

FACTS ON CLIMATE IN NIGERIA #1

REPERCUSSIONS FOR HEALTH AND HUMAN SETTLEMENTS

Climate Change has become our new reality. It brings with it changes in weather patterns that can have serious repercussions for all of us, upsetting seasonal cycles, harming ecosystems and water supply, affecting agriculture and food production, causing sea-levels to rise. The impact of Climate Change includes floods, landslides, drought and famine. As weather becomes fiercer and storms increase in frequency and intensity, serious socio-economic consequences result. Malnutrition and disease become common occurrences. Climate Change has a cumulative effect on natural resources and the balance of nature.

Its effects are already visible in Nigeria. This series of Fact Sheets identifies present and future challenges and suggests ways of managing and adapting to the Climate Change process. (For a fuller picture of Climate Change in Nigeria, refer to the other four Fact Sheets: #2, Water Resources, Wetlands, and Freshwater Ecology; #3, Energy, Industry, Commerce, and Financial Services; #4, Agriculture, Food Security, Land Degradation, Forestry, and Bio-Diversity; and #5, Coastal and Marine Ecosystems.)

What's the problem?

As a developing nation, Nigeria is particularly sensitive to the effects of Climate Change. A large part of our economy depends on natural resources which—like our people—are particularly vulnerable to Climate Change. When those resources are affected, whole communities are implicated. Disease, loss of livelihoods and settlements can force entire communities into relocation and even refugee status

Proper nutrition (or lack of it) is already a problem in many areas of Nigeria, whether due to low agricultural yields, population growth or poverty. So, too, is the proliferation of disease-carrying insects and pests: Malaria, sleeping sickness, dengue fever and schistosomiasis (a parasitic disease) are now uncommon in various parts of the country. Climate Change causes higher temperatures and humidity, a boon to pests and diseases. An abundance of rain provides more breeding sites. Wind helps to disperse them. Temperature changes, precipitation and wind are all affected by Climate Change.

Food crops are affected by the presence of pests (resulting in low agricultural yields and food shortages, as well as human population problems such as malnutrition). Pests can reduce meat supply and cause human suffering which in turn affects the effectiveness and productivity of Nigeria's labour force.

What will happen here if Climate Change is not addressed?

The human population in Nigeria is vulnerable to all kinds of problems unless it adapts, or adjusts, to actual impacts of climate change. That will require taking action, whether

it be through preventative measures (to avoid the worsening of conditions) or adjustment measures (changes in habits and the way things are done).

Human settlements in Nigeria will be affected by Climate Change in a variety of ways. Extreme Climate Change such as tropical storms, floods, landslides, wind, heat and cold brings with it droughts, floods, and sea-level rise. Urban and rural population concentration will be disrupted, especially along the coast due to the rise in sea-levels. Some settlements are known to have already relocated farther inland from their original sites because of this. Rises in sea-levels will also threaten urban and rural facilities in low-lying coastal regions, as evident in Lagos.

Climatic catastrophes displace populations (or worse), and can indirectly lead to conflict and civil unrest. The fragile public health infrastructure erodes if resources are diverted to disaster recovery. Communities and government are burdened with clean-up costs, emergency response, repairs, and support to displaced and unemployed communities.

Nigerians already suffer from nutritional imbalances. Climate Change will only have a negative effect on food supply. As well, the location of some diseases caused by pests, such as malaria (mosquitoes) and sleeping sickness (tsetse fly), will shift with the patterns of rainfall and temperature, especially where flooding is a problem. (Malaria and cholera increase with flooding and higher temperatures, cerebro-spinal meningitis is linked to higher temperatures and low humidity.) Skin cancer, from direct ultra-violet radiation, could become more common, as could increased incidences of heatstroke and heart and lung disorders.

How do humans add to the problem?

Industrialization and its air attendant pollution has caused much of the world's Climate Change. Ironically, it is the developing countries like Nigeria who are the most vulnerable to its effects; Nigeria particularly, because of its dependency on climate-sensitive resources.

The primary activity in Nigeria that adds to climate change is the release of harmful substances into the atmosphere from the oil and gas extraction sector, mainly from gas flaring throughout the Niger Delta and off shore. The secondary activity is the cutting of trees and the loss of forests from logging and the use of trees as firewood and for wood products. Reliance on firewood for home-heating is part of the equation. Nigeria destroys close to 600,000 hectares of her forests annually in feeding these industries.

Aside from the use of firewood, the reliance on freezers, fridges and washing machines contribute to Climate Change, as does exhaust from cars and trucks, especially the use of luxury cars, generators and similar items for the more upwardly mobile.

What can we do about it?

While we can work for an end to gas flaring, most activities we can do are to adapt to the impacts of climate change. A lot can be done at the individual, legislative (through government policies), and technological levels. The proliferation of disease-carrying pests can be reduced in many ways, including promoting repellent use and undertaking education campaigns. Less reliance on mono-cultural farming (relying on one crop) and developing climate-adjusted plant species can help. Many personal adaptive steps can be taken to counteract the ill effects of Climate Change. Increasing water intake during hot weather; reducing skin cancer risk by avoiding sun exposure and wearing protective clothing; making the use of sunscreen and water intake habitual; moving to new locations and away from riverbeds, oceans and low-lying areas in response to local Climate Changes; immunization (a public policy and program on immunization against cerebro-spinal meningitis), improved treatment of disease, and the use of bed nets can help to mitigate adverse effects of Climate Change.

But prevention, as they say, is worth a pound of cure. There are many things we can do as preventative measures. More shade trees can be planted. We can develop efficient and safe water treatment systems as well as try to reduce our demand for water, where possible. We can build heat-resistant and well-insulated homes and buildings with provision made for reduced cooling and lighting demand elements, and limit work hours for outdoor workers. More sophisticated methods of data-gathering and archiving of diseases would be useful in determining their location and reasons for proliferation and enabling Nigerians to better manage pest populations. Getting the Nigerian government "on side" is imperative.

What's preventing us from doing all this?

Perhaps the biggest obstacle is lack of awareness and knowledge. Nigerians need to be educated and informed about Climate Change and how it can change our lives drastically. Nigerians have been working and managing the land in ways that don't always protect food production yet there's an inability and reluctance to adopt new farming strategies. Land scarcity also contributes to a reliance on unsustainable farming practices. Widespread poverty induces heavy and total dependence on the immediate environment for livelihoods. Lack of information (awareness) and knowledge (education) about Climate Change also means that many Nigerians are reluctant to accept the reality of Climate Change. As well, there is a lack of public policy, government preparedness and commitment to promoting Climate Change adaptation strategies in this country. There is a dearth of public policies that target adaptation, and those that do exist are inadequate. Certainly, a lack of dedicated research institutions make it difficult to study, comprehensively, the growing negative effects of Climate Change in Nigeria.

Why should we concern ourselves?

The health impacts of Climate Change on the Nigerian population will be far ranging. Water resources will be extremely vulnerable. It is certain that water quality will suffer, as will the human and animal populations that depend on them. Human health will be vulnerable when food production, livestock, agriculture, etc. are all affected as a result.

It is obvious that Climate Change will have a significant effect on all aspects of Nigerian society, affecting each and every socioeconomic sector. Health sciences and related disciplines must provide new and better methods for studying the relationship of population health to natural Climate Changes and to human-induced Climate Change (i.e. pollution). Yet the present level of research and knowledge on Climate Change in Nigeria has hardly advanced. More work and expanded research efforts, and improved monitoring, are needed.

But there can be no talk of reducing the use of firewood and other fossil-based sources of fuel when natural gas resources are being flared, and while kerosene and cooking gas are not sufficiently available. As Nigerians, we need to understand how we, personally, help to exacerbate Climate Change, and how we can adapt to it. Our government also needs to demonstrate its concern about Climate Change and how it will affect all Nigerians and the Nigerian ecosystem. The Nigerian government must adopt strategies and policies now that will encourage industries to adapt to Climate Change to everyone's benefit.