overpopulation of species and overconsumption of resources. Abiotic factors include the earth's geologic events which range from Solar radiation to Volcanic Eruption.

Climate change is perceived as one of the greatest challenges we are currently facing in our world today. It has been widely established that human activities also referred to as anthropogenic activities are the major contributors to global warming which is the chief cause of the changes in the earth's weather pattern we currently experience

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(IPCC, 2013). This is evidenced in the high rate in which green house gas emissions are generated and released into the atmosphere. The impact of these includes socio-economic and environmental issues such as famine and conflict in certain regions; massive migration and the health issues associated with such occurrences. According to the Environmental Investigation Agency (2016), our planet exceeded a critical carbon dioxide benchmark of 400 ppm in 2013, this has raised tremendous concerns regarding the state of the earth's Ecosystem and Biodiversity. The main drivers of this challenge from social perspective are the fact that we humans are living beyond our means and overexploiting our habitat for resources. According to the World Wild Fund (2016) global citizens are living as if there are more than 1.5 planets, as the rate at which the earth is exploited for natural resources and harmful wastes generated is more than the earth's recovery rate. The consequences of this are devastating, as according to the Intergovernmental Panel on Climate Change (2016) a 1.5 °C rise in the earth's temperature could result in about 20–30% of species at risk of extinction. The earth's water system is also affected by the rise in global temperature. This is felt in droughts experienced in different regions and the rise in sea levels resulting from the melting of ice at the arctic region which is one of the contributory factors to flooding experienced in different regions of the world.

The question this research seeks to answer is: what model can be designed and implemented to enhance public enlightenment and participation in resolving the issue of climate change?

The main objective of this research is to design a framework that can be used to boost public enlightenment and involvement in resolving climate change factoring in ideas, opinions and concerns of renowned authors and organizations regarding this subject (Fig. 1).

## 2. Methodology

The Integrative Literature Based Research Methodology was adopted for this study, with the objective of gathering opinions, discussions and arguments of notable authors and organizations with respect to environmental issues associated with Climate Change in order to generate a new implementable framework for tackling this issue. This method also enabled the identification of the trends and direction of arguments with respect to this subject as well as identification of gaps and ideas that are instrumental with respect to designing an effective framework that will enhance public awareness and participation in resolving the Climate Change issue.

## 3. Review of literatures

### 3.1. Current issues in tackling Climate Change

So far, current strategies proposed by the world's governments in tackling this issue are not considered effective

compared with the magnitude of this challenge. Although a breakthrough was realized in 2015 during the COP21 convention where about 190 countries expressed their commitment to keep global temperature rise below 2 °C, but the concern here is that there was no general agreement to an effective international standard and framework with which this could be done in the respective countries. Also, no international regulatory measure was agreed upon. The IUCN, WWF and Climate Advisers in 2015 produced a consultation progress report demonstrating that forest conservation and protection in certain forest regions like Brazil and Indonesia has potential of cutting annual global climate emissions by 3.5 gigatonnes in 2020 (WWF, 2016). But these and other environmental objectives regarding climate change can only be effectively realized if there is a change in attitude of global citizens.

### 3.2. The need for public enlightenment

As stated earlier global consumption of resources and wastes generation are at rates higher than the earth's recovery rate and there is not sufficient public awareness as to the consequences of our behaviour. There are also concerns that governments of several developing countries are not giving the required priority to tackling the problem of climate change. According to Bluc et al. (2015), the demand of citizens influence Government policies and priorities. We have observed this in several EU countries like the United Kingdom, Germany and France where an increase in public concern/interest on a particular subject influences government policy on that subject. Therefore the political will of governments to tackle issues of Climate change will be influenced by broad public support. Hence in this regard, effective public enlightenment and participation are very key to solving the issue of climate change. The public enlightenment in this regard should be one that should appeal to the emotions of people creating awareness of their actions and how the earth suffers as a result of this, prompting them to positively change their behaviours. Public enlightenment should also be homogenous and carefully coordinated to ensure harmonious understanding of the issue and avoid conflict of opinions which could cause confusion in the midst of the public. This is supported by Hang and Jonathon (2016) who also expressed in their report that public support for mitigation policy is key to solving the issue of Climate change.

### 3.3. Factors that affect the effectiveness of public enlightenment

Some factors have been identified that can negatively impact on achieving effective public enlightenment. Some of these factors include: political polarization; unavailability of alternative resources; high cost of alternative resources; unavailability and infancy of alternative technologies (Kuhne and Schemer, 2015; Hang and Jonathon, 2016).

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