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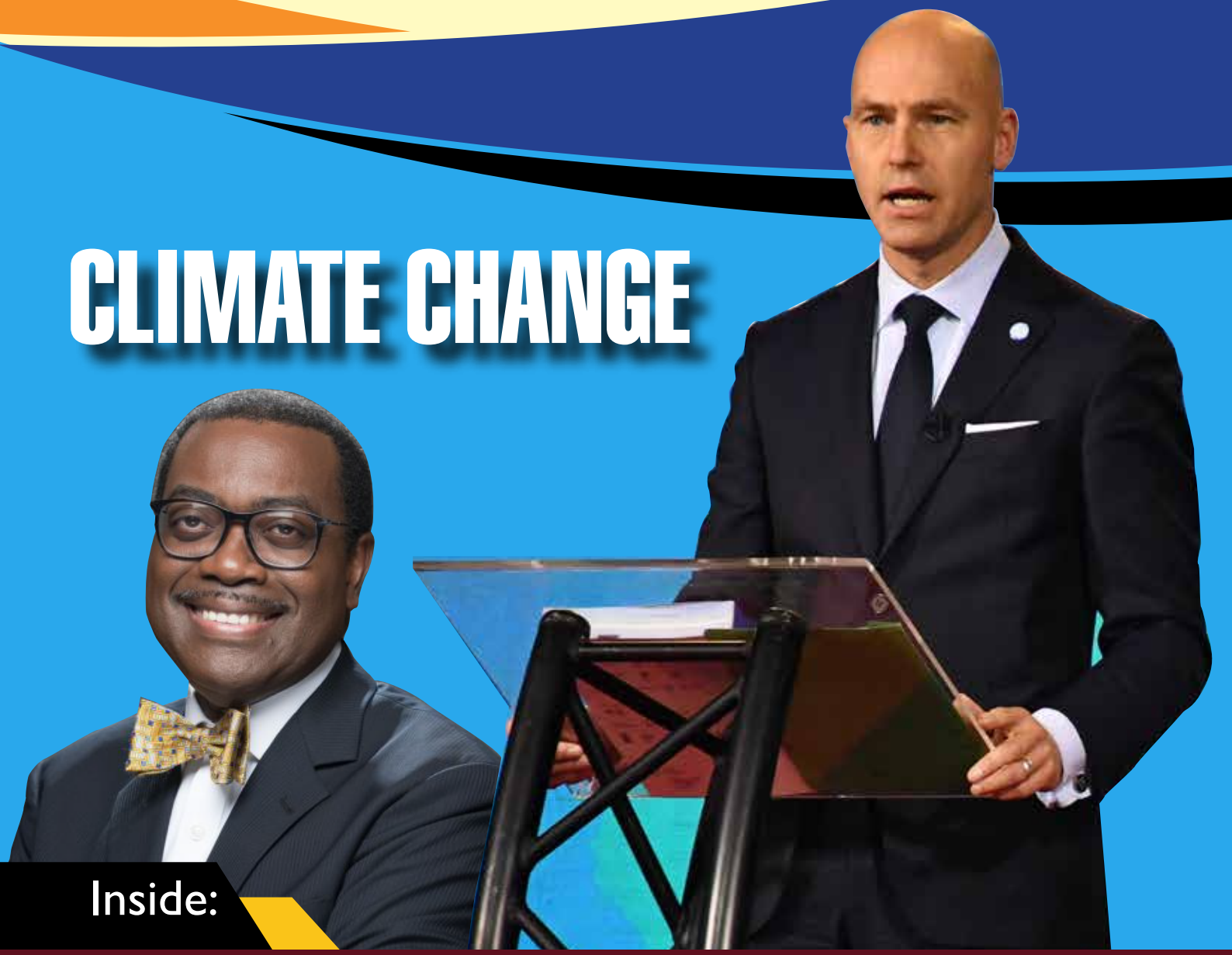
CLIMATE CHANGE



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Why COP27 must Succeed

Three African nations- South Africa, Kenya and Morocco- have hosted the conference of parties (COP) on climate change. However, the one being held in Sharm El Sheikh, Egypt is bound to be very different. Its success or failure may determine the future of humanity on planet.

Already developing nations seek to have very clear terms on the urgent need to roll out "Climate Finance" as fast as possible. Already Egypt has made it clear that COP27 is focused on Climate Finance.

Top officials including President Abdel El Fattah Sisi make it clear that it is not about the ongoing war between Russia and Ukraine plus their direct and indirect supporters.

"I believe that the COP27 is an opportunity to showcase unity against existential threat that we can only overcome through concerted action and effective implementation," Egypt's President insists.

"I believe that the COP27 is an opportunity to showcase unity against existential threat that we can only overcome through concerted action and effective implementation,"

Egypt's foreign minister Sameh Shoukry told the world not to let Russia's invasion of Ukraine block action against climate change and the same applies to related food and energy crisis.

However, German government is emphasizing that the money which could have been used for climate finance is simply being allocated to cool the Russia and Ukraine war and this may not be overlooked.

Even more the scorching drought devastating the earth and even exposing river beds thus killing unlimited quantities of fish across Germany, Italy, Spain, France and Spain with similar impacts noted in China has been seen as an equalization with poor nations.

Such natural events are still seen as confined to poor nations with minimal technological prowess but things have changed and when it comes to climate change few human communities are guaranteed safety and prosperity despite superb technological or industrial skills.

In short, humans however "advanced" may return to the cave in a twinkle of an eye. It means the highly conservative regimes in the west should be ready to sincerely compare notes with the developing nations where few governments can boast of conserving forests and water resources in particular.

There are developed nations that simply suspect most developing nations of just hunting for easy money because most of them can be directly linked to minimum input in terms of conservation of natural resources.

However, the impacts of climate change are highly intertwined and experts say that Africa's snow mountains- Kilimanjaro, Kenya, Ruwenzori- will be no more in 2050 – barely three decades from now.

Even more, ice in both Antarctic and North pole are melting and the negative implications are potentially mind boggling.

In short, the realities of Climate Change are rapidly becoming obvious and the era of them against us is gone. Developed nations financing various projects in poor nations need frank discussions based on a major common threat. Climate Change is already all over.

There are policies, innovations and technologies that may save both developing and developed world from extremes of climate change. COP27 deserves success despite what may seem as unlimited challenges. (Otula Owuor)

Horn of Africa: 47m People Hungry amidst Worst Drought in Four Decades

By Joyce Ojanji

"It is critical that world leaders reach agreement on stemming rise in temperatures ," said Dr. Matshidisho Moeti, World Health Organization(WHO) Regional Director in Africa in a recent briefing.

Famine threatens the survival of 47m people in the Horn of Africa where seasonal rains have failed repeatedly. The grim situation is worsened by disease outbreaks and highest level of climate-related health emergencies.

"Climate change is having an impact on the health of people in the greater Horn of Africa. The failure of four consecutive rainy seasons has scorched the earth and pushed people out of their homes in search of food and water," said Dr. Moeti.

> "It is critical that world leaders reach an agreement on stemming the rise in temperatures at COP27 which is very appropriately taking place in Africa. As a continent we are the least responsible for global warming, but among the first to experience its tragic impact."

Analysis of the seven countries in the greater Horn of Africa - Djibouti, Ethiopia, Kenya, Somalia, South Sudan, Sudan and Uganda – recorded 39 reported disease outbreaks, flooding and other acute public health events between 1 January and 30 October 2022.

This is already the highest annual reported number since 2000, with two months left in the year. Outbreaks of anthrax, measles, cholera, yellow fever, chikungunya, meningitis, and other infectious diseases account for more than 80% of the acute public health events reported, with drought, flooding and other disasters accounting for 18%.

Millions of children under the age of five years are estimated to be facing acute malnutrition, increasing their risk of not only starvation, but also of severe outcomes during a disease outbreak due to weakened immunity. Malnourished children are more susceptible to common childhood diseases. Globally, 45% of under-5 deaths are associated with malnutrition.

"In the past four years, the number of people facing acute hunger in the greater Horn of Africa have more than doubled. We must put a stop to this exponential rise in misery. Between malnutrition and death there is often disease. The dire conditions in the greater Horn of Africa are a perfect storm for outbreaks, which unless we act quickly will flare up with increasing intensity," added Dr Moeti. To mount an effective emergency response to the crisis on our doorstep, we need US$124 million, but have only received 34% of our request up to now."

Vaccination coverage in the region of life-saving childhood vaccines is well below the necessary threshold to prevent disease outbreaks. In most countries of the region, measles vaccination coverage is too low to prevent cases and all greater Horn of Africa countries have had to deal with measles outbreaks in 2022.

Drought is not the only extreme weather event the region is fighting. South Sudan is experiencing its fourth consecutive year of flooding with 40% of the country under water. Heavy rains and flash floods continue to affect tens of thousands of people across neighboring Sudan. The floods have destroyed or damaged thousands of houses and tens of health facilities, water sources, and latrines in 15 states. Additionally, livestock and a wide area of agricultural land have been affected by floods, which contribute to food insecurity.

Food insecurity, resulting from flooding and drought, along with conflict, the fallout from the COVID-19 pandemic, and high food and fuel prices, has forced people to flee their homes and the region now has 4.5 million refugees and asylum seekers as well as 12.7 million internally displaced people. The displacement of people often means they will miss out on the healthcare they need, including preventive care. Crowded temporary shelters with poor water and sanitation conditions can contribute to an increased risk of outbreaks.

In response to the deepening health crisis, WHO is focused on ensuring that vulnerable populations, especially children have access to essential health services, protecting populations from diseases through immunization campaigns, detecting and responding to outbreaks and providing treatment for severe acute malnutrition, among other actions.

WHO has mobilized over US$7 million in supplies and equipment for the greater Horn of Africa including US$3 million in kits to severe malnutrition, or diseases such as

cholera and measles. The Organization has also trained thousands of health workers across the region on the management of acute malnutrition.

"WHO urgently needs partners to come together to support the food insecurity response in the region," says Dr Egmond Evers, acting Incident Manager, WHO greater Horn of Africa response.

"We must ensure a strong health response to prevent disease and death from health risks related to the food insecurity. We need more essential medical equipment and supplies, vaccines, medicines, and kits to support essential health services. We must step up critical actions like vaccinations and improve surveillance to prevent outbreaks from getting out of hand. We cannot delay any longer. We must act now."

Egypt's President: Take Concrete Steps to Reduce Emissions

By Joyce Ojanji

Countries have been urged to take real and concrete steps to reduce greenhouse gas emissions during the 27th Conference of Parties (COP27) in Egypt.

Abdel Fattah El-Sisi, Egypt's President, said in his opening address, adding that world leaders are expected by their people to enhance adaptation to the consequences of climate change, and provide the necessary financing for developing countries that suffer the most from the current climate crisis.

He noted that the poor and vulnerable people around the world were already experiencing the effects of extreme weather. "The intensity and frequency of climate disasters have never been higher, in all four corners of the world, bringing wave after wave of suffering for billions of people. Is it not high time today to put an end to this suffering?" El-Sisi questioned.

He urged global leaders to view the need for climate change action as an opportunity to create stronger economies for a better future. "The people of the world are looking to us today and they want a rapid implementation of genuine concrete action to reduce emissions," Egypt's President said.

Abdel Fattah El-Sisi, Egypt's President

In his remarks, Former US Vice president, Al Gore made an impassioned call for leaders to "choose life over death" by ending the use of fossil fuels that are driving climate change.

Gore, a long-time environmental campaigner who was among the first to raise the alarm about climate change, told leaders that they should turn away from destructive behavior, saying that countries have other choices in the form of renewable energy.

He called for massive amounts of private capital to be unlocked in order to fund the transition to clean energy, saying this would provide the trillions, not billions, needed.

"We need to obey the first law of holes, when you're in one, stop digging. We continue to use the thin blue atmosphere as an open sewer. It is getting steadily worse," Gore said.

In addition, he said the dash for gas in Africa, a contentious issue at COP27, is a new form of colonization, as the fuel is being sent to rich nations and warned investors of stranded assets worth billions, especially in Africa, if climate action closes oil and gas plants early.

Gore joined rich and poor nations in calling for a complete reform of the World Bank system to get money to reach developing nations. He emphasized that this was a time for moral clarity, not reckless indifference.

Prompt Actions Needed before Climate Change Disasters become Irreversible

Antonio Gueterres, UN Secretary General

By Mary Hearty

As greenhouse gas emissions keep growing and global temperatures keep rising, the planet is fast approaching a tipping point that will make climate chaos irreversible.Thus, developed and developing economies have been urged to accelerate actions toward achieving global net zero emissions by 2050.

Antonio Guterres, Secretary General of the United Nations, is among the global leaders cautioning that the 1.5 degrees Celsius goal is on life support thus, failure to collectively accelerate stronger actions will push the planet to a point of no return.

Even though progress with the just energy transition partnerships are being made, the UN Secretary-General said much more is needed as around three and a half billion people are living in countries that are highly vulnerable to climate change.

"I am calling for a historic Pact between developed and developing economies. A Pact in which all countries make an extra effort to reduce emissions this decade in line with 1.5 degree goal," he affirmed.

The Pact, he said, should be one that wealthier countries and International Financial Institutions provide financial and technical assistance to help emerging economies speed up their own renewable energy transition.

Also, it should end dependence on fossil fuels and the building of new coal plants – phasing out coal in the Organisation for Economic Co-operation and Development (OECD) countries by 2030 and everywhere else by 2040 while providing universal, affordable, sustainable energy for all.

Additionally, the Pact should unite developed and emerging economies around a common strategy and combine capacities and resources for the benefit of humankind.

As the two largest economies, Guterres said, the United States and China have a particular responsibility to join efforts to make this Pact a reality.

"This is our only hope of meeting our climate goals. Humanity has a choice: cooperate or perish. It is either a Climate Solidarity Pact – or a Collective Suicide Pact," he declared.

On addressing funding, Guterres stressed that half of the climate change funding must be focused on adaptation, hence international financial institutions and global development banks need to change their economic models and also do their share to boost adaptation models.

"They must serve as tools to intensify more financial resources to address effects of climate change, and countries and communities must have access to that funding which must be channeled to key initiatives such as the Adaptation Pipeline Accelerator," he said. Also, Guterres pointed out the need to recognize that the first stage of adaptation resources must exceed USD300 million per year by 2030.

"We need progress in adaptation in order to reinforce resilience to climate change now and in the future," he stated.

Macky Sall, Senegal's President

According to Macky Sall, President of Senegal, those who pollute the most should pay the most in order to get our planet off this climate crisis track.

He noted that the implementation of adaptation is something that should be funded by grants and donations as per agreed conventions, adding that countries often rely on debt to develop green investments.

Also, President Sall said, accumulated funding for adaptation anticipated before 2030 will unfortunately account for less than a quarter of the estimated needs that Africa has as part of their nationally determined contributions (NDCs).

"Make history by shouldering and honoring our commitments, including the USD100 billion in the brunt of history because we do not share our responsibilities that have to be shared. We are determined to make history rather than simply be victims," he said.

"Together with our partners we will do all we can to ensure that the Sharm Al-Sheikh conference is not simply a business as usual but for future generations as well as the current generation."

WHO Director-General: Health Forgotten in Climate Change Discussions

For the second year in a row, WHO and our partners are proud to host the Health Pavilion, to elevate the voice of the health community in climate discussions.

For too long, health has been the forgotten child of climate discussions.

That was until last year, when for the first time the United Kingdom included health in the COP programme as part of its presidency.

We're delighted that Egypt has followed that precedent by including health in the COP27 programme.

For this year's health pavilion, we have collaborated with a group of talented artists who have created a unique sculpture in the shape of human lungs.

I thank the artists for this provocative work, which I hope will help to draw attention to the impact of air pollution and climate change on human health.

I also thank our partner the Wellcome Trust for its financial and technical support for the Health Pavilion, and for this sculpture.

There is a native American proverb that says ***the frog does not drink up the pond in which it lives.***

And yet that is exactly what we are doing to the planet on which our very existence depends.

Vandalism, self-sabotage

The global addiction to fossil fuels is not just an act of vandalism; it's an act of self-sabotage. The emissions we pump into the air are suffocating us, and making our planet less fit for human habitation.

Climate change presents the health sector with a triple challenge: First, the challenge of dealing with the increasing burden of climate-fueled disease. Second, the challenge of building climate-resilient health systems that can withstand more frequent and severe weather events.

And third, the challenge of building net zero, climate-friendly health systems, while at the same time ensuring that all health facilities have a reliable and clean source of energy.

Working together

More than 60 countries have now committed to building climate-resilient and climate-friendly health systems. Egypt, the UK and WHO are also working together to promote the newly established Alliance on Transformative Action on Climate and Health, to accelerate action on climate change and health in countries.

COP 27: Alliance to Intensify Action, Preparedness for Future Droughts Launched

By Mary Hearty

Leaders from over 30 countries and 20 organizations have launched the International Drought Resilience Alliance as one of the efforts to accelerate action and help countries to be better prepared for future droughts.

In the declaration made at the margins of Sharm el-Sheikh Climate Change Conference that has commenced in Egypt, leaders from all sectors pledged to drive change in how the world tackles the growing drought risks: moving from emergency response to building long-term resilience.

Droughts are hitting more often and harder than before, and have increased by nearly a third since 2000. Climate change is expected to cause more severe droughts in the future.

Recent droughts in Australia, Europe, western United States, Chile, the Horn and Southern Africa, show that no country or region is immune to their impacts, which run into billions of dollars each year, not to mention human suffering.

Presidents Pedro Sánchez Pérez-Castejón of Spain and Macky Sall of Senegal rallied world leaders to create the Alliance as "a specific solution for the United Nations" to the impacts of climate change.

In a joint communication, Presidents Sánchez and Sall declared: "We are only as resilient to climate change as our land is."

They noted that building resilience to drought disasters is the way to secure the gains we make on each sustainable development goal, particularly for the most vulnerable people.

"The mission of the alliance is to give political impetus to make the land's resilience to drought and climate change a reality by 2030," Presidents Sanchez and Sall stated.

According to Ibrahim Thiaw, Executive Secretary of the United Nations Convention to Combat Desertification (UNCCD), the race for drought resilience can be won as solutions are available.

"Drought is a natural hazard but does not have to lead to human disaster. The solutions are available, and we can create a drought resilient world by increasing our ambition, harnessing the political will, and joining forces to act together,"Thiaw said.

The Alliance will be bolstered by new political commitments, including a Euro five million seed fund announced by Spain, co-convener of the event with Senegal, to support the work of the Alliance and catalyze a process to mobilize more resources for this agenda, and a commitment made by the President of Kenya, William Ruto, to plant five billion trees in the next five years, and 10 billion trees in 10 years.

The Alliance calls on leaders to make drought resilience a priority in national development and cooperation, including deepening the engagement of stakeholders, such as the private sector, in work on drought resilience.

Among the key objectives of the Alliance is promoting the consolidation of regional initiatives to fast-track sharing of innovation, technology transfer and mobilization of resources.

The Alliance will also collaborate with other platforms, including the initiative launched by the United Nations Secretary-General and the World Meteorological Organization (WMO) to achieve universal coverage of early warning systems and regional initiatives to reap the maximum benefits of working together on drought resilience.

Building drought resilience presents an opportunity to significantly reduce the high human, social and economic costs of drought. These range from the loss of life, livelihoods and biodiversity, to water and food insecurity, to disruption in the energy, transportation and tourism sectors, as well as forced migration, displacement, and conflicts over scarce resources.

COP 27: Countries Urged to Turn Climate Commitments into Action

By Gift Briton

In order to address the climate crisis that is already causing suffering to more than 3.3 billion people globally, experts note that the upcoming climate change conference should address the issue of implementation including honoring financial commitments, greenhouse gas emissions reduction and addressing climate change loss and damage.

According to studies, global investments in climate action is still six times less than what is required. Therefore, experts say that countries should stand by their pledge to strengthen their emissions-reduction targets while nations and companies must also show that they are turning their other commitments from Glasgow into action to unlock the climate adaptation and mitigation goals.

Speaking during the United Nations Framework Convention on Climate Change(UNFCCC) Pre-COP 27 briefing, Jim Skea, co-chair, Intergovernmental Panel on Climate Change (IPCC) working group III noted that the world is off-track in limiting global warming below 1.5 degrees.

Although some progress has been made in climate change adaptation, Skea notes that there is need for countries to step up actions on climate change if the long-term temperature goals are to be met.

He adds that technological advances and nature-based solutions can play a key role in limiting emissions by 70%, especially in developing countries where huge climate action gaps exist.

In addition, to filling implementation and gas emissions gaps, Skea notes that it is crucial that climate actions be embedded in wider technological development policies and climate actions that synergize both adaptation and mitigation including investing in renewable energies, nature-based climate resilient solutions, increasing soil cover, sustainable land use measures, agricultural techniques and planting trees without deforestation.

Further, with a huge population expected to move into urban settings, particularly in Africa, Skea adds that the continent needs direct access to multilateral funds for climate change adaptation as this would ensure that much more funding is directed towards climate adaptation because that is where a big gap lies. The rising urban population would also require an increase in infrastructure. Therefore, countries are advised to put in place infrastructures that do not damage the climate.

Silvia Kreibiehi, Coordinating Lead Author for the Sixth IPCC Assessment Report also shares similar sentiments noting that in order to meet the climate change target it is important for countries to adopt a society-wide approach including political will.

She advised countries to come up with stronger commitments to strengthen Nationally Determined Contributions (NDCs) and create a more inclusive governance process that allows other stakeholders such as the youth, elders, the minority, and indigenous people to the table.

Countries need to put into action commitments by putting in place policies and processes and new NDC pledges that allow temperatures below 1.5 degrees to be kept on track, Kreibiehi said.

Climate Change: Why Africa Needs Support

By Dr. Akinwumi Adesina and Prof. Dr Patrick Verkooijen

With much of the world struggling with crippling spikes in energy and food prices, it is tempting to set aside longer-term challenges such as climate change. In an August Ipsos poll of what worries the world, climate change languishes in seventh place behind more pressing issues such as inflation, social inequality and other social ills.

Africa, however, cannot afford to park its climate concerns. The warming planet is destroying the continent's development potential. Already, the lives of 600 million people who rely on rain-fed agriculture are at risk because of the growing severity and frequency of droughts. Vast swaths of the continent will become unlivable unless we act now to protect people and livelihoods from the worst impacts of global warming.

We only have a tiny window to build resilience against climate change. After that, large parts of Africa will become uninhabitable. Our cities will swell with climate refugees and the continent will struggle to feed, house and create economic opportunities for displaced populations, particularly young people.

On the current trajectory, global warming will cause an annual loss of up to 4 percent of GDP in Africa by 2040. Some nations are already spending the equivalent of 2.8 percent of GDP to adapt to increasingly violent and unpredictable weather.

This is an unfair burden. Africa, the continent that has contributed the least to global warming, is paying a steep price for the greenhouse gas emissions of the rich world.

Akinwumi Adesina - credits: AFDB

Investing Today for a Better Tomorrow

Because of climate change, cleaning up after weather disasters has become a Sisyphean task—never ending, as well as a colossal drain on resources.

Climate adaptation offers a different way out of this predicament. By preparing to live in a world of increasing climate extremes, the hope is that we can better withstand its effects. That is why African governments are doubling down on climate adaptation. Two years ago, they launched the Africa Adaptation Acceleration Program (AAAP), with the aim of mobilizing $25 billion in adaptation investments by 2025. The African Development Bank has put up half of the funds already.

Climate adaptation is our best chance to bring about a safer, greener and more prosperous continent. The AAAP is already investing in projects that are making the livelihoods of farming communities more secure. It is improving the accuracy of weather forecasts and making data available to farmers via mobile apps, and providing drought-resistant crop varieties in regions where water is increasingly scarce or rainfall unreliable. In some cities, urban infrastructure is being readied to withstand flash floods, extreme heat and other climate impacts. The AAAP also aims to nurture climate entrepreneurs, particularly those who create career opportunities for young people.

Money invested in climate adaptation today will reduce the cost of dealing with climate disasters tomorrow.

At COP26 in Glasgow last year, the global donor community promised to double finance for adaptation from the current rate of up to a quarter of climate financial flows earmarked for the developing world. But yet again, committed funds have fallen short. With only two months to go to the next climate summit, which will take place in Sharm el-Sheikh in Egypt, it is time for donors to honor their pledges.

Prof Dr. Patrick Verkooijen

A Focus on Africa

Funding climate adaptation is not only the right thing to do. It is also smart. The Global Center on Adaptation (GCA) calculates that for every dollar invested in climate-smart agriculture, as much as $5 in benefits accrue. In addition, moving quickly to adapt is especially beneficial, with a cost-benefit ratio for early action of at least 1:12.

According to the GCA, just $15 billion per year invested in climate-smart agriculture could help avert $200 billion in damages from floods, lost production and paying for disaster relief.

The international community has a choice: It can invest in long-term climate resilience, or it can continue in emergency mode, lurching from crisis to crisis. The latter causes donor fatigue, and it leaves Africa no better off.

Dr. Akinwumi Adesina is president of the African Development Bank. Prof. Dr Patrick Verkooijen is CEO of the Global Center on Adaptation

Ethiopia's Green Legacy Initiative, a Big Lesson as COP 27 Opens

By Mekonnen Teshome

Planning and Development Minister (MoPD) Fisum Assefa Adela

As the global climate change conference kicks off in Egypt, One of Ethiopia's top agendas is to share lessons from its Green Legacy Initiative which led to the planting of 25 billion trees in four years.

This is according to the Planning and Development Minister (MoPD) Fisum Assefa Adela. The thriving Green Legacy Initiative of the country, with other pectoral policies, is one of the crucial policy interventions of the country that envisions its transition to low-carbon economic development, the MoPD says.

As part of the 2050 Pathways Platform that defines the Long Term-Low Emission Development Strategies (LT-LEDS) of the Paris Agreement, Ethiopia has designed its Net Zero and Climate Resilient Development Strategy with a Scenario Maximum Ambition reforestation rate of 8.2 million hectares.

Before leaving for Sharm El-Sheikh, the Minister indicated that her delegation will make efforts to share with the world about the green legacy initiative at the Conference.

The Green Legacy Initiative launched in June 2019 had a target of planting 20 billion seedlings within a period of four years. By the fourth year, Ethiopia has succeeded in planting 25 billion seedlings by mobilizing more than 20 million citizens throughout the nation. The development of more than 120,000 nurseries throughout the country has enabled the creation of more than 767,000 jobs, mostly for women and youth, according to the Department of Economic and Social Affairs of the United Nations.

Assefa indicated that the Ethiopian delegation to the COP27 would display not only the country's World Record tree planting initiative but also its note-worthy environmental protection, the building of a climate-resilient green economy, and its impressive renewable energy experiences.

Assistant Administrator and Regional Director for Africa at the United Nations Development Program (UNDP), Ahunna Eziakonwa, recently also described Ethiopia's Green Legacy Initiative as a stepping stone to a better future for Ethiopia.

UNDP has also set a plan to share Ethiopia's experiences with about 10 other countries and make the Green Legacy initiative pan-African.

Gashaw Abate, an Ethiopian Environment scholar says that advanced western countries have promised to commit 100 billion USD for global climate change mitigation

efforts but the promise has not been fulfilled so far. These countries need to acknowledge the huge reforestation activities of Ethiopia and other African countries made toward climate change adaptation and mitigation and fulfill their promises, he urged.

The expert also indicated that the experience of Ethiopia's Green Legacy Initiative has shown the importance of leadership commitment in public mobilization in planning, funding, and executing programs on climate change.

According to the General Coordinator of the Alliance for Food Sovereignty in Africa (AFSA), Million Belay Ethiopia should also share its agricultural policy that promotes organic farming activities and the significant results achieved over the last decade.

Kenya to Protect Forests, Grow 15b Trees in a Decade

Kenya's President William Ruto's efforts against global warming and related Climate Change includes planting 15 billion trees within a decade -by 2032- while protecting and restoring the much depleted forests and their ecosystems.

The plan is expected to increase tree cover by over 30 percent within the same period and will involve restoring the country's degraded water towers. Kenya's bold plans if successful, will set a strong example for other nations.

It will minimize whispers that African nations including Kenya, have given minimal attention to forest protection while lacking people friendly policies that encourage the public to plant more trees, especially indigenous species.

Eucalyptus and Grevillea are among the most preferred trees for planting. However, the President has opened the door for Kenya Forestry Research Institute (KEFRI) to be at the centre of such a major national reforestation project.

Still, the African Forest Forum (AFF) with a pool of over 2,000 skilled and experienced members can encourage other nations to copy Kenya's example apart from sensitizing the Kenya government- and others in the continent- on the need to ensure that such innovative steps are made sustainable.

Earlier, during the 77th **United Nations General Assembly(UNGA) session, he urged world leaders to take action against climate change now as further delay will render the actions ineffective.**

"The latest report of the Intergovernmental Panel on Climate Change (IPCC) reminds us that we cannot afford to waste another moment debating the merits of doing something vis-a-vis doing nothing. It will soon be too late to reverse the course of events, and then, even the best possible interventions will not suffice," President Ruto said.

He noted that climate change is among the conventional threats exerting immense pressure and posing grave threat to the well-being of humanity demanding immediate action. For instance, in the Horn of Africa, severe drought and disruption of supply chains in the region and beyond due to climate change, COVID-19 pandemic as well as the Russia-Ukraine conflict, have left millions of people food insecure.

"Severe drought has affected not only the Horn of Africa and the Sahel regions, but continues to devastate many others, including in Asia, Europe and the Americas. If for no other reason, the fact that we

are in this together must strengthen the case for concerted efforts across the continents," President Ruto said.

He called on Member States and all relevant stakeholders to demonstrate strong political will and showcase effective cooperation by supporting the most affected countries financially, as well as through sharing land restoration and climate adaptation technologies. It is through collaborations to expand inclusion that we can attain a new paradigm in multilateralism.

Additionally, Ruto noted with deep concern that little progress has been made regarding the agreement made during the Stockholm+50 meeting on the need for immediate action in addressing environmental impacts.

"If indeed forewarned is forearmed, this is our opportunity to mobilize with tremendous urgency and take action at once," he emphasized.

Climate-Favorable Policy Reforms could Improve Cameroon's Economy

By Mary Hearty

If Cameroon embarks on reforming policies to influence climate-action investments like renewable energy and rich natural capital endowment, the country could reduce its poverty rate five-fold by 2050 from 15% to three percent according to the World Bank's newly released Country Climate and Development Report (CCDR).

In addition, robust investments of $58 billion in adaptation and mitigation measures over the next 10 years could bring an additional gross domestic product (GDP) growth of one percent in 2050.

The report stated that a business-as-usual approach is not an option as the country's economy could lose up to 10% of GDP by 2050 if urgent climate adaptation measures are not taken.

"We know that the first victims of climate change are the most vulnerable who see their livelihoods severely impacted and their homes affected," Abdoulaye Seck, World Bank Country Director for Cameroon said. "An additional 1.3 million people could fall into poverty particularly in rural areas if no urgent action is taken to promote rapid, resilient, and inclusive growth."

The CCDR provides specific policy recommendations for making development and adaptation gains in four priority areas: agriculture, forestry, and land use; cities, human capital, and infrastructure.

Cameroon's rich ecosystems have not translated into economic wealth and are being threatened by climate change and unsustainable practices, says the report. More than 1.5 million hectares of forests have been lost between 2001 and 2020.

Changes in temperature, rain, and droughts are putting the population at greater risk of increased poverty and famine. Under current climate conditions, about two million people live in drought-affected areas. In the Far North region, food security, land degradation, and droughts are exacerbating conflicts over dwindling natural resources.

Although Cameroon faces severe climate challenges, the country has opportunities to adapt, build resilience and move toward a low-carbon future. This would require a strategic approach to use the country's potential for renewable energy and its rich natural capital endowment, making these resources central to the country's development model.

"With $58 billion needed in adaptation and mitigation interventions, the private sector will have a central role to play to help Cameroon mitigate the impacts of climate change," said Sylvain Kakou, IFC's Country Manager for Cameroon. "Private investment in agriculture, renewable energy and environment can make a difference in the fight against climate change while supporting growth, poverty reduction, and job creation in Cameroon."

Cameroon has made progress in developing climate policy in line with its National Development Strategy (SDN30), including a set of reforms to create an enabling environment for economic growth, improved governance and institutions, and decentralization. The Central African country is also committed to greenhouse gas emissions reduction of up to 35% by 2030.

The next promising step would be to adopt a law requiring public institutions to integrate climate change into their policy and planning instruments and budget process. Currently, most sectors lack legislation supporting the country's adaptation and de-carbonization goals.

COP 27: Prioritize Food Systems, Climate Finance, Experts Say

Tsim Mavisi

The 27th Conference of the Parties (COP27) of the United Nations Framework Convention on Climate Change (UNFCCC) will be held in Egypt at a time when the African continent is facing worsening impacts of the climate crisis characterized by floods and droughts in the West and Horn of Africa respectively.

It is in this regard, that Dr. Susan Chomba Director of Vital Landscapes, Africa speaking during a World Resources Institute webinar noted that food systems are a key issue that needs to be prioritized at COP 27.

She observed that most of the increase in yields in the continent comes from area expansion which as a result affects other ecosystems that need to be protected. "There is a need to increase investments that can help African countries avoid food production models that are going to be devastating for climate and nature," Dr. Chomba said.

Observing that food systems are not only producing greenhouse gases but are also victims of climate change, she urged African governments to partner with other actors to build resilient food systems that will be able to withstand extreme weather conditions brought about by climate change.

With the inaccessibility of climate action funds being a major problem in fighting climate change, Dr. Chomba opined that one of the ways to overcome the problem was the creation of credible investment projects such as the Great Green Wall Initiative that are attractive to investors.

According to Ineza Grace, Co-Director of the Loss and Damage Youth coalition, COP 27 needs to unlock the accessibility modality of climate finance because the finance that is available is not accessible for African countries despite their vulnerability. She noted that there are too many requirements that are hindering access.

Additionally, she called on the need for COP 27 to address the loss and damage incurred as a result of the negative impacts of climate change. This, Grace said will be addressed by unlocking funds for loss and damage, which needs to be new and additional to the already existing finance mechanisms such as mitigation and adaptation finance.

Also, she noted that there is a need to deliver on the emission reduction ambition since the world is getting warmer and further warming would reduce the chances of survival.

According to Hellen Wanjohi, Resilient Cities Lead, Africa adapting to climate change and building resilient cities is critical for the survival of African cities. She noted that 80% of Africa's growth will take place in cities in the next 25 years with the growth being experienced in secondary and tertiary cities. "This means that there is a need for the development of infrastructures to accommodate the growing population," Wanjohi said.

She further noted that African cities need immediate financial and technical assistance in order to survive the impacts of climate change. "Africa needs robust development finance to support cities," Wanjohi said, adding that the need for blended finance between the governments and the private sector is crucial.

Dr. Daniel Korir, veterinarian and climate change researcher, International Livestock Research Institute (ILRI) at African Protein Summit in Nairobi.

Climate Change: Livestock Intensification not an Option for Africa

By Sharon Atieno

Though the growing population, urbanization, and increasing economic prosperity are driving greater demands for animal products in the African continent, experts have cautioned against livestock intensification to meet this demand.

Speaking during the African Protein Summit in Nairobi, Dr. Daniel Korir, veterinarian and climate change researcher, International Livestock Research Institute (ILRI) observed that if African farmers were to shift from their current smallholder systems to intensification, it would contribute tremendously to the production of greenhouse gases (GHG) reducing the chances of limiting global warming to 1.5 degrees Celsius.

He observed that intensification would not only lead to increased production of nitrous oxide but also methane gas. This is because the main livestock production system in the continent is focused on ruminant animals such as cows, sheep and goats among others.

According to Dr. Korir, methane, a potent GHG, comes from the rumen of ruminants when they digest the feed. "This gas has a global warming potential equivalent to 28 molecules of carbon dioxide," he said, adding that though methane is a short-term gas, lasting for about ten years in the atmosphere, its increased production would increase its concentration in the atmosphere.

Additionally, Dr. Korir said with intensification, the animals would need more concentrates resulting in clearing of large tracts of land for growing the feeds. This would involve destroying protected lands that serve as carbon stocks and thus, releasing more carbon dioxide into the atmosphere.

Sharing similar views, Dr. Victor Yamo, Farms campaign manager, World Animal Protection said, " The narrative has been climate change is being driven by fossil fuels but the reality is that about 30% of climate change is coming from the production system that we are on."

He observed that each animal kept is producing a certain amount of GHG with the biggest contribution coming from enteric fermentation during the digestion process, followed by the feeds and the energy being produced during the distribution of the farm products.

Besides, Dr. Yamo said with intensive livestock production there is a high risk of spread of zoonoses. The poor welfare conditions observed in such farming systems including overcrowding and poor ventilation among others, make it easy to have virus mutations and genetic exchange which leads to rise in different disease pathogens.

Further, it is contributing to the spread of antimicrobial resistance (AMR) due to the excessive use of antibiotics. He observed that currently, about 75% of antibiotics produced end up in the farming systems due to poor welfare which makes the animals prone to diseases.

Intensive production systems are also resulting in unhealthy diets dependent on fast foods, unsafe and adulterated foods due to chemicals used, and welfare conditions of the animals as well as occupational hazards for those working in these systems.

Dr. Yamo called for a mindset change noting that, "we need to recognize that planetary health and high welfare are interconnected. They are also interconnected to human health. We are not going to have good human health if we are disturbing animals."

In this regard, he noted that the adoption of high animal welfare standards which meet certain basic minimum requirements is crucial.

Victor Yamo during a presentation at the African Protein Summit

On the other hand, Mercy Nyangaresi, a public health nutritionist, said that despite animal proteins having high biological value, overdependence on animal proteins leads to increased mortality and morbidity rates associated with non-communicable diseases (NCDs).

She called for the need to consider alternative sources of proteins such as plant proteins noting that "when we eat more crops, it enhances more diversification which increases biodiversity as well as reducing the public health burden."

Over 250 Health Journals Call on World Leaders to Deliver Climate Justice for Africa

By Gift Briton

Ahead of the United Nations climate change conference (COP27) taking place in Sharm El Sheikh, Egypt in November, over 250 health journals across the world have simultaneously published an editorial urging world leaders to deliver climate justice for Africa.

The editorial, which is authored by 16 editors of leading biomedical journals across Africa, including ***African Health Sciences***, the ***African Journal of Primary Health Care & Family Medicine***, and the ***East African Medical Journal***, is simultaneously being published in 50 African journals and other leading international medical journals such as ***The BMJ***, ***The Lancet***, the ***New England Journal of Medicine***, the ***National Medical Journal of India***, and the ***Medical Journal of Australia*** among others.

Prof. Lukoye Atwoli, Dean of Medical College East Africa and Associate Director of Brain and Mind Institute notes, "It is time the global community acknowledges that the climate crisis, while disproportionately affecting the continent, is a global crisis. Action must begin now, and begin where it is hurting most, in Africa. Failure to act will make the crisis everyone's problem very soon."

It is the first time so many journals are coming together to make the same call- reflecting the severity of the climate change emergency facing the world. According to

the authors, despite Africa contributing the least to climate change, the continent has suffered disproportionately. Thus, they note that the damage to Africa should be of supreme concern to all nations, urging wealthy nations to step up support for Africa and vulnerable countries in addressing past, present and future impacts of climate change.

According to the editors, the climate crisis has had an impact on the environmental and social determinants of health across Africa, leading to devastating health effects. In West and Central Africa, for example, severe flooding resulted in mortality and forced migration from loss of shelter, cultivated land, and livestock, while extreme weather damages water and food supply, increasing food insecurity and malnutrition, which causes 1.7 million deaths annually in Africa.

Also, changes in vector ecology brought about by floods and damage to environmental hygiene have also led to an increase in malaria, dengue fever, Ebola virus, and other infectious diseases across sub-Saharan Africa.

According to Bob Mash, Editor of the ***African Journal of Primary Health Care and Family Medicine*** and President of the ***South African Academy of Family Physicians***, Africa is already seeing the devastating effects of climate change on people's health and the need to strengthen community-oriented primary health care is now necessary more than ever.

With estimates indicating that the climate crisis has destroyed a fifth of the gross domestic product (GDP) of the countries most vulnerable to climate shocks, the authors urge that damage to Africa should be of utmost concern to all nations because, in an interconnected world, leaving countries to the mercy of environmental shocks creates instability that has severe consequences for all nations.

They argue that achieving the $100bn a year climate finance target is globally critical in order to forestall the systemic risks of leaving societies in crisis, adding that additional resources for loss and damage must also be introduced.

Although significant progress has been made including early warning systems and infrastructure to defend against extremes, the authors point out that frontline nations are not compensated for impacts from a crisis they did not cause.

This, according to them, is not only unfair, but also drives the spiral of global destabilization, as nations pour money into responding to disasters, but can no longer afford to pay for greater resilience or to reduce the root problem through emissions reductions.

"The climate crisis is a product of global inaction and comes at great cost not only to disproportionately impacted African countries but to the whole world. Africa is united with other frontline regions in urging wealthy nations to finally step up, if for no other reason than that the crises in Africa will sooner rather than later spread and engulf all corners of the globe. By this time, it may be too late to respond effectively. If so far they have failed to be persuaded by moral arguments, then hopefully their self-interest will now prevail," the authors conclude.

Sale of Carbon curbing mangrove loss along Kenyan Coast

By Sharon Atieno

Mwanasha Abdalla, 42, sells sardines in Vanga, a coastal area about 563 km away from Nairobi, Kenya's capital city. Sardine preparation requires a lot of heating as the fish is boiled at high temperatures before being sun dried for sale.

For her business, she would use a canoe full of mangrove wood which she would often buy from a local trader at the cost of shs. 1,000 (about USD 10). This would serve her business for two weeks before she needed to make another purchase.

Typically, mangrove wood is preferred as it can burn for long hours as opposed to terrestrial wood which burns for a short period.

Between 1985 and 2009, Kenya lost about 20% of its mangrove cover, translating to about 450 hectares of mangroves per year. By 2017, at least 40% of mangroves across the coast have been degraded, according to the National Mangrove Ecosystem Management Plan (2017-2027).

A lack of awareness of the true importance of the mangrove ecosystem has been cited as one of the key reasons for this loss. According to the Plan, mangroves tend to be appreciated for the value of the goods that can be extracted (e.g wood and fisheries) and not their intrinsic value such as shoreline protection, carbon sequestration, and biodiversity conservation, among others: ecosystem services which are of higher value but not easily quantifiable in terms of market prices.

However, when Abdalla joined the Vanga Blue Forest group, she became aware of other benefits of mangroves. She stopped using mangroves as a source of fuel and resorted to using terrestrial wood such as casuarina trees. "They may not stay lit for long hours like mangrove wood, but they light faster," she says.

Mwanasha Abdalla taking part in monitoring activities of the Vanga Blue Forest group in Sii island, Vanga Photo credits: Sharon Atieno

Previously in 2018, Abdalla had joined a local conservation group in charge of environment issues dubbed Vumilia Environmental self-help group. Vumilia, together with other groups from the neighboring areas formed the Vanga, Jimbo and Kiwegu Community Forest Association (VAJIKI-CFA). Through the Forest Act 2005, the communities were able to enter an agreement with the Kenya Forest Service (KFS), the national entity in charge of public forests.

Under this Act, forest-adjacent communities are allowed to co-manage forests and form user groups to enable them to use the forest for socio-economic activities that are not in conflict with conservation.

It is in this light that the association was able to form the Vanga Blue Forest user group, with technical support from the Kenya Marine and Fisheries Research Institute (KMFRI). Abdalla now serves as the Assistant Secretary of the group.

The Vanga Blue Forest user group manages 460 hectares of mangroves specifically for the sale of carbon credits – a scheme whereby individuals or companies invest in environmental projects to offset their own greenhouse gas (mostly carbon and methane) emissions produced through daily activities such as traveling, manufacturing and others.

According to Dr Olufunso Somorin, Regional Principal

Officer for Climate Change and Green Growth, African Development Bank, the concept of carbon credits emerged during the Kyoto Protocol discussions in 1997, with the objective to manage or reduce carbon dioxide and other greenhouse gas emissions (GHG) that occur due to industrial activities, which are responsible for climate change.

Carbon credits, Dr. Somorin said, provide a platform for high emitting countries and companies to decarbonize as they help support efforts and actions that reduce the amount of greenhouse gases in the atmosphere around the globe.

"One carbon credit allows for the emission of one ton of carbon dioxide, or the equivalent in other greenhouse gases. Both companies and nations are allotted a certain number of credits, which they can trade to help balance total world emissions," he explained.

Carbon credit schemes usually fall under two main categories: Clean Development Mechanism (CDM) and the Voluntary Carbon Market (VCM). Under VCM where the activities of Vanga Blue User group falls, carbon emitters are allowed to offset their unavoidable emissions by purchasing carbon credits from projects targeted at removing or reducing GHG from the atmosphere. However, when a credit is used for this purpose, it becomes an offset and is moved to a register for retired credits, or retirements, and it is no longer tradable.

Members of the Vanga Blue Forest group wading through the water to reach the mangroves of Sii island to collect data required for calculating the carbon credits during their monitoring activity in the island, Vanga. Photo credits: Sharon Atieno

Studies have shown that without disturbance, forest ecosystems have the ability to remove carbon dioxide from the atmosphere and serve as a net carbon sink thus, offsetting a portion of GHG emissions.

In the United States, for instance, data from the U.S Environmental Protection Agency (EPA) showed that in 2016 alone, carbon storage in forest ecosystems offset approximately 9 percent of the nation's greenhouse gas emissions.

Forests absorb carbon from the atmosphere and transform it to organic matter or biomass through photosynthesis. The carbon is then stored in the roots, branches, trunks, forest floor litter and in soils.

According to Anthony Mbatha, a research assistant, KMFRI, mangroves are a carbon rich ecosystem and are five to ten times more effective in capturing carbon compared to equivalently-sized terrestrial forests.

"The huge carbon captured is stored in both above and below ground carbon pools especially in sediments/ soil pools which approximately accounts for over 50% of the total mangrove ecosystem carbon stock," Mbatha explained.

Similar to other forests, he noted that when mangroves are degraded or their area is converted for other land-uses, their co-benefits are lost as well as their ability to capture and store carbon. Consequently, the stored carbon risks being released back into the atmosphere.

Anthony Mbatha, KMFRI Research Assistant, taking data during monitoring activities of the Vanga Blue Forest group in Sii Island, Vanga. Photo credits: Sharon Atieno

Mangrove vegetation in Vanga Photo credits: Sharon Atieno

The idea of conserving mangroves for the sale of carbon initially began in Gazi Bay, about 60 km from Vanga area. It was the brainchild of Dr. James Kairo, Principal Scientist, KMFRI. In Gazi the project is termed as Mikoko Pamoja meaning "mangroves together".

Kairo spoke during the fifth African conference of Science Journalists which took place from 24th-27th, May where he made a presentation on the project. Established in 2013, Dr. Kairo said Mikoko Pamoja is the first mangrove payment for ecosystem service (PES) in the world whereby ecosystem stewards – that is, local communities -are rewarded for their conservation efforts.

According to a study by the United Nations Environment Programme (UNEP) and other partners, PES focuses on maintaining a flow of specified ecosystem "services"- such as clean water, biodiversity habitat, or carbon sequestration capabilities- in exchange for something of economic value.

Under the PES model, sellers must maintain or enhance specific ecological structures and functions beyond what would have happened in the absence of payment, and remain accountable to independent verifiers (if a buyer requires) to ensure that the "service" being paid for is indeed being delivered. The buyers often vary and could include individuals, companies, government or organizations.

A bit smaller in size compared to the Vanga Blue Forest project, Mikoko Pamoja covers 117 ha and is able to offset about 3000 tonnes of carbon (roughly the equivalent emissions of around 650 cars on the road each year), Dr. Kairo said.

He noted that the activities they conduct under the project include reforestation of degraded areas, surveillance to prevent deforestation, education and awareness, as well as forest monitoring.

"We have three activity areas. In activity area one (107 ha) we are avoiding deforestation, in activity area two we planted mangrove (10 ha) while in activity area three, we are planting 0.4 ha of mangrove per year," Dr. Kairo said.

With a tonne of carbon being sold at USD 10 to 20 depending on the volume bought, the community gets USD 20,000 to 30,000 per year depending on the market, he said.

Mangrove vegetation in Sii island, Vanga
Photo credits: Sharon Atieno

According to Dr. Somorin, the change in carbon prices is because carbon credits are traded on both private and public markets and the price is majorly driven by supply and demand dynamics in the market. Due to the disparity in supply and demand in different countries, prices of carbon credits tend to fluctuate, he says.

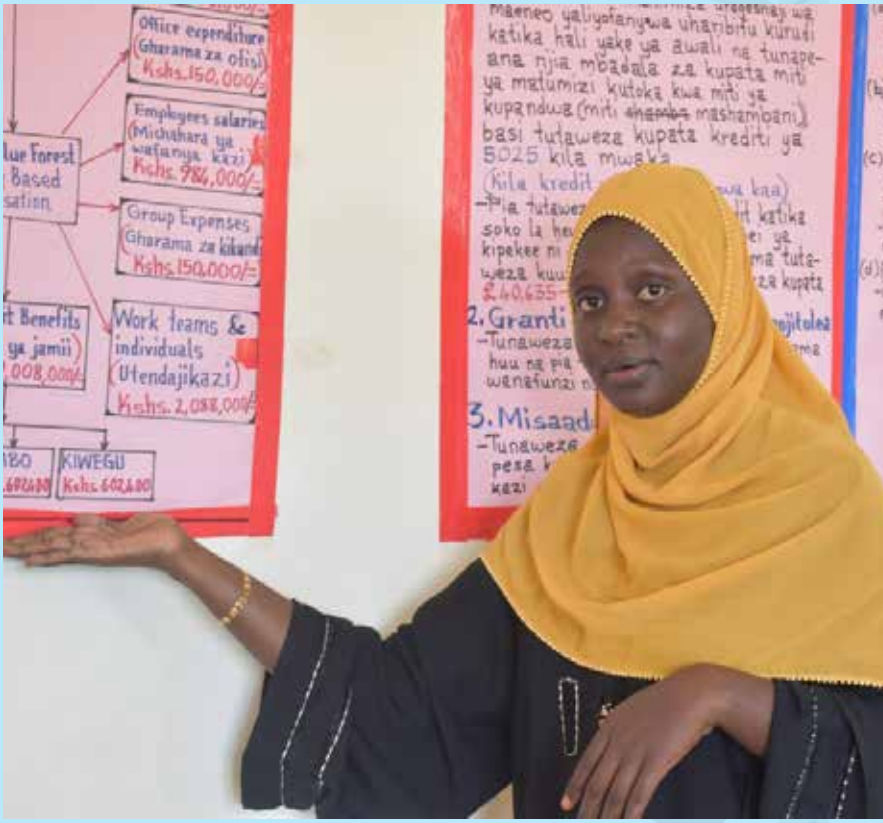
Dr. Kairo notes that because of the success of the Mikoko Pamoja project, KMFRI received funding from Leonardo DiCaprio Foundation (about USD 50,000) which they used to expand the project from Gazi Bay to Vanga in 2019.

Mwanarusi Mwafrica, the Vanga Blue Forest Project coordinator, says their project is able to offset about 5,023 tonnes of carbon per year (roughly the equivalent emissions of around 1091 cars on the road each year).

Now in its second year of selling carbon credits, Mwafrica says for the year 2020/2021 the project sold credits worth shs. 6 million (about USD 52,000).

"The main focus of the project is to conserve the mangrove forests which entails prevention from further deforestation and degradation," she says.

"We do this by creating awareness on the importance of mangroves because what people mainly know is just the direct benefits for example, firewood and wood for construction. We tell them of other services such as shoreline protection, absorption of carbon among others."



Mwanarusi Mwafrica, the Vanga Blue Forest Project coordinator, displaying the chart used by the group to show distribution of money gotten from sale of carbon credits at group's office in Vanga
Photo credits: Sharon Atieno

Additionally, Mwafrica notes that working with community members, they plant fast-growing trees like casuarina trees in schools with the intention that in five or six years they would be mature enough for harvesting so that they can be sold to the community at affordable prices, thus reducing pressure on mangroves. So far, they have grown more than 1800 trees.

Felix Bongo, KFS Forest ranger, Vanga forest outpost measuring the circumference of a tree during the Vanga Blue Forest monitoring activities in Sii Island, Vanga Photo credits: Sharon Atieno

Under the project, the community seeks to rehabilitate five hectares of mangrove land which were degraded by a salt extraction company which converted the area into a salt pan. Adding to the community effort, the project also started reclaiming the land through direct planting and cultivating nursery-raised seedlings of different mangrove species.

"The area hasn't achieved 100% regrowth and the mangroves are really struggling to grow. Through the project we want to break the dykes of the salt pans so as to bring the natural flow of water in the area to flush out the salt water and bring back the previous soil and atmospheric conditions within that area," she says.

"So far, we have recorded the baseline data which includes studying the conditions of the particular area in terms of soil condition, mangrove species and organism type such as crabs and others. Our next move is to break the dykes by digging trenches where there are lines of weakness on the walls of the dykes."

To prevent deforestation, the project has employed two scouts from the community who patrol the project site on a daily basis. They work hand in hand with KFS and report cases of deforestation to them.

Felix Bongo, KFS Forest ranger, Vanga forest outpost, says since the project started, the rate of deforestation has decreased. This has been as a result of increased awareness and the benefits the community has derived from selling carbon credits.

Of the 460 hectares (ha), they have 15 permanent plots where they conduct monitoring for the calculation of carbon thrice a year. In Kiwegu, there are 250 ha which contains 11 permanent sampling plots, Sii island has 200ha and contains four permanent plots, Mwafrica says.

Some of the parameters that are monitored include the height, the number of tree species, extent of forest cover, circumference/ diameter of trees and number of juvenile trees within the plots.

Regeneration is another aspect of the monitoring process, Harith Mohamed, Vanga Blue Forest member says, noting that they have two ways of classifying the trees either using indigenous knowledge or scientific methods.

When using the indigenous knowledge, he says, the trees are classified into three classes depending on their height. Class one is at knee length, class two at the waistline and class three from breast height and above, all based on observation.

When using the scientific method, we observe the leaves and the stem as well as the height. If the height reaches up to two feet it is classified under class one, about three feet is class two then class three is slightly above that, Mohamed explains.

They also keep record of deforestation activities within these plots by counting the stumps. Besides, they monitor the biodiversity which includes crabs and mollusks to inform them whether the area is regenerating or not, he says.

Mwafrica notes that after getting the data, they are assisted by the KMFRI team to calculate the carbon using a special allometric equation. The calculations are compiled in an annual report which is presented to Plan Vivo, a carbon certification foundation, which then approves if the forest is well conserved for sale of carbon to the carbon market.

She says that the Association of Coastal Ecosystem Service (ACES), a charitable organization based in Scotland and the main coordinator of the project, then finds a buyer and sells the credit to them.

"We sell to a range of individuals, businesses, charities and other entities such as conferences, universities etc. We have strong ethical requirements of our buyers in that they must be genuinely committed to sustainability and carbon reduction, and not using carbon offsets as their sole or first route to reducing their carbon footprint," Robyn Shilland, Coordinator Mikoko Pamoja and Vanga Blue Forest projects, ACES said.

"Many of the buyers choose their projects because they have a link to the ocean and so want "blue carbon credits" – for example we sell to marine science university departments, businesses making plastic-free products, or even just individuals with a passion for the ocean."

Shilland adds that buyers come to them through hearing about the projects, rather than ACES having to actively find buyers.

Efforts made to reach out to the county concerning these projects and their benefits have not borne any fruit yet. Though not without limitations, including the fluctuating carbon prices which are subject to demand and supply, for residents of Vanga and Gazi, the system has been a saving grace for them.

The money earned from the carbon credits have been pumped into development projects which had stalled or had been neglected by the local government in the field of education, health, environment, sanitation and water among others.

In Gazi for instance, students were able to receive textbooks purchased by the project and water pumping stations were set up in different locations to shorten the distance residents would need to cover to fetch water from rivers and streams.

In Vanga, the project bought equipment for a secondary school laboratory, furniture of all kinds including tables, benches, pallets and cupboard for storage of medicine were purchased for a local dispensary in Kiwegu, while in Jimbo, a seawall neighbouring an early childhood education centre was constructed to prevent high tides and floods from penetrating the school.

"The value of mangroves is higher than what you see, carbon [credits are] just an incentive to protect the forest. What is most important for such an ecosystem is the fisheries support, the shoreline support, the aesthetic value and the cultural benefits. Carbon is only a trading tool because it is easier to interpret," Dr. Kairo said, adding that such projects are a triple win for climate, community and biodiversity conservation.

Despite the success demonstrated by such projects, Dr. Somorin points out that there are still so many challenges facing the carbon credit mode.

"There has been increasing concerns that participating companies are not as active in making efforts to reduce

Money from sale of carbon credits has helped in furnishing Kiwegu dispensary with tables, pallets, cupboards among others which the facility did not have, Kiwegu.
Photo credits: Sharon Atieno

emissions as they are aware that they can offset their emissions through projects, rather than addressing the root cause of the emissions," he noted.

Additionally, Dr. Somorin said it is difficult to determine the true impact of carbon credits due to double counting, which refers to a situation where two or more companies or countries purchase carbon credits from the same project and then respectively report emission reduction efforts, thus giving the impression that emissions have been reduced more than they actually have.

Similarly, Chris Greenberg, an editor at Greenpeace International, notes in an article that offsetting is a distraction from much-needed climate action as it gives the false impression that there's a way out of the crisis without every government and business cutting their own emissions, which leads to delaying or dampening ambition to do the real work.

Additionally, he notes that nature-based offsetting projects distort economies and take land and resources away from the local communities that need it most. "Nature should remain off limits to corporate control for climate offsets," he said.

Regardless, Abdalla says: "We have seen that mangrove conservation has a lot of benefits and that is what we want in our village."

Apart from being replicated in Vanga, the success of Mikoko Pamoja is being replicated in Tanzania, Mozambique and Madagascar.

A table donated by the Vanga Blue Forest group from sale of carbon credits being used at Kiwegu Dispensary to register patients as they walk in to the hospital, Kiwegu
Photo credits: Sharon Atieno

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Kenya: Kisumu Farmers Reaping from Climate-smart Farming

By Evance Odhiambo

Kaguza Benard, monitoring and evaluation officer at KCSAP

Withered crops and malnourished livestock paint the picture of how adverse climate change can be as you walk around several villages in Lower Nyakach, Kisumu County. The area receives little rainfall that cannot support productive agricultural activities. Residents here are largely dependent on rainwater and this is not sustainable as the climatic pattern is not predictable. The area has over the years been importing agricultural produce from other regions.

A project funded jointly by the Government of Kenya, World Bank and the County Government of Kisumu to a tune of Ksh. 650 million is changing the narrative with many farmer groups targeted. The project that began in 2017 is covering three sub-counties which include Nyakach, Nyando and Kisumu East. Kenya Climate Smart Agriculture Project (KCSAP) is being implemented in 24 counties and has reached 255 farmer groups since its inception.

According to Kaguza Benard, monitoring and evaluation officer at KCSAP, the project deals with climate smart farming by creating agricultural sustainability and also in increasing productivity in the three value chains it is targeting which include sorghum, cassava and indigenous chicken farming.

According to Kaguza, the groups to benefit from the project are chosen based on the three value chains. They are also selected after thorough evaluation by a committee which is made up of ten officials from the project.

He says that the applications are overwhelming because of the impact created by the project. Kaguza noted that they receive close to 500 applications annually from the 24 counties, adding that the applications are always made after their random visit to groups to make a formal introduction of their project. The interested groups are given forms to fill out. The forms are then probed by the selection committee for suitability.

"After meeting the set parameters which also include membership of not less than 10 per group, the groups are trained on the expectations of the project. They are also trained on the project's sustainability as a way of making it beneficial even after the curtain falls on the initiative. The training takes one month and the groups from neighboring sub-counties are consolidated for the purposes of the training," says Kaguza.

He says that after the training, it takes another one month for evaluation and selection of groups to benefit. The selection is done openly through the committee.

Kaguza says that high expectation among farmers is a major challenge they face while selecting groups as

most groups want to be given cash instead of inputs, contrary to the project's bylaws.

"The selection is based on the ability of the group to sustain the project after its completion, availability of market within the group's locality and the groups' previous history in project implementation," he says.

Kasae Model Farmers Group in Nyakach is one of the groups that are now earning decent livelihood, thanks to the climate smart agriculture project. Started in 2014, the group's aim was to fight poverty through poultry farming. This however was hindered by the adverse climatic condition within the Sub-County. The group which was started by 10 women with only five hens now boasts as one of the poultry suppliers within Kisumu County earning them close to Ksh. 500,000 (about US$5000) per month. The membership has since risen to 15.

Damaris Awino, the group's chairperson, attributes this to the input by KCSAP in ensuring that they practice climate smart agriculture. She says that the project gave them 458 improved kienyeji chicken which has so far changed their lives.

"From the chicken we got from KCSAP, we now have over 2000 chicken. We keep improved Kienyeji which is resistant to this harsh climate. Before the project, we were incurring losses since the breeds we had could not survive here," posited Awino.

Awino says that through their group,

Damaris Awino attending to chicks

they have purchased hatching machines and they have the capacity of hatching 200 chicks per day. The group sells the chicks at various stages and the money from the sales are shared among the 15 members with a fraction saved.

"We sell a day old chick at sh.100 (about one dollar), a month old at sh. 300 (about three dollars), two months old at sh. 500 (about five dollars) and from four months old we sell at sh. 400 (about four dollars) per kilogramme," says Janet Akinyi, a group member.

Besides poultry farming, the group has incorporated the growing of indigenous leafy vegetables. The vegetables supplement the 10% nutrition adding value as one of the objectives under KCSAP.

The vegetable is consumed by members and the larger fraction sold in the local markets. They earn up to Ksh. 20,000 (about US$200) from vegetable sales in a month.

According to Kisumu County Agricultural Statistics officer at KCSAP Kevin Kanywira, 70% of the support is used in purchasing farm inputs while 20% of the support is channeled towards alternative livelihood activities.

"I am glad to report that most of our beneficiaries are keen on not only earning a living through selling the end product, but also improving the nutritional standards at family set up," says Kanywira.

According to him, the farm input are given depending on the value chains. Those in poultry farming are given chicks, hatcheries and feeds.

"This we are doing to ensure the farmers realize maximum production. We have so far distributed over 10 cassava chipping machines to groups involved in cassava production. We have also given out sorghum seeds,

fertilizer and grain storage facilities," says Kanywira.

The project officials conduct two visits per month to the farmers to evaluate how the inputs are used and also address challenges that may arise.

In as much as the farmers are reaping from their sweat, disease burden is still a challenge facing them. The farmers said that outbreak of diseases is a threat to their poultry farming. Cost of feeds is also eating into their earnings and this they say varies based on their stock.

"Besides diseases and cost of feeds, we lack extension services. Extension officers have resorted to staying in offices as opposed to going to farmers and assisting with expertise knowledge," says Akinyi.

As the Nyakach farmers are improving their lives through climate smart farming, the same is replicated in Kolwa East Village of Kisumu East Sub County. The area is not only dry but has both sandy and black cotton soil. This makes agricultural activities, especially farming difficult.

Just like Lower Nyakach, the climatic change has rendered chunks of lands in Kisumu East unproductive and most people have resorted to importing the produce. Cassava Pesa Group has however changed the narrative, thanks to KCSAP project. The group's chairman Thomas Mwalo says that he started cassava farming solely in 1997, however, the yield wasn't that pleasing due to the prevailing climatic conditions around his Kolwa East home

"Drought destroyed all my cassava crops in 2002 and this affected my family who relied mainly on cassava as a subsistence crop. I had no option but to buy it elsewhere in Migori County, kilometers away," says Mwalo

Mwalo says that through their Cassava Pesa Group, they are now growing cassava in large scale despite the harsh climatic condition. He says that through KCSAP, they got drought resistant cassava variety called KME-08-02 (Tajirika) that thrives in the area. The project gave them farm input valued at Ksh. 500,000 (about

Kevin Kanywira - Kisumu County Agricultural Statistics officer at KCSAP

USD 5000). This included the cassava cuttings, fertilizer, cassava chopping machine and packaging materials.

"The cassava variety we got is not only drought resistant but also matures fast," he says.

The farmers through the group are now supplying fine chopped cassava to the markets within Kisumu County and beyond. The farmers are now working on value addition mechanisms boost their earning. They intend to grind, package and brand their cassava flour, with supermarkets as their immediate target.

"We sell a 2kg tin at sh. 120. This is not enough; we are in the process of packaging the flour for wider market. We also keep dairy goats as supplement," Says Pamela Anyango, a member of Cassava Pesa Group.

Cassava in a chopping machine

According to Anyango, the group takes home close to Ksh. 700,000 (about USD 7000) per harvest. A fraction of the money is used to lease lands for expansion of the cassava plantation. Their farming has been made possible through irrigating the farms during the early stages of cassava crops; they are then left to grow under maintenance.

Chopped cassava

The cassava is not only sold in the local markets, the surrounding schools also purchase them to boost nutritional standards among students and pupils. Jesse Anjichi, a tutor at Ahero Vocational Training Institute, is a regular customer at Cassava Pesa Group's farm. He purchases 10 bags of cassava per month from the group.

"Our institution has resolved to mix maize and chopped cassava to make flour. We use cassava because of its nutritious value. Our students need carbohydrate to remain active," says Anjichi.

He however says it was not easy to convince the students to take ugali from a mixture of maize and cassava. This is because of the already changed perception on the crop.

"Many initially regarded cassava as poor man's food. This has so far changed. Cassava is served even in first class eateries," says Anjichi.

Cassava farming is however still facing challenges, which include laxity among farmers to adopt to growing it, diseases and rodents that eat the tubers while in farms.

Members of Pamoja Group after harvesting sorghum

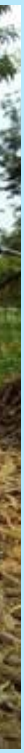
In Nyando Sub- County, Pamoja Self Help Group, is taking up sorghum farming which has so far improved their lives. the KCSAP Monitoring and Evaluation Officer in Kisumu County attributed the success of the project to the zeal shown by farmers to transform agriculturel activities. He said the productive of the three value chains have improved and farmers can sustain the project once their tenure is over.

Delays in completion of the projects and high expectation by farmers are among the challenges they have been facing since the inception of the project.

Kisumu County's Department of Agriculture has confirmed their full support for the project to make the county one of Kenya's food basket.

"Climate smart farming is the way to go as the globe is facing challenges resulting from climate change. Through KCSAP, we are helping in improving the productivity of the less productive areas within Kisumu County. This has resulted into bumper harvest and now our people have food in their stores," says Dr. Paul Omanga, Kisumu County Agriculture Chief Officer.

Climate Change: World Still Off-course in Meeting 1.5°C Target



By Sharon Atieno

Despite countries committing to update their climate pledges to deliver greater emissions cuts during the twenty-sixth Conference of Parties (COP 26), a new United Nations Environment Programme (UNEP)'s report shows that the world is still off-track in meeting the Paris goal of limiting global warming to 1.5°C.

According to the UNEP's Emissions Gap Report 2022, collectively, the number of updated pledges of 166 nations, removes less than one percent off projected greenhouse gas (GHG) emissions in 2030.

"This is completely insufficient. We need to cut 45 percent off emissions by 2030, over and above what current policies will deliver, to get on track to limiting global warming to 1.5°C. For 2°C, the challenge is smaller but still significant: 30 percent by 2030," Inger Andersen, Executive Director of UNEP said in a statement.

The report finds that unconditional Nationally Determined Contributions (NDCs)- what countries could implement based on their own resources and capabilities- could lead to a 66 per cent chance of limiting global warming to about 2.6°C over the century while conditional NDCs, those that rely on external support, reduce the figure to 2.4°C.

Though currently, policies alone would lead to a 2.8°C hike, full implementation of unconditional NDCs and additional net-zero emissions commitments could contribute to only a 1.8°C increase. However, this scenario is not currently credible based on the discrepancy between current emissions, short-term NDC targets and long-term net-zero targets, the report says.

"If we are serious about climate change, we need to kick start a system-wide transformation, now. We need a root-and-branch redesign of the electricity sector, the transport sector, the building sector and food systems. And we need to reform financial systems so that they can bankroll the transformations we cannot escape," Andersen urged.

The report finds that the transformation towards net-zero GHG emissions in electricity supply, industry, transportation and buildings is underway, but needs to move much faster. Electricity supply is most advanced, as the costs of renewable electricity have reduced dramatically. However, the report cautions that the pace of change must increase alongside measures to ensure a just transition and universal energy access.

For buildings, the best available technologies need to be rapidly applied while for industry and transport, zero emission technology needs to be further developed and deployed.

"To advance the transformation, all sectors need to avoid lock in of new fossil fuel-intensive infrastructure, advance zero-carbon technology and apply it, and pursue behavioural changes," the report notes.

With food systems accounting for about a third of GHG emissions, the report calls for reforms to deliver rapid and lasting cuts including protection of natural ecosystems, demand-side dietary changes, improvements in food production at the farm level and decarbonization of food supply chains.

Action in these four areas can reduce projected 2050 food system emissions to around a third of current levels, as opposed to emissions almost doubling if current practices are continued, the report says.

Further, governments are urged to facilitate transformation by reforming subsidies and tax schemes whereas the private sector are called to reduce food loss and waste, use renewable energy and develop novel foods that cut down carbon emissions. Also, individual citizens have been encouraged to change their lifestyles to consume food for environmental sustainability and carbon reduction, which will also bring many health benefits.

"Even if we don't get everything in place by 2030, we will be setting up the foundation for a carbon-neutral future: one that will allow us to bring down temperature overshoots and deliver other benefits, like green jobs, universal energy access and clean air," Andersen said.

"So, I urge every nation, every government to pore over the solutions offered in this report and build them into their climate commitments. I urge the private sector to start reworking their practices accordingly. I urge every investor, public and private, to put their capital towards a net-zero world. This is how we can jam open the closing window for climate action and start to change our world for the better, for everyone."

Health-Centered Response to Climate Change Can Still Secure Safe Future

By Mary Hearty

A health-centered response to the current crises would provide the opportunity for a low-carbon, resilient future, which not only avoids the health harms of accelerated climate change but also delivers improved health and well-being through the associated co-benefits of climate action.

This is according to the 2022 report of the Lancet Countdown on health and climate change dubbed: 'health at the mercy of fossil fuels'.

The report states that climate change is increasing the frequency and intensity of extreme weather events such as high temperatures and heat waves.

As the global climate indicator shows that the average temperatures humans were exposed to during summer seasons in 2021 were 0·6°C higher than the average in 1986–2005, representing twice the global mean temperature increase in the same period (0·3°C).

These environmental changes are driving shifts in the geographic range of climate-sensitive infectious diseases, affecting food and water security, worsening air quality, and damaging socioeconomic systems.

"Changing climatic conditions are increasing the risk of heat-related illness, changing the pattern of infectious disease transmission, increasing health risks from extreme events, putting sanitation at risk, and having multidimensional impacts on food and water security," the report reads.

In South Africa for instance, it is reported that the drought that occurred in Western Cape between 2015 and 2019 restricted HIV patients from getting access to HIV treatment. Although health data was limited, vulnerable populations were likely disproportionately exposed to the drought, resulting in adverse health outcomes.

To avert such health outcomes, the Lancet recommends a just transition from the use of fossil fuels to clean renewable energy. This is because fossil fuels are the most significant contributors to global climate change, accounting for over 75% of global greenhouse gases. Yet in 2021, the total energy demand rose by 59%, increasing energy-related emissions to a historical high. This continuously undermines global health through increased climate change impacts.

"Such response would see countries promptly shifting away from fossil fuels, reducing their dependence on fragile international oil and gas markets, and accelerating a just transition to clean energy sources," the Lancet notes.

As a result, this would reduce the likelihood of the most catastrophic climate change impacts, while improving energy security, creating an opportunity for economic recovery, and offering immediate health benefits.

Furthermore, the Lancet explains that improvements in air quality would help to prevent the 1·2 million deaths resulting from exposure to fossil fuel reported in 2020 alone, and a health-centered energy transition would enhance low-carbon travel and increase urban green spaces, promoting physical activity, and improving physical and mental health.

In the food sector, the report states that an accelerated transition to balanced and more plant-based diets would not only help reduce the 55% of agricultural sector emissions coming from red meat and milk production, but also prevent up to 11·5 million diet-related deaths annually, and substantially reduce the risk of zoonotic diseases.

Notably, accelerating climate change adaptation would lead to more robust health systems, minimizing the negative impacts of future infectious disease outbreaks and geopolitical conflicts, and restoring the first line of defense of global populations.

World Bank Spearheading Climate-Informed Developments

By Gift Briton

As part of the global efforts to reduce greenhouse gas emissions, the World Bank is supporting developing countries to prioritize climate-informed economic developments through resource-based financing.

Through its Country Climate and Development Reports (CCDRs), the Bank is helping developing nations including in Africa, to prioritize the most impactful actions that can reduce greenhouse gas emissions and boost adaptation, while delivering on broader development goals.

The CCDRs (reports that integrate climate change and development considerations) provide facts and statistics for countries to follow for development and identify main pathways to reduce greenhouse gas emissions and climate vulnerabilities, including the costs and challenges as well as benefits and opportunities from doing so.

The reports suggest concrete, priority actions to support the low-carbon, resilient transition with an aim to inform governments, citizens, the private sector, and development partners and enable engagements with the development and climate agenda.

Already produced in over 10 countries in Africa, the CCDRs are acting as pathways towards local development and adaptation action while allowing countries to look regionally and work together on common actions and scale them up in climate adaptation.

Speaking during a side event at the ongoing COP27 meeting in Egypt, World Bank Group President, David Malpass noted that the world is facing a development crisis with developing nations facing extreme hunger and inflation shaped by higher food, fertilizer, and energy prices, at a time when they are also struggling in other areas of climate change adaptation and COVID -19 pandemic.

Furthermore, according to Malpass, Africa has a big call for action on adaptation financing. Therefore, it is critical for nations to adopt a holistic approach in their development agenda including integrating climate adaptation and developments since this will enable countries to reduce emissions from various industries including agriculture, energy, and steel among others, adding that adaptation is very important for the developing countries since they are the most impacted by climate change yet they contribute the least.

In order to attain this, countries are advised to bring on board all donors, private sectors, and the financial community to provide climate adaptation financing by providing resources that are able to use verifiable emissions reduction credits.

As one of the main climate change funders, World Bank has committed up to USD 32 billion in climate financing, half of which is directly going into adaptation. However, the world bank boss notes that they cannot do that all alone.

Therefore, he calls on more donors and the global community to step up investments in climate adaptation especially in developing nations, adding that most global efforts on reducing greenhouse gas emissions majorly focus on coal but to limit global warming below 1.5 degrees Celsius, it is also important to focus on reducing methane gas emissions accounting for over 25% of the global warming.

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