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## **CLIMATE CHANGE**



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## Contributors

Managing Editor

Daniel Otunge

Editor

Sharon Atieno

Head of Technology

Anthony Rume

Senior Science Correspondents

Mary Hearty

Gift Briton

Science Correspondents

Joyce Ojanji

Tsim Mavisi

Administration and Coordination

Leo Ogwago

Graphic Design

Vincent Uba - VUMA Cool Graphics

Founding Editor

Otula Owuor

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# Call for Transparency in Climate Action

By Gift Briton

To reach net-zero emissions by 2050, access to reliable climate data and information is crucial, world leaders say during a high-level event themed “Together4Transparency” at the just-ended conference on climate change (COP27).

Global leaders have stressed the need for all countries and actors to have access to reliable greenhouse gas emissions estimates, noting that such information plays a key role in reducing risks and uncertainties in order to attract financial support for action.

“The health of our planet – and life as we know it – depends on each of us doing our part to address the climate emergency and move us closer to net-zero emissions by 2050. We must act now to achieve results and ensure that promises made are promises kept. But to ensure that, we need to have reliable climate data and information,” Ovais Sarmad, deputy executive Secretary of United Nations Framework Convention on Climate Change UNFCCC, said during the opening ceremony.

“The reporting, review and consideration of this climate data and information are referred to as ‘transparency’. Without it, we are left to act blindly, without knowledge of our circumstances and our impacts. This is why transparency is at the very core of the Paris Agreement, and everything we do here.”

In his opening remarks, former US Vice President, Al Gore, also called for “radical transparency” to guide countries and organizations toward a net-zero emissions future, observing that “you can’t manage what you cannot measure”.

Sharing similar sentiments, Chair of the Subsidiary Body for Implementation (SBI), Marianne Karlsen, UN Climate Change Transparency Director,

Donald Cooper and Egyptian YOUNGO representative, Riham Refaat, reinforced the role of the Enhanced Transparency Framework in ensuring that the Paris Agreement is effective and credibly implemented.

Turning to the private sector, IKEA’s Chief Sustainable Officer, Pär Stenmark, noted that transparency is about corporate accountability, becoming a vehicle of change, and providing a “backbone for the better”.

Also, African Director of the High-Level Climate Champions, Bogolo Kenewendo, speaking from a policy-making perspective, noted that transparency is about “making good on promises”, elaborating that it is about knowing what we’ve committed to, what is being done, and what more we need to do.

From her view, transparency doesn’t apply only to countries’ action but it is also about how non-state actors, including the private sector, can help countries to reach their nationally determined contributions (NDCs).

Furthermore, Global Climate Ambassador and CEO of the Caribbean Climate-Smart Accelerator, Racquel Moses, defined transparency as “a carrot, not a stick”. In her view, transparency challenges climate actors to do more, to do better, and in identifying leaders, it helps us all to learn from the trail blazers.

Chair of the UN Secretary-General’s Youth Advisory Group on Climate Change, Nisreen Elsaïm, challenged: “Are we really ready to be transparent, given how judgmental people can be when information is shared?”

For governments, Elsaïm argued, the incentive lies in making promises – but not always in fulfilling them, which is why transparency is a critical part of holding countries accountable.

# Data Needed to Inform Decisions

By Mary Hearty



Dr. Rockstrom

The newly released [report](#) on Insights in Climate Science has proven that without data and evidence to inform decisions and support programs and policies, urgent climate action cannot happen.

According to Simon Stiell, United Nations Climate Change Executive Secretary, science is at the heart of everything that we do. It provides evidence and data on the impacts of climate change, but it also gives us the tools and knowledge on how we need to address it.

Dr. Johan Rockstrom, Professor in Earth System Science and director of the Potsdam Institute for Climate Impact Research highlighted the insights during a side event at the 27<sup>th</sup> Conference of Parties (COP27) in Sharm El-

Sheikh, Egypt.

This is because investing in mitigation is a way of reducing the need to invest in adaptation and resilience.

### *Myth of endless adaptation*

Despite having a remarkable capacity to adapt, humans and ecosystems will be increasingly confronted with intolerable climate change impacts that they will not be able to handle as the planet continues to warm.

Adaptation alone cannot keep up with the impacts of climate change which already is far worse than previously predicted.

“1.5 degrees Celsius is not a goal, it is a physical limit. When

we go beyond it, we are likely to trigger tipping points. We also have scientific evidence that it also poses limits to adaptation,” Dr. Rockstrom explained.

Therefore, he said, effective syncing of ambitious mitigation and adaptation agendas, in light of emerging science on limits to adaptation, is needed in order to avert and minimize further losses and damages.

“Rapid mitigation is more urgent than ever. As global temperatures rise, adaptive responses become less effective,” the scientists stated in the report.

## *Vulnerability hotspots cluster in regions at risk*

According to the report, vulnerability hotspots are clustered around regions at risk including Central America, Asia, the Middle East, and several regions of Africa like the Sahel, Central and East Africa.

“We were able to identify these hotspot regions that have socio-economic risks across the world. 1.6 billion People already live in vulnerability hotspots, a number that will double in 2050 if we continue burning fossil fuels,” Dr. Rockstrom said.

## *Threats from climate-health interaction*

According to the report, this is a rapidly emerging field of research where health scientists and climate change scientists are putting forward the evidence that the impacts of climate change on the health of humans, animals, and entire ecosystems are increasingly widespread, and new risks are emerging.

This is not only extreme heat, wildfires, and floods, it also poses the risk of infectious diseases increasing.

“Therefore, we need urgent policy advancement, surveillance, early warning systems, and multi-sectorial information sharing and action to make the climate agenda a true human-health protection agenda,” the climate research expert advised.

“We also need the mitigation and adaptation investment done in an integrated manner for human health.”

## *Climate mobility*

According to Dr. Rockstrom, scientific evidence on the ground shows that climate change is increasingly causing a threat and amplifying displacement. Migration is potentially pushing societies towards conflict.

Thus, it is important to facilitate safe and orderly migration as an adaptive strategy to climatic pressures, including circular migration.

Though, to ensure that migration serves as an efficient adaptation, it remains crucial to prepare receiving areas ahead of time to absorb the inflow of climate migrants. This includes the preparation of labour and housing markets, as well as cultural integration, he advised.

## *Human security requires climate security*

Dr. Rockstrom said there is rising evidence that in order to have a secure and peaceful future, climate change must be addressed rapidly.

For instance, the report states that human insecurity, propelled by resource-scarcity and decreased productivity of agricultural lands, can increase tensions within and across communities, in some instances contributing to violent conflict.

Consequently, environmental crimes, such as illegal deforestation, fishing, logging and mining, can increase.

These activities precipitate environmental destruction, both directly and indirectly yielding Greenhouse Gases (GHG) emissions, for instance, through land-use changes.

## *Sustainable land use essential to meet climate targets*

A radical shift in land use is required to achieve net-zero carbon emissions by 2050, according to the report.

Climate mitigation through land use change can support multiple co-benefits. For example, preventing the conversion of natural forests, protecting existing primary and old-growth forests, and restoring degraded forests can

protect diverse ecosystems, environmental services, and livelihoods while capturing and storing more carbon.

Scientific evidence by the IPCC shows that 25% of greenhouse gas emissions are absorbed by intact nature.

While agricultural expansion is a major driver of forest loss in the tropics and thus a key driver of GHGs emissions, biodiversity loss and the degradation of ecosystem services vital to the livelihoods of nature-dependent and rural people.

The report also urges countries to strengthen forest-based actions of the Paris Agreement, to prevent the conversion of natural ecosystems, particularly tropical deforestation and degradation.

At the national and local levels, policymakers are advised to implement policies and incentives to reduce non-CO<sub>2</sub> gas emissions, such as methane and nitrous oxide, from livestock and other agricultural practices.

### *Private sustainable finance practices failing to catalyze deep transitions*

Dr. Rockstrom observed that all the good work on sustainable finance is still operating within the currently existing business models, which are not substantially shifting the allocation of capital towards meaningful mitigation.

“We are still doing a lot of good work on finance but it is only scratching on the surface, the deep indent is not shifting the financial flows at the pace and scale required,” he said.

The finance sector is, therefore, advised to ensure that the sustainable finance practices adopted to allocate capital to climate-friendly investment actually lead to low-carbon development and climate resilience in the real economy.

### *Loss and damage*

He called for urgent planetary imperative global policy response on loss and damage.

Though is a complex and challenging agenda as current impacts are posing unavoidable loss and damage, Dr. Rockstrom said we need measures for finance, social protection, and humanitarian action.

He added that we also need investments to avoid future impacts causing loss and damage that we may not even be able to cope with.

### *Inclusive decision-making for climate-resilient development*

“A lot of social sciences are not surprisingly showing how we need to get local scales, local needs, local communities, multi-sectoral stakeholders engage to have climate policy implementation,” Dr. Rockstrom said.

Climate-resilient development is built on societal choices that go beyond the formal decision-making of policymakers, the report notes, adding that being inclusive and empowering in all forms of decision-making has been shown to lead to better and more just climate outcomes.

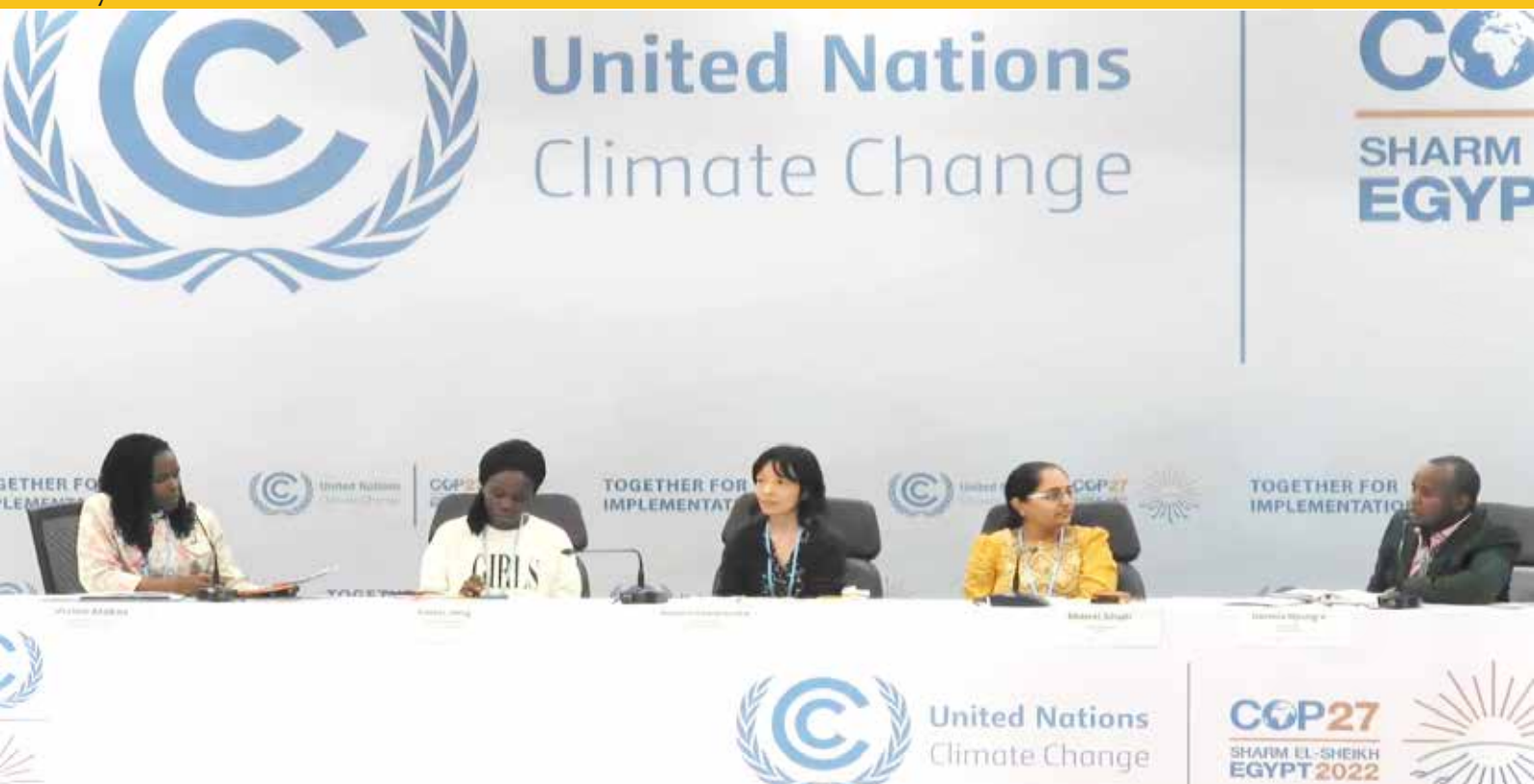
### *Breaking down structural barriers and unsustainable lock-ins*

Additionally, the report finds that there is unequivocal scientific evidence showing that changes in systems are required to be able to decarbonize the global economy, but those changes are not seen in the real world.

Therefore, the structural barriers that are upstream causing the inability to move to transformative changes need to be broken down, Dr. Rockstrom suggests.

# Climate Resilience: Include Gender in Solutions

By Tsim Mavisi



The climate crisis has posed a great threat to women and girls worldwide making them more vulnerable than before. Thus, experts have called for gender inclusion in approaches and solutions to increase climate resilience.

They were speaking during a Consultative Group on International Agricultural Research (CGIAR) Gender Platform side event at the COP 27 in Egypt to explore gender-responsive approaches and solutions to increase climate resilience.

Anke Oppermann, of the German Federal Ministry for Economic Cooperation and

Development (BMZ) noted that women and girls experience disproportionate impacts from climate change yet they don't have access to coping strategies due to structural inequalities and restrictive social norms.

Opperman observed that women in many countries have limited knowledge of climate adaptation strategies. She further observed that women only account for under 14% of landowners worldwide which limits their ability to act even with the information.

"These examples show that the increasing threat to poverty and hunger due to unequal

access to resources and deeply entrenched social and gender norms needs to be addressed through a gender transformative feminist approach," she urged.

Feminist development policies are aimed at bringing women and girls to the center of every food and development program as well as overcoming all forms of discrimination.

Claudia Ringler, deputy division director of the International Food Policy Research Institute (IFPRI), noted that men are leaving agriculture faster than women in response to climate extreme

events due to the inability of women to find non-agricultural jobs.

“The share of women in agriculture is growing. As such it should be the interest of the private sector and the government to directly reach out to women farmers with agricultural information and climate resilience strategies,” Ringler said.

According to a research done by IFPRI in Uganda, there is a significant gender gap in awareness of climate resilience strategies in favor of men. Additionally, more women than men identified lack of

funds and information as the main constraint that hinders them from adopting climate resilience strategies.

According to Dr. Rachel Ker, Professor of Global Development at Cornell University in Ithaca, USA, agroecology is one of the climate-resilient strategies women can adopt to ensure food security.

*Agro-ecology* is a people-centered system of sustainable agriculture and a social justice movement driven by local farmers and other food producers to maintain power

over their local food systems, protect their livelihoods and communities, and defend people’s right to nutritious and diverse food, she said. It focuses on uniting generations of indigenous knowledge, farmer-driven and science-based innovation, and an ecosystem’s natural processes.

Dr. Ker citing the 6<sup>th</sup> Assessment Report of the Intergovernmental Panel on Climate Change (IPCC), noted that the gender transformative approach is an important strategy for changing structural inequalities.

## AGRA President: Gender Equity Crucial in Achieving Climate Goals

By Gift Briton

With the climate crisis disproportionately impacting Africa, which contributes the least to climate change, experts urge that gender equity, including increasing women’s access to and control of resources and leadership roles, is critical in achieving climate goals.

According to Dr. Agnes Kalibata, President of the Alliance for Green Revolution in Africa (AGRA), the agricultural sector play an important role in reducing the impacts of climate change in Africa. However, despite being the main actors in agriculture, women are sidelined in leadership positions and have limited access to and control of resources.

As such, Dr. Kalibata said gender equity, including channeling investments to women, creating enabling environment and increasing their access to leadership positions, will enable women to apply their indigenous knowledge to make lasting and scalable changes in climate change adaptation and mitigation.

She was speaking a side event on the role of African women in climate change mitigation, adaptation and response organized by AGRA during the recent COP 27 held in Egypt

She said that women have robust indigenous knowledge regarding water harvesting and restoration, food preservation and rationing, and natural resources management among others. Hence, providing them with networking

facilities to boost their understanding of what role they play in climate change mitigation is important.

Other panelists who spoke also touched on the importance of empowering women through localized training, skills on matters relating to climate change adaptation and mitigation and increasing their participation in policy dialogues, leveraging their influence at household and community levels.

Josefa Sacko, African Union Commission's Commissioner for Agriculture, Rural Development, Blue Economy and Sustainable Environment, said: "We need to create a gender balanced society and amplify women's voices in climate change to create awareness for policy, strategy and practices and leverage their leadership so that they can use their native capabilities in climate adaptation and mitigation."

Sacko added that there is a need for aggregating climate data to enable countries to work from a data-driven perspective.

Furthermore, Dr. Susan Chomba, Director, Vital Landscape at World Resource Institute(WRI), noted that Africa lacks adequate representation of women in the research field. Thus, there is a need for more women scientists to provide their expertise in transforming food systems.

She added that this will enable more women to take part in building evidence that is needed for creating sustainable resilient food systems informed by their understanding of the African context, social and cultural dynamics.

This can be achieved by creating a working environment that enables women to thrive, recognizing their work and being aware of gender differences as well as financing their work.

For instance, Dr. Chomba notes that landscape restoration systems including agroforestry have positive impacts on food security in the continent, stressing that it is not just enough to plant trees but it is also crucial to plant trees at the right place and time for the right purpose.

Investing in agroforestry tree species that help to fix biological nitrogen into the system will save money for most farmers and improve soil health in the long term so that we are having fewer negative effects from excessive use of external inputs, she said.

Although several initiatives focusing on empowering women to take part in climate change mitigation have been conducted across Africa, most of these initiatives end up at the pilot stage. Most of the initiatives, experts say, can help in climate change mitigation and adaptation if they could be scaled up.

# Include Trade in Climate Action, Dr Ngozi Okonjo-Iweala WTO Director General Says

By Sharon Atieno



**T**rade has a hand in spreading emissions and can be harnessed as a force multiplier for countries' mitigation and adaptation efforts by reducing costs and increasing impacts, says Dr. Ngozi Okonjo-Iweala, Director-General of the World Trade Organization (WTO).

"Trade is one of the missing parts of the puzzle for more ambitious and effective climate action while the policies can foster and accelerate transition to a low-carbon economy, by providing access to innovations in clean energy or low-carbon technologies," Dr Okonjo-Iweala noted.

According to a WTO simulation, eliminating trade barriers on selected energy-related environmental goods could boost exports by five percent by 2030. The resulting increases in energy efficiency and growth in renewable uptake would lead to a 0.6% net reduction in global carbon emissions.

Calling for cooperation among all global

economies, Dr. Okonjo-Iweala cautioned against decoupling economies and creating separate trade blocks as it will impair the success of climate action.

"The fragmentation of supply chains into regional groupings and the reassuring of manufacturing risks delaying the transition to a green economy and making it costlier," she said, adding: "We also need cooperation with regards to the methodology and approaches used to disincentive- carbon emissions."

Dr. Okonjo-Iweala noted that cooperation is also needed in the methodology and approaches used not to incentivize carbon emissions such as carbon pricing. Without coordination and common approaches, she said, there are significant risks that fragmented measures could be seen leading to trade frictions.

Citing the floods in Pakistan and Nigeria as well as the drought in the Horn of Africa, she cautioned, "We simply cannot afford fragmentation so late in the game of climate change."

Additionally, Dr. Okonjo-Iweala called on developed countries to honor their USD 100 billion climate finance commitment to developing nations and the International trade cooperation to amplify countries' mitigation and adaptation efforts.

The Director-General also urged world leaders to join WTO in laying out a trade roadmap for a just and ambitious response to climate change.

Meanwhile, the organization has launched its 2022 World Trade Report which explores the interlinkage between climate change and international

# Ethiopia's Climate Adaptation Needs Financing Support

By Mekonnen Teshome

With the adoption of a Climate Resilient Green Economy Strategy (CRGES), Ethiopia has made exemplary climate change adaptation moves over the last decade.

However, the national program is now challenged by a lack of global climate financing.

The country says that it needs 157 billion dollars to implement its Long-term low-emissions development strategies (LT-LEDS).

Ethiopia's climate financing challenges were brought to light by the country's Environmental Protection Authority (EPA) experts at the Sharma El Sheikh Climate Summit in Egypt.

According to the experts, though Ethiopia is currently facing the worst impacts of climate change never seen in the last 40 years of its history, the support from "development partners" was negligible in relation to climate change financing.

The EPA's Director of International Environmental Agreements Negotiations, Mensur Dese, during the country's COP27 sideline report, indicated that impacts of climate change, including recurrent drought, flash floods, and erratic rains, have increased drastically over the last four decades in Ethiopia due to the ever-changing climate.

The experts who presented Ethiopia's National Adaptation Plan (NAP), further elaborated that low-land areas of the country, in the Somalia, Oromia, South and Southwest regional states, have been severely affected due to the human-induced challenge.

This year's drought continues to threaten people's livelihoods due to water scarcity and

food insecurity. As to the experts' report 8.1 million people were affected by the drought, over 2.1 million cattle died as a result, and 22 million are still at risk. The situation in Eastern Africa in general and Ethiopia in particular calls for an immediate global climate financing response.

Ethiopian Prime Minister Abiy Ahmed, noting the slow-moving and unfulfilled promises of the developed countries, underscored that: "It is past time to address the growing financial and technological needs. Pledges must be translated into new resources and support. The time to avert the worst effects of the climate crisis is running out. We must now scale up our efforts."

"Increased funding must reflect the magnitude of Africa's challenge. Countries must honor their climate pledges, provide the necessary financing, and address the outstanding issues of loss and damage and the carbon trading mechanism in ways that allow for faster results."

Prime Minister Abiy said Africa is the most vulnerable to climate change while accounting for less than 5% of global greenhouse gas emissions and approximately 17% of the total global population.

Nevertheless, he added that the continent receives less than five percent of the world's climate fund, which is mainly in debt.

Developed countries like the United Kingdom, the United States, the European Union, and Australia acknowledged that there is currently a funding gap in addressing loss and damage, at an informal consultation on loss and damage finance on November 10<sup>th</sup> 2022,

during COP27.

As part of COP negotiations, developed countries pledged to provide \$100 billion in climate finance to developing countries by 2020. But they are yet to meet the commitment.

With the announcement of \$150 million donation for Africa's adaptation to climate change by US and Egypt announced this week, it seems that the appeal is being fulfilled, however, the global financial requirement is huge as the impact of climate change is rapidly increasing.

To this end, a United Nations-backed report presented at COP27 reveals that developing and emerging countries excluding China need investments well beyond \$2 trillion annually by 2030 if the world is to stop the global warming juggernaut and cope with its effects.

One of the lead authors of the report, Nicholas Stern confirms that rich countries should recognize that it is in their vital self-interest, as well as a matter of justice given the severe impacts caused by their high levels of current and past emissions, to invest in climate action in emerging markets and developing countries.

Abbas Mohamed, Chief Executive Officer of Economic Analysis and Policy at the Ministry of Planning and Development, in his brief to donor countries and development partners in Sharm El-Sheikh, solicited the support of development partners to help Ethiopia implement its plan.

He told participants that the country envisages an average of 9.1 percent economic growth in 30 years' time when the plan is implemented and 85.3 million jobs will be created due to the green economy the country is going to realize.

## French Firm Partners with Kenya to Develop Green Fertilizer Supply Chain

By Tsim Mavisi

In an effort to replace imported fertilizers polluting environment, Kenya and Fortescue Future Industries (FFI) in France signed binding Framework Agreement to fast-track Kenya's development of affordable green fertilizer supply chain and other green hydrogen-based industries and its derivatives.

The agreement was signed on the sidelines of the 27<sup>th</sup> Conference of Parties (COP 27) witnessed by the President of Kenya, Dr. William Ruto, and Executive Chairman of FFI, Dr. Andrew Forrest.

For Kenya, this will create fossil-fuel-free fertilizer, a strong local industry, skilled job creation, and lessen Kenya's dependence on expensive fertilizer imports from foreign nations.

Under the Agreement, Kenya and FFI will build a 300MW capacity generation of green ammonia and green fertilizer facility by 2025. This will provide affordable green fertilizer to the domestic market and address food security, while also negating the need for importing fertilizer.

The parties intend for this to be followed by the development of two further projects that would scale up renewable electricity generation for green industries

by up to 25GW, to produce up to 1.7 million tonnes of green hydrogen per year for export.

The Agreement will entrench FFI's commitment to fast-track significant investment to develop green industrial facilities in Naivasha, Mombasa, and Lamu, creating thousands of new jobs and delivering significant manufacturing and industrial development to Kenya.

The initial green hydrogen and green ammonia facility to be located in the Naivasha vicinity of the Olkaria geothermal field will move to a pre-feasibility study, with a final investment decision from FFI expected in 2023.

President Ruto noted that this Agreement will help to support further economic and infrastructure development in Kenya creating opportunities for local industries, businesses, and communities.

“Today marks the beginning

of what we all believe will be a long and fruitful partnership between Kenya and FFI,” he said. “We are committed to Kenya being a leader of renewable energy in Africa. We look forward to partnering with FFI to accelerate the global energy transition for the benefit

of the continent.”

“By stepping away from fossil fuels to use green ammonia, Kenya can eliminate its reliance on imports, reduce the cost of fertilizer and increase its food and economic security,” said Dr. Forrest.

## Include Nuclear Power Propel Achievement of Net Zero Emissions

By Mary Hearty

Countries have been urged to include nuclear power among national strategies to achieve the global goal of net zero emissions by 2050.

Speaking at the Atoms4Climate Pavilion, a side event at the climate change conference (COP 27), Li JunHua, Under-Secretary-General for Economic and Social Affairs at the United Nations Economic, said nuclear power significantly avoids one gigaton of carbon dioxide-equivalent emissions per year.

He added that nuclear energy can be used to monitor pollution, and helps in the diagnosis and treatment of major diseases.

“The contribution of nuclear energy in the future will depend on how each country evaluates nuclear power against renewables and alternatives,” JunHua said, noting that “we must also acknowledge that nuclear safety remains a significant public concern as long-term management of nuclear waste is yet to be addressed”.

According to Dr. Matthew Opoku Prempeh, Ghana’s Minister for Energy, as countries seek to meet their nationally determined contributions (NDCs), nuclear energy should be part of their mix of energy solutions. He acknowledged that

Ghana commenced its nuclear program about seven decades ago with the establishment of an atomic agency commission.

“We hope that road transportation, electricity production, science and technology, the use of nuclear will be promoted to ensure we have a clean, safe, cheap and sustainable energy for socio-economic development and for improvement in science and medicine,” he explained.

On safety concerns, Prempeh said we must embed a peaceful civilian use of nuclear technology for energy production. “Because if we don’t, we don’t see how we will be able to transition to a net zero, hence we are going to suffer more.”

At the moment, the International Atomic Energy Agency (IAEA) has cooperated with the Food and Agriculture Organization of the United Nations (FAO) to reduce greenhouse gas emissions while enhancing agri-food sector by bringing nuclear approaches and techniques for food and agriculture.

Dominique Mouillot, President of Women in Nuclear, also said they are advocating for the inclusion of nuclear energy solutions because women and children, who are traditionally vulnerable, are severely affected by climate change.

Extreme weather events are affecting access to clean water, exacerbating food scarcity in many regions, and threatening existing energy infrastructures that provide power to schools and homes.

Nuclear technology can provide carbon dioxide pollution-free electricity as well as access to clean water by desalination, or providing clean hydrogen to power vehicles.

“If we are to reverse the current trend, we need to develop and deploy greenhouse gas-free energy solutions that are affordable, accessible, and suitable for a wide variety of populations and geographic regions suitable for women and children,” Mouillot stated.

## UN Satellite Based Methane Detection System launched

By Mary Hearty

To limit warming to 1.5 degrees Celsius and avoid near-term tipping points, the world must rapidly reduce methane emissions in addition to decarbonizing the global energy sector.

It is for this reason that the United Nations (UN) has launched a new satellite-based global system to detect emissions of methane gas.

Launched at the COP27 on climate change (COP 27), the Methane Alert and Response System (MARS), is a data-to-action platform set up as part of the UN Environment Programme (UNEP) International Methane Emissions Observatory (IMEO) strategy to get policy-relevant data into the right hands for emissions mitigation.

Methane is a powerful greenhouse gas, contributing at least a quarter of today's climate warming. According to the Intergovernmental Panel on Climate Change (IPCC), we must cut methane emissions by at least 30% by 2030.

“As UNEP's Emissions Gap Report showed before this climate summit, the world is far off track on efforts to limit global warming to 1.5°C,” Inger Andersen, Executive Director of UNEP, said at COP 27.

“Reducing methane emissions can make a big and rapid difference, as this gas leaves the atmosphere far quicker than carbon dioxide. The Methane Alert and Response System is a big step

in helping governments and companies deliver on this important short-term climate goal.”

### Connecting methane detection to notification processes

MARS will be the first publicly available global system capable of transparently connecting methane detection to notification processes. It will use state-of-the-art satellite data to identify major emission events, notify relevant stakeholders, and support and track mitigation progress.

“We are seeing methane emissions increase at an accelerated rate. With this initiative, armed with greater data and transparency, companies and governments can make greater strides to reduce methane emissions and civil society can keep them accountable to their promises,” said Dr. Kelly Levin, Chief of Science, Data and Systems Change at the Bezos Earth Fund.

Beginning with very large point sources from the energy sector, MARS will integrate data from the rapidly expanding system of methane-detecting satellites to include lower-emitting area sources and more frequent detection.

Data on coal, waste, livestock and rice will be added gradually to MARS to support Global Methane Pledge implementation.

“Cutting methane is the fastest opportunity to reduce warming and keep 1.5°C within reach, and this new alert and response system is going to be a critical tool for helping all of us deliver on the Global Methane Pledge,” said John Kerry, U.S. Special Presidential Envoy for Climate.

## Components of the Methane Alert and Response System

MARS will use data from global mapping satellites to identify very large methane plumes and methane hot spots and attribute the emissions to a specific source. UNEP will then notify governments and companies about the emissions, either directly or through partners, so that the responsible entity can take appropriate action.

If requested, MARS partners will provide technical or advisory services such as help in assessing mitigation opportunities. UNEP will continue to monitor the event location and make the data and analysis available to the public between 45 and 75 days after detection.

## Developed under the Global Methane Pledge Energy Pathway

The platform has been developed in the framework of the Global Methane Pledge Energy Pathway to catalyze methane emissions reductions in the oil and gas sector, advancing both climate progress and energy security.

The Energy Pathway was launched in June 2022 by the United States, the European Union, and 11 countries namely, Argentina, Canada, Denmark, Egypt, Germany, Italy, Japan, Mexico, Nigeria, Norway, and Oman- with initial funding from the European Commission, the US Government, Global Methane Hub, and the Bezos Earth Fund.

These participating countries commit to supporting these efforts by providing new technical and financial resources and by enhancing domestic projects and policy action.

Countries and supporting organizations have announced nearly US\$60 million in funding to support the implementation of the Pathway.

“Therefore, Global Methane Hub is pleased to partner with UNEP and the Bezos Earth Fund, on providing critical resources – to the MARS initiative – that can enable the identification and rapid response to major methane emissions from the energy sector, as well as take the first steps in enabling satellite observations to address methane emissions from the agricultural sector.”

In addition to supporting MARS, the Global Methane Hub and the Bezos Earth Fund are providing funding for other UNEP IMEO activities.

These include baseline studies and initial work on agricultural methane emissions, where integrating multi-scale ground measurements with emerging satellite capacity is expected to provide improved quantification.

MARS will allow UNEP to corroborate emissions reported by companies and characterize changes over time. MARS will be implemented with partners including the International Energy Agency, and the UNEP-hosted Climate and Clean Air Coalition.

The Energy Pathway is a critical implementation step of the Global Methane Pledge that will accelerate the deployment of the fastest and most cost-effective methane mitigation solutions available today.

“The science is clear. We need to reduce global methane emissions by at least 30 percent by 2030, to keep 1.5°C alive. Fortunately, action on methane emissions are one of the most cost-effective and impactful action a country can take,” said Marcelo Mena, Chief Executive Officer (CEO), Global Methane Hub.

# CIFOR-ICRAF Launch Tree-Based Climate Adaptation Platform

By Mary Hearty

The Centre for International Forest Research-World Agroforestry Centre (CIFOR-ICRAF) has launched a new transformative partnership platform- 'TreesAdapt' that is set to support countries in the development and implementation of climate change adaptation solutions for and through tree-based systems including forests, trees, and agroforestry.

"Adaptation is the immediate concern of local actors. Focusing on adaptation thus facilitates their engagement. It is because of the recognized and increased benefits provided by forests and trees that local communities have the interest to facilitate and support their adaptation, conservation, and sustainable management – which in turn are indispensable for their long-term contribution to mitigation," said Vincent Gitz, CIFOR-ICRAF's Director of Program and Platforms during the launch at the Global Landscapes Forum (GLF) Climate event in Sharm el-Sheikh.

In addition, Cécile Ndjebet, the president of an African Women's Forestry Network, REFACOF, highlighted the importance of gender inclusivity and awareness when leveraging trees for adaptation.

She said that this approach will only make sense if it considers what women are doing in the forest sector, what challenges women are facing there, and how their situations can be improved.

"For rural and Indigenous women, trees for adaptation should address three main issues:

tenure security; value chain development for the activities they are conducting; and networking and learning among women worldwide – across continents, across countries, and across communities," she said.

Peter Minang, Director for Africa and Principal Scientist at CIFOR-ICRAF, said from farm to landscape level, it is crucial to identify what is the right tree for the right place – for the right purpose.

This requires the combination of ancestral farmers' knowledge with scientific knowledge in concertation with concerned actors.

Minang highlighted that the platform would also take into account nutrition. "There is the food security part of it. Are you having enough food in terms of quantity and also in terms of quality?"

He referred to the fruit tree portfolios, which aim to guide fruit production so that farmers and villages can cultivate an array of different trees that complement, over the seasons, the different gaps in nutrients and vitamins – depending on the fruit nutrient composition.

"We still need to enhance ambition and mitigation, but now we really need to focus on the adaptation services that forests and trees provide, as well as on the resilience of forests and trees themselves," said Amy Duchelle, Senior Forestry Officer and Team Leader of Climate Change and Resilience in FAO's Forestry Division.

Duchelle noted four ways in which the FAO will engage with the *TreesAdapt* platform initiative: co-produce knowledge products from FAO's policy lens, leverage FAO's national forest monitoring tools, support efforts to enhance the contribution of trees and forests to the cross-sectoral implementation of Nationally Determined Contributions (NDCs) and National Adaptation Plans (NAPs), and help countries access climate finance to put trees and forest-based adaptation options into action.

The experts stressed the need for immediate action, and the fact that trees can critically help the world adapt to a climate that will be much different. Therefore, *TreesAdapt* supports adaptation now, for tomorrow, and for future generations, while generating mitigation and other co-benefits.

The approach aligns well with international priorities: COP27's Presidency just launched an Adaptation Agenda to build climate resilience for four billion people living in the most climate-vulnerable communities by 2030.

Simon Stiell, United Nations Framework Convention on Climate Change (UNFCCC) Executive Secretary said: "The Sharm el-Sheikh Adaptation Agenda firmly puts key human needs at its core, along with concrete, specific action on the ground to build resilience to climate change."

The Sharm-El-Sheikh Adaptation Agenda outlines 30 Adaptation Outcomes to enhance resilience for 4 billion people living in the most climate-vulnerable communities by 2030.

Each outcome presents global solutions that can be adopted at a local level to respond to local climate contexts, needs, and risks and deliver the system transformation required to protect vulnerable communities from rising climate hazards, such as extreme heat, drought, flooding, or extreme weather.

It comes as research warns that nearly half the world's population will be at severe risk of climate change impacts by 2030, even in a 1.5-degree world according to an analysis published by Intergovernmental Panel on Climate Change (IPCC) AR6 WG II Report and the UN Climate Change High-Level Climate Champions.

Collectively, these outcomes represent the first comprehensive global plan to rally both State and non-State actors behind a shared set of adaptation actions that are required by the end of this decade across five impact systems: food and agriculture, water and nature, coastal and oceans, human settlements, and infrastructure, and including enabling solutions for planning and finance.

Forests, trees, and agroforestry offer considerable adaptation potential. Leveraging this potential requires countries and actors to dispose of appropriate knowledge, solutions, enabling conditions, and implementation support in a range of contexts.

# Win for Loss and Damage as COP 27 Ends

By Sharon Atieno

The 27<sup>th</sup> Conference of Parties (COP 27) held in Egypt concluded with agreement to establish a *loss and damage fund* for developing countries vulnerable to adverse impacts of climate change.

Besides, they also agreed to establish new funding arrangements which include focusing on *loss and damage* by providing and assisting in mobilizing new and additional resources.

“This outcome moves us forward,” said Simon Stiell, UN Climate Change Executive Secretary. “We have determined a way forward on a decades-long conversation on funding for *loss and damage* – deliberating over how we address the impacts on communities whose lives and livelihoods have been ruined by the very worst impacts of climate change.”

Governments also agreed to establish a ‘transitional committee’ to make recommendations on operationalizing the new funding arrangements and the fund at COP28 next year. The transitional committee’s first meeting is expected to occur before the end of March 2023.

Additionally, they agreed on the institutional arrangements to operationalize the Santiago Network for Loss and Damage, which aims to catalyze technical assistance to developing countries that are particularly vulnerable to the adverse effects of climate change.

“I welcome the decision to establish a loss and damage fund and to operationalize it in the coming period. Clearly, this will not be enough, but it is a much-needed political signal to rebuild broken trust. The voices of those on the frontlines of the climate crisis must be heard,” Antonio Guterres, UN Secretary-General said in a video message.

“A fund for loss and damage is essential – but it’s not an answer if the climate crisis washes a small island state off the map – or turns an entire African country to desert. The world still needs a giant leap on climate ambition.”

Financial pledges were made for loss and damage from multiple countries including Austria, Belgium, Canada, France, Germany, and New Zealand, joining Denmark and Scotland, which had made pledges previously.

“We established the first-ever dedicated fund for loss and damage that has been so long in the making. It was only appropriate that its implementation be in Africa. Millions around the globe can now sense a glimmer of hope that their suffering will finally be addressed, swiftly and appropriately,” Sameh Shoukry, COP 27 President said.

Significant progress was also made on adaptation with new pledges totaling more than USD 230 million made to the Adaptation Fund.

The programmes will start immediately following COP27 and continue until 2030, with at least two global dialogues held each year. Governments were also requested to revisit and strengthen the 2030 targets in their national climate plans by the end of 2023, as well as accelerate efforts to phase down unabated coal power and phase out inefficient fossil fuel subsidies.



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P.O. Box 57458 - 00200, Nairobi, Kenya.



Tel: +254 722 843 101



@ScienceAfrica5



Science Africa



info@scienceafrica.co.ke,



www.scienceafrica.co.ke