

eco~
INSTIGATOR

A PUBLICATION OF HEALTH OF MOTHER EARTH FOUNDATION

ISSUE #18

DECEMBER 2017



**NIGERIA
DESERVES UNBIASED
BIOSAFETY REGULATORY
SYSTEM**



**SOUTH SUDAN!
NEW NATION
- NEW FAMINE**

**CLIMATE CHANGE
IMPACTS ON OUR LAND
AND FOOD**

lit, vel rutrum

**EAT AND QUENCH:
LET'S LISTEN TO WHAT OUR
FOOD IS TELLING US**

**POWER SHIFT!
ENERGY ACTIVISM TO GO
GLOBAL IN 2018**

**GEOENGINEERING
GOVERNANCE**

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The Eco~Instigator is a quarterly publication of Health of Mother Earth Foundation (HOMEF)

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HOME RUN

Welcome to the last edition of our Eco-Instigators for 2017. It has been an incredibly exciting year with many things to cheer and plenty of others to fight. In this edition we bring you reports and articles that should interest and spur us up to take positive action aligned to the best interests of Mother Earth.

In this special edition, we serve you reports from our workshop held in South Sudan, our Community Dialogue and Sustainability Academy held in Abuja, in September and October, 2017 respectively. These activities provided us with the spaces to interrogate the complex issues of "climate Change, Pastoralism, Land and Conflict". We also serve you reports from the UN climate change Conference of Parties (COP23) and from the conference on Redesigning the Tree of Life hosted by the Canadian Council of Churches.

This edition also features articles on Climate Change and the false solutions of geoengineering .. We bring you reports from South Sudan and on the alarming fact that pollution is a top killer in the world today. The fight against colonizing our agricultural system through the genetic engineering is still on as the Nigerian biosafety regulator appear overtly in support of the risky technology. We bring you an article that questions their dangerous bias.

We also bring you interesting poetry and a selection of books that you should read. Plus, a menu of upcoming events!

Want to know more about us and how you can be a volunteer? Drop us a mail.

Until victory!
Nnimmo

Climate Change being a global issue has an unequal impact on the Polar Regions and causes the Arctic ice to melt at an alarming rate. The impacts of climate change tend to be sharper in the Arctic (the Polar Regions) than in other parts of the world. Moreover, the ecosystem of the Arctic is unique and many of the environmental issues can have a lasting impact on the Arctic environment. Due to climate change, the Northwest Passage between Asia and Europe became ice free for the first time from the Pacific to the Atlantic in the summer of 2007 and this is a positive development in relation to navigation, as opening up new sea lanes that were not available before would considerably reduce the time it takes to go from the USA to Russia.

With access becoming more feasible, the competition for the region's resources has also increased. Drilling can upset the pristine environment of the Arctic as well as its wildlife.

Indigenous People and the Arctic
The Arctic region is home to several groups of indigenous peoples including Inupiat, Yupik and Aleut in Alaska, Inuit in Greenland and Canada, the Saami of the Scandinavian Arctic and Russia and, Yupik, Chukchi, Even, Evenk, and Nenets in Russia and the natives of the American Arctic. Out of the total population of 4 million people in the Arctic, 10% are indigenous. There is a great variation of cultural, historical and economical backgrounds among the groups.

However, a common feature for most of the indigenous communities in the Arctic is that they have already undergone substantial changes due to globalization and the introduction of mixed economy. The Arctic communities who are dependent on the subsistence economic activities like hunting, fishing, gathering

and reindeer herding are facing a threat to their survival and cultural identity. Another feature of indigenous culture is traditional knowledge, which is also being threatened by climate change. As an Inuit petition has shown, these groups are no longer able to rely on their knowledge of climate and nature as the changing climate is making their knowledge less reliable.

The melting of arctic glaciers is a major factor that contributes to rising sea-levels and will create significant problems for small island states and low-lying cities. Ironically, while the Polar Regions contribute very little by way of greenhouse gas (GHG) emissions, they are disproportionately affected by climate change. This raises equity issues. While the contribution of these communities to climate change is insignificant, the contribution of the Arctic states is considerable with US now ranked as the second highest emitter of carbon dioxide. Its per capita contribution is among the highest in the world.

CLIMATE CHANGE IMPACT ON INDIGENOUS COMMUNITIES OF THE ARCTIC

There is a growing international attention on implications of climate change for the Arctic indigenous communities but their main organ for raising their political voice is the Arctic Council.

CLIMATE CHANGE AND INDIGENOUS PEOPLE IN THE ARCTIC

BY DR SONALI NARANG



photo credits: sweden.se/wp-content/uploads/2014/03/Sami-frontpage.jpg

Human life in the Arctic has always been dominated by extreme ecological and climate changes. Climate change is impacting the traditional harvesting activities of indigenous people.

Continuous changes in weather and ice conditions are making the hunting much more difficult and unpredictable. The change in the volume of ice due to climate change carries far reaching implications for economy, society, culture and indigenous health (Keskus 2009). Climate change is impacting indigenous peoples' relationship with animals. The intimate cultural relationship between people and animals in the Arctic stays from cradle to grave. Traditional practices like reindeer herding are becoming increasingly difficult and limited in scope since the disappearance of ice does not let people go far for hunting. Climate change is also posing serious health problems to indigenous people of the Arctic. Vector born disease like west Nile virus is one possibility which already has started to affect North American Population. Climate change is creating the

environment of vulnerability in the Arctic which in turn is undermining the ability of the Arctic people to cope with shifting climatic condition.

INDIGENOUS OBSERVATIONS OF CLIMATE CHANGE

In 2003 the Yukon first nation organized a workshop on climate change in the region. On this occasion, indigenous elders expressed their concerns over the changes they have been observing in local climate and shared their experiences (council of Yukon first Nations, Workshop Report, 2003).

They pointed out that in Northern Yukon, the precipitation pattern has changed, animals are not getting their food and the people were observing changes in weather patterns which was creating difficulties for both communities and animals in their territory. They have observed milder winters, warmer summers, and much shorter spells of snowfall, slower and later freeze-up.



PHOTO © YC

Challenges for Indigenous Peoples' Rights
Climate change is undermining right to life, health, right of food, water, shelter and property. It also affects rights associated with livelihood and culture as well as with migration and resettlement. Many indigenous groups in the Arctic are now increasingly perceiving climate change as violation of their human rights. In 2005, Inuit Circumpolar conference filed a legal petition against the Government of the United States of America for violating their human rights.

The petition stated that the USA has the highest per-capita rate of greenhouse emissions in the world and argued that climate change poses a distributive justice problem because indigenous people living in the Arctic bear a disproportionate share of the negative consequences of carbon producing activities of the industrialized world that are largely responsible for human induced climate change (Comest, 2009). In another case of climate injustice the Gwich' issued a statement in 2001 in which they said that the USA government was thinking of opening of caribou calving ground in the Alaska National wildlife Refuge to oil exploration which threatens their rights of traditional culture, way of life and social structure.

CURRENT ENGAGEMENTS

From time to time, the U.N. General Assembly has hosted consultations to create a new status for "indigenous representative institutions." Although the U.N. Declaration on the Rights of Indigenous Peoples states that indigenous peoples are entitled to participate in all decisions affecting them but they are currently not allowed to actively participate or even attend certain U.N. meetings where their interests are at stake. In May 2017, a new fund, the Algu

Fund, was created to broaden the diverse voices of Indigenous peoples in the Arctic Council. The Algu Fund aims to raise \$30 million to help ensure that northern Indigenous groups are better able to participate in the Arctic Council's workings.

WAY FORWARD

Climate change is perceived by some of the indigenous groups, especially the Inuit as grave violation of their human rights. Those least responsible for global warming are now experiencing the most direct and adverse effects of climate change. Indigenous people of the Arctic should be given their legitimate space and voice in the ongoing national, regional and global debates on climate change. The adverse effects of climate change are causing violation of the entire spectrum of the rights of indigenous people across the world.

This is happening against the backdrop of nation-states having already violated their human rights through unsustainable development projects, threatening their right to food, means of subsistence as well as their cultural identity.

The United Nations and added high-level bodies can put pressure on national governments to enact significant changes to their domestic policies, which will improve the level of discussion with indigenous peoples within their borders and on the global stage.

Dr Sonali Narang is Assistant Professor at Arya P.G College Panipat, India.

CLIMATE CHANGE IMPACTS ON OUR LAND AND FOOD

BY NNIMMO BASSEY

ZERO
HUNGER



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Soil quality has direct effects on the quality of harvests. Poor soils produce poor yields and climate change affects the quality and availability of soil for food production.

We experience this directly when there are floods or droughts. The increasing desertification in Nigeria can be attributed in part to climate change. Poor soil management is equally responsible for incidents of desertification that is sometimes erroneously described as the “southward march” of the Sahara Desert.

Global warming is already having impacts on farming and food supply across the world. Projections for food supply if global warming trends are not reversed, or at least slowed down, are quite worrisome. We are witnesses of the impact of floods on farmers and farming in Nigeria this year, 2017. We cannot forget what flooding has meant in the recent past. In the 2012 floods, 6 million Nigerians were displaced and over 300 deaths were recorded. More than 100,000 persons were displaced by flooding in Benue State alone in 2017. Several deaths have also been recorded this year as a result of floods in Lagos and Borno States and other parts of Nigeria.

Without argument, change of rainfall patterns and volumes have direct impact on agriculture, including herding activities. Climate change has effects on access to land, as well as water, for cultivation and for pastoral activities. The effects can also contribute to conflicts arising from the shrinking of these and related resources. Drier lands contribute to migration or displacement of populations. The same happens with flooding or coastal erosion. Degraded land sometimes gets labelled as marginal lands thus setting them up to be grabbed and taken away from communities. Global warming may lead to an increase of pests, diseases and post-harvest losses. Even small increases of temperature will negatively impact the production of cereals such as maize. In addition, unusual weather variability coupled with extreme weather events also lead to:

- Damaged infrastructure
- Coastal erosion and loss of land and fishing grounds
- Intrusion of salt water into fresh water systems, thus affecting marine ecosystems
- Possibilities of rain-fed agriculture could be reduced by up to 50% by 2020
- Reduction in grassland and grains production will adversely affect animal husbandry
- Increase of family and other social emergencies

IMPLEMENT SDG #2: ZERO HUNGER BY 2030

Sustainable Development Goal 2 sets the important target of achieving Zero hunger by 2030. If conscientiously pursued the world would drastically reduce the impacts of global warming on food production. Specifically, among other things, this important SDG seeks to:

- By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality

- By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels, and promote access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed

The target of Zero Hunger by 2030 may seem impossible to attain in the face of climate change, but with suitable approaches and intensive extension services, food supplies can be sustained and farming can help to cool the earth rather

than accelerate Global warming. The sort of farming that would do this would enrich soils rather than degrading poisoning them. They would protect soil organisms rather than killing them. This farming method would be agroecological, and deeply climate and culture smart. Culture smart farming works with the best indigenous knowledge and technologies and protect crop varieties. Such indigenous technologies include the zai method used by farmers in Burkina Faso and others to retain water and nutrients and thus maintain and enrich soil quality and thus protect biodiversity.

Culture smart and climate resilient farming are contrary to what is offered by modern biotechnology by way of genetically modified organisms (GMOs). When GMOs are presented as being climate smart, there is a wilful denial of the massive erosion of species that they represent. There is also a wilful denial of the soil degradation by the agrotoxics that are applied in such farms.

Today, we are fortunate to have in our midst a pastoralist from Turkana Region of Kenya. She works with pastoralists and fishermen and women whose livelihoods depend on the predictability of weather patterns. She comes with a rich experience of what it means to raise livestock in a semi-arid area and in a region that has both internal conflicts as well as the challenges of oil extraction. Her region in Kenya faces the combined challenges of climate change and oil extraction impacts. Our hope is that through our dialogue, we will share experiences and pick out lessons that will help us manage our lands better, avoid or resolve conflicts and equally extend the lessons to those who couldn't be a path of this Dialogue.

Opening words by Nnimmo Bassey, Director of HOMEF – the ecological think tank - at the Community Dialogue held in Abuja on September 28, 2017.

CLIMATE JUSTICE AND FOOD SOVEREIGNTY NOW!

By Elizabeth Mpofu

Oh! Oh! Nature mourns, Humanity
perishes!
Why? Seasons have changed
Now unpredictable and unreliable!
Hotter, drier and shorter!
Winds and storms harsher and destructive
Mother Earth mourns, the land is barren.
Women, men and children, plants and
animals perish!
Capitalist industrial agriculture, what have
you done?

Everywhere, Mother Earth crumbles
As toxics and harmful GMO seeds swell her
belly.
Heavy machines trample her belly
Their dark plumes polluting the sky,
A new baby, Climate Change, is conceived
and born!

Oh! What is all this?
Ecological niches shrink
Biodiversity fast disappears
Greater uncertainty hovers everywhere
Heightened risks for us the food producers
Traditional agriculture knowledge is fast
eroding
What and who shall save us?

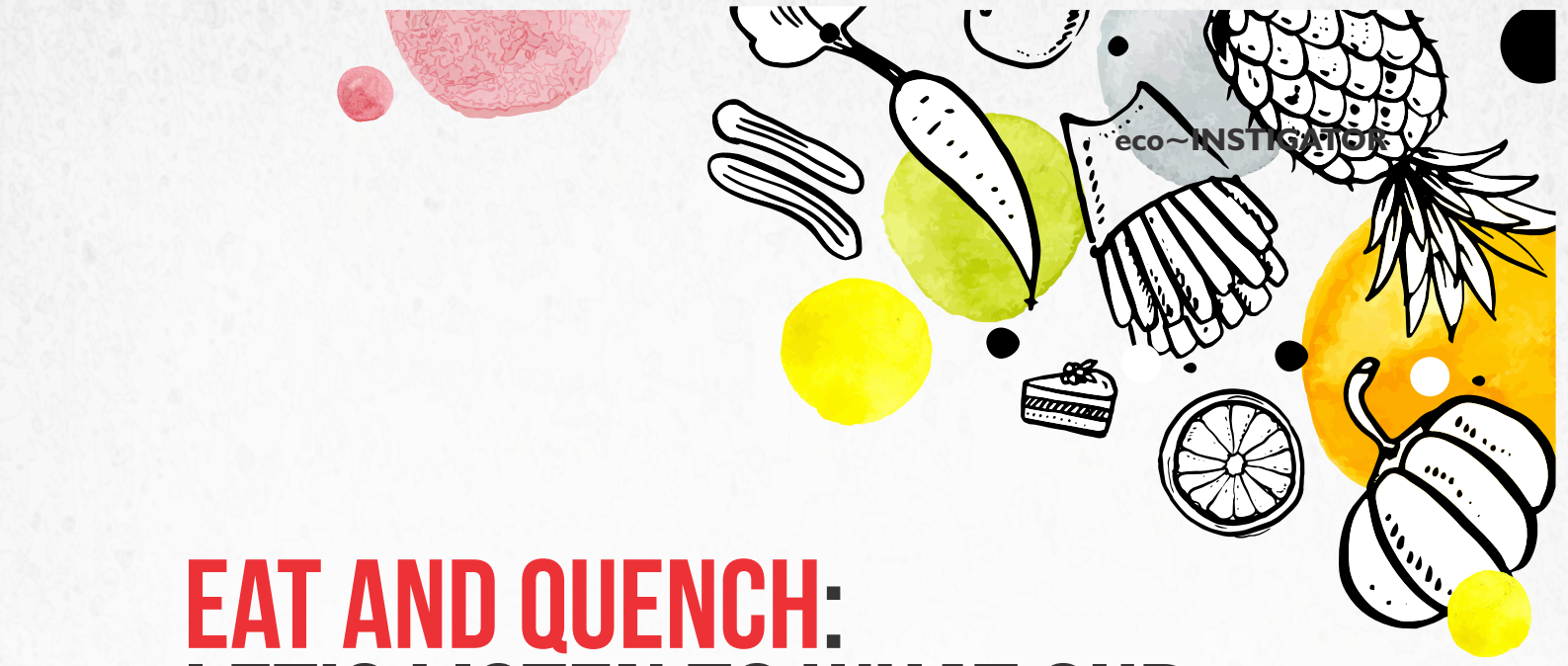
Climate change knows no peace,
Hungers for only for destruction!
Greed for profits feed him!
Extreme, extreme, extreme weather

phenomena, his fruits!
Environmental and humanitarian disasters!
Floods, droughts, landslides, diseases!
Humanity cries: No Food!
Nature cries: Inhabitable! Inhabitable!

Is there a remedy?
Yes but we hear only false solutions!
Free Markets, REDD, Climate Smart
agriculture,
Green economy, Agrofuels, Carbon trading,
land grabbing, more industrial farming,
Massive use of herbicides, inorganic
fertilizers and
More GMOs!
Oh Lord! All to grow climate change! Why?
Profits! Profits! More profits! cries
Capitalism, his father!

But hope looms in the horizon
Food sovereignty, our hope!
Comes to restore social justice to
humanity,
Ecological sustainability to nature
Biodiversity and cultural diversity to all
peoples of Mother Earth!
Arise ye peoples, women and men, the
landless, peasants, indigenous farmers,
forest and fisherfolks,
Let your hope be heard in all the corners of
the earth!
Climate Justice and Food Sovereignty Now!
Globalise the Struggle, Globalise Hope!

*Elizabeth Mpofu is the General Coordinator of the
international peasant movement La Via Campesina.
She is also Chairperson of Zimbabwe Organic
Smallholder Farmers Forum and herself a farmer.*



EAT AND QUENCH: LET'S LISTEN TO WHAT OUR FOOD IS TELLING US

BY: JIBRIN IBRAHIM

There's been mixed reactions about the introduction of GMO crops to the Nigerian agricultural system and market. Most anti-GMOs insist that its introduction will do more harm than good in all areas stating that it will destroy biodiversity, give rise to super-weeds in the farm, pollute other non-GMO crops in nearby farms, the chemical content (for example Glyphosate) is known to be carcinogenic etc.

This article discourages GMO crops deployment to Nigeria, while emphasizing that our traditional and local varieties are still the best and can feed us as a nation.

The author explains further- "our food is normally composed of a lot of dirt; poison, dangerous chemicals, GMOs, and we are all rapidly eating ourselves to death. The easiest way of demonstrating this is to refer to research by the European Union on what they found in the food we sent them to eat. They discovered that the items from Nigeria contained glass fragments, rodent excreta and dead insects. They also found high levels of chemicals like dichlorvos, diometrate and trichlorphon in the products".

Some of these chemicals were used in the planting process; others were used in preservation. The poisonous chemicals did not serve their purpose because microbes such as salmonella, aflatoxins and mould had contaminated the food.

Nigeria does not meet basic standards of food hygiene in the planting, growing, preservation and transportation of its food. I remember the shock of a Kenyan colleague who saw meat being carried in the open boot of a rusted taxi and shortly after a man behind a motorcycle carrying the leg of a cow on his head without any covering.

He asked me if we have any organisations that set and monitor standards and I confirmed that we had but as always, they do not do the work they are paid to do.

It was not surprising that the EU was categorical in its decision in 2015 and 2016 to formally declare that the 42 food items exported from Nigeria were not fit for human consumption. It might well be that the exporters had actually chosen the best from our markets to export to Europe and the reality is that our best is not good enough for human consumption.

The items included beans, melon seeds, palm oil, bitter leaf, pumpkin, shelled groundnut and live snails. In other words, the things we eat every day that we were trying to sell to our compatriots in Europe. Had they passed the sanitation test, then issues of not having labels, improper packaging, lack of health certificates and other entry documents would have arisen?

After the incident, Audu Ogbeh, the minister of Agriculture and Rural Development, warned that Nigerians might be killing themselves in instalments through the food that they eat.

Ogbeh listed several of such poisonous foods, including moin-moin (bean cake) wrapped with cellophane (nylon) and cooked in a manner that transfers dangerous chemicals are released into the beans.

Another dangerous habit of millions of us is consuming sachet water that has been exposed to the sun at over 30 degrees Celsius to multiply the number of liver and kidney failures in our society.

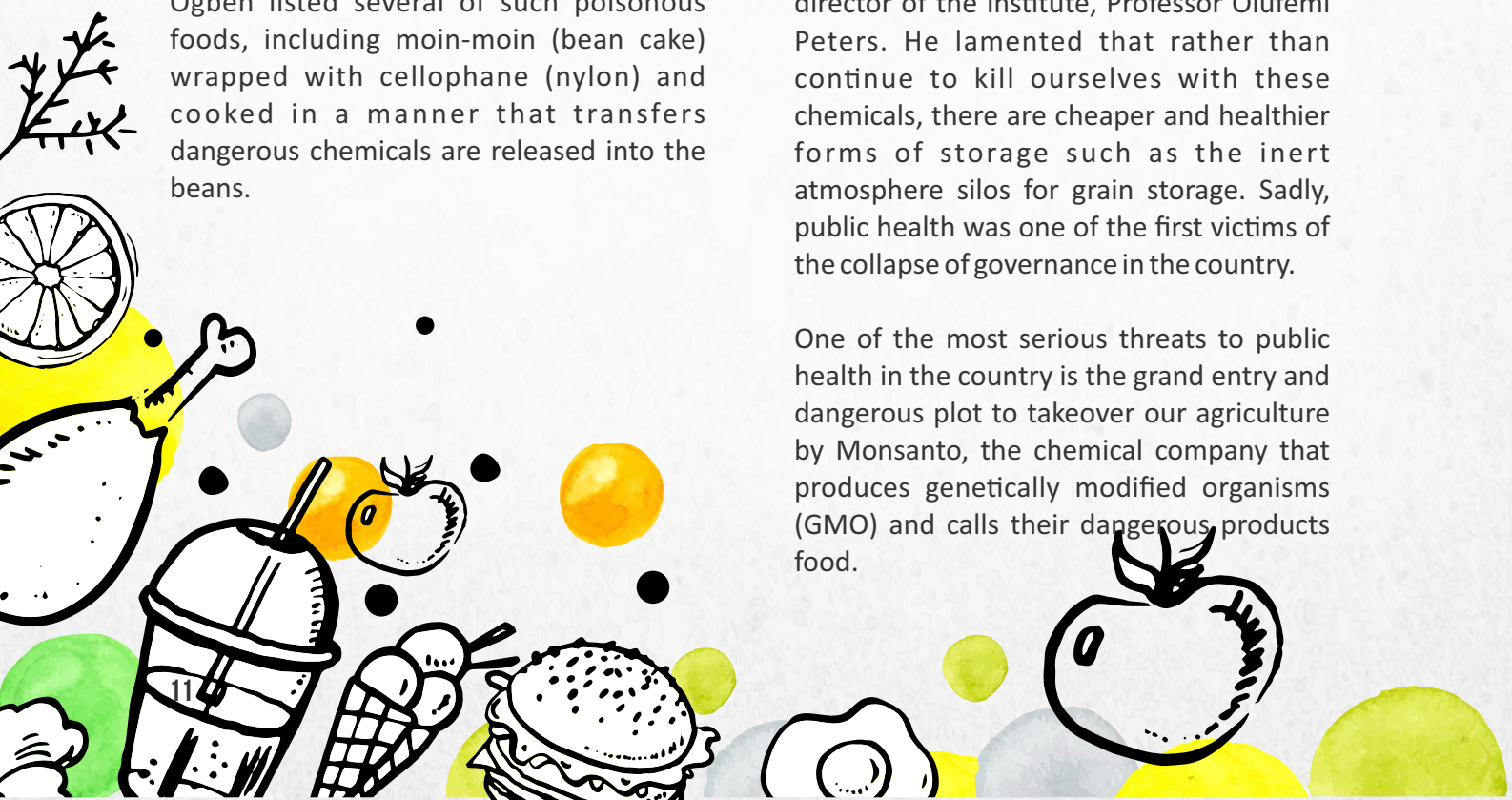
Currently, there is panic in informed circles that the massive quantities of tilapia fish and frozen chicken consumed in Nigeria have been preserved with chemicals normally used for embalming dead bodies and that's why they never go bad.

Not only are we all accelerating our movement to our deaths, we are already embalming our bodies before time. Talking of meat that never goes bad, I have always wondered what gala, which we are told is a sausage is made of. Every other type of sausage I know of goes bad after some time but not gala.

This week, the Nigerian Stored Products Research Institute (NSPRI) revealed that Nigerian peasant farmers spend \$400 million annually on the purchase of pesticides. They say that we use them in an improper manner and millions of Nigerians are falling sick due to pesticide poisoning.

This information is from the executive director of the institute, Professor Olufemi Peters. He lamented that rather than continue to kill ourselves with these chemicals, there are cheaper and healthier forms of storage such as the inert atmosphere silos for grain storage. Sadly, public health was one of the first victims of the collapse of governance in the country.

One of the most serious threats to public health in the country is the grand entry and dangerous plot to takeover our agriculture by Monsanto, the chemical company that produces genetically modified organisms (GMO) and calls their dangerous products food.



The Nigerian government has given approval for GMOs to be grown on our land. The National Biosafety Management Agency (NBMA) into which Monsanto has been pumping dollars has become the advocacy agency for promoting their GMOs and chemicals. Our own governmental institutions are mortgaging our future.

The first major Monsanto project in Nigeria is to grow glyphosate infused maize. Recent studies have linked glyphosate to health effects such as degeneration of the liver and kidney, and non-Hodgkin lymphoma. It is unfortunate that Bill Gates with his America First mentality is sponsoring Monsanto's Water Efficient Maize for Africa, a five-year development project led by the Kenyan-based African Agricultural Technology Foundation, which aims to develop a variety of drought-tolerant maize seeds.

Why will he not invest in the Institute of Agricultural Research project in Ahmadu Bello University that is developing draught resistant maize that does not have the dangers of what Monsanto is doing? My fear now is that Aliko Dangote who is planning to invest billions of dollars into Nigerian agricultural production is now sucked into this Monsanto project. There are reports that some of the food aid being currently imported into Nigeria is GMO.

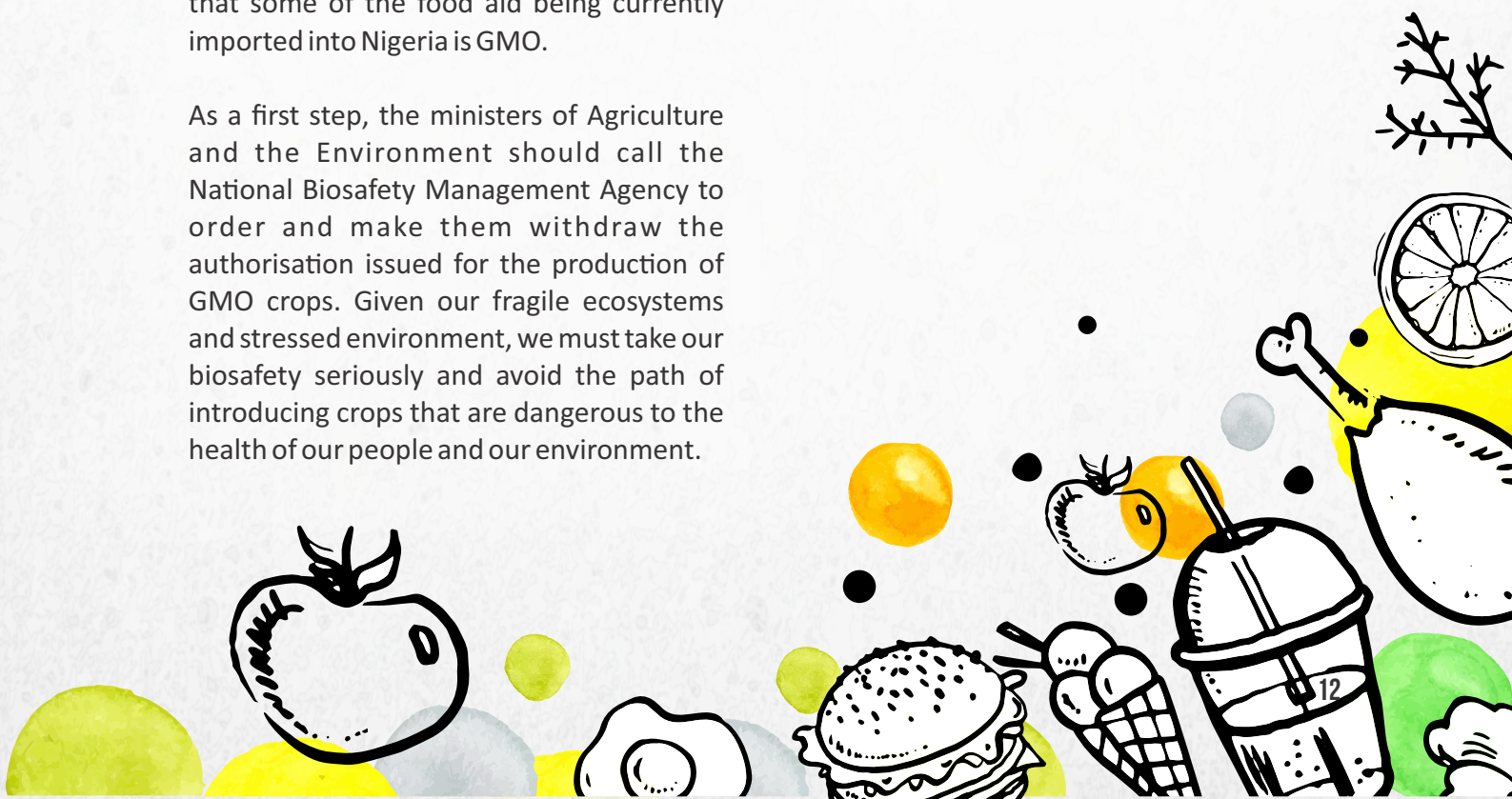
As a first step, the ministers of Agriculture and the Environment should call the National Biosafety Management Agency to order and make them withdraw the authorisation issued for the production of GMO crops. Given our fragile ecosystems and stressed environment, we must take our biosafety seriously and avoid the path of introducing crops that are dangerous to the health of our people and our environment.

Nineteen European countries that care about the health of their people have completely banned genetically modified crops. Even the Russian State Duma recently passed a bill banning all import and production of genetically modified organisms in the country. We must not allow Nigeria to be turned into a dumping ground for what sensible countries have rejected.

Sincere scientists have shown evidence that Monsanto's crops are genetically enhanced to tolerate the use of the herbicide glyphosate which was declared as a possible carcinogen by the World Health Organisation's International Agency for Research on Cancer (IARC).

Every day, more and more Nigerians are falling sick and dying and as we weep for them, we often wonder why so many young people are going. Maybe the question we should be posing is how come some Nigerians are still alive given the intense and systematic way we are poisoning ourselves.

Jibrin Ibrahim is a professor of Political Science and development consultant/expert. He is a Senior Fellow of the Centre for Democracy and Development, and Chair of the Editorial Board of PREMIUM TIMES



RE-ENGINEERING LIFE FORMS: CHURCH FORUM RAISES CONCERNS

BY KRISTINE GREENAWAY

*“What do we have the right to
manipulate in creation?”*

The question is at the heart of a Canadian Quaker's commitment to the process of encouraging member churches of the World Council of Churches (WCC) to reflect on scientific experiments in modifying life forms known as “synthetic biology”.

Faith groups need to be involved in discussions about the impact and possible limitations to scientific research that recreates existing life forms, says Anne Mitchell, a WCC Central Committee member and long-time advocate for socially responsible science. “We need to go in with our eyes wide open.”

Mitchell made her comments at the start of a conference in Toronto, Canada with a focus on exploring recent developments in biological engineering and the issues these raise for faith communities and civil society.

The conference, titled “Re-designing the Tree of Life: Synthetic Biology and the Future of Food,” was co-sponsored by the WCC Ecumenical Advocacy Alliance (EAA) and The Canadian Council of Churches (CCC). The event, which ran from November 2-4, featured international experts and advocates from Nigeria, Mexico, United Kingdom, United States of America, and Canada. The 43 participants included representatives of the Presbyterian Church in Canada, United Church of Canada, Evangelical Lutheran Church in Canada, Religious Society of Friends, Orthodox Church in America and Coptic Orthodox Church as well as other members of the Canadian Council of Churches, Canadian Conference of Catholic Bishops and the Christian Reformed Church.

The objective was to stimulate joint efforts to mobilize public demand for governments and international organizations, such as the UN Convention on Biological Diversity, to require responsible, accountable, and transparent scientific research and development.

Peter Noteboom, CCC's acting general secretary, emphasized that the conference organisers and speakers are not "anti-science" but are learning together how to discern the promises and perils of genetic engineering 2.0 on a new scale of magnitude. He notes that on the one hand science promises benefits through the development of medications using synthetic biology engineering techniques.

On the other hand, new products and production processes can have disruptive effects when they leave the laboratory. For example the development and release of new living modified organisms may have irreversible effects; or new corporate owners of intellectual property can displace producers located in indigenous communities and elsewhere who depend on local production for their traditional livelihoods.

WCC North American president Bishop Mark MacDonald, speaking during the opening session, told participants that he has deep reservations about how science and commodification of life forms are shaping human life. Faith groups, he says, are called to shape minds, imaginations and souls: "We need

to resist spiritual formation by this culture of money."

Presentations by guest speakers focussed on how science can now take existing life forms, such as plants, and re-engineer their genes in order to create modified life forms through processes grouped together under the term "synthetic biology."

Several speakers noted concerns that the impact of these newly engineered life forms on existing plants and on farm economy is not clear and needs further study.

Conference organisers say they met their objective of creating connections for common action to raise awareness about the need for scientific research in the field of synthetic biology to be subject to public review. Guest experts have agreed to provide information and research to support advocacy initiatives.

"The Food for Life campaign plans to share ongoing updates and information on the subject through webinars, and training programmes such as the Eco-school and those linked to theological colleges worldwide, and through newsletters," says Andrew Kang Bartlett, from the Presbyterian Church USA, and a member of the WCC-EAA Strategy Group on Food.

"We hope to take these discussions to the level of the congregations, to empower them to participate in the vital debates," he added.



'FOOD IS CULTURE, FOOD IS LIFE, FOOD IS RITUAL': CONFERENCE EXAMINES ETHICS OF SYNTHETIC BIOLOGY

BY:JOELLE KIDO

What if scientists could code DNA as easily as engineers code software? If everything from veggie burgers to opiates could be grown and synthesized completely in a lab? If data could be uploaded and stored on a strand of DNA?

With the advent of new genetic technologies, these questions are no longer hypothetical.

A conference hosted by the Canadian Council of Churches and the World Council of Churches that ran from November 2-4 in Toronto, Ont., aimed to address new technologies and examine the ethics of the field of "synthetic biology."

A panel discussion, entitled "Redesigning Life: Synthetic Biology, New Genetic Engineering and Ethics," took place Friday

evening, November 3, as part of the conference, "Redesigning the Tree of Life: Synthetic Biology and the Future of Food."

"I encountered biology as a builder...[biology] is the most beautiful, powerful manufacturing power on the planet," said Drew Endy, bioengineering professor at Stanford University and BioBricks Foundation president, who gave an introductory talk alongside technology critic Jim Thomas, before participating in the panel response.

Researchers like Endy have been exploring ways to manipulate the genes of living organisms in a laboratory setting, creating the possibility that any product that can be naturally derived from a plant can now be created artificially, which would have an enormous effect on the food industry, agriculture and medicine.

Conversely, Thomas, a former Greenpeace activist, expressed a greater concern for the effects of this genetic manipulation. “Is life something here for humans to engineer? Is that a morally OK thing to do?”

The effect of these technologies on the world is yet unknown, and could potentially create serious problems, according to Thomas. He said the artificial production of flavouring agents has the ability to cripple the economies of countries that rely on exports of those food products, for example. Other projects, like the creation of “gene drives”—genetic modifications that can wipe out traits in entire animal populations—have bred controversy in environmental circles.

National Indigenous Anglican Bishop Mark MacDonald, who participated on a conference panel concerning the ethics and faith response to synthetic biology, voiced support of regulation, but cautioned that “regulation, in itself, is not enough.”

In an email to the Anglican Journal, MacDonald noted, “Indigenous people...have raised questions regarding the commodification of knowledge and life,

with a special concern for the objectification of life in Western science...as in synthetic biology.” These technologies, he said, raise questions about “our spiritual formation in the dominant culture—the culture of money.”

The influence of commerce was a common theme. “The largest influx of capital in this space is private,” said Endy, opining that “as private capital increases, public leverage decreases.” Both he and Thomas pointed to the influence of venture capitalists such as Bill Gates, as well as the U.S. Department of Defense, which is one of the largest backers of research in the field of synthetic biology.

Nnimmo Bassey, director of Health of Mother Earth Foundation in Nigeria, called this information worrying, especially because of the potential impact these technologies may have on Africa. “I believe that this technology will open the door to a very vicious form of colonialism.

“Scientists have a right to do things in the laboratory,” said Bassey. “But before those things leave the laboratory, there should be full, prior, informed consent by everyone who is affected.”



Panelists discuss the ethical implications of synthetic biology. Left to right: Lucy Sharratt, co-ordinator of the Canadian Biotechnology Action Network, Nettie Wiebe, organic farmer, Nnimmo Bassey, director of Health of Mother Earth Foundation. Photo: Joelle Kidd



A BRIEFING FROM CIVIL SOCIETY ON GEOENGINEERING GOVERNANCE

Geoengineering may involve interventions on land, oceans, or in the atmosphere. It may include so-called solar radiation management (SRM), as well as other Earth system interventions under the umbrella of greenhouse gas removal (GGR) including carbon dioxide removal (CDR). Most of these are theoretical proposals, and although a few CDR techniques may be closer to the market according to their promoters, the claim that these technologies would be effective at scale for addressing climate change is speculation, based at best on limited computer modeling.

None of the geoengineering techniques on the table aim to address the root causes of climate change. Instead, they are intended to partially counteract some of its symptoms. Underlying drivers of climate change will continue and may be exacerbated by some geoengineering schemes (e.g. land use change). Geoengineering is transboundary in nature, as it aims to intentionally alter Earth systems such as the carbon cycle and the hydrological cycle.

IS IT POSSIBLE TO GOVERN GEOENGINEERING?

When speaking about geoengineering governance, a sensible first question is whether geoengineering, with its inherently high risks, unequal impacts, long term effects and broad geopolitical, military, environmental and global justice implications, is even possible to “govern.” Particularly, the deployment of Solar Radiation Management poses potentially unresolvable governance issues, including potential irreversibility and that its deployment could endanger the food and water sources of billions of people in Asia and Africa in a transboundary manner. But all proposed geoengineering schemes, if deployed at the spatial scale and time scale necessary to influence the climate, will involve grave and unfairly distributed negative impacts.

However, governance is not only about establishing regulations to legalize and permit the development of a certain technology. Banning the use of a too-risky technology is also an approach to governance, as is the case with the Nuclear Test Ban Treaty and the UN's adoption of a Treaty to Prohibit Nuclear Weapons in July 2017.

Nuclear testing had devastating impacts on some regions and indigenous peoples. In the case of geoengineering, we can avoid the same mistake by developing strong, precautionary multi-lateral governance of geoengineering in advance, commensurate with its risks.

“Governing geoengineering” is not just a future governance outcome, but pivots on the process leading up to it. The current debates on geoengineering (and its governance structure) often privilege technocratic worldviews and engineering perspectives, as well as vested interests, both from pro-geoengineering academic

researchers (who may in some instances also have economic stakes in the issue), the fossil fuel industry and others with clear economic or geopolitical interest in the proposals. Together, these voices dominate the conversation. Such an unbalanced process leads towards biased, undemocratic governance outcomes.

HOLY GRAIL OF “NEGATIVE EMISSIONS”

In 2015, the Paris Agreement on climate change agreed to limit the increase of the global temperature to “well below 2 degrees,” including to “pursue efforts to limit the increase to 1.5°C above pre-industrial levels” before the end of this century. But the sum of the nationally determined contributions (NDC) delivered by each country to UNFCCC one year later translated into a global average increase of 2.9-3.4 degrees. This gap is a grave concern that must be addressed by immediate and real emission cuts, along with a fundamental change of the energy matrix and industrial production and consumption patterns, starting with the few countries that are responsible for more than two thirds of the global GHG emissions.

But instead of advancing these necessary measures, the concept of “negative emissions” – the idea that it is possible to avoid cutting GHG emissions drastically if emissions are offset by different technological (or other) means – has gained traction.

This notion of a technofix for getting to 1.5 degrees paved the way for geoengineering boosters to scale up their discourse and present geoengineering proposals not as a reserve or an emergency plan, but as an “unavoidable” measure to be taken sooner rather than later.

They have also used this argument to demand more public and private support for their research and experiments.

A STARTING POINT

Although many geoengineering advocates recognize that drastic emissions reductions are needed to confront climate change, and thus rhetorically insist geoengineering should only be a complement to that, their research feeds the illusion to policymakers that high emissions can continue. In that way, political attention on speculative geoengineering options is already deviating resources from the development of the alternatives that could be a real, permanent solution to the climate crisis.

A starting point for a discussion on confronting climate change should be to acknowledge that traditional emission reduction strategies such as energy efficiency, replacing fossil fuels with renewable energies, and retrofitting buildings will not suffice to reach the objectives of the Paris Agreement. Industrial production and consumption patterns have far exceeded safe planetary boundaries. What we need is an honest conversation about radical emission reduction pathways that transcend mainstream economic thinking. We also need sound, socially just and culturally appropriate strategies to repay our land-carbon debt by vastly, yet carefully, restoring natural ecosystems.



GEOENGINEERING DISCUSSIONS AT THE UN

The United Nations has been home to a decade-long discussion on geoengineering based on the precautionary approach and environmental and social concerns, with its center of gravity at the UN Convention on Biological Diversity (CBD). At the CBD, a de facto moratorium on ocean fertilization was established in 2008 and on geoengineering in general in 2010.

More thematically focused, the London Convention/London Protocol to prevent marine pollution adopted a decision in 2013 to prohibit marine geoengineering (except for legitimate scientific research). Climate manipulation has been a subject of military interests for many decades as a means to control the weather for hostile purposes. The impacts of the hostile use of weather modification by the USA against Vietnam led to the adoption of the UN Environmental Modification Treaty (ENMOD) in 1977 to prevent the manipulation of the environment as a means of warfare.

Some geoengineering proponents have intentionally denied the reality of these discussions that have already taken place inside the UN system. They argued instead that geoengineering research and experiments can be self-regulated and voluntarily managed through ethical guidelines, codes of conduct and similar measures. What we need is an honest conversation about radical emission reduction pathways that transcend mainstream economic thinking.

RIDING THE GEOSTORM

The political writer Naomi Klein has observed that the tragedy of recent international climate change governance is that the climate change problem emerged to prominence at the height of the so-called

Washington Consensus when neoliberal governments did not consider it realistic to make strong decisions, and instead opted for ineffective voluntary and market responses to a problem that required strong multilateral action. It would be a grave mistake to repeat that ideologically-driven error when approaching geoengineering governance.

TRANSBOUNDARY NATURE

Because geoengineering by definition aims to intentionally alter Earth systems such as the atmosphere, the carbon cycle and implicitly the hydrological cycle, it is transboundary in nature. And because we know very little about the functioning of the planetary ecosystem as a whole and its subsystems, including climate, there is a significant likelihood that instead of improving the climate, geoengineering could make things worse in unexpected ways.

But several of the proposed technologies, whether they are considered under the umbrella of CDR/GGR or SRM, share important characteristics that must be considered for their governance. For instance, ocean fertilization, stratospheric aerosol injection and marine cloud brightening all aim to add huge amounts of additional compounds into dynamic and fragile ecosystems. The transboundary nature of geoengineering and the unequal distribution of impacts strongly requires that any decision about experimentation and deployment be taken at a multilateral level, with the full participation of those that could be negatively affected and considering many different kinds of impacts simultaneously.

RESEARCH AND GOVERNANCE – THE CHICKEN AND THE EGG?

Geoengineering researchers and promoters have often advocated that their research

and experiments would be best governed by voluntary guidelines and codes of conduct. Some are more cautious about deployment, while others think that even deployment could be subject just to national norms. None of those ideas are commensurate with the dangers of geoengineering, its game-changing role in international politics and its inherent transboundary nature. The majority of research on geoengineering is not aimed to be merely theoretical, but instead is designed to develop a technique, or at least create the conditions to develop geoengineering proposals.

Self-regulation or partial regulation (thematic, national, regional) of geoengineering experiments and deployment is clearly inappropriate, particularly in the light of the transboundary nature, significant dangers and inherent inequity of impacts that geoengineering proposals imply.

The trial of the techniques will lead to their “proof of principle,” useful to fundraise for more experiments, and will end up with geoengineering being available to powerful actors who could use it unilaterally to advance their interests. Even the threat of geoengineering capabilities will have geopolitical ramifications. As Oxford University Physics Professor Raymond Pierrehumbert expresses, “...it's bad enough that Trump has his hands on the nuclear weapons launch codes. Do we really want to give someone like him the tools to monkey with the world's climate as well?”

Furthermore, geoengineering research is a deviation of resources from the much-needed research on better and just ways to confront climate change.

IS A GLOBAL CONSENSUS POSSIBLE?

The events of the US election of Donald Trump and his immediate promise to leave the Paris Agreement (which he made true within his first six months in office) is not





just a cautionary anecdote about changing conditions. It is pivotal to understanding the conditions for geoengineering governance.

The kind of governance required for geoengineering demands a global consensus to agree on its development and use, in a democratic framework that requires full democratic participation and commitment of all countries and must last for decades and maybe centuries. If that governance were to emerge, the countries of the world would be negotiating over not just the amount of carbon and greenhouse gases in the atmosphere and the reliability of measures to reduce that but also a second variable – the amount of heat in the atmosphere and techniques to lessen that heat.

We have seen the international community repeatedly fail to collaborate to address climate change when there was only one variable to argue over (levels of emissions), so why would we believe that they will now be able to establish the strong and durable consensus required to govern the complexities of geoengineering (which in the case of SRM geoengineering, requires technologically varying incoming sunlight and atmospheric heat in a verifiable manner in addition to managing greenhouse gas levels)?

The Paris Agreement, with all its shortcomings, seemed to be a global consensus in the direction that climate change global action should go. But it took only a few months after it came into force for President Trump, as leader of the biggest historical contributor to climate change, to announce this country would withdraw from the agreement.

What would happen if this was the agreement supposed to govern geoengineering and activities were already underway?

Broad societal deliberations must come first. The prospect of controlling global temperatures raises serious questions of power and justice: Who gets to control the Earth's thermostat and adjust the climate for their own interests? Who will make the decision to deploy if such drastic measures are considered technically feasible, and whose interests will be left out? Because of its inherent conditions and factors, a broad societal deliberation on geoengineering and its governance, including the possibility of going further than a moratorium to establish a ban, is relevant for all of society, and principally for those people and regions that would be adversely affected by geoengineering.

A LEGITIMATE DISCUSSION ON GEOENGINEERING GOVERNANCE MUST BE:

- Based on the precautionary principle, taking into account and respecting the existing UN decisions related to geoengineering, such as the decisions that call for *de facto* moratoria and ban of marine geoengineering.
- Not confined to climate-related issues, as the consequences are more far-reaching than the climate, including weaponization, international equity, intergenerational justice, impacts on other ecosystems, such as biodiversity and oceans, impact on local and national economies dependent on those, indigenous and peasant rights, among others.
- Informed by a rigorous discussion on ecologically sustainable and socially just alternatives to confront climate change and its causes: we must build radical emission pathways that transcend mainstream economic thinking, such as the managed premature phase-out of fossil fuels, sustainable agricultural models, and absolute reductions in global resource and energy consumption through circular economy approaches. We must also make space for sound and careful restoration of the world's ecosystems, first and foremost: our rainforests, moors, and oceans. Until this is done, there is no reason to believe that geoengineering is needed and not merely a dangerous deviation of resources from safe, fair, and ecologically sustainable approach.
- Participatory, transparent deliberations on the potential impacts of geoengineering and the need for precaution should be carried at national and regional levels with the full participation of civil society, social movements and Indigenous Peoples. These could feed into international discussions.
- Multilateral, transparent and accountable deliberations, where all governments can freely participate in a

democratic manner, open to public scrutiny and with the full participation of civil society organizations, Indigenous Peoples and social movements (especially those most directly affected by climate change), and accountable to the UN in its outcomes.

- All discussions must be free from corporate influence, including through philanthro-capitalists, so that private interests cannot use their power to determine favourable outcomes or to promote schemes that serve their interests.

Have obligatory, public and non-ambiguous conflict of interest policies that prevent researchers with commercial interests in geoengineering to act as “independent” expertise.

- Respectful of existing international laws, including those protecting peace and security, human rights, indigenous rights, biodiversity and national sovereignty, particularly to ensure that any activity undertaken in a country does not cause damage to the environment of other nations, and those prohibiting hostile acts of environmental modification.
- Mindful of concomitant crises, especially hunger, poverty, inequality, loss of biological diversity, ecosystem destruction, atmospheric pollution and ocean acidification.
- Cognizant that neither the seriousness of the climate crisis nor a lack of scientific knowledge can be used to justify experimentation, especially in the view of possible unintended consequences of geoengineering.
- An agreed global multilateral governance mechanism must strictly precede any kind of outdoor experimentation or deployment.

A ban on geoengineering deployment is a governance option that must be kept open and upheld.

From

http://www.geoengineeringmonitor.org/wpcontent/uploads/2017/10/etc_hbf_geoeng_govern_sept2017.pdf

On February 20th 2017, the Government of South Sudan, the world's newest nation, declared famine, becoming the first country to do so since 2012. According to the latest Integrated Food Security Phase Classification (IPC) results, some 100,000 people may die from starvation, while a further 1 million are on the brink of famine. The total number of people who are suffering from food insecurity is expected to rise to 5.5 million - about half of South Sudan's population - at the height of the lean season in July if nothing is done to curb the severity and spread of the food crisis.

Though one of the main causes of the famine in South Sudan is man-made conflict, some areas in the eastern part of the country are facing food security issues from prolonged droughts, which are believed to be due to climate change. South Sudan is witnessing changes in the frequency and intensity of rainfall and a rise in temperatures.

Over the past 30 years, the country has been among the most rapidly warming areas on the globe, with temperatures increasing as much as 0.4°C per decade. This warming, which is two and a half times greater than global warming, is making "normal" years drier. While rainfall has decreased by 10-20 %, temperatures have increased by more than 1°C since the mid-1970s.

SOUTH SUDAN! NEW NATION - NEW FAMINE

The prolonged droughts are causing food crises, loss of livestock, internal displacement and migration to neighbouring countries. More than 1 million children are estimated to be acutely malnourished across South Sudan. Climate change in the region has led to widespread livestock deaths. Humanitarian needs have tripled in parts of the region as compared to 2015.

The recently launched NAPA (National Adaptation Programme of Action) to climate change, prepared by the South Sudan Government with the technical support of UN Environment clearly describes these climatic trends. It spells out how the country is experiencing substantially warmer and drier weather, leading to more droughts.



Photo credit: <http://www.rootsofsouthsudan.org>

According to the national Ministry of Environment and Forestry, rainfall is more erratic, and both its frequency and intensity have changed in recent years. Due to this change, farmers are not able to tell when to plant.

According to the country's previous Environment Minister, Deng Deng Hoc Yai, climate change is exacerbating the civil war in South Sudan. Deutsche Welle reported that many experts believe the changing climate is partly responsible for South Sudan's three-year old internal armed conflict. Drought is putting pressure on resources, and fanning the flames of the three-year-old civil war.

In addition to droughts, flood frequency has also increased in recent decades in parts of South Sudan. For example, floods that used to occur in intervals of five to 10 years have been happening almost every year since 2011. Larger areas are being affected by droughts and flooding is now more serious.

BROADER IMPACTS:

Increased pressure on wildlife poaching and loss of biodiversity: The man-made conflict and the rising food crisis is causing pressure on biodiversity, as both poaching and illegal wildlife trading have increased.

In March 2017, wildlife authorities confiscated large quantities of bush meat in Aweil. There are accounts of people poaching due to the lack of food. One poacher, who preferred to remain anonymous, told local radio that he and his friend went into the bush to kill animals because their living conditions had got so bad.

Increased human conflict: Reduced access to water and loss of grazing land has triggered fighting between pastoralist

communities and farmers. Such conflicts could increase due to climate change.

Increased deforestation: There is a greater pressure on South Sudan's remaining forests as commercial charcoal production and logging are seen as alternative sources of income

Increased human displacement and migration: Due to droughts, people are being internally displaced or are migrating to neighbouring countries. Human displacement puts further pressure on scarce natural resources.

Water scarcity: Major rivers and small streams in parts of South Sudan are drying up. **Humanitarian response:** Droughts in conflict areas have affected the humanitarian response, with looting of warehouses, compounds, food storage areas and properties.

Increased land degradation and desertification: If present rainfall trends continue in South Sudan, by 2025 the drying impacts will likely reach to most parts of the country. A 1°C increase in temperature would mean another 10-20% reduction in rainfall.

Vulnerability: More than 90 percent of South Sudan's population is dependent on rain-fed agriculture and has limited capacity to cope with variable and extreme climates. Any changes in climatic condition could have a direct impact on crop yields, livelihoods, displacement, health and education.

Culled from: <https://reliefweb.int/report/south-sudan/new-nation-new-famine>

POLLUTION CAUSING MORE DEATHS WORLDWIDE THAN WAR OR SMOKING: LANCET

At least 9 million premature deaths were caused by diseases from toxic emissions

More than smoking, hunger or natural disasters. More than AIDS, tuberculosis and malaria combined.

One of out every six premature deaths in the world in 2015 — about nine million — was attributed to disease from toxic exposure, according to a major study released Thursday in the Lancet medical journal.

The financial cost from pollution-related death, sickness and welfare is equally massive, the report says, costing some \$4.6 trillion in annual losses — or about 6.2 per cent of the global economy.

"There's been a lot of study of pollution, but it's never received the resources or level of attention as, say, AIDS or climate change," said epidemiologist Philip Landrigan, dean of global health at the Icahn School of Medicine at Mount Sinai in New York City, and lead author on the report.

It marks the first attempt to pull together data on disease and death caused by all forms of pollution combined.

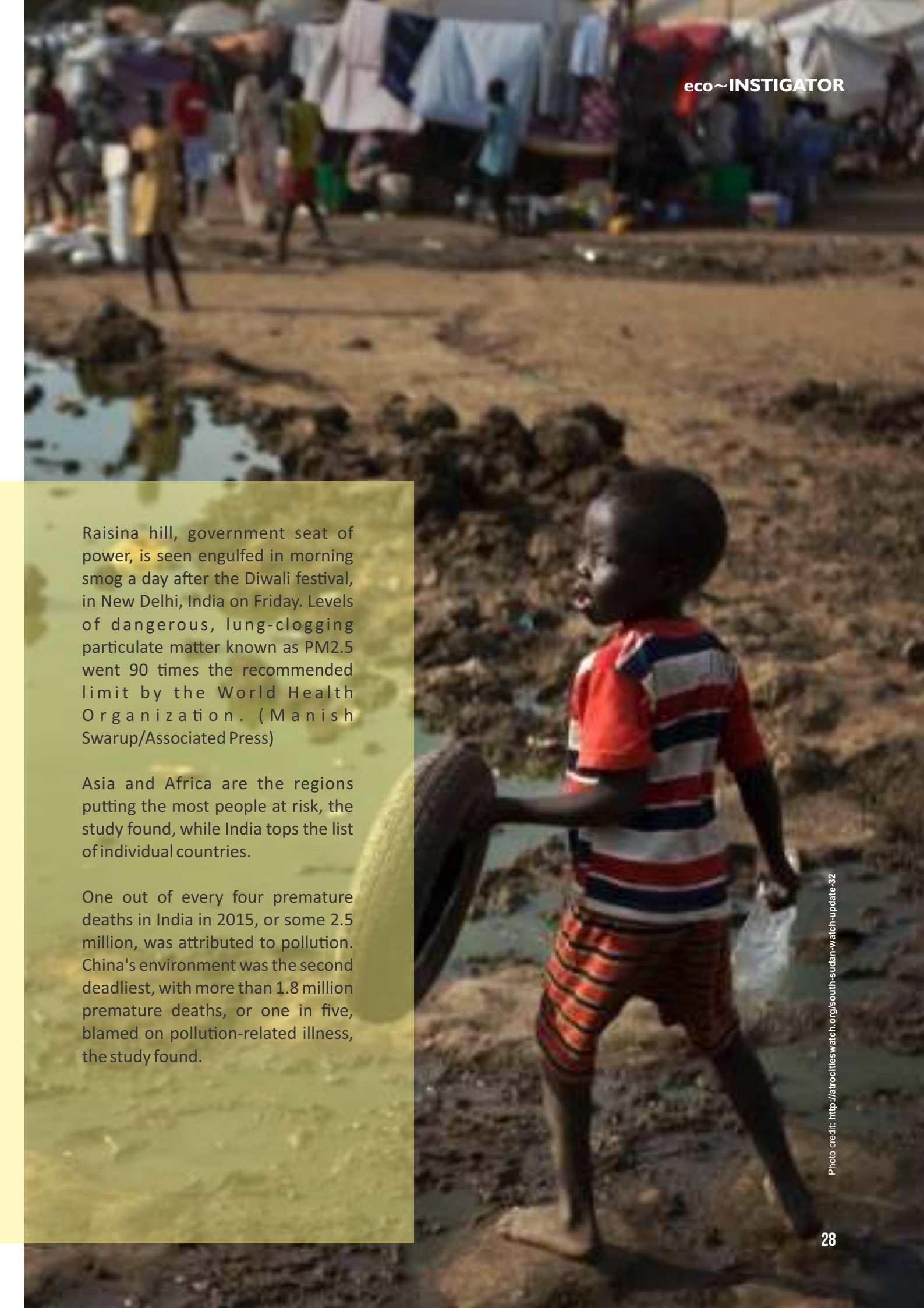
"Pollution is a massive problem that people aren't seeing because they're looking at

scattered bits of it," Landrigan said.

Experts say the nine million premature deaths the study found was just a partial estimate, and the number of people killed by pollution is undoubtedly higher once new methods of assessing harmful impacts are developed.

Areas like Sub-Saharan Africa have yet to even set up air pollution monitoring systems. Soil pollution has received scant attention. And there are still plenty of potential toxins still being ignored, with less than half of the 5,000 new chemicals widely dispersed throughout the environment since 1950 having been tested for safety or toxicity.

"In the West, we got the lead out of the gasoline, so we thought lead was handled. We got rid of the burning rivers, cleaned up the worst of the toxic sites. And then all of those discussions went into the background" just as industry began booming in developing nations, said Richard Fuller, head of the global toxic watchdog Pure Earth and one of the 47 scientists, policymakers and public health experts who contributed to the 51-page report.



Raisina hill, government seat of power, is seen engulfed in morning smog a day after the Diwali festival, in New Delhi, India on Friday. Levels of dangerous, lung-clogging particulate matter known as PM2.5 went 90 times the recommended limit by the World Health Organization. (Manish Swarup/Associated Press)

Asia and Africa are the regions putting the most people at risk, the study found, while India tops the list of individual countries.

One out of every four premature deaths in India in 2015, or some 2.5 million, was attributed to pollution. China's environment was the second deadliest, with more than 1.8 million premature deaths, or one in five, blamed on pollution-related illness, the study found.

5 highest rates of pollution-related deaths per 100,000 population (percentage of all deaths)

- Somalia: 316.3 (26.5 per cent).
- Central African Republic: 303.8 (18.9 per cent).
- Chad: 284.9 (25.6 per cent)
- South Sudan: 264.2 (23.2 per cent).
- Niger: 245.5 (24.9 per cent).

Nearly a fifth of premature deaths in several other countries, such as Bangladesh, Pakistan, North Korea, South Sudan and Haiti, also were linked to pollution.

Still, many poorer countries have yet to make pollution control a priority, experts say. India has taken some recent actions, such as tightening vehicle and factory emission standards and occasionally limiting the number of cars on New Delhi's roads. But they have done little about crop burning, garbage fires, construction dust or rampant use of the dirtiest fossil fuels...

"Even though better pollution norms are coming in, still the pollution levels are continuously increasing," said Shambhavi Shukla, a research associate with the Delhi-based Center for Science and Environment, which was not involved in the Lancet study.

To reach its figures on the overall global pollution burden, the study's authors used methods outlined by the U.S. Environmental Protection Agency for assessing field data from soil tests, as well as with air and water pollution data from the Global Burden of Disease (GBD), an ongoing study run by institutions including WHO, and the Institute for Health Metrics and Evaluation at the University of Washington.

Even the conservative estimate of nine million pollution-related deaths is 1½ times higher than the number of people killed by smoking, three times the number killed by

AIDS, tuberculosis and malaria combined, and 15 times the number killed in war or other forms of violence, according to GBD tallies.

It is most often the world's poorest who suffer, the study found. The vast majority of pollution-related deaths — 92 per cent — occur in low- or middle-income countries, where policy makers are chiefly concerned with developing their economies, lifting people out of poverty and building basic infrastructure. Environmental regulations in those countries tend to be weaker, and industries lean on outdated technologies and dirtier fuels.

'There is this myth that finance ministers still live by, that you have to let industry pollute or else you won't develop. It just isn't true.' - Richard Fuller

The study's conclusions on the economic cost of pollution measure lost productivity and health care costs, while also considering studies measuring people's "willingness to pay" to reduce the probability of dying. While these types of studies yield estimates at best, they are used by many governments and economists trying to understand how societies value individual lives.

While there has never been an international declaration on pollution, the topic is gaining traction.

This is an excerpt from an article on the Lancet report findings on: Environmental pollution — from filthy air to contaminated water — is killing more people every year than all war and violence.

(<http://www.cbc.ca/news/health/pollution-worldwide-deaths-1.4363613>)

OIL POLLUTION OF WATER IS KILLING SOUTH SUDAN

BY TERRY SWARTZBERG (FOR WWW.SOUTHSUDAN.COM)



PhotoCredit: <http://www.marcofiliauro.com>

Systematic, independent, long-term and in-depth research indicates that one major cause of South Sudan's among the worst-in-the-world health crisis is the poisoning of the country's groundwater by unscrupulous oil companies.

Pollution, health, and the planet: time for decisive action was published by the Lancet, one of the world's most respected medical journals, on October 19, 2017.

This report details the toll exacted by air, water and in situ pollution on human health. Its conclusion: deaths a year. This makes pollution the number one killer of humans, according to the WHO.

<http://www.who.int/mediacentre/factsheets/fs310/en/> .

Pollution is thus deadlier than the world's wars, smoking, malnutrition and many other causes.

Pollution is most killing when viewed on a per capita basis - in five countries in Africa. Number four is South Sudan.

This would seem surprising. South Sudan lacks the dirty manufacturing facilities and dumps engendering and containing toxic agents that have earned other countries these high and unenviable rankings. Nor does South Sudan have the huge populations and the congested mega-cities in which they cluster found in other top placers. South Sudan does, of course, have oil. Lots of oil. At around 7 billion barrels, the country's reserves are the 20th largest in the world. Pumping of oil began in 1993, and peaked in 2005 at nearly 500,000 barrels a day.

The ongoing civil war has reduced this down to a trickle 130,000 barrels a day. At October 11-12, 2017's South Sudan Oil & Power 2017 conference, the South Sudanese government announced plans to turn this around, and to ramp up production of oil to an unprecedented level. In early November, Nigeria's Otranto Petroleum started realizing these plans.

The company launched the development of a 24,415-square kilometer-large block believed to contain billions of barrels of oil heading towards one of the biggest catastrophes for humankind and the environment. Reacting to the Lancet's report on fatalities due to water pollution worldwide of pollution, human rights expert and deputy chairperson at the Konstanz, Germany-based Hoffnungszeichen Sign of Hope, says:

" Should these plans be realized without fundamental adjustments and rethinking, the severity would be similar to those of the oil catastrophe in the Niger Delta" warns Klaus Stieglitz

Water pollution is killing the South Sudanese at levels shared by only five countries in the world. Pollution.org (www.pollution.org) puts the number of water pollution-caused fatalities a year per one million inhabitants in South Sudan at 2,602 the fourth highest total in the world.

The question arises: what kinds of water pollution are killing the South Sudanese? The first link in the chain was the noticing of a marked deterioration in the health of residents who lived in the vicinity of Thar Jath. This deterioration was recognized by staff working at local clinics, who began treating residents for new, chronic and alarming severe ailments.

The next link was the determination of these patients' having something in common

STATEMENT FROM MAUDE BARLOW, ONE OF THE WORLD'S MOST RESPECTED "WATER EVANGELISTS"

Water pollution is deadly. Oil-rich South Sudan is showing us how deadly. As The Lancet report eloquently documents, water pollution has become one of the worst killers of humanity. This especially holds true in South Sudan, whose main problem is

wastes spewing out of oil fields.

Proof that these wastes are behind South Sudan's fourth-worst-in-the-world rate of water pollution-caused deaths has been provided by the scientists gathering data on-site. This data is presented in a new report, which is must reading for all environmentalists and other friends of South Sudan. I commend German NGO Sign of Hope and the scientists working with them for their brave, caring and thorough campaign for clean water in South Sudan.

STATEMENT FROM NNIMMO BASSEY:

Nigeria, South Sudan...oil is poisoning Africa's water, politics, lives

The situation in Africa is truly worrisome. What is even more troubling is that, despite reports like the attached,, actions are not being taken to address oil's dumping of its wastes into the continent's water and on to its land. Nigeria's pollution debacle continues. Thousands of barrels of 'produced water' - laden with heavy metals and other poisons - are being dumped daily into the environs of the oil fields located in the Niger Delta in Nigeria. People are dying because of this. Life expectancy stands at a mere 41 years in the region - the lowest in the country. And now the same thing is taking place in South Sudan, which, thanks to oil wastes, has the fourth highest rate of water pollution-caused fatalities in the world. A good place to start would be the taking of urgently-need measures to stop wastes from getting into surface and ground water situation in and around oil fields and nearby communities. Any delay will simply compound the disaster.

*See more at <http://forsouthsudan.com/wp-content/uploads/2017/11/Lancet-PR-2.pdf>
See the Lancet Report at <http://www.thelancet.com/commissions/pollution-and-health>*



POWER SHIFT! ENERGY ACTIVISM TO GO GLOBAL IN 2018

UNPRECEDENTED WORLD-WIDE ALLIANCE TO
ESCALATE AND EXPAND ENERGY CAMPAIGNS

On the sidelines of the UN Climate Summit an unprecedented global alliance of civil society groups warned that 2018 would see an escalation of activism against polluting dirty energies.

The alliance, known as Reclaim Power, sports representatives from over 75 countries across every continent and has already coordinated on over 2000 protests and events calling for the transformation of energy systems as a key step in addressing climate change. The groups now say they will be stepping up their efforts significantly in 2018.

According to **Lidy Nacpil** of the Asian People's Movement on Debt & Development. “The time to flick the switch on the energy transformation is now. People in the Americas know it, in Africa they know it, we know it in Asia. With that knowledge, we are going to step up our efforts and issue clear and specific demands to our governments”

The alliance is united around a set of demands focused on changing the energy system from its existing climate-polluting structure to one that addresses the energy needs of billions of people who do not currently have enough energy for basic needs without burning the planet.

“The extreme weather we've seen this year is planet earth flashing us a red warning sign. We are going to add human voices to sound the alarm” said **Joseph Zane Sikulu of the Pacific Warriors**.

“We are issuing demands that will unify people everywhere who want to see action on climate change and an energy system that serves the many, not the few. These are the basic non-negotiables we need to see happen in order to urgently change our failing and unjust energy systems” said **Nnimmo Bassey of Health of Mother Earth Foundation**.

“We have to make sure that the goal of 100% renewable energy is backed up with real plans and with real money and real technology so that this goal becomes a reality for every single person on this planet” said **Sarah Strack of CAN-International**.

“We will stop dirty energy projects by abandoning dangerous projects, banning harmful energy types like fracking, and closing the tap of public handouts to the causes of climate change like coal plants and oil pipelines” said **Dipti Bhatnagar of Friends of the Earth International**.

“We will not be fooled by corporations that are lobbying to replace the fuels that cause climate change with other just as dangerous impacts like nuclear, mega-hydro dams, and biofuels” said **Asad Rehman of War on Want**.

“Corporations who profit from polluting our planet, and the governments that enable them, will face pressure on all sides in 2018. They're raising the heat of the planet and we're going to raise the heat on them” said **Jesse Bragg of Corporate Accountability**

The Demand

TOWARDS TRANSFORMING ENERGY SYSTEMS & KEEPING GLOBAL TEMPERATURES BELOW 1.5°C

Before the end of 2018 governments must:



- 1 COMMIT** to 100% renewable energy for all, to be achieved not later than 2030 for developed countries and as early as possible before 2050 for developing countries.
- 2 PLEDGE** the finance necessary to build democratic, renewable energy systems for communities, ensure a just transition, provide universal access to energy, support demand side reduction and energy saving measures.
- 3 AGREE** to an international moratorium on new coal projects to be implemented no later than January 2019.
- 4 BAN** fracking and adopt a global moratorium on new fossil fuel exploration and extraction techniques starting in 2018.
- 5 STOP** large and dangerous energy projects, examples of which include:
 - The Cirebon coal project in Indonesia;
 - The Adani Carmichael coal mine in Australia;
 - Offshore oil drilling in Lofoten, Norway;
 - The Dakota Access Pipeline in the U.S.;
 - The Rositas and Chapete mega-dams in Bolivia;
 - Offshore gas drilling in Mozambique;
 - Fracking in the Guarani Aquifer in South America
- 6 ANNOUNCE** a phase out of public subsidies for fossil fuels to be completed by 2020 for all developed countries and the international institutions that they fund and by 2025 for all developing countries.
- 7 WITHDRAW** all public financing of large-scale biomass burning, agrofuels, mega-dams and waste incineration by 2018.
- 8 ADOPT** conflict of interest policies and prohibit industries who profit from fossil fuels and the climate crisis from participating in international and national climate policy forums.

WWW.RECLAIMPOWER2017.NET

NGO BLAMES WATER POLLUTION IN SOUTH SUDAN ON OIL COMPANY

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There is indeed water problem in South Sudan as both underground and surface water have been contaminated, making access to potable water difficult. According to Klaus Stieglitz, He stated that "In 2007, one of our project partners informed us that the water tasted bad," he said. Stieglitz and his colleagues at the aid organization "Sign of Hope" went ahead to investigate the situation in South Sudan. They collected water samples near the oil fields in Thar Jath in Unity State. The analysis showed that the taste was the smallest problem. Water from some wells had a salt content almost four times higher than allowed.

Now Sign of Hope has presented the results of another study in Berlin. It is based on analysis of 96 hair samples collected in four locations. Toxicologist Fritz Prangst evaluated the results. The professor from the Institute of Legal Medicine and Forensic Sciences at Berlin's Charite Hospital, says the findings represent "a threat to the population."

Traces of lead and barium

Samples from the areas around the oil fields

were full of lead and barium. The worst hit location was Koch, 14 miles away from the oil field. The exposure to lead there was four times higher than the average. On the other hand, In Rumbek, about 137 miles away, it was much lower.

The continuous intake of both metals can lead to dramatic consequences, for example, anemia and kidney failure. Lead poisoning can also affect the nervous system. "It can lead to serious symptoms like intelligence deficiency, paralysis and psychological problems," said toxicologist Prangst. The hair samples, nevertheless, do not prove that people around the oil fields constantly consume both metals. This would require blood tests, Prangst says.

It is clear to him how the heavy metals got into the drinking water and from there into people's bodies. "There has to be a connection to the processes which take place during oil tapping and production," Prangst told DW. Both substances are used during oil production.

The aid organization Sign of Hope presented photos showing large holes full of mud from drilling. From there, the poisonous substances were able to seep into the ground and end up in drinking water. "From our point of view, the culprit is the oil industry that does not dispose of its waste in a proper way," Klaus Stieglitz said.

HOW IS DAIMLER INVOLVED?

The oil field in Thar Jath is run by a pool of companies. The main shareholder is the Malaysian oil and gas company Petronas. DW's efforts to contact the company went unanswered. Sign of Hope says it has been in talks with Petronas and the South Sudanese government for years. However, for the population, the situation has not improved, the organization added.

Klaus Stieglitz had put his hopes on Daimler. Petronas sponsors the group's Formula 1 team to the tune of up to 40 million euros, according to press reports.

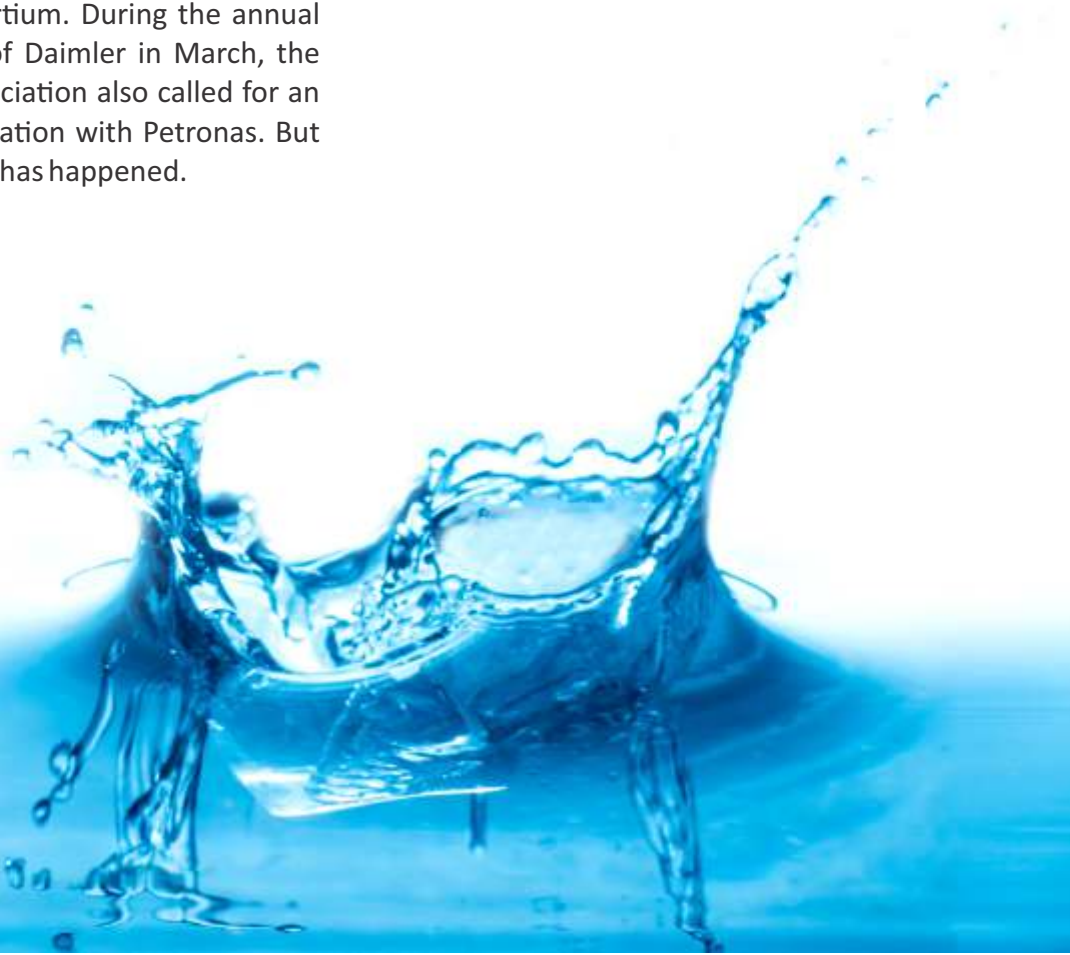
In 2015, representatives of Sign of Hope met with Daimler, the South Sudan government and the oil consortium. During the annual general meeting of Daimler in March, the shareholders' association also called for an end to the cooperation with Petronas. But since then nothing has happened.

The allegations against Petronas are being taken seriously, Daimler told DW. In a written statement Daimler said that Petronas had given it an assurance that it was holding direct talks with the people involved and with those responsible on the ground and that they were working together to clarify the facts of the matter and establish where the responsibility lay and if necessary would introduce ways to improve the situation in South Sudan.

According to Petronas, the process is being hampered by the civil war. Last year the company pulled out its employees after violent clashes.

Nevertheless, Sign of Hope has a clear idea of how Petronas should act in the case of Thar Jath. "We expect Petronas to accept responsibility for what they did there," said Stieglitz. He wants Petronas to provide the people with clean drinking water as well as medical help.

From: <http://www.dw.com/en/ngo-blames-water-pollution-in-ssudan-on-oil-company/a-38906882>





“CLIMATE CHANGE: OUR LAND, OUR FOOD”

— COMMUNITY DIALOGUE HELD IN ABUJA

On the 28th of September 2017 Health of Mother Earth Foundation (HOMEF), held a Community Dialogue in Aco, Abuja with farmers, herders, civil society members and the media. It was held in a natural atmosphere, under one of the oldest trees in Aco Estate.

In his welcome words, the director of HOMEF addressed “Climate Change: Our Land, Our Food”, and stated that climate change destroys the environment, especially soil and vegetation, promoting migration by herders from drier to greener ecozones, a factor responsible for conflict and violence between farmers and herders in Nigeria.

According to him: when the soil is good, the harvest will be good. The kind of agriculture that can withstand climate change is the one that agrees with nature. When you employ foreign technology, it will destroy local knowledge, crops and food systems. We have our sustainable local knowledge which should be valued and employed as it

is practiced in Niger and Burkina-Faso where farmers are using local technology to stop the desert in adaptation to the changing climate.

Our very profound and interactive resource person from Kenya, Ikal Angelei of Friends of Lake Turkana, spoke heartily that food is the cause of many conflicts. Another cause of conflict is access to water. She said pastoralists are moving from dry to wet land areas due to the shortage of water and fodder. She underscored the importance of local knowledge, its documenting and sharing. She also stressed that people must always be part of finding solutions to their problems, because if they do not participate in the process, whoever proffers the solutions will ultimately will control their future, including land, crops and food production.

“And if you do not control your land, crop, and food, you have lost your future”, she said.

Interactive Session

One of the participants, Chief Nicholas Chibueze, (Chairman of cassava growers in Abuja) appreciated the need to respect, develop, employ, and share local knowledge in farming which is in sync with nature in adapting to climate change.

Hossaini Hassan, participant from CORET lamented the unfortunate conflict between the farmers and herders which shouldn't be if a forum like the Community Dialogue is promoted and expanded. "When pastoralism is mentioned in Nigeria, it sounds evil. Herders are not evil; they only need where to raise and care for their animals." He also regretted that pastoralism is often ignored when government talks about agriculture.

Another participant added that Abuja Airport highway used to be herdsman's route, which has now become a prohibited route for them and when they go into the bush, they are accused of destroying crops. They however, agreed that there are some bad elements among the herders giving the herders a bad image.

on the questions as to how the problem between the herders and farmer can be resolved, Ikal responded that climate change is a major reason for the conflict. "We are united by nature," she stated. "Instead of fighting each other, farmers and herders can start discussing mutual relationship where the farmers would invite the herders to graze on their land during

fallow periods and thereby fertilize the soil with animal wastes. This way, both farmers and herders would benefit from shared territories."

The failure to see climate change as a major factor responsible for the violent conflicts between herders and farmers in Nigeria is a serious challenge. More so, as Nigeria's climate is likely to witness growing shifts in temperature, rainfall, storms, floods, and rise of sea levels, the climatic challenges, if unaddressed, will continue to have serious negative effects on food production and land conflicts.

Participants at the Dialogue agreed to have further meetings and to include more farmers and herders as well as other stakeholders. They also agreed that farmers and herders do not need to be in conflict as they can cooperate in ways that are mutually beneficial. Documenting, sharing and respecting local knowledge and experience are essential for adaptation and building of resilience to global warming.

As the meeting ended, participants echoed the words of Ikal Angelei: "We are the solutions. Always be part of finding solutions to your problems, because if you do not participate in the process, whoever proffers the solutions will ultimately will control your future, including land, crops and food production."

NIGERIA DESERVES UNBIASED BIOSAFETY REGULATORY SYSTEM

— BASSEY-OROWUJE



photo credit: freepik.com

It has become the norm for the Nigerian biosafety chief, Dr Rufus Egbeda, to rise to the defense of genetically modified organisms (GMOs). This was my response to some participants (not Nigerians) at a high profile meeting, who also saw this article published on Premium Times “Nigeria biosafety chief defends GMOs” on October 9, 2017, and were visibly alarmed that a regulatory officer would be promoting GMOs, when he should be the umpire. In fact, one said: “This couldn't happen in my country.”

I am taken aback with some of his statements such as, “Genetically modified organisms are not different from their conventional counterparts.” If this was true, why would GM promoters or scientists go into so much trouble of inserting activated toxin genes from the soil-living bacterium *Bacillus thuringiensis* (Bt) into some crops? When the NBMA boss admits that the crops are “modified,” how can these “modified” crops be the same with their natural, untainted, conventional counterpart?

Monsanto adduced the same arguments in their application to bring in their GM Maize to Nigeria. They asserted that their maize is

equivalent to conventional maize. As we have said in many quarters, and we will say it again, the theory of “equivalence” is a worn out argument that has been discredited by independent science, including in a joint South Africa-Norway Biosafety project published in 2011.

Monsanto's Maize application to NBMA was accompanied with a cocktail of chemicals – glyphosate formulations which will be applied to MON 89034 and NK603 (Maize). Contrary to Monsanto's claims of its safety, the International Agency for Research on Cancer (IARC), a sub-unit of the World Health Organisation (WHO), concluded that there was strong evidence of genotoxicity and oxidative stress for glyphosate entirely from publicly available research, including findings of DNA damage in the peripheral blood of exposed humans. In a nutshell, the agency said glyphosate is likely to cause cancer.

On October 19, 2017, against all odds and despite industry scaremongering and pressure, the proposal to fully ban glyphosate by 2020 went through EU Parliament Environment committee.

That means the EU Parliament environment committee supports glyphosate ban by 2020.

Let us be reminded that the BT cotton, another of Monsanto's application that had been rejected in Burkina Faso for failure to deliver good quality yield, one of the hyped promises from Monsanto. It was that same failed variety that was recycled and submitted here in Nigeria, and was approved by NBMA possibly to mark its first year of existence. Many reports of this Bt cotton's abysmal failure abound. In the words of Parshuram Ghagi, from Yavatmal district in India, whose relative died of pesticide poisoning, "Bt Cotton resistance claims have proven hollow."

Dr Sharad Nimbalkar, former Vice-Chancellor of Dr Panjabrao Deshmukh Krishi Vidyapeeth, states unequivocally, "Bt Cotton variety in use has lost its potency. Besides, pests become resistant to even the pesticides over a period of time. As a result, the number of sprayings required to save the crop has increased."

A new peer reviewed analysis "GMO Bt toxins: Safe for people and environment or super toxins?" systematically compares GMO and natural Bt proteins and shows that GMO developers, in the process of inserting Bt toxins into crops, have removed many of the elements contributing to this narrow toxicity.

Thus developers have made GMO insecticides that, in the words of one Monsanto patent, are "super toxins". The authors of these review additionally concluded that references to any GMO Bt toxins being "natural" are incorrect and scientifically unsupportable.

It is worrisome to read that the Biosafety Chief said "that cowpea and sorghum were presently being tried at the Institute of

Agricultural Research in Zaria,...also another product under trial called the 'newest rice' by the National Cereal Research Institute, Badegi." Is this for real?

Aside from applications for Bt Cotton (MON 15985) and Confined Trial (1) NK603 AND (2) MON89034 X NK603 Maize, and most recently the AMY3 RNAi Transgenic Lines (transgenic Cassava Clones) by International Institute for Tropical Agriculture (IITA) and ETHZ Biotechnology Lab in Zurich, that were announced by NBMA, there is no clarity on how other staples, cowpea (beans), sorghum, rice, all major Nigerian staple food, are being genetically modified and on field trials in Nigeria.

When did the trials for cowpea, rice and Sorghum begin? Which institution(s) or corporation(s)/companies, laboratories are collaborating with the said institutions doing the trials? Under what laws were these trials authorised?

How come it was not subjected to public comments like the case of the cotton, maize and cassava as provided by section 25(1) National Biosafety Management Agency Act 2015 which states:

"The Agency shall upon the receipt of the application and the accompanying information under section 23 of this Act, display copies of such application and relevant information at such places and for such period as the Agency may, from time to time determine to enable the general public and relevant government ministries and agencies study and make comments on the application and relevant information within 21 days.

The director-general, therefore, urged citizens to view genetically modified organisms from a knowledge angle and ignore statements that paint it as harmful."

Earnestly, is Nigeria's chief biosafety regulatory officer saying that GMOs pose no harm or risks? GMOs are basically regulated because their safety is in doubt. If indeed GMOs are safe, why should we have a regulatory agency?

In 2010, the American Academy of Environmental Medicine warned that evidence is strong enough that GMOs directly cause health harm to warrant warning people to avoid eating them. The academy noted that numerous studies and incidents have suggested that GMOs can cause problems including immune dysfunction, insulin disorders and damage to organs and the reproductive system.

Also, in the earlier peer review studies, "GMO Bt toxins: Safe for people and environment or super toxins?", the authors said, "Ciba-Geigy measured its Bt 176 toxins to be 5-10 times more toxicologically active when inserted into plants. Monsanto patented a series of novel Bt toxins with up to 7.9-fold enhanced activity and called these 'super toxins' having 'the combined advantages of increased insecticidal activity and concomitant broad spectrum activity'. The most powerful of these is now found in commercial MON863 corn."

I dare to say that agroecology is the bold future for farming in Nigeria and Africa as a whole. Let us keep those toxic chemicals, pesticides and insecticides, and all those imported solutions out of our food and agricultural systems and out of our plates.

Nigeria deserves a biosafety regulatory system that is unbiased, pro environment and pro people. I am afraid that NBMA as presently set up and run is skewed in favour of GMOs. Going by the incessant statements of the Director General, the NBMA cannot be an unbiased referee, as its clear it is already flying the colours of the pro-GMO train.

Mariann Bassey-Orovwuje (Lawyer; Chair, Alliance for the Food Sovereignty in Africa (AFSA); Coordinator, Food Sovereignty Programme for Friends of Earth Nigeria and Africa)

FROM COP23



NIGERIA: HOW WE'RE IMPLEMENTING CLIMATE CONTRIBUTIONS

To ensure the timely implementation of its Nationally Determined Contributions (NDC), Nigeria says it has developed a robust National Sectoral Action Plan across the five priority sectors, which are: agriculture, energy, transportation, industry and oil & gas.

The West African nation added that it had also embraced issuance of green bond, ostensibly as climate infrastructure needed in the country.

The submission formed part of the Nigerian National Statement delivered by the Environment Minister of State and Head of Delegation, Ibrahim Usman Jibril, on Thursday, November 16, 2017 at the 23rd Session of the Conference of the Parties (COP23) to the United Nations Framework Convention on Climate Change holding in Bonn, Germany.

The minister added that this would also manifest in renewable energy, low carbon

transport, water infrastructure and sustainable agriculture. He disclosed that Nigeria would launch the first “Sovereign Green Bonds” in Africa in the coming weeks. “Similarly, we will continue to show a profound interest in contributing to effective global action on climate change,” he said, adding that science has proved beyond reasonable doubt the certainty of the phenomenon.

“So, we must stand united to ensure that the outcome of this Conference comprehensively address what we need to do as prescribed by the Paris Agreement to deal with fundamental challenges of climate change. We are prepared to work with all Parties, in the spirit of collaboration and cooperation with a view to achieving the outcome that will be universally agreeable and beneficial to mankind of all generations,” said the minister.

According to him, up-scaling funding to address the impacts of climate change on livelihoods and ecosystems through an over-arching financial architecture to finance adaptation and mitigation

guidelines of the Paris Agreement well ahead of the 2018 Session including accelerating the implementation of the pre-2020 commitments and actions and increasing the pre-2020 ambition in



measures is of high priority to Nigeria.

“This should include implementing the gender action plan under the Lima Work Programme on Gender,” he stated, adding that Nigeria is firmly committed to seeing that current areas of contentions with respect to the financial mechanism, adaptation framework and institutional arrangements, technology transfer and capacity building are resolved to the benefit of all Parties.

“We need to urgently move to remove barriers that impede developing countries from effectively accessing global climate finance such as the Adaptation Fund, and the Green Climate Change Fund (GCF), amongst others,” declared the minister. We called for a focused session that would, according to him, make substantive progress through constructive discussions across all areas of the Paris Agreement work programme “in a balanced manner to enable us come up with a first-hand information on the implementation

accordance with paragraphs 3 and 4 of decision 1/CP.19.”

He added: “We welcome the 'Talanoa Dialogue' and seek your guidance and direction as we proceed in the spirit of collaboration and trust in line with the Paris Agreement. This will lead us collectively to a common ground for a successful 2018 facilitative dialogue. Nigeria also shares the same circumstance and views with African member states in terms of NDC implementation capacities.

“We are not in any way proposing to re-open the land mark Agreement but we support the call from the African member States that the best way to proceed is to show a demonstration of flexibility for African countries on climate change actions based on the principles and provisions of the convention and to ensure that differentiation is clearly reflected.”

From:

<http://www.environewsnigeria.com/implementing-climate-contributions-nigeria/>



INTERNATIONAL RIGHTS OF NATURE TRIBUNAL

FINDS LEGAL SYSTEMS INCAPABLE OF PREVENTING CLIMATE CHANGE AND PROTECTING NATURE.



The 4th session of the International Rights of Nature Tribunal, held concurrently with the 23rd United Nations Framework Convention on Climate Change Conference of Parties (COP23), exposed the significant role which legal systems play in enabling climate change and global environmental degradation. The Tribunal heard seven cases from around the world which collectively demonstrated that global and national climate change commitments cannot be met without fundamental changes to the legal systems which legalize the activities that cause climate change and the destruction of the ecological systems on which life depends.

This is a global problem- one of the cases concerned a massive lignite mine approximately 50 kms from the COP 23 negotiations.

The Bonn Tribunal consisted of 9 judges from 7 countries, and was presided over by the prominent indigenous climate and environmental justice leader, Tom Mato Awanyankapi Goldtooth. Over the course of two days, 53 people from 19 countries speaking over 7 languages presented cases regarding violations of the rights of Nature.

A range of experts who testified before the Tribunal explained that whatever is agreed at the COP 23 and subsequent meetings, action to combat climate change will be ineffective while governments continue to authorise coal mines, oil wells and hydraulic fracturing ("fracking"), and the mining of groundwater, and allow corporations to use investor state dispute settlement mechanisms in trade agreements to prevent the taking of effective measures to protect life.

Witnesses gave first-hand accounts of what it is like to live near fracking operations, oil wells and refineries, and coal mines, about how those who defend Mother Earth are persecuted, attacked, criminalized and have their homes burnt. It heard of the anguish of indigenous and other peoples from local communities who live in intimacy with Nature as it is destroyed by roads, mines or industrial agriculture in order to benefit a small elite.

Indigenous peoples from around the world played a prominent role throughout the Tribunal as experts and witnesses.

The Tribunal opened with deeply moving ceremonies and evocations of Mother Earth by representatives of the Sámi people of Europe, the Sarayaku community in the Ecuadorian Amazon, and the indigenous peoples of North America. Indigenous peoples from Africa, Russia, Bolivia, Ecuador, French Guyana, and the USA/Turtle Island presented testimonies that drew the Tribunal's attention to the sacredness of Earth – a dimensions ignored in the COP 23 negotiations.

The Tribunal found that in each of the seven cases, serious and systematic violations of the Universal Declaration of the Rights of Mother Earth (UDRME) had occurred, often accompanied by human rights violations, and in several cases the harm was so severe as to constitute ecocide. In each case the legal system did not provide adequate remedies to prevent on-going harm.

In most cases the harm was caused by activities such as deforestation and mining which could only take place because they had been authorized by law.

It was abundantly clear those legal systems that elevate property rights and the rights of corporation above the rights of water, air and ecosystems to exist and contribute to the ecological health of the planet, are exacerbating climate change by clothing destructive activities in a cloak of legal legitimacy. The Tribunal noted that carbon, biological and conservation offsets and ecosystem services are financialisation processes that enable Nature to be privatized, commodified and traded in financial market systems. Carbon markets are false solutions that do not cut emissions at source.

THE TRIBUNAL AND PANEL OF JUDGES

The Tribunal considers cases from the perspective of what is in the best interests

of the Earth community as a whole, and hears cases involving alleged violations of the UDRME and international human rights law. The Tribunal was established in 2014 by the members of the

Global Alliance for the Rights of Nature and was formally constituted in 2015 in Paris when a wide range of civil society organizations and indigenous communities signed a Peoples' Convention to establish the Tribunal. Cases are heard by a panel of eminent legal and environmental experts from around the world. The Bonn panel consisted of 9 distinguished judges from 7 countries: President -Tom Goldtooth (Indigenous Environmental Network, Turtle Island - USA); Osprey Orielle Lake (Women's Earth and Climate Action Network - USA); Alberto Acosta (former president of the Constitutional Assembly - Ecuador); Fernando "Pino" Solanas (senator, Argentina), Ute Koczy (Urgewald E.V., former Parliamentarian, Germany); Cormac Cullinan (Wild Institute Law- South Africa); Simona Fraudatorio (Permanent People's Tribunal, Italy); Shannon Biggs (Movement Rights, USA), Ruth Nyambura (African Biodiversity Network- Kenya).

CASES HEARD BY THE TRIBUNAL IN BONN

CLIMATE CHANGE AND FALSE ENERGY SOLUTIONS.

Expert witnesses testified about how corporations such as Exxon not only profit from activities which they know cause dangerous climate change, they have also deliberately promoted false solutions to climate change (e.g. nuclear energy and gas from fracking operations) and are impeding the introduction of renewable energy and other climate change mitigation measures. In some cases, corporations have spread false propaganda about indigenous peoples and others opposing the fossil fuel industry.

The Tribunal heard disturbing evidence from witnesses about the severe health impacts of living in places polluted by the coal, oil and gas industries.

Evidence was presented about how energy industry operations had contaminated water, air and ground in many parts of the world in violation of the rights of Mother Earth and of human rights. Witnesses from Mauritius and Texas gave evidence of the impacts of severe hurricanes and cyclones caused or exacerbated by climate change. For example, in the aftermath of Hurricane Harvey, homes were damaged, environmental restrictions were suspended and people had to breathe toxic fumes.

The Tribunal found that gas extraction by means of hydraulic fracturing (“fracking”), nuclear energy and carbon markets are all false solutions used to delay the transition to low-carbon societies. For example, fracking “breaks the bones of the Earth” and only perpetuates the destructive dependence upon oil, and gas. Carbon trading commodifies nature and allows the wealthy to buy the right to exceed national emission limits. The Tribunal decided that promoting and undertaking these activities violates the rights of Nature, including the right to integral health.

FINANCIALIZATION OF NATURE AND THE REDD+

Evidence was presented that REDD+ (Reducing Emissions from Deforestation and Forest Degradation) framework and other carbon market frameworks and payment for ecological services have resulted in more ecological destruction and pollution and facilitated the establishment and continuation of destructive industries. Witnesses explained how systematic mechanisms, such as REDD+ were resulting in indigenous and local peoples who had not degraded their lands being displaced and losing their rights in order to enable a

polluting company elsewhere in the world to continue exceeding air emission limits.

The Tribunal found that that systems such as REDD+ that commodified Nature failed to recognize the reality that human beings are an integral and inseparable part of a living Earth community and that the exploitation, commodification and financialization of Nature is detrimental to all. Those who established these systems or who traded in carbon or biodiversity “credits”, were violating the rights of Nature and failing in their duty to ensure that the pursuit of human wellbeing contributes to the wellbeing of Mother Earth.

LIGNITE MINING IN THE HAMBACH FOREST

Witnesses gave evidence of how a massive lignite mine near Bonn has created the largest hole in Europe, and as it expands is destroying whole villages and the ancient Hambach forest.

The forest has existed for 12,000 years, contains 800 year old trees and is home to 142 protected species. Only about 7 square kilometres of the original 60 square kilometres are left. The Tribunal heard evidence about how burning the lignite from the mine will exacerbate global warming and cause severe pollution and health risks as well as diminish and pollute the groundwater which sustains the forest and other ecosystems.

It also heard evidence from young people who are living high up in the trees in an attempt to protect them from destruction, and of how they now have an intimate relationship with the trees and the forest. The Tribunal found that further expansion of the mine must be stopped immediately, that the site should be rehabilitated as far as possible and that Germany should recognize the rights of Nature in law in order to prevent such projects in the future..



The Tribunal also drew attention to the fact that it is necessary to cease all coal mining as soon as possible in order to mitigate climate change, and particularly its effects on future generations.

DEFENDERS OF MOTHER EARTH

The UDRME requires all human beings and institutions to defend the rights of Mother Earth and of all beings. Evidence from around the world exposed the wide-spread disregard for this duty and how people, particularly indigenous peoples, in the United States of America, Russia, Latin America and Africa are being persecuted for defending Nature from harm. In many cases the persecutions of indigenous peoples

such as the Sámi peoples over long periods of time were clearly designed to destroy cultural understandings and practices that respect and protect the rights of Mother Earth and other beings. Witnesses who testified included water protectors from Standing Rock in the United States, and representatives of indigenous peoples from Sweden (Sámi), and Russia (Shor).

The Tribunal heard how indigenous people using peaceful means to defend water and Mother Earth are met with violence as governments protect corporate interests as occurred at Standing Rock.

The Lakota Sioux tribe was never adequately consulted about the construction of the Dakota Access Pipeline across their land. The evidence showed that the pipeline would diminish the quality of life of indigenous peoples minorities, specifically in relationship to the sacredness of water and sacred and cultural significant areas.

The Tribunal noted the ongoing history of systemic violations of the rights of the indigenous peoples. And reiterated that everyone has the duty to defend those who protect the rights of Mother Earth and to break the pattern of violation and abuse of indigenous peoples.

ALMERIA—DEPRIVATION OF WATER

In the Almeria waters case the Tribunal found that the abstractions of huge quantities of water from aquifers in the Almeria region of Spain, primarily to irrigate large-scale intensive olive plantations is a violation of the rights of the rivers and ecological systems of Almeria, and a violation of the human rights of local peoples.

The Spanish State and the government of Almeria must act immediately to stop the abstraction of groundwater to enable the ecosystems to recover, and the intensive cultivation of olives in Almeria must cease.

This case illustrates the consequences of treating water as a commodity that can be monopolized by the wealthy instead of recognizing water as a vital source of life, which must be respected and afforded the highest level of protection. Although this case focused on a specific area, it is an example of what is happening in many areas of the world, and the principles are universal. Those human societies that do not respect water as life and which fail to

take whatever measures are necessary to protect the ecological systems and cycles that generate water, destroy life and ultimately destroy themselves. Water is priceless - societies that sacrifice water sources for money, will pay a terrible price.

THREATS TO THE AMAZON

The Tribunal decided to hear a number of cases from different parts of the Amazon simultaneously in order to consider threats to the Amazon ecosystem in a holistic way. It heard evidence of widespread violations of indigenous rights and the rights of Mother Earth throughout the greater Amazon region.

This included testimony about the huge mine proposed in French Guyana, and from communities in Brazil, Bolivia and Ecuador. It is clear that this vital ecosystem that is a reservoir of life, home to many peoples and an essential part of maintaining global climatic stability, is being subjected to many attacks which violate its right to exist and maintain its vital cycles.

The extractivist global model inevitably results in violations of the rights of the Amazon as a whole and diminishes the quality of life of all organisms in the region. The Tribunal heard allegations of violations of the rights of Mother Earth arising from the proposed construction of a major road through the TIPNIS protected area in Bolivia and from mining and oil exploitation in the area. Evidence about the victimization and intimidation of those opposing the construction of the road was also placed before the Tribunal. The Tribunal noted this evidence with great concern, particularly because the Universal Declaration of the Rights of Mother Earth was proclaimed in Bolivia in 2010 and Bolivia has championed rights of Nature internationally.

The Tribunal decided that it wished to gather more evidence from all concerned, including the State of Bolivia, and if possible to send a delegation on a fact-finding mission to Bolivia. It also decided to request the Bolivian government to impose a moratorium on construction of the proposed road and bridges through TIPNIS and on further oil exploration in or near TIPNIS, until the Tribunal has completed its work. The Tribunal was of the view that the imposition of such a moratorium would be an appropriate precautionary measure to avoid possible violations of rights of Mother Earth while a resolution to this dispute is being sought.

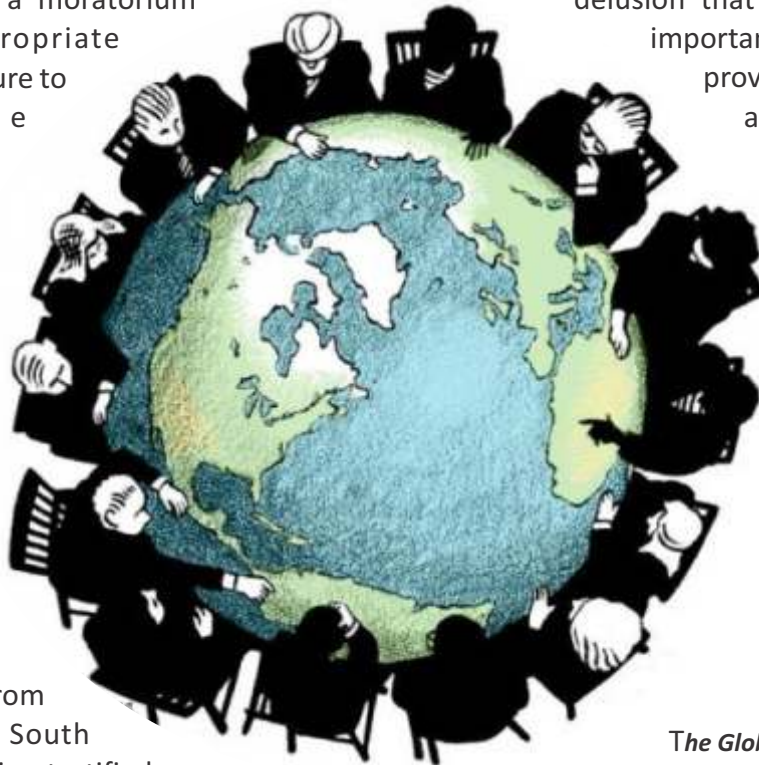
TRADE AGREEMENTS AND THEIR IMPLICATIONS ON NATURE

Expert witnesses from Canada, Germany, South Africa and Puerto Rico testified that Free Trade Agreements (FTAs) are the drivers of an unsustainable economy based on fossil fuels, privatization, commodification and legalized enslavement of all life on Earth. FTAs are legally binding and take precedence over non-binding commitments made under the Paris Agreement. States can even be prevented from passing new laws to protect ecosystems if the tribunals established under Investor State Dispute Settlement Mechanisms (ISDSMs) in FTAs decide that they are “barriers to trade”.

Indigenous peoples pay the highest price under schemes like NAFTA. Because they

have protected and live close to the land, they are targets for displacement in the quest for pristine untapped “resources” for drilling, clear-cutting water mining, etc. For example, 50% of the groundwater has already been depleted in NAFTA affected areas in Mexico.

The Tribunal found that Free Trade Agreements result in systemic violations of the Rights of Nature and are based on the delusion that trade is more important than life. The provisions of these agreements must be regarded as null and void to the extent that they conflict with the rights and duties in the UDRME.



The Global Alliance for Rights of Nature (GARN) is a network of organizations and individuals committed to the universal adoption and implementation of legal systems that recognize, respect and enforce “Rights of Nature – see <https://therightsofnature.org/> The Universal Declaration of the Rights of Nature is available at <http://therightsofnature.org/universal-declaration>



CLIMATE CHANGE, PASTORALISM, LAND AND CONFLICTS

Photo Credit: <https://upload.wikimedia.org>

Conflicts and the Idea of Land Ownership

Our conception of ownership of any piece of the Earth depends largely on our relationship with the Earth.

When land is treated as a commodity, seeing it as an article of trade becomes inevitable. This is the driver of the call for the formalization of land titling and ownership, a means of personal acquisition and dispossession of others based on the strength of the individual's financial or political strength. In this context, the value of land is seen in its geology or fertility.

When land is seen as territory, or through a communal lens, the idea of private ownership or trading of land becomes unthinkable, because, in this case, land is a vital piece of cultural artefact and not just as an object of exploitation, trade or transformation. In other words, you can sell land, but you cannot sell territory. Seeing

land as a non-tradable object consolidates the notion of persons as sons or daughters of the soil, as inextricably tied to their territories in all ramifications – including socio-culturally.

Farmers and pastoralists see land in distinctly different ways than speculators and governments do. Consider the idea of laws governing land as a resource. Whereas communities of peoples, whether farmers or pastoralists see land as an integral part of their lives, economic reproduction and culture, governments see land as a thing that should be appropriated and utilized mostly for its economic value. Nigeria's Land Use Act of 1978 concretizes this concept and takes the sense of oneness with the soil away from vast numbers of our peoples.

With a stroke of the pen, government can dispossess and displace individuals or communities from their territories, take over or hand over to others. However, government does not just take over lands, those who had claims over such territories are compensated for their loss.

This compensation is for economic crops or improvements that such persons may have brought to the land. Improvement or transformation – that is the key. And where nothing of the sort is found on the land, the dispossessed is left with no claim. It is not difficult to see why the Land Use Act is supposedly inviolate in the 1999 constitution of Nigeria. To the herder, the fact that he had moved away from a place does not render that place of departure a no-man's land. To the farmer, the fact that he has left a parcel of land fallow, does not mean there is no improvement on the land as the very act of having fallow land brings about soil improvement.

The matter we are examining today relates to the question of whether we see our piece of the Earth as a commodity or as territory. It is a matter of our relationship with Nature. Is our piece of the Earth defined by a surveyor's beacon stone, or is it what defines our lives? Is it what we relate with deferentially or what we cut in pieces and trade as we please. The relationship of humanity to the Earth has brought about much harm, the most critical at this point in time being climate change evidenced by global warming.

Without doubt, the world is fed by farmers, pastoralists and fishers. And these are the small holder or family farmers. Industrial food production, as one world expect, largely feeds industry – maize produced this way goes largely to serve as animal feeds and others into biofuels production. Industrial fishers trawl our seas and harvest species into extinction. In all, 30 to 50

percent of food produced in the world today goes to waste, while over 800 million persons go to bed hungry every day.

Let us emphasize that the impact of climate change gets worse by the day and cannot be wished away. We see the impacts through shrinking water resources (such as Lake Chad), increased desertification and loss of land through coastal and wind erosion. Add to these continued deforestation and massive pollution of our water resources and it is clear that we have a crisis situation. The crisis that takes the headlines, however, is the deadly conflicts between herders and farmers in our country. With a high rate of fatalities and a cycle of attack and counter attacks the trend seems set to continue. Should it?

Conflicts between herders and farmers are not inevitable. We must agree that this is a recent phenomenon both in Nigeria and in other African countries. If this is so, we have to interrogate the causative factors propelling this unwholesome development. What are the economic roots and what role does careless relationship with the Earth play, especially with regard to the preservation of our forests and grasslands. Why are we not utilizing the symbiotic relationship of animal husband army and farming – where animals help fertilize the soils of fallow lands that also serve as pasture?

If climate change escalates the movement of herders, is migration the only way to mitigate the impacts? Would better soil and water management impede the rate of desertification in Nigeria? If the great Green Wall project restores it's area of focus, would that reverse the migration and conflicts?

What are the lessons, (for example of land restoration techniques used in neighbouring countries) that groups like CORET sharing among pastoral groups across the Sahel and what is the interface with farmers in soil fertility and peace building efforts? Are there cultural practices and political factors that lock in the crises?

We are gathered to share knowledge and contest ideas around issues of climate change, pastoralism, land and conflicts. The cooperation of HOMEF and CORET to bring about this conversation today is the beginning of a series that we will continue to have because we believe that when there is clear understanding between farmers and pastoralists a big part of reasons for conflicts will be eliminated.

This is a unique gathering today. We are grateful to all the herders and farmers in our midst today. We do not expect to tease out all the answers at one sitting. We, however, believe that one good step is to have a learning space and a conversation.

MESSAGE BY MR. JENS-PETTER KJEMPRUD - AMBASSADOR OF NORWAY

The Ambassador started by thanking the HOMEF and CORET team for putting up the knowledge sharing session to discuss the very sensitive topic: "Climate Change, Pastoralism, Land and Conflicts." He added that there are also pastoralists in Norway and in other parts of the world as they add to the value chain of national economies.

He called for a mutual understanding and relationship between farmers and pastoralists. He also reiterated the commitment and support of the Norwegian Government to a healthy and sustainable environment void of conflicts adding that over 20,000 youths in Norway are campaigning against the destruction of

environment in the Niger Delta and are collaborating with their Nigerian counterparts to help fight climate change in Nigeria.

Two presentations at the Sustainability Academy were introduced with an overview by Nnimmo Bassey who stated that the objective of the gathering was to "share knowledge around issues of climate change, pastoralism, land and conflicts as well as make recommendations on how best farmers and pastoralist can live harmoniously with one another in Nigeria."

A presentation on "**Climate Change, Pastoralism and Land Conflicts: The Gender Perspective**" was made by **Priscilla Achakpa**, executive director, Women Environmental Program (WEP).

According to her, climate change induced conflict is a global threat to human security and environment. She stressed that these conflicts impact differently on different regions, ages, genders, groups and according to income levels and occupation. Many in Africa are generally considered more prone than in developed countries due to lower capacity to adapt. Climate variability and change alter ecosystems and affect human land use and livelihood and have the potential to make pastoralist more vulnerable.

She explained that access to land has been shown to be important to poverty reduction and economic growth and the empowerment of the poor. The importance of land can be seen in how land conflicts are so pervasive and more difficult to solve than any other conflict. There is a strong link between mobility and climate change induced conflict. Livestock mobility enables pastoralists to take advantage of the ever-changing diversity of dry land ecology,

they track the random concentration of nutrients in space and time.

The situation of women and men in pastoralist communities is not static as incidences of drought have led to transformation in the socio-cultural and socio-economic organization of these societies. The nomadic pattern of Nigerian herders has contributed to the increase in female-headed households amongst pastoralists in Nigeria. Due to loss of cattle and other livestock, women play an active role to ensure family survival through engagement in diversified income generating activities. And so, women are particularly vulnerable to insecurity and conflict, because they are responsible for their children and cannot easily escape violent conflicts leading to their being taken hostage and having their children and husbands killed.

Also, survivors are often forced to move into urban areas or unhealthy environments where they are faced with food insecurity and in some cases are forced into prostitution to survive. Herders dispossessed of livestock sometimes end up in relief camps.

Achakpa added that the future of pastoralists and farmers in the context of climate change remains uncertain with unpredictable future rainfall pattern projections for Northern Nigeria suggesting that there may be prolonged droughts and flooding.

She also said there is need to mainstream gender in climate policies because climate-induced conflicts impact on women and men differently as they play different roles in the community. She concluded by stressing that women amongst pastoralists should be involved in the implementation of all forms of conflict management

initiatives.

The second presentation was on “Climate Change, Pastoralism, Land Use and Conflicts in Nigeria.” It was made by Jaoji A. Alhassan on behalf of Mohammed Bello Tukur, Secretary/member Board of Trustees of Confederation of Traditional Herder Organizations in Africa (CORET).

The presentation opened by stating that agriculture contributes 41% to the nation's GDP of which livestock contributes 11%. Livestock production is primarily in the hands of agro pastoralists and transhumance pastoralists. Traditional livestock depends on natural factors and how these factors develop or diminish affects the livelihoods of millions of people within the livestock value chains.

There are various types of pastoralism in Nigeria. This includes the international transhumance, crossing into or out of Nigeria from Benin, Niger, Cameroon and Chad. Nigeria has about 34 designated livestock international entry and exit points. Internal movement from the Sahel, especially those from Niger Republic tend to put livestock in Northern States under pressure thus triggering another internal livestock movement which is the inter-regional and inter-state movement.

There is also forced or sudden transhumance due to climate change - especially from unexpected droughts, shortage of rainfall, crop failures, violent conflicts and displacement amongst others. Land pressures are caused by increased population, land grabbing of land by big crop farmers and the pursuit for industrialization as well as mining activities. Land use changes and climate uncertainties have made it more difficult for traditional livestock production and even ranching as a solution to farmers – pastoralist conflict as being discussed among government circles. Ranching is difficult for small-holder farmers and pastoralists because of cost implications.

The four key needs of livestock production are pasture, water, access to water and animal diseases. The traditional livestock system heavily depends on natural factors. How these factors develop or diminish affects the livelihoods of millions of people along the livestock value chain. Climate change may be predicted but the impact when combined with other human factors can be catastrophic for pastoralists and other migrant communities.

There are various types of farmers – pastoralist conflicts and the major causes are depletion of natural fodder, lack of pasture, surface water reduction, access to grazing/water and climate change which changes the use of land, poor resource development and management, weakening of inter-cultural relations between major ethnic and occupational groups and poor governance at the local level, livestock rustling and theft, deterioration of grazing land with low literacy, lack of education among pastoralist, lack of access to land in the wake of rapid population expansion, rapid growth of urban centres and the Boko Haram insurgency in the North East. These factors have forced many pastoralists to migrate with their herds to other parts of Nigeria and Cameroon, often triggering new sets of conflicts.

The effect of farmer – pastoralist conflict and security implication are huge. Violence on women and children, huge economic losses, damage to the environment and ecosystems, loss of lives and livelihood, displacement of persons and animals. The media controls the narrative and dictates public discourse, and unfortunately, the pastoralist are demonised and their voices are missing.

Finally, he went further to say that pasture development especially pasture trees development should be incorporated in the

Great Green Wall programme to combat desertification, and help in the preservation of small water bodies and rivers. Pastoral youth restiveness should be addressed by all stakeholders through capacity building, mentoring and skills diversification. Government taking over grazing fields/reserves without proper environmental impact assessment of such actions on livestock should be discouraged. Nigeria needs and deserves the help of developed nations in the form of both adaptation funding, resilience, mitigation and adaptation strategies in communities.

RESOLUTIONS

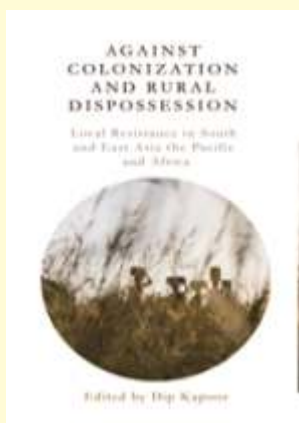
Participants agreed that climate change is a global threat to human security and its impact on population groups varies and farmers, pastoralists, women and children are some of the most vulnerable groups in Nigeria.

To address the impacts of climate change and prevent incessant crises between farmers and herders that arise as a result of land and other environmental issues, the Academy resolved as follows:

1. There should be greater engagement of extension workers by all levels of governments to effectively engage in communicating climate change to farmers and pastoralists.
2. Pastoralists and farmers have lived in harmony in Nigeria and can do so now. The ongoing conflicts are needless and distorts development efforts.
3. There should be re-orientation for pastoralists and farmers for harmonious co-existence as both are interdependent and their actions can be mutually beneficial.
4. The fact that climate change impacts differently on different categories of people should be considered in preparing climate actions.



5. The Great Green Wall Programme aimed at combating desertification amplified by climate change through improved use of land and water resources should incorporate the pastoralist in their fodder production scheme for sustainable development.
6. Government should carry out livestock development policy review to align them with regional and international practices.
7. The Federal Government should initiate actions to produce a detail land use plan for the country.
8. Youth restiveness should be addressed by all stakeholders through capacity building, mentoring and skills diversification. Development partners have a role to play in this direction.
9. There is need for public-private partnership and scientific re-orientation for the development of pastoralism in Nigeria.
10. Herders should adopt the practice of managed intensive systematic rotational grazing.
11. In the brokering of peace and the implementation of all forms of conflict management initiatives, it is pertinent that women are carried along. Their full participation and inclusion should be entrenched in such processes.
12. Media should engage more in investigative journalism in reporting conflicts rather than stereotyping pastoralists and others.
13. The Federal Government should create a Ministry of Livestock and Fisheries as is obtained in several other African countries like Ethiopia, Kenya, Cote D'Ivoire, Senegal, Mali, Niger and Tanzania
14. Climate change is not a boundary-limited issue. Nigeria should approach this issue from this perspective in pursuing adaptation, funding, resilience and mitigation strategies in communities.
15. There is need to take inventory of the all existing grazing reserves, traditional grazing areas, transhumance corridors, major stock routes, fully develop at least one per state in line with the recommendations of the recommendations of the Inter-Ministerial Committee on Livestock Development in Nigeria of 2015 and implement the Report of the Presidential Committee on Pastoralism and Insecurity.

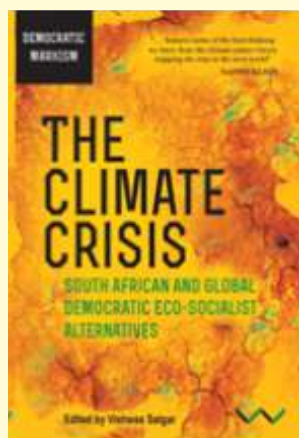


AGAINST COLONIZATION AND RURAL DISPOSSESSION; Edited by: Dip Kapoor

Under the guise of 'development', a globalizing capitalism has continued to cause poverty through dispossession and the exploitation of labour across the Global South. This process has been met with varied forms of rural resistance by local movements of displaced farm workers, small and landless (women) peasants, and indigenous peoples in South and East Asia, the Pacific and Africa, who are resisting the forced appropriation of their land, the exploitation of labour and the destruction of their ecosystems and ways of life.

In this provocative new collection, engaged scholars and activists combine grounded case studies with both Marxist and anti-colonial analyses, suggesting that the developmental project is a continuation of the colonial project. The authors then demonstrate the ways in which these local struggles have attempted to resist colonization and dispossession in the rural belt, thereby contributing essential movement-relevant knowledge on these experiences in the Global South.

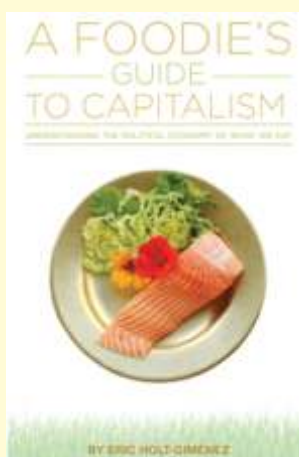
A vital addition to the fields of critical development studies, political-sociology, agrarian studies and the anthropology of resistance, this book addresses academics and analysts who have either minimized or overlooked local resistances to colonial capital, especially in the Asia-Pacific and Africa regions.



THE CLIMATE CRISIS

Edited by Vishwas Satgar

The climate crisis investigates emerging eco-socialist alternatives to our current capital-driven ecocidal path. It presents the thinking of leading climate justice activists, campaigners and social movements advancing systematic alternatives and developing bottom-up, just transitions to sustain life. Through a combination of theoretical and empirical work, the authors collectively examine the challenges and opportunities inherent in the current movement. This volume builds on the class-struggle focus of volume 2 by placing ecological issues at the centre of democratic Marxism. Most importantly, it explores ways to renew historical socialism as democratic eco-socialism to meet current challenges in South Africa and the world.



A FOODIE'S GUIDE TO CAPITALISM: Understanding the Political Economy of What We Eat. By: Eric Holt-Giménez

Capitalism drives our global food system. Everyone who wants to end hunger, who wants to eat good, clean, healthy food, needs to understand capitalism. This book will help do that.

In his latest book, Eric Holt-Giménez takes on the social, environmental, and economic crises of the capitalist mode of food production. Drawing from classical and modern analyses, A Foodie's Guide to Capitalism introduces the reader to the history of our food system and to the basics of capitalism. In straightforward prose, Holt-Giménez explains the political economics of why—even as local, organic, and gourmet food have spread around the world—billions go hungry in the midst of abundance; why obesity is a global epidemic; and why land-grabbing, global warming, and environmental pollution are increasing. Holt-Giménez offers emblematic accounts—and critiques—of past and present-day struggles to change the food system, from “voting with your fork,” to land occupations. We learn about the potential and the pitfalls of organic and community-supported agriculture, certified fair trade, microfinance, land trusts, agrarian reform, cooperatives, and food aid. We also learn about the convergence of growing social movements using the food system to challenge capitalism. How did racism, classism, and patriarchy become structural components of our food system? Why is a rational agriculture incompatible with the global food regime? Can transforming our food system transform capitalism? These are questions that can only be addressed by first understanding how capitalism works.

LIVING IN FEAR

BY JUAN LOPEZ VILLAR

REVIEWED BY: CADMUS ATAKE-ENADE

Juan Lopez Villar is a development and environmental analyst with specialty in the field of environmental law.

The book focuses particularly on two natural resource war torn nations in Africa - Democratic Republic of Congo (DRC) and South Sudan, although he made some references to the Nigerian Niger Delta region which also faces similar natural resource conflicts due to the region's crude oil wealth and attendant conflicts between International Oil Companies and their host communities.

Both DRC and South Sudan have gone through some of the bloodiest and deadliest wars and conflicts in recent times such that these nations have turned into UN peace keepers' base yet the impacts of these peace efforts have not put a stop to the tensions that brew in there.

The author posits that the Quest for Wealth is what led to the scrambling for African resources by foreign merchants and governments. While wealth amassed from Africa is been utilized by the west, the host nations are left desolate.

Lopez made a reference to Nigeria's Niger Delta region, noting that the Niger Delta communities despite their oil wealth are among the most impoverished communities.

Chapter two deals with the issues of minerals and wars at the Great Lakes. He explained here that the major causes of violent wars are linked up with the mineral deposits in the lands and this has left Africa bleeding. He gave instances of the two DRC wars that took place between 1996- 1997 and from 1998- 2003 as a result of the nation's extraordinary mineral wealth in minerals such as coltan, diamond, cobalt, copper, gold, tin, zinc, manganese among others. He added that as a result of these wars and conflicts over 5.4 million people have lost their lives from 1998-2007.

Transnational corporations and local companies also play key roles in the conflicts as a lot of them are involved in illegal mining activities and these continued unabated while the conflicts rage.

the Sudan independence in 1956 there have been conflicts and wars in the country and this conflict has been between Sudan and the present day South Sudan. The tensions and conflicts are partly due to disputes over ownership of Abyei region, a region located on the borderline between the two warring factions. The conflict over Abyei has an history of more than 50 years and these are all oil-centred conflicts.

The escalating conflicts have left the South Sudan environment devastated. Oil and geo-politics were key factors that led to the separation of Sudan and South Sudan in 2011.

These wars have led to loss of lives and great destruction of properties and livelihoods with over 4,000,000 people forced to flee their homes. Children have been seriously affected and some of them recruited as child soldiers while others experience sexual violence.

In the final chapter the book disclosed that over seven million people have lost their lives due to the civil wars in the region. The author wonders how many more need to die before there would be peace.

The author sums up that the wealth of a nation means little if the benefits are not shared with the majority of the population. Resource conflicts and wars will persist where greed, power, and control over natural resources is elevated above the common good. Peace is the only way forward for Africans to enjoy the wealth of their natural resources and mineral deposits. For this to be achieved the people need to be put at the centre of development policies and actions in both countries in order to stop the devastations and environmental degradation and fight poverty.

Global climate change is a crisis of unprecedented scale, and it will take unprecedented action to avoid the worst consequences of our dependence on oil, coal, and gas. Equally as critical as reducing demand and emissions is the need for immediate and ambitious action to stop exploration and expansion of fossil fuel projects and manage the decline of existing production in line with what is necessary to achieve the Paris climate goals.

Clean, safe, and renewable fuels are already redefining how we see energy and it is time for nations to fully embrace 21st century energy and phase out fossil fuels.

The Lofoten Declaration affirms that it is the urgent responsibility and moral obligation of wealthy fossil fuel producers to lead in putting an end to fossil fuel development and to manage the decline of existing production.

We stand in solidarity with, and offer our full support for, the growing wave of impacted communities around the world who are taking action to defend and protect their lives and livelihoods in the face of fossil fuel extraction and climate change. It is a priority to elevate these efforts. Frontline communities are the leaders we must look to as we all work together for a safer future.

A global transition to a low carbon future is already well underway. Continued expansion of oil, coal, and gas is only serving to hinder the inevitable transition while at the same time exacerbating conflicts, fuelling corruption, threatening biodiversity, clean water and air, and infringing on the rights of Indigenous Peoples and vulnerable communities.

Energy access and demand are and must now be met fully through the clean energies of the 21st century. Assertions that new fossil fuels are needed for this transformation are not only inaccurate; they also undermine the speed and penetration of clean energy.

We recognize that a full transition away from fossil fuels will take decades, but also, that this shift is an opportunity more than a burden. We are in a deep hole with climate. We must begin by not digging ourselves any deeper.

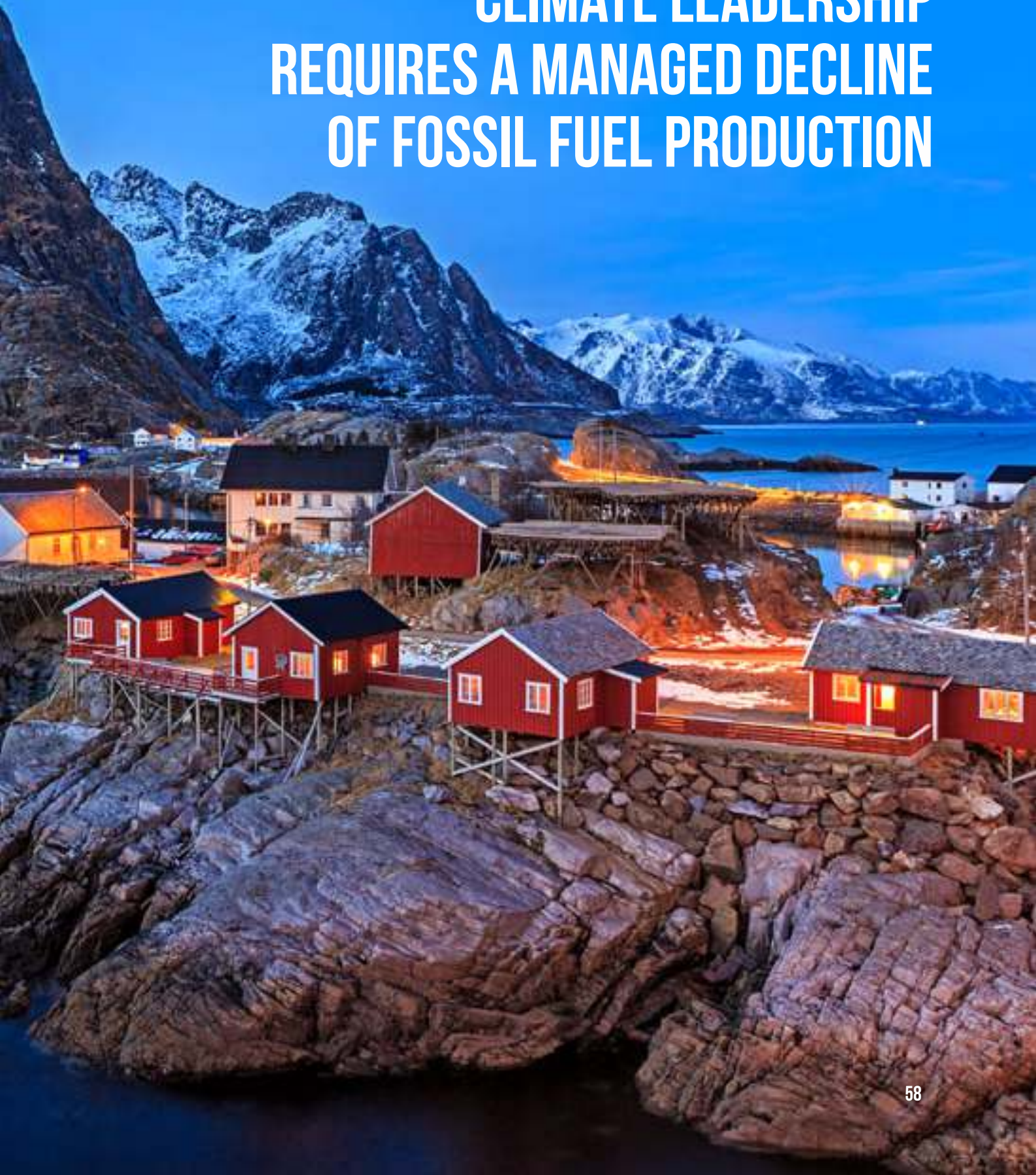
Research shows that the carbon embedded in existing fossil fuel production will take us far beyond safe climate limits. Thus, not only are new exploration and new production incompatible with limiting global warming to well below 2°C (and as close to 1.5°C as possible), but many existing projects will need to be phased-out faster than their natural decline.

This task should be first addressed by countries, regions, and corporate actors who are best positioned in terms of wealth and capacity to undergo an ambitious just transition away from fossil fuel production. In particular, leadership must come from countries that are high-income, have benefitted from fossil fuel extraction, and that are historically responsible for significant emissions.

We call on these governments and companies to recognize that continued fossil fuel exploration and production without a managed decline and a just transition is irreconcilable with meaningful climate action. We also note that there are tremendous leadership opportunities for these countries to demonstrate that moving beyond oil, coal, and gas – both demand and production – is not only possible, but can be done while protecting workers, communities, and economies.

THE LOFOTEN DECLARATION

CLIMATE LEADERSHIP REQUIRES A MANAGED DECLINE OF FOSSIL FUEL PRODUCTION





UPCOMING EVENTS

COMING UP IN FEBRUARY AND MARCH 2018

1. NIGER DELTA CLEAN-UP MONITORING TRAINING
2. FISHNET DIALOGUES @ VARIOUS LOCATIONS
3. FISHNET ALLIANCE MEETING @ LOME, TOGO
4. TEAM BUILDING AND STRATEGY MEETING
5. BEYOND OIL – REIMAGINING DEVELOPMENT CONFERENCE @ PORT HARCOURT

FOR DETAILS ABOUT PARTICIPATION AND VENUE,
DROP US A MAIL VIA HOME@HOMEF.ORG
OR THROUGH OUR SOCIAL MEDIA PLATFORMS.