Sustainability Times Magazine

Redefining Sustainability

1st Edition, Issue 1
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A SPIRIT OF DIALOGUE:
Davos 2026 Tackles the 'Age of Competition'

THE 15R'S OF CIRCULARITY

Sustainability
The Action Time is Now

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to Drive National Production:
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The Solar Power Initiative:
Illuminating Nigeria's Path to Net Zero

Sustainability Personality

Nigeria ₦3,000 USA $20
UK €10 Other Country $20

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SUSTAINABLE FUTURE ACADEMY LIMITED

Learn – Build – Innovate

At Sustainable Future Academy Limited

* We empower individuals and organizations towards a sustainable future through education and engagement.
* We equip individuals and organizations to contribute to a healthy planet.
* We are committed to integrating theory and practice to address environmental issues.
* We value sustainable research and innovation.
* We prioritize integrity, customer-centricity, professionalism, and team orientation.
* We catalyst for a sustainable future and a hub for green economy knowledge and skill development.

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Education and Training Programs: We have developed a wide range of courses and certification programs in the areas of; Sustainability, Environment, and Process Safety.

Consulting and Advisory Services: We provide expert advice to businesses and organizations seeking to integrate sustainability into their operations and strategies.

We conduct Environmental Studies (Environmental Impact Assessment, Environmental Entrepreneurship, Energy Audit, Sustainability Audit, Environmental Audit, Remedial Action for Impacted Site; Developing and implementing net-zero and decarbonization strategies; Biodiversity offsetting, Environmental Baseline Studies, Environmental Site Assessment, Climate Change Dynamics, Corrosion Control, Process Risk Assessment, Ergonomics Studies; Waste management optimization and recycling program implementation.

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Conduct policy application research and publishing reports on sustainability trends.

Partnerships and Events: We organize conferences, workshops, Webinars and events on key sustainability issues.

We provide guidance on navigating complex regulatory environments and building trust with local communities and stakeholders.









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Sustainability
The Action Time is Now

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For decades, the conversation around sustainability has been framed in the future tense. Actions that *meets the needs of the present without compromising the ability of future generations to meet their own needs*. We spoke of 2030 targets, 2050 benchmarks, and the world our children will inherit. We even have dates each year to promote environmental and social responsibility. January 26: International Day of Clean Energy; March 3: World Wildlife Day; March 18: Global Recycling Day; March 22: World Water Day; April 22: Earth Day; June 5: World Environment Day; June 8: World Oceans Day and Last Wednesday of October: World Sustainability Day. But as record-breaking heatwaves, disappearing harmattan, disrupted supply chains, and rising sea levels dominate today's headlines, the luxury of the future tense has evaporated. The elastic limit of the Earth's coping capacity is no longer a looming shadow; it is the ground beneath our feet.

At Sustainability Times Magazine, our position is clear: the era of passive observation and green-tinted marketing is over. Sustainability is no longer a corporate social responsibility (CSR) line item or a lifestyle trend. It is a survival imperative. We believe that "Action Time" isn't a suggestion; it is the only viable strategy for businesses, governments, and individuals alike.

The data is unequivocal. According to the Intergovernmental Panel on Climate Change (IPCC), limiting warming to 1.5°C requires immediate and deep emissions reductions across all sectors. We can no longer hide behind greenwashing (the practice of portraying companies as environmentally friendly, sustainable, and socially responsible often through net-zero pledges while their operations continue to cause significant environmental degradation). True sustainability requires a radical overhaul of our systems, from circular manufacturing to decarbonized logistics. The cost of transition may be high, but as the World Economic Forum notes, the cost of inaction is catastrophic.
So, what does "Action Time" look like in practice?

For the Industry: It means moving beyond recycled packaging and into regenerative/smart agriculture and closed-loop production cycles that eliminate waste entirely.

For the Consumer: It means transitioning from disposable culture (mere trashing of waste) to a stewardship mindset of investing in quality, repairing what is broken, and demanding radical transparency from brands.

For the Policy Makers: It means moving past voluntary pledges and into enforceable legislation that holds polluters accountable.

History will not judge us by the slogans we printed or the promises we made at summits. It will judge us by the measurable carbon we kept out of the atmosphere and the ecosystems we chose to protect. The clock has stopped ticking; the alarm is sounding. The action time is now.

WELCOME TO THE

INAUGURAL EDITION OF Sustainability Times Magazine



Engr. (Professor) Akpofure Rim-Rukeh
Publisher, Sustainability Times Magazine

Human society is currently facing several unprecedented complex environment and development issues that include; exponential population growth and urbanization, resource depletion, food/water/energy security, poverty, environmental sustainability, climate change, natural hazards, etc. Traditional discipline-based knowledge and approaches are no longer sufficiently effective in addressing these complex and interconnected global problems which transcend disciplinary, sectoral, and regional boundaries. Achieving global environmental resource management demands the connectivity and balance of people, planet and profit. Our platform is designed to inspire, inform, and connect the key players in this growing movement.

The idea of "Sustainability Times Magazine" is to act as a critical media platform designed to bridge gaps between various sectors to foster a more resilient and inclusive global economy. Sustainability Times Magazine is rooted in the current, rapid shift from voluntary sustainability efforts to mandatory, data-driven compliance and the immense market growth in green technology and Environment Social and Governance (ESG) investment. Sustainability is now a business necessity and a source of competitive advantage that Sustainability Times Magazine provides. Investors are increasingly using ESG data in their decision-making to assess risk and identify long-term value creation opportunities. They demand verifiable data and are skeptical of vague claims, creating a strong market for transparent, high-quality information.

Sustainability is becoming a core part of customer expectations. Consumers expect transparency and verified data about a brand's supply chain and operations, rewarding ethical businesses with loyalty and repeat purchases.

Sustainable Future Magazine is an innovative multi-platform media enterprise launched in 2026 to become the definitive resource for businesses, professionals, and individuals navigating the transition to a sustainable economy. The magazine provides data-backed insights and practical solutions, focusing on "growth through sustainability" rather than moral messaging. The business model is a hybrid of premium digital subscriptions, niche sustainable print editions, and high-impact native advertising.

In this first issue, we dive deep into the issue of urgency that sustainable practices demand "Sustainability—The Action Time is Now". We invite you to read, reflect, and join the conversation. The transition to a sustainable world is the greatest challenge of our generation, and we are honored to document it alongside you.



NNPC UNVEILS CAWTHORNE CRUDE EXPORT TO BOOST NIGERIA'S OIL OUTPUT

The Nigerian National Petroleum Company Limited (NNPC) will begin exporting a new light, sweet crude grade named Cawthorne Channel in the third week of March, marking a key step in the country's efforts to ramp up oil production amid a recent rebound from longstanding challenges like militancy, pipeline vandalism, and crude oil theft. This launch builds on Nigeria's aggressive strategy to expand its crude portfolio and lift output, which has been hampered for years by security issues in the Niger Delta and ageing infrastructure.

It follows the successful introduction of two other new grades in 2024: Utapate in late 2024 and Obodo earlier in 2025. With these additions, Nigeria aims to attract more international buyers by offering diverse, high-quality streams tailored to global refinery needs. Cawthorne Channel crude boasts an API gravity of 36.4 degrees, placing it in the same premium category as Nigeria's flagship Bonny Light grade. This quality profile (light and low in sulfur) makes it highly desirable to refiners, yielding generous volumes of valuable products such as gasoline, diesel, and jet fuel.

The new grade will be exported via the Floating Storage and Offloading (FSO) vessel Cawthorne Channel, which has a storage capacity of 2.2 million barrels. Cawthorne Channel could help elevate Nigeria's combined crude and condensate output from the current 1.65 million barrels per day (bpd) to approximately 1.7 million bpd through the remainder of 2026.

This comes as Nigeria operates near its OPEC+ quota of 1.5 million bpd for crude alone; the country produced 1.48 million bpd in January, per OPEC's latest secondary source data, reflecting a gradual recovery from lows below 1.4 million bpd in late 2025. Nigeria, Africa's largest oil producer, has been vocal within OPEC+ about seeking a higher quota to align with its proven reserves of over 40 billion barrels. Officials argue that persistent underproduction—often 20-30 per cent below capacity due to theft and sabotage which undermines revenue needed for economic reforms and energy transition investments.



A SPIRIT OF DIALOGUE:

Davos 2026 Tackles the 'Age of Competition'





The World Economic Forum's 56th Annual Meeting concluded on January 23, 2026, marking a historic turning point in global diplomacy. Under the theme "A Spirit of Dialogue," the summit convened a record 400 political leaders and nearly 65 heads of state to address what the Forum's Global Risks Report 2026 has termed a new "age of competition" defined by geo-economic confrontation and rapid technological shifts.

The week was dominated by high-stakes thoughtful diplomacy. In a surprise Special Address, U.S. President Donald Trump softened his previous stance on acquiring Greenland, announcing a framework deal with NATO Secretary-General Mark Rutte to enhance Arctic security while averting threatened tariffs on European allies. Meanwhile, Ukrainian President Volodymyr Zelenskyy used the platform to announce that trilateral security talks involving the U.S. and Russia would commence in Abu Dhabi following the summit.

Artificial Intelligence moved from innovation lab to economic infrastructure at Davos 2026. IMF Managing Director Kristalina Georgieva projected that AI could lift global growth by up to 0.8%, though she warned that 40% of global jobs (and 60% in advanced economies) will be impacted by the technology.

Leaders from NVIDIA, Microsoft, and Google DeepMind emphasized that AI innovation must be CEO-owned rather than delegated to IT departments.

Historian Yuval Noah Harari led urgent debates on the "hybrid human-AI society," calling for an international ban on granting legal personhood to AI.

EU Commission President Ursula von der Leyen announced that the EU and India are on the cusp of a free trade agreement that would unite a market of 2 billion people.

A recurring concern was the mounting public debt in developing nations, with warnings that some countries are now spending more on interest repayments than on healthcare or education.

As Forum President Børge Brende noted in his closing remarks, the week did not provide all the answers but succeeded in "creating the conditions under which polarized actors could begin to live the most consequential questions of our age.





ADSW 2026 SETS NEW GLOBAL BENCHMARK FOR CLIMATE ACTION

The 2026 edition of Abu Dhabi Sustainability Week (ADSW), the world's largest sustainability gathering, concluded on January 15 after a week of high-stakes diplomacy and breakthrough innovation. Under the theme "The Nexus of Next: All Systems Go," the event drew a record-breaking 60,000 attendees from over 175 countries to the ADNEC Centre Abu Dhabi.

Hosted by Masdar, the week featured an unprecedented assembly of 15 heads of state and over 400 ministers, underscoring the UAE's role as a corridor to the future. In his opening address, H.E. Dr. Sultan Al Jaber, UAE Minister of Industry and Advanced Technology, observed that the global economy is driven by the convergence of energy and Artificial Intelligence.
Key take ways are:

The ADSW Summit: This anchor event hosted 100+ speakers across 30 sessions, including leaders like Mariam Almheiri (Head of International Affairs, Presidential Court) and CEOs from BlackRock, TotalEnergies, and Iberdrola.

Masdar's 20-Year Milestone: Celebrating two decades of leadership, Masdar announced its renewable energy portfolio has reached 65 gigawatts (GW), moving rapidly toward its 100GW goal by 2030.

Inaugural Forums: ADSW 2026 debuted the Blue Forum, focused on water security, and the Global South Utilities Forum, which targeted infrastructure investment across Africa, Asia, and Latin America.
The Zayed Sustainability Prize: UAE President Sheikh Mohamed bin Zayed Al Nahyan presented awards to 11 global change makers across health, food, and energy categories, with winners each receiving US$1 million.





RT. HON. (OBONGEMEM) EKPERIKPE EKPO
HONOURABLE MINISTER OF STATE PETROLEUM RESOURCES (GAS)
FEDERAL REPUBLIC OF NIGERIA

Energy for Peace and Prosperity:
NIES 2026 Sets Africa's Industrial Agenda

The 9th edition of the Nigeria International Energy Summit (NIES, 2026) concluded on February 5, 2026, at the State House Conference Centre, Abuja cementing its status as Africa's premier platform for energy diplomacy. Under the theme "Energy for Peace and Prosperity: Securing Our Shared Future," the four-day event drew over 5,000 participants from 38 countries to chart a course for the continent's energy transition.

Representing President Bola Ahmed Tinubu, Vice President Kashim Shettima officially opened the summit, emphasizing that recent reforms—including fuel subsidy removal and foreign exchange liberalization have repositioned Nigeria's energy sector for long-term investment. The gathering saw notable regional participation, including Gambia's President Adama Barrow and leaders from Equatorial Guinea and OPEC.

A central theme of the summit was the monetization of gas as a transition fuel. Minister of State for Petroleum Resources (Oil), Senator Heineken

Lokpobiri, reaffirmed the government's commitment to leveraging gas for industrialization and domestic energy security. Key discussions focused on: Updates on the Nigeria-Morocco Gas Pipeline and the "Decade of Gas" initiative.

As the curtains closed, the Federal Government unveiled plans to establish a World – Class Energy



HEINEKEN Spain
Unveils Newest Ingredient To Brew With 100% Green Electricity

Heineken Spain has achieved 100% renewable energy-powered brewing across its production sites as of December 2025, becoming the first major brewer in Spain to reach this milestone. By transitioning both electricity and thermal heat to renewable sources (solar and biomass), Heineken Spain now produces all its beers, ciders, and summer drinks with zero fossil fuel emissions in production. May strategies are;

(i). Heineken successfully decarbonized industrial heat—a major challenge in brewing—using solar thermal plants (such as in Seville) and other renewable solutions.

(ii). The transition includes all Heineken Spain facilities, including breweries in Seville, Madrid, Valencia, and Jaén.

(iii). This achievement supports the global "Brewing a Better World" strategy, aiming for net-zero emissions in production by 2030 and full value chain by 2040.

(iv). The initiative involved significant investments and partnerships, including solar thermal projects, to reduce fossil fuel dependence.

Spain is currently the first market within the Heineken Group to achieve this level of full-site decarbonization, setting a benchmark for the rest of the company.

The Heineken 6,000-Sqm Solar Thermal Field At Spanish Brewery



NiMet
Nigerian Meteorological Agency



Unveiled The 2026

Seasonal Climate Prediction (SCP) In Abuja



Festus Keyamo, SAN

On February 10, 2026, the Minister of Aviation and Aerospace Development, Festus Keyamo, SAN, alongside the Nigerian Metrological Agency (NiMet) DG/CEO Prof. **Charles Anosike.** unveiled the 2026 Seasonal Climate Prediction (SCP) in Abuja.

The key news items from the report:
Early Rains Hit the South; Farmers Warned: NiMet predicts the earliest rainfall onset on February 23rd in Bayelsa State While early showers have already been recorded in states like Lagos and Rivers , the agency warned farmers against "false starts," advising them to wait for official onset dates before planting.

13 States Brace for Longer Rainy Season: A longer-than-normal rainy season is expected in 13 states, including Lagos, Kaduna, Oyo, and Benue.

Conversely, Borno, Yobe and parts of Niger are projected to experience a shorter-than-average season.
Severe "August Break" and Dry Spells: A prolonged "Little Dry Season" (August Break) is predicted to begin in late July, lasting between 28 and 40 days in Lagos, Ogun and Ekiti. Additionally, severe dry spells of up to 21 days are expected in northern and central states between June and August.

Rising Temperatures and Heatwaves: Temperatures are forecast to be warmer than the long-term average for much of early 2026, particularly in January, February, March, and May. This increases the risk of heatwaves and extreme weather events.

Regional Rainfall Onset Dates: Coastal States: Starting from February 23rd; Central States: Expected between April 21st and May 15th and Northern States: Predicted to commence between June 18th and June 23rd.

Rainfall Cessation: The season is expected to end as early as October 6th in northernmost states like Sokoto and Yobe, while continuing until December in parts of the South-South and South-East.



Prof. Charles Anosike. DG/CEO NiMet

HIGH CHIEF DR. LEEMON A. IKPEA, CON, JP

Chairman/CEO, Lee Engineering Group and Allied Companies Limited



Chief (Dr.) Leemon A. Ikpea CON, JP is the Group Chairman/CEO of Lee Engineering Group and Allied Companies Limited is Sustainability Times Magazine Sustainability personality.

He is also the Chairman, Trebet Travel and Tours Ltd.; MD/CEO, Wright Project Nigeria Limited; Chairman, Trebet Aviation Ltd; President, Lee Engineering and Construction INC, USA; President, Lee International Srl, Italy; Chairman, Kizi Oil & Gas Services Ltd; Chairman, Lee International Machineries and Services Ltd; Chairman, Trebet A1 Nigeria Limited etc.

Chief Dr. Leemon Ikpea was born on Wednesday, 19 December, 1956 at Ewato in Esan South-East of Edo State to the family of Mr. and Mrs. Johnson Ikpea.

He is widely known for supporting educational programmes, healthcare initiatives and community development and sustainable projects across different parts of Nigeria. His sustainability practices are initiated through Agbonjagwe Leemon Ikpea Foundation (ALIF), a non- governmental organization set up as a platform to help the less privileged in our society. More than 500 orphans and underprivileged students in secondary and various tertiary institutions within and outside the country have received scholarships; while over 200 widows have received funds to engage in small-scale businesses. The Agbonjagwe Leemon Ikpea Foundation (ALIF), established in 2013 focusing on education, youth empowerment, and community development. It provides scholarships (often 150,000 NGN) to tertiary students, including 21 from UNIBEN in 2025, and funded a 62-bed health center in Ewatto. Scholarship selections are based on academic performance and tests, regardless of tribe or religion. ALIF engages in programs aimed at reducing criminality and social vices by providing vocational training and entrepreneurial support to vulnerable youths.



Beneficiaries of Agbonjagwe Leemon Ikpea Foundation (ALIF)

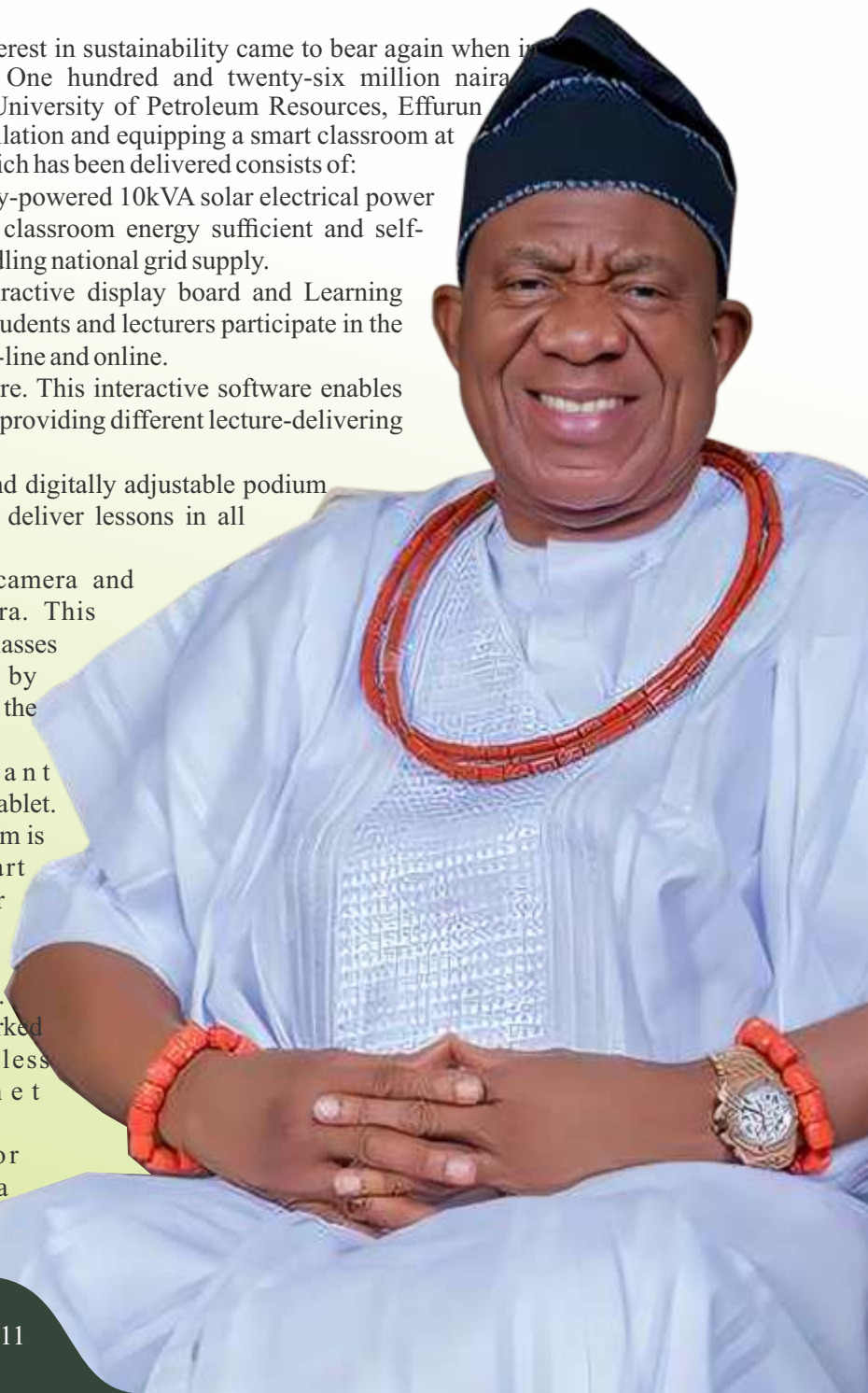
High Chief Dr. Leemon A. Ikpea, CON, JP

Pose as Adolor of Ewatto

He is the founder of Lee Engineering Group and Allied Companies Limited A group of companies with over 3,000 employees operating in the Oil, Gas and Power, hospitality (food/beverage) and Aviation sectors of the Nigerian economy with an investment of over $100m in the ultra-modern fabrication factory in Warri for the manufacturing of Pressure vessels, Tanks, Heat Exchangers, Process modules, Oil and Gas skids, etc. and the Chairman/CEO of Lee Engineering and Construction Company Limited.

High Chief Leemon A. Ikpea interest in sustainability came to bear again when in 2025 the donated the sum of One hundred and twenty-six million naira (N126,000,000) to the Federal University of Petroleum Resources, Effurun Delta for the purpose of the installation and equipping a smart classroom at the University. The classroom which has been delivered consists of:

a. A 30kWh Lithium battery-powered 10kVA solar electrical power system. This makes the classroom energy sufficient and self-dependent from the dwindling national grid supply.
b. A SMART 86-inch Interactive display board and Learning Suite. This ensures that students and lecturers participate in the learning process, both off-line and online.
c. SMART learning software. This interactive software enables students to learn faster by providing different lecture-delivering tools to the lecturer.
d. A SMART interactive and digitally adjustable podium that enables lecturers to deliver lessons in all conditions.
e. A presenter tracking camera and leaners locating camera. This enables those receiving classes online to feel present by virtually participating in the class.
f. Student/participant detachable interactive Tablet. Each desk of the classroom is equipped with a smart interactive tablet for writing, reading, drawing, and connecting online for hybrid learning.
g. The classroom is networked with wired and wireless internet/intranet connectivity.
h. Air conditioners for cooling and ensuring a conducive environment for learning.



Lee Smart Classroom Sustainability Project

Another major sustainability project embarked upon by Chief Leemon Agbonjagwe Ikpea, Chairman of Lee Engineering Group, is the construction of a 72 beds capacity modern health facility in his hometown of Ewatto, located in the Esan South East Local Government Area of Edo State. The project is a state-of-the-art medical center aimed at providing quality healthcare to the rural community and reducing the need for residents to travel long distances for medical attention.







High Chief Leemon A. Ikpea 72 Beds Capacity Modern Health Facility

Dr. Ikpea, an alumnus of Harvard Business School, has received numerous National awards and recognitions few among them are: Commander of the Order of Niger (CON), Officer of the Order of Niger (OON), Justice of the Peace for Delta State, Vanguard Businessman of the Year 2019 and The Sun Business Person of the Year 2018

He has also received many Chieftaincy titles/recognitions as a result of his generosity to all and sundry. He was conferred with the Chieftaincy title of Adolor of Ewatto by his community, Ewatto, Esan South-East in Edo State, in recognition of his ceaseless contributions and kindness to the community. HRH Eze Ignatius Ebere Onyeji, Ogwugwu I of Umunkanu, Ehime Mbano LGA, Imo State conferred him with the Honorary Chieftaincy Title of Nwannedinamba 1 of Umunakanu. He was recognized and honoured with the title of Aruere of Uvwie Kingdom by Uvwie Kingdom in Delta State. The Olu of Warri Kingdom, Warri, Delta State, honoured him with the title of Odolagbon of Warri Kingdom, for his numerous contributions to the communities and society at large.

Two prestigious institutions, the Ambrose Alli University, Ekpoma and Benson Idahosa University in Benin City, respectively, both in Edo State, awarded him the Doctorate Degrees (Honoris Causa) in Business Administration, in recognition of his business acumen and service to humanity. In 2025, the Federal University of Petroleum Resources Effurun awarded him the Doctorate Degrees (Honoris Causa) in Engineering, in recognition of his Engineering practices.

In 2015, as an icon of excellence and a great leader with great vision for his organization, Dr. Ikpea attended the Harvard Business School Owner/President Management (OPM) 49th Programme, in Boston, Massachusetts, United States and completed the programme in 2017.

Apart from philanthropy, Dr. Leemon A. Ikpea is an ardent lover of golf and family values. He is happily married with







Mrs. Oritsemeyiwa Eyesan
Chief Executive of NUPRC

NUPRC Opens Bidding for 50 New Blocks to Drive National Production: A Bold Leap Toward 2.7 Million BPD

The Nigerian Upstream Petroleum Regulatory Commission (NUPRC) has officially triggered the next phase of Nigeria's energy evolution by launching the 2025 Petroleum Licensing Round. Offering a staggering 50 oil and gas blocks, this initiative is a cornerstone of the federal government's strategy to grow national reserves and push daily production toward the ambitious 2.7 million barrels per day (bpd) target by 2027.

The offering spans Nigeria's most promising terrains: 15 Onshore Blocks (including the Anambra and frontier basins); 19 Shallow Water Blocks in the prolific Niger Delta; 15 Frontier Acreage Blocks aimed at unlocking new petroleum systems and 1 Deep Offshore Block for large-scale, high-impact exploration.

To ensure these blocks do not sit fallow, the 2025 Licensing Guideline introduce stricter eligibility and operational rules:

Bidder Limits: Companies are restricted to bidding for a maximum of two assets to prevent over-leveraging and ensure focused development.

Financial Benchmarks: Bidders for deep offshore assets must demonstrate an average annual turnover of at least $100 million, while onshore/shallow water bids require $40 million.

De-Risking with Data: The NUPRC has reprocessed thousands of kilometers of 2D and 3D seismic data, providing high-resolution imagery to reduce exploration uncertainty.

This licensing round is more than a regulatory exercise; it is an economic engine. The Commission targets $10 billion in new investments and expects these blocks to eventually contribute an additional 400,000 bpd to national output. Beyond crude, the round prioritizes gas utilization to align with Nigeria's "Decade of Gas" and global energy transition goals.

The transparent, five-stage process—conducted via a dedicated digital portal is scheduled to conclude in July 2026, marking a new era of accountability and growth for Africa's largest oil producer.



Sub-Saharan Africa International Petroleum Exhibition and Conference (SAIPEC)

Holds in Lagos

The 10th anniversary of Sub-Saharan Africa International Petroleum Exhibition and Conference (SAIPEC), the largest energy, oil, and gas event in the region, held from February 10–12 2026 in Lagos. The event emphasized strategic partnerships to drive the region's energy potential, with a strong focus on balancing hydrocarbon development with the energy transition.

At the end of the conference, the following key action points were reached:
(i). Highlighted Africa's gas opportunities as a primary pillar for driving industrialization and increasing export capacity.

(ii). There was a strong call for innovative financing models, including gas monetization schemes and blended finance, to overcome capital challenges in large-scale gas infrastructure projects.

(iii). There is the need to create enabling environments that foster sustainable gas development across the continent.

(iv). The NCDMB hosted a dedicated Local Content – African Continental Free Trade Agreement (AfCFTA) Energy Summit to explore strengthening intra-African energy trade and boosting local content, featuring a new pitch session for innovators.

(v). The conference focused on enhancing local participation across the energy value chain, addressing policy implementation, and supporting indigenous operators in acquiring assets from International Oil Companies (IOCs).

(vi). The need to address the duality of maintaining conventional energy operations while integrating renewable energy technologies.

(vii). The exhibition showcased digital solutions, field optimization tools, and sustainable innovations aimed at improving operational efficiency.



High Chief (Engr.) Kestin Pondi, Managing Director of Tantita Security Services Nigeria Limited, is a prominent Nigerian leader whose activities focus on curbing oil theft, fostering environmental sustainability in the Niger Delta, and empowering local communities. He contributes significantly to economic stability by protecting critical oil infrastructure, promoting youth employment, and advancing sustainable development through education and agriculture.

Key contributions and activities of High Chief Kestin Pondi include:

Environmental and Security Sustainability: As head of Tantita Security Services, Pondi leads initiatives against illegal oil bunkering, which directly reduces environmental degradation and vandalism of aquatic habitats in the Niger Delta.



Economic Empowerment & Job Creation: He actively promotes economic stability through the Kestin Pondi Business Grant, designed to support young entrepreneurs and foster sustainable business growth in the region.

Philanthropy and Community Development: Known for his extensive philanthropy, he invests in healthcare, education, and community infrastructure to improve the well-being of local residents.

Sustainable Agriculture: Under his guidance, Tantita is pioneering sustainable rice farming initiatives aimed at agricultural development and economic diversification in the Niger Delta.

Capacity Building: He fosters long-term regional development by supporting educational paths from first-degree to doctoral levels, along with providing skills acquisition opportunities for youth.

In view of his humanistic nature High Chief Pondi has been awarded (i) Atamu R' Uvwie Kingdom, Owena of Ozoro Kingdom, and Ibe Benimowei of Gbaramatu Kingdom.







Worthy of mention are:

Ugborikoko Police Station Project (2024–2025).
Tantita Security Services, under Chief Pondi's management, replaced the old, dilapidated structure with a modern facility as part of its corporate social responsibility (CSR) to improve security in the Warri and Effurun areas. The station features a constructed quarter guard post, a dedicated generator house, drainage construction, a 30KVA soundproof generator, a 30KVA solar system, CCTV cameras, modern office equipment, air-conditioning units, and upgraded interrogation and conference rooms. In addition to the building, Tantita provided two new Hilux vehicles for patrol.

The newly built and fully equipped Ugborikoko Divisional Police Headquarters was commissioned on April 11, 2025, by the Inspector General of Police (IGP), Kayode Egbetokun, represented by AIG Zone 5, Salman-Dogo Garba.





Isoko Youth Support: In June 2025, Pondi inaugurated the **Isoko Youth House (Fred Obe Secretariat)** in Delta State, a facility equipped with modern tools to foster youth development and sustainable peace.



Fred Obe Secretariat

Empowerment of women Pondi who shared 10kg bags of rice to over 1,000 people which was randomly selected across the Isoko communities through Engr Orobosa Ashakah, Chief Security Officer (CSO) and MD Marokana group of companies in his country home in Ozoro, Delta State



Cleaner Production (CP) and Sustainability

Background

Industrial emissions are a major causes of environmental problems, both globally and locally. It has a strong influence on both the local environmental situation and quality of life. Over the past decades, the industrialized nations have responded to pollution and environmental degradation in four characteristic ways: (i) By not recognizing or ignoring the problem of environmental pollution; (2) By diluting or dispersing pollution, so that its effects are less harmful or apparent; (3) By seeking to control pollution and wastes (the end-of-pipe or pollution control approach); and (4) By trying to develop and improve environmental technology that will help close the loops in material flow streams during the production process, and facilitate reuse and recycling.

Over the years, it has been observed that the aforementioned strategies proved less effective than they initially appeared, and there came a point beyond which further requirements became prohibitively expensive. More often than not, end-of-pipe technology simply shifted waste or pollutants from one environmental medium to another, as in the case of air and water pollution control devices that produced concentrated hazardous waste for leaking landfills. The most significant disadvantages of the command and control method is that firstly, it does not allow companies to explore other, cheaper ways to reduce pollution, and secondly that enforcement is both complicated and expensive because of the need for a strong and qualified administration. All in all, pollution control approaches of the 1970s and 1980s were no longer sufficient, and a new more flexible approach, had to be put in place that allowed creative solutions to be developed jointly by industry, government and environmentalists. Since the beginning of the nineties, the concepts of Cleaner Production, pollution prevention, waste minimization and eco-efficiency have been gradually gaining popularity and acceptance. The sequence of 'ignore, dilute, control, improve processing and prevent generation' culminated in an activity that combines maximum positive effects on the environment with economic savings both for industry and society.

In the mid-eighties, two new methods, the recycling of waste and energy recovery came into common use, alongside the traditional pollution control approach. By the end of the decade, the common-sense concepts of resource conservation, risk reduction and pollution prevention became widely accepted by both governments and industry.

Starting from the simple idea to produce with less waste Cleaner Production was developed into a concept to increase the resource efficiency of production in general. In United Nations Conference on Environment and Development (Earth Summit) in 1992 in Rio de Janeiro, Brazil, the concept of Cleaner Production (CP) was suggested to progress. CP includes not only the conventional technologies for each facility and measure (Hard Technology), but the technologies for operation and management methods (Soft Technology), based on the idea of reducing the environmental burden in every process from extracting of raw materials to disposal of products and reuse.

Meaning of Cleaner Production

Cleaner Production is the continuous application of an integrated preventative environmental strategy to processes, products and services to increase efficiency and reduce risks to humans and the environment. Cleaner production is a preventive, company-specific environmental protection initiative. It is intended to minimize waste and emissions and maximize product output. By analysing the flow of materials and energy in a company, one tries to identify options to minimize waste and emissions out of industrial processes through source reduction strategies.

Principles of Cleaner Production

There are only two ways to

make money in business: one is to increase income, the other is to reduce costs. Cleaner Production principles are related to waste minimization, pollution prevention, and eco-efficiency and are founded on the four Rs: Reduce, Recycle, Reuse, and Recover. The 4R's help business owners to reduce costs and make business greener both environmentally and economically.

Reduce: At the top of the waste management pyramid are practices that aim at reducing or eliminating waste. All stages of business operations including production and marketing are potential sources of environmental waste and consequent economic losses. Paper usage for example, can be reduced by double sided copying, mistake proofing before printing, and reducing margins and line spacings.

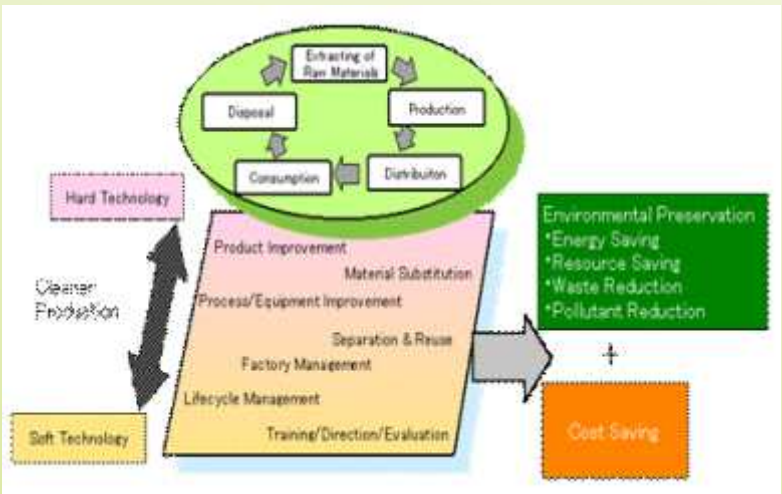
Reuse: Much of what does not go directly into the product itself can be reused. This includes raw materials packaging, the pallets used in delivery, water, machine oils and communications materials. With treatment, water and machine oils can be reused in the production process. Raw materials packaging and shipping pallets can be reused for product shipment. Waste paper can be used as padding in packaging, notepaper or for draft copies of inter-office memos.

Recycle: Metal and plastic containers and office paper, materials used in production can be recycled.

Recover: Sometimes the production process allows useful materials to be passed on as environmental waste. One example would be the chemicals used in printing. These can be recovered from the waste stream and used again in production. Heat recovery is another money saving goal that is becoming more common as technology improves. Heat from production equipment can be recovered and used to heat offices or to preheat water needed for cleaning or production.

Why embrace Cleaner Production? Cleaner Production can be applied at all decision-making levels in industry. The most compelling benefits of Cleaner Production includes: Reducing operating costs; Improving productivity for a company; Effective measure for climate change mitigation because of its potential to reduce greenhouse gas (GHG) emissions; It provides an economic justification for making physical and environmental improvements to a product or process; It may act as a trigger for innovation at strategic level; It enhances market access and prevents market exclusion; It serves as a proactive approach to forthcoming legislation; CP investments provide reputational value; It is an important sustainability indicator; Drive business growth opportunities; Requires little capital investment; Increase the efficiency with which they use materials and energy; Reduce the amount of pollution and waste they generate, thus lowering their impact on the environment, including their carbon footprint; Reduce the risks of industrial operations to workers, communities and consumers; Reduces long-term liabilities which companies can face many years after pollution has been generated or disposed at a given site; Leads to insurance savings and Provides enhanced access to capital from financial institutions and lenders.

Cleaner production can be achieved through (i) Good Housekeeping: appropriate provisions to prevent leaks and spills and to achieve proper, standardized operation and maintenance procedures and practices; (ii) Input Material Change: replacement of hazardous or non-renewable



Scope of CP Implementation

inputs by less hazardous or renewable materials or by materials with a longer service life-time; (iii). Better Process Control: modification of the working procedures, machine instructions and process record keeping for operating the processes at higher efficiency and lower rates of waste and emission generation; (iv). Equipment Modification: modification of the production equipment so as to run the processes at higher efficiency and lower rates of waste and emission generation; (v). Technology Change: replacement of the technology, processing sequence and/or synthesis pathway in order to minimize the rates of waste and emission generation during production; (vi). On-Site Recovery/Reuse: reuse of the wasted materials in the same process or for another useful application within the company; (vii). Production of Useful By-Products: transformation of previously discarded wastes into materials that can be reused or recycled for another application outside the company; and (viii). Product Modification: modification of product characteristics in order to minimize the environmental impacts of the product during or after its use (disposal) or to minimize the environmental impacts of its production.

Cleaner production primarily contributes to sustainability in the following ways:

Waste Prevention at Source: Unlike "end-of-pipe" treatments, CP eliminates or reduces the quantity and toxicity of waste and emissions *during* the production process.

Resource Conservation: It optimizes the consumption of raw materials, water, and energy, directly addressing global challenges like resource depletion and climate change.

Life Cycle Thinking: CP extends environmental responsibility across a product's entire life cycle, from raw material extraction to ultimate disposal, reducing long-term ecological footprints.

Cost Reduction: By improving process efficiency and reducing waste, companies save on raw material costs, energy bills, and waste disposal fees.

Profitability: CP often results in higher financial performance and a faster return on investment (ROI) because "waste" is viewed as lost revenue.

Market Advantage: It enhances corporate image and enables businesses to meet the growing consumer demand for "green" or eco-friendly products.

Hazard Reduction: By eliminating toxic materials, CP creates a safer working environment for employees and reduces health risks for the surrounding community.

Regulatory Compliance: It helps organizations comply with environmental legislation, reducing legal liabilities and strengthening relationships with stakeholders.

Cleaner production is a key tool for achieving several United Nations Sustainable Development Goals (SDGs), particularly:

Goal 9: Industry, Innovation, and Infrastructure.

Goal 12: Responsible Consumption and Production.

Goal 13: Climate Action (via reduced greenhouse gas emissions

Hummingbirds
Raises $59 Million
to scale Nature – Based Carbon Projects

Nature-based solutions platform Hummingbirds announced that it has raised €50 million (USD$59 million) in a Series A financing round, with proceeds aimed at scaling its conservation and ecosystem restoration-focused carbon projects. Founded by travel firm Voyage Privé in 2022, French-based Hummingbirds develops projects globally designed to remove carbon emissions and protect biodiversity through community-driven conservation, ecosystem restoration and sustainable land management. The company provides financing and technical assistance to nature-based solutions project holders working towards high-integrity carbon projects, with a focus on the early stages of carbon projects, supporting feasibility studies and pilots.

To date, Hummingbirds has developed more than 20 projects, which the company said will deliver the sequestration or reduction of more than 45 million tons of CO2e, the sustainable management of more than 700,000 hectares, enhance the livelihoods for over 400,000 people, and protect habitats for more than 180 IUCN-listed threatened species. The financing was provided by Swedfund, Proparco and British International Investment, which each committed €15 million, alongside €5 million in seed capital from hummingbirds.

Microsoft Signs 1.8 Million Ton Carbon Removal Deal to Restore African Rainforest

Forest restoration company Rainforest Builder announced that it has signed a new multi-year agreement with Microsoft to deliver up to 1.8 million carbon credits to the tech giant, generated from a large scale ecosystem restoration project in Sierra Leone. According to Rainforest Builder, the 15-year deal marks one of the largest carbon removal transactions in Africa to date.

Founded in 2022, Rainforest Builder restores forest ecosystems, with a focus on the Upper Guinean Forest, which is one of the most degraded forest landscapes in Africa, with 90% cleared. The company currently has four projects in place, and has planted more than 1.8 million trees to date. The carbon credits under the new agreement will be sourced from Rainforest Builder's Project Buffalo, which is anticipated to plant over 10 million trees across 15,000 hectares of degraded land, which, in addition to removing carbon, will also create new, protected habitat for threatened plant and animal species. The company added that the project will have significant social benefits as well, including providing direct employment for over 1,200 people, as well as through its benefit-sharing programme, providing smallholder agricultural improvement, road infrastructure, and a community development fund.

Microsoft's carbon removal program forms part of the company's climate commitments to become carbon negative by 2030, removing more carbon than it emits, and to remove the amount of carbon it has historically emitted by 2050. The company has emerged as the largest corporate purchaser of carbon removal credits (recently revealing that it signed agreements to a remove record 45 million metric tonnes of carbon dioxide in 2030).



Toyota to Build Circular Factory in Poland to Recycle End – Life Vehicles

Toyota Motor Europe announced the launch of a new circular factory in Walbrzych, Poland, aimed at scaling the company's capabilities to process vehicles at the end of their life cycle and advance its circular economy strategy. According to the company, the factory is expected to process close to 20,000 End-of-Life vehicles annually, and will facilitate the recovery and recycle of key components including batteries and wheels. Materials such as copper, steel, aluminium and plastics will be recovered and reused in the production of new vehicles.

The new investment marks the second circular factory for Toyota in Europe, following the launch last year by the company of the first circular facility in the UK, with an initial capacity to recycle around 10,000 cars annually.

This investment enhances its strategy to develop a circular economy model based on the principles of reduce, reuse and recycle, lowering the demand for carbon-intensive raw materials and reducing emissions. Toyota has set a goal to achieve carbon neutrality in its entire business across Europe by 2040.

The Solar Power Initiative:

Illuminating Nigeria's Path to Net Zero

Nigeria stands at a critical energy crossroads. With over 200 million people lacking reliable grid access, the nation has long relied on expensive, polluting diesel generators to bridge the gap. However, a transformative shift is underway. It is an exciting time for the Nigerian energy sector. While the national grid has historically faced challenges, the green revolution in renewable energy (specifically decentralized solar) is backed by significant data and investment trends. From the sun-drenched plains of Kano to the bustling markets of Aba; a new, silent revolution is taking hold. Across the country, Nigeria is no longer just talking about a green transition; it is building one.

The Solar Power Initiative represents a strategic roadmap to leverage Nigeria's abundant solar radiation (averaging 5.5 kWh/m²/day) to achieve universal energy access and meet the Nigeria Energy Transition Plan (ETP) goal of net-zero emissions by 2060.

Here is a breakdown of the current landscape of renewable energy initiatives in Nigeria, grounded in recent data.

(i). Jigawa Solar PV Park (1,000 MW): An ambitious flagship project expected to come online by 2025, significantly boosting northern Nigeria's capacity.

(ii). National Public Sector Solarization Initiative (N100 Billion): Launched in 2025 by the Rural Electrification Agency (REA), this initiative targets schools, hospitals, and government offices to reduce diesel dependence.

(iii). Kumbotso Solar PV Park (10 MW): Located in Kano, this operational facility provides clean energy to industrial hubs.

(iv). Solar Power Naija: An ambitious initiative aiming to deliver 5 million solar connections to 25 million people. It provides low-interest window financing (around 5–9%) to developers through the Central Bank of Nigeria (CBN).

(v). Tertiary Education Solarization: This initiative provides solar hybrid power plants to federal universities. For example, projects at Bayero University, Kano (7.1 MW) and Federal University of Agriculture, Makurdi (8.25 MW), and the Nigerian Defence Academy (NDA) 2.5MW solar hybrid plant serve as models for self-sustaining campus energy systems.

(vi). Nigeria Electrification Project (NEP): Funded by the World Bank and African Development Bank, this project has already deployed over 995,000 solar home systems and completed 67 mini-grids, impacting millions of lives.

(vii). Local Manufacturing of Solar Panels: To reduce costs and boost jobs, Nigeria is pushing for domestic solar panel production. Jigawa State recently signed a $5 million deal for a 100MW solar panel assembly plant.

(viii) Industrial Clusters: Landmark projects include a 2 MWp rooftop solar program at the Lagos Free Zone and an 11.8 MWp PV-hybrid system serving an industrial cluster in Kano.

(ix). Energy Transition Plan (ETP): The launch of a detailed ETP, aiming for Net Zero by 2060. This plan identifies a $1.9 trillion investment opportunity across the energy value chain.

(x). DARE Program: The new "Distributed Access through Renewable Energy Scale-up" project aims to provide electricity to 17.5 million Nigerians using $750 million in World Bank credits.

(xi). Solar Mini – Grids Initiative: Nigeria is currently the global leader in the number of Solar Mini-Grids under development. There are over 100 commissioned mini-grids across the country, with over 400 more in the pipeline

(xii). Solar Home Systems (SHS): SHS are standalone units (panels + battery + appliances) typically sold





via Pay-As-You-Go (PAYG) models. They are the fastest-growing segment due to their modularity and ease of installation. As of late 2024, the Nigeria Electrification Project (NEP) has successfully deployed over 1.1 million SHS units, providing electricity to approximately 5.9 million people.

(xiii). National Public Sector Solarisation Initiative (NPSSI): Launched in August 2025 with an initial ₦100 billion budget, this program aims to eliminate the public sector's reliance on diesel generators. It targets the solarization of major public institutions including federal universities, teaching hospitals (such as UCH Ibadan), and security posts.

These initiatives are the primary engines driving Nigeria toward its international climate commitments and improved ESG disclosures. Solar initiatives target the power sector, which is the largest source of greenhouse gas (GHG) emissions in Nigeria. Data shows that when solar is used for productive use such as in solar-powered milling, cooling for farmers, local GDP in those communities' increases by up to 30%.

Phasing out the millions of small-scale petrol and diesel generators is a top priority. A typical 5kW home solar system can offset approximately 5 tons of CO2 annually. Under the ETP, solar is expected to replace gas as the primary fuel source, eventually leading to a 100% decrease in power sector emissions as the nation moves toward its 2060 Net Zero target.

These solar projects are essential for meeting Nigeria's updated Nationally Determined Contribution (NDC 3.0), which commits to reducing total GHG emissions by 32% by 2035.

Solar-powered irrigation and cold storage help farmers adapt to erratic rainfall and rising temperatures, reducing post-harvest losses and ensuring food security.

Transitioning away from fossil-fuel generators significantly reduces local air pollutants like nitrogen oxides (NOx) and particulate matter, which are linked to over 114,000 annual deaths in Nigeria.

The ETP also envisions using solar-backed electricity for cooking, aiming to replace traditional firewood and charcoal, which currently contribute to massive deforestation and indoor air pollution.

The ETP aims to phase out 72% of diesel generators by 2030, significantly cutting down on greenhouse gas emissions and urban air pollution.

By diversifying the energy mix, Nigeria reduces its vulnerability to climate-induced disruptions in traditional hydropower (due to droughts) and fossil fuel supply chains.

A sustainable future is here especially with the surge commercial and industrial (C&I) solar, with over 150 MW of solar capacity installed by private businesses to bypass expensive diesel generators. The narrative of Nigeria is shifting. We are moving away from a centralized, fragile grid toward a decentralized, resilient future. As investment flows into Green Bonds and climate-tech startups, the "I-better-pass-my-neighbor" generator is slowly being replaced by the silent, shimmering blue of solar panels.

The sun is rising on a cleaner Nigeria, and this time, the lights are staying on.

The Solar Paper Initiative is more than just an energy project; it is a blueprint for economic and environmental survival. While challenges like high upfront costs and regulatory bottlenecks persist, the long-term benefits of cleaner air, job creation, and energy independence make solar the undeniable future of Nigerian power.

THE 15R'S OF CIRCULARITY

The global economy uses more than 100 billion tons of raw material every year for production of goods and services. These extracted raw materials have driven economic growth of nations. However, global trends show that current practices of raw material extraction are unsustainable. For example, two planetary boundaries of biodiversity and nitrogen cycle have been transgressed, while three others are approaching their limits. In addition, the growing global population poses a great risk, as limited natural resources will not be sufficient for future generations at this rate, unless production and consumption patterns are transformed. The traditional buy-use-throw away (linear economy) dumps a massive 2.12 billion tons of waste and thus increasing the pressure on the environment and natural resources. This is largely because 99% of the stuff we buy is thrown away within 6 months. Today, there is the growing usage of scarce resources (raw materials for production of goods), heightened consumerism, and ballooning emissions, the spike in consumer demand for products precipitates an upswing in production. This, thus, encourages the deterioration of the ecosystem. The obligatory adoption of sustainable development becomes important for maintaining ecosystems and preserving natural resources. Attaining the goals of sustainable development compels firms to adopt a circular economy (CE) strategy, focusing emphasis on sustainable manufacturing processes.

Circular economy also known as "circularity" is the production and consumption of goods through closed loop material flows that internalize environmental externalities linked to virgin resource extraction and the generation of waste (including pollution). The primary focus of the circular economy is the reduction of resource consumption, pollution and waste in each step of the life cycle of the product. CE is an approach that would transform the function of resources in the economy. Waste from factories would become a valuable input to another process and products could be repaired, reused or upgraded instead of thrown away. In the circular economy models, waste is a resource.

Circular economy is different from the traditional linear economy which where raw materials are collected and transformed into products that consumers use until discarding them as waste. The operational principles of circularity are based on; 1. Designs out waste and pollution: Circular economy designs out economic activities that negatively impact human health and natural systems. This includes the release of greenhouse gases, all types of pollution and traffic congestion. 2. Keeps products and materials in use: Circular economy favours designing products for durability, reuse, remanufacturing, and recycling to keep materials circulating for as long as possible. It's an economy that encourages many different uses for materials instead of just using them up. 3. Regenerates living systems: Circular economy avoids the use of fossil fuels and non-renewable energy. By preserving and enhancing renewable resources, it returns valuable nutrients to the soil to support regeneration and actively improve the environment.



ILLUSTRATION OF CIRCULARITY

At the hierarchy of implementing circularity are the 15 R's. Each of the Rs represents a strategy that sustainable businesses deploy. Here are the 15 Rs and how we can use them to see which businesses or brands are sustainable. I will also share examples where these strategies are applicable. Just look around, they may even be found in your local community too.

1. Refuse: It means making a conscious choice to avoid buying, accepting, or using products or packaging that are not necessary, sustainable, or easily recyclable. Refuse focuses on prevention at the source**.** By refusing, you ensure that unnecessary, wasteful items are never produced, consumed, or thrown away in the first place. Avoid products or packaging that are not necessary. For example, refuse to accept cellophane bag for that small item bought at the pharmacy. Take with you, your own reusable produce bags to the market and refuse to collect the market woman cellophane.

2. Rethink: This involves re-evaluating how products are designed and shared (e.g., product-as-a-service models). It refers to a fundamental shift in mindset, challenging the traditional "take-make-waste" linear model by questioning how products are designed, used, and consumed. Rethink is about re-evaluating the entire value chain from product design to business models; to maximize efficiency, increase product utility, and prevent waste from being created in the first place. For examples, (i) A modular smartphone designed to be easily repaired and upgraded by the user. If a part breaks, only that component needs replacement, not the whole phone, drastically reducing e-waste, (ii). Using waste from agricultural products to create packaging materials, turning waste streams into new, high-value inputs.

3. Redesign: It focuses on eliminating waste and pollution by rethinking how products are conceived, manufactured, and used from the very beginning. Design products to be easily disassembled, repaired, or recycled. Redesign ensures products are durable, repairable, modular, and recyclable. To design out waste and pollution, we need to reconsider the materials we use from extraction to end of life. It shifts the responsibility from the consumer (who usually has to figure out how to recycle) to the producer. For example, you can design to upgrade a camera by buying a new camera module and plug it into the old frame.

4. Reduce: It involves designing out waste and minimizing resource consumption from the start, rather than managing waste afterward. It focuses on using fewer raw materials and energy, extending product lifespans, and adopting efficient, sustainable production methods to decouple economic activity from environmental degradation. Minimize the amount of raw materials and energy used in manufacturing. For example, a user reuses one forever ball pen and only buys the tiny refill.

5. Research: It involves scientific, industrial, and social investigation into shifting from a linear model to a restorative system that designs out waste, keeps materials in use, and regenerates natural systems. This research spans multiple disciplines of engineering, business, ecology, and social sciences, aiming to create closed-loop systems where waste becomes a resource. Invest in new circular technologies and bio-based materials. For example, a research project might study how waste heat from a power plant can be used to dry sludge in a nearby wastewater treatment plant, or how waste from a construction site (crushed concrete) can be used as raw material for a new road base. Also, research into processing animal waste and agricultural byproducts into biogas for energy, and then using the nutrient-rich digestate as high-quality organic fertilizer.

6. Reuse: This refers to the practice of keeping products, components, or materials in circulation by using them again in their original form or for a

similar purpose, without, or with minimal, reprocessing. Unlike recycling, which breaks down materials, reuse extends a product's lifespan, conserves resources, reduces waste, and minimizes the need for new, energy-intensive production. Use products again for their original purpose without significant modification. customers to return used clothing for repair, cleaning, and resale under their "Worn Wear" label, keeping garments in use instead of going to a landfill. Using durable containers (e.g., glass jars, metal crates) that are returned, washed, and refilled, such as milk bottles or specialized logistics crates in retail.

7. Repair: It is the process of fixing a broken, damaged, or malfunctioning product to return it to a usable state, thereby extending its functional lifespan. Fix damaged products to extend their lifespan. For example, a broken smartphone screen is replaced, or a faulty laptop battery is swapped, allowing the user to keep the same device for 3–4 more years instead of buying a new one. Also consider a shoemaker replacing the sole of a pair of leather boots, extending their life by several years.

8. Refurbish: It is the process of restoring used products to a functional, "like-new" condition by cleaning, repairing, or replacing parts. Update or restore old products to a functional, nearly-new state. For example, buying a certified pre-owned laptop or phone. A smartphone returned to a seller goes through a multi-step refurbishment process rather than being thrown away. Refurbishing is different from Repairing. Repairing usually fixes a specific fault to make a product work again for the current owner. Refurbishing is a more thorough process intended to prepare the product for a new life cycle or a new owner.

9. Remanufacture: Remanufacturing is a circular economy process where used, worn-out products are returned to original equipment manufacturer (OEM) performance standards, providing a warranty equal to or better than new, thereby extending product life and reducing waste. It keeps materials in use, minimizing raw material extraction and lowering energy usage. Rebuild products using a mix of new and used parts to meet original specs. Remanufacturing sits between recycling (breaking things down to raw materials) and reuse (using the item as is). For example, Caterpillar, the construction equipment giant, is a leader in this space through their Cat Reman program. In this program., a large engine in a mining truck reaches the end of its functional life after years of heavy use. Instead of melting the engine down for scrap metal (recycling), CAT takes the engine back. They disassemble it, salvage the heavy steel block (which rarely wears out), replace the pistons, seals, and sensors with brand-new versions, and update the engine's calibration. At the end of the program, the customer receives an engine that performs like a brand-new one but at a fraction of the cost.

10. Repurpose: It involves adapting a discarded product, material, or component for a new, different function, extending its life cycle and diverting it from landfill. Unlike recycling, which breaks down materials, repurposing keeps the item intact, often increasing its value through creative upcycling. Use discarded products or parts for a completely different function. For example, using old glass jam jars to store screws or spices, old bricks from demolished buildings are cleaned and reused to build new walls, saving over 95% of the energy needed for new brick production, old denim jeans are transformed into new products like tote bags or upholstery, an old wooden ladder is repurposed as a bookshelf, giving it a new function, used clothing is transformed into entirely new designs, such as old t-shirts converted into necklaces.

11. Resale: It refers to the practice of selling pre-owned, or refurbished products to new users rather than discarding them after their first use. It is a key strategy for extending product lifecycles and keeping materials in use, thereby reducing the demand for raw materials and lessening environmental impact. Facilitate the second-hand market to keep items in the economy. Apple, encourages users to trade in old iPhones or laptops. These devices are either refurbished and resold with a warranty (recommerce) or broken down to harvest raw materials for new products.

12. Re-skill: Re-skilling in a circular economy refers to the process of training the

workforce with new, specialized, and technical skills necessary to transition from a linear take-make-waste model to a restorative reduce-reuse-recycle model. Train workers in circular design and repair techniques to support the new economy. Training on high-voltage systems, battery diagnostics, and repairing or repurposing degraded EV batteries for second-life applications (e.g., stationary storage). Training in operating advanced sorting technologies (e.g., AI-driven robotic sorters) to identify, separate, and recover high-value materials from waste streams to be sold back to manufacturers.

13. Recycle: Recycling is the final, essential step of recovering materials from waste to create new products, ensuring resources remain in use rather than being discarded Process materials back into raw ingredients for new products. For example, aluminum cans can be collected, melted down, and purified, retaining their high quality.

14. Recover: It refers to the final, crucial step of extracting value (materials or energy) from waste products that cannot be reused, repaired, or recycled. It focuses on diverting waste from landfills by transforming it into new resources or fuel, thus closing the loop on material lifecycles. Extract energy or nutrients (like compost) from waste that cannot be recycled. For example, transforming non-recyclable waste into energy at waste-to-energy plants to provide heat or electricity. For instance, burning waste oils that cannot be refined, extracting valuable materials from waste, such as recovering rare metals from old batteries to manufacture new electronic component and processing organic waste (food/cooking waste) into compost or biogas, which can act as fertilizer to regenerate soil.

15. Regenerate: It means enhancing natural systems rather than just reducing harm. It involves returning nutrients to the soil, supporting biodiversity, and using renewable resources to improve ecosystems, ensuring they are healthier and more productive than before. Return nutrients to nature to restore ecosystems and soil health. For example, farming techniques like no-till, cover cropping, and composting, which restore soil health, increase carbon sequestration, and boost biodiversity instead of depleting land.; also growing of shellfish and seaweed on vertical, ocean-based lines (this system cleans the water, provides marine habitats, and offers sustainable food/fertilizer, while restoring ocean ecosystems); building environments that give back, such as green roofs and facades that improve air quality, filter rainwater, and create wildlife habitats; planting trees and managing forests to restore ecosystems, enhancing biodiversity and creating new natural resources.

Contribution of Circularity to Sustainability by shifting from a "take-make-waste" linear model to a restorative system that eliminates waste, keeps materials at their highest value, and regenerates natural systems. By closing resource loops through repair, reuse, and recycling, it reduces raw material dependence, lowers greenhouse gas emissions, and supports long-term ecological and economic health. Key Contributions to Sustainability include;

Environmental Protection: Circularity reduces the need for virgin material extraction, mitigating biodiversity loss and pollution. It lowers emissions by extending product lifespans and reducing waste, which is critical for sectors like textiles.

Resource Efficiency & Waste Reduction: It utilizes the 9R framework (refuse, reduce, reuse, repair, recycle, etc.) to keep materials in circulation, transforming waste into resources (e.g., urban mining).

Economic Opportunities: Transitioning to a circular economy drives innovation, creates new green jobs in repair and recycling, and can offer cost savings for consumers.

Climate Change Mitigation: By reducing energy-intensive production and waste disposal, circular practices help meet climate goals and reduce carbon footprints.

Sustainable Design: Products are designed for longevity, durability, and easy disassembly, ensuring they can be refurbished or recycled at the end of their life.

Circular systems are crucial for achieving Sustainable Development Goals (SDGs), particularly regarding responsible consumption and production.

CONFERENCE OF PARTIES (COP) AND SUSTAINABILITY

The Conference of Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC) is the Convention's highest authority. The Conference of the Parties (COP) serves as the supreme decision-making body of the United Nations Framework Convention on Climate Change (UNFCCC), playing a central role in advancing global sustainability by coordinating international climate action, setting binding emissions targets, and mobilizing finance for climate resilience. Since 1995, these annual meetings have provided a platform for nearly 200 nations to negotiate, monitor, and scale up commitments to mitigate climate change.

Key contributions to sustainability as exemplified at the various Conference of Parties are:

COP 1. Berlin, 1995: At the first conference, the signatories agree to meet annually to maintain control over global warming and see the need to reduce emissions of polluting gases.

COP 2: Held between 8–19 July 1996 in Geneva, Switzerland. The Second Conference of the Parties (COP-2) to the United Nations Framework Convention on Climate Change (FCCC) met in Geneva from 8-19 July 1996. The COP concluded by noting the "Geneva Declaration, which endorses the IPCC conclusions and calls for legally binding objectives and significant reductions in greenhouse gas (GHG) emissions.

The Conference also saw a significant shift in position by the United States (US), which, for the first time, supported a legally binding agreement to fulfil the Berlin Mandate. There were also strong declarations of support for the Second Assessment Report (SAR) of the IPCC.

COP 3. Kyoto. 1997: The Kyoto Protocol was adopted with the commitment to reduce greenhouse gas emissions in industrialised countries. Lays the foundation of the carbon market.

COP 4. Fourth session of the Conference of the Parties (COP 4), November 1998: The COP 4 took place from 2 to 13 November 1998 in Buenos Aires, Argentina. The delegates adopted the Buenos Aires Plan of Action. Under the Plan of Action, the Parties declared their determination to strengthen the implementation of the Convention and prepare for the future entry into force of the Kyoto Protocol. The Plan contains the Party's resolution to demonstrate substantial progress on the financial mechanism; the development and transfer of technology; the implementation of UNFCCC Articles 4.8 and 4.9, as well as Protocol Articles 2.3 and 3.14; activities implemented jointly the mechanisms of the Kyoto Protocol; and the preparations for COP/MOP-1.

COP 5: The fifth Session of the Conference of the Parties (COP 5) was held between 25 October – 5 November 1999 at Maritim Hotel - Bonn / Germany. Delegates continued their work toward fulfilling the Buenos Aires Plan of Action (BAPA) adopted at the Fourth Conference of the Parties (COP-4) in November 1998. Under the BAPA, Parties set a two year deadline for strengthening UNFCCC implementation and preparing for the future entry into force of the Kyoto Protocol.

COP 6: The Sixth Conference of the Parties (COP-6) to the United Nations Framework Convention on Climate Change (UNFCCC) held in The Hague, the Netherlands, from 13-25 November 2000. The meeting concluded on the two years of preparations and negotiations set out in the UNFCCCs 1998 Buenos Aires Plan of Action.

COP 7: The Seventh Conference of the Parties (COP-7) to the United Nations Framework Convention on Climate Change (UNFCCC) was held in Marrakesh, Morocco, from 29 October - 10 November 2001. The meeting sought to finalise an agreement on the operational details for commitments on reducing emissions of greenhouse gases under the 1997 Kyoto Protocol.

COP 8: The eighth Conference of the Parties (COP- 8) to the United Nations Framework Convention on Climate Change (UNFCCC) held at the Vigyan Bhawan Conference Centre in New Delhi, India, from 23 October to 1 November 2002. This was the first COP since November 2001, when delegates completed three years of negotiations on the operational details of the Kyoto Protocol and adopted the Marrakesh Accords to the Bonn Agreements. The meeting marked a new phase of negotiations focused on the implementation of the Marrakesh Accords and UNFCCC issues.

COP 9: The Ninth Meeting of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC COP-9) was held at the Fiera Milano conference centre in Milan, Italy, from 1-12 December 2003. COP 9 will be remembered because the link between climate change and sustainable development has been tightened in follow-up to the Delhi Declaration adopted at COP 8. It recognized that the Clean

Development Mechanism (CDM) has become operational in the record time of two years, and we expect the first projects to be registered early next year. It recognises forestry COP because of the tangible progress achieved in developing the CDM afforestation and reforestation guidelines that will provide a sound and credible foundation for projects, as well as the common reporting format and the good practice guidance which will launch an era of better forest data in national inventories as a basis for better decisions in the future.

COP 10: The tenth Conference of the Parties (COP- 10) to the United Nations Framework Convention on Climate Change (UNFCCC) held at La Rural Exhibition Center in Buenos Aires, Argentina, from 6-18 December 2004. Parties addressed and adopted numerous decisions and conclusions on various issues, including technology transfer; issues relating to land use, land-use change and forestry; the UNFCCC's financial mechanism; Annex I national communications; capacity building; adverse effects and adaptation; and UNFCCC Article 6 (education, training and public awareness).

COP 11: The eleventh Conference of the Parties (COP 11) to the UN Framework Convention on Climate Change (UNFCCC) took place in Montreal, Canada, from 28 November to 10 December 2005. COP 11 addressed issues such as capacity building, technology development and transfer, the adverse effects of climate change on developing and least developed countries, and several financial and budget-related issues, including guidelines to the Global Environment Facility (GEF), which serves as the Convention's financial mechanism. After lengthy negotiations, the COP also agreed on a process for considering future action beyond 2012 under the UNFCCC.

COP 12: The 12th Conference of the Parties (COP12) to the UNFCCC, held in Nairobi, Kenya, on November 6-7. The Nairobi conference primarily focused on four issues: Moving forward with adaptation; improving equity and accessibility of the Clean Development Mechanism (CDM); reviewing the mandate of the Expert Group on Technology Transfer (EGTT); and maintaining momentum in discussions on the post-2012 climate regime.

COP 13. Bali, 2007: Thirteenth session of the Conference of the Parties (*COP 13*), December 2007. The *COP 13* took place from 3 to 14 December 2007 in Bali, Indonesia. The Bali Roadmap sets a timetable for negotiations for a new international agreement to replace the Kyoto Protocol and include all countries, not only the developed ones. International cooperation to support urgent implementation of adaptation actions, including through vulnerability assessments, prioritization of actions, financial needs assessments, capacity-building and response strategies, integration of adaptation actions into sectoral and national planning, specific projects and programmes, means to incentivize the implementation of adaptation actions, and other ways to enable climate-resilient development and reduce vulnerability of all Parties, taking into account the urgent and immediate needs of developing countries that are particularly vulnerable to the adverse effects of climate change, especially the least developed countries and small island developing States, and further taking into account (i) the needs of countries in Africa affected by drought, desertification and floods;(ii) Risk management and risk reduction strategies, including risk sharing and transfer mechanisms such as insurance; (iii) Disaster reduction strategies and means to address loss and damage associated with climate change impacts in developing countries that are particularly vulnerable to the adverse effects of climate change; (iv) Economic diversification to build resilience; (v) Ways to strengthen the catalytic role of the Convention in encouraging multilateral bodies, the public and private sectors and civil society, building on synergies among activities and processes, as a means to support adaptation in a coherent and integrated manner.

COP 14: The COP 14 took place from 1 to 12 December 2008 in Poznan, Poland. Major decisions are Advancing the Bali Action Plan, Development and transfer of technologies, Financial mechanism of the Convention: fourth review of the financial mechanism, Additional guidance to the Global Environment Facility, Further guidance for the operation of the Least Developed Countries Fund, Capacity-building for developing countries under the Convention, Continuation of activities implemented jointly under the pilot phase and Administrative, financial and institutional matters.

COP 15. Copenhagen, 2009: The COP-15 conference was conducted as part of the United Nations Framework Convention on Climate Change (UNFCCC). It was hosted in Copenhagen by the government of Denmark from 5-19 December 2009. The objective of keeping global warming below 2 ºC is validated, and developed countries commit to financing developing countries in the long term. Many issues concerning climate change are being addressed as part of the UNFCCC. Among these are (a) energy, (b) agriculture and forestry, (c) deforestation and forest degradation, (d) financial support for developing countries, and (e) measurement and verification of CO2 emissions.

COP16. Cancun, 2010: The Cancun Agreements, which formalise the commitments set out

in Copenhagen, are written, and the Green Climate Fund is created mainly for climate actions in developing countries.

COP17. Durban, 2011: The seventeenth session of the Conference of Parties (COP 17) was held from 28 November to 9 December 2011 in Durban, South Africa. A key gain at COP 17 was the inclusion of "gender sensitivity" among the six principles of the governing instrument establishing the Green Climate Fund. This time, all countries agreed to start reducing emissions, including the US and emerging countries (Brazil, China, India and South Africa). It was decided to negotiate a global agreement that would come into force in 2020.

COP18. Doha, 2012: The eighteenth session of the Conference of Parties (COP 18) was held from 26 November to 7 December 2012 in Doha, Qatar. This is a historic COP from a gender perspective, with the adoption of a gender-specific decision to improve women's participation in the UNFCCC process.

COP 19, The nineteenth session of the Conference of Parties (COP 19) was held from 11 to 22 November 2013 in Warsaw, Poland. UN Women began its advocacy for integrating gender perspectives in negotiations for a new climate agreement, presenting findings of a research report on improving women's participation in intergovernmental processes.

COP20. Lima, 2014: The twentieth session of the Conference of Parties (COP 20) was held from 1 to 12 December 2014 in Lima, Peru, where the Parties adopted the Lima Work Programme on Gender. For the first time, all countries agree to develop and share their commitment to reducing emissions of greenhouse



gases.

COP21, Paris, 2015: The twenty-first session of the Conference of the Parties (COP 21) was held from 30 November to 11 December 2015 in Paris, France. Parties adopted the universal Paris Agreement to ensure the global temperature is kept below 2°C. This Agreement is historic as the first climate agreement incorporating a gender perspective. After 20 years of negotiations, the Paris Agreement was unanimously adopted to keep global warming below 2 ºC above pre-industrial and continue efforts to limit it to 1.5 ºC.

COP22, Marrakesh, 2016: The twenty-second session of the Conference of the Parties to the Convention (COP 22) was held from 7 to 18 November 2016 in Marrakesh, Morocco. Parties adopted a decision to develop the first UNFCCC gender action plan. In addition, was the agreement on three documents: the Marrakesh Action Proclamation, a strong political message supporting the Paris Agreement at a time when the change in the White House was generating uncertainty; the Marrakesh Partnership to strengthen climate collaboration for the period up to 2020, and; the first meeting of Conference of Parties serving as Meeting of Parties to the Paris Agreement (CMA).

COP23, Bonn, 2017: The twenty-third session of the Conference of the Parties to the Convention (COP 23) was held from 6 to 17 November 2017 in Bonn, Germany. A key outcome from a gender perspective was the adoption by the Parties to the Convention of the first Gender Action Plan (GAP). Also, at this Climate Summit, progress was made on the Rulebook to detail how the Paris Agreement will work in practice (Paris Rulebook) to conclude in 2018. Facilitative Dialogues, known as the **Talanoa Dialogue**, were also created, a process allowing countries to share experiences and good practices in order to achieve the Agreement objectives. The Talanoa Dialogue Platform was launched to promote the participation and dialogue of local and indigenous communities. A Gender Action Plan was adopted to ensure the role of women in decision making related to climate change.

COP24, Katowice, 2018: The twenty-fourth session of the Conference of the Parties to the Convention (COP 24) was held from 2 to 15 December 2018 in Katowice, Poland. Parties agreed to review the gender action plan and Lima work programme on gender and adopted the Katowice Workplan containing the modalities for implementing the Paris Agreement.

COP 25, The twenty-fifth session

of the Conference of the Parties to the Convention (COP 25) was held from 2 to 13 December 2019 in Madrid, Spain. The key outcome from a gender perspective was the adoption of the enhanced five-year Lima work programme on gender and an updated gender action plan (GAP 2.0).

COP 26: The *COP 26* UN Climate Change Conference, hosted by the UK in partnership with
Italy, took place from 31 October to 12 November 2021 in the Scottish Event Campus Glasgow. Major decisions reached are: (i). Countries reaffirmed the Paris Agreement goal of limiting the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit it to 1.5 °C. They went further, expressing alarm and utmost concern that human activities have caused around 1.1 °C of warming to date, that impacts are already being felt in every region, and that carbon budgets consistent with achieving the Paris Agreement temperature goal are now small and being rapidly depleted. (ii). Countries stressed the urgency of action in this critical decade when carbon dioxide emissions must be reduced by 45 per cent to reach net zero around mid-century. (iii). Countries ultimately agreed to a provision calling for a phasedown of coal power and a phase-out of inefficient fossil fuel subsidies. (iv). Developed countries came to Glasgow, falling short of their promise to deliver
US$100 billion a year for developing countries.
Voicing "regret," the Glasgow outcome reaffirms the pledge and urges developed countries to fully deliver on the US$100 billion goal urgently. Developed countries, in a report, expressed confidence that the target would be met in 2023. (v). The Glasgow Pact calls for a doubling of finance to support developing countries in adapting to the impacts of climate change and building resilience. (vi). Countries reached an agreement on the remaining issues of the so-called Paris rulebook, the operational details for the practical implementation of the Paris Agreement.

(vii). Countries agreed to strengthen a network— known as the Santiago Network – that connects vulnerable countries with providers of technical assistance, knowledge and resources to address climate risks. They also launched a new "Glasgow dialogue" to discuss arrangements for funding activities to avert, minimise, and address loss and damage associated with the adverse effects of climate change.
COP 27: The conference of parties (COP27) of the United Nations Framework Convention on Climate Change (UNFCC) was held in Sharm El Sheikh, Egypt, between 6 and 18 November 2022. The final decision of the Conference, known as the Sharm el-Sheikh Implementation Plan, is: (i) reaffirms the commitment to limit global temperature rise to 1.5 degrees Celsius above pre-industrial levels. (ii) Finance was at the centre of negotiations at COP27. One of the headline outcomes was reaching an agreement to compensate nations for loss and damage caused by climate change through the establishment of a fund. According to the UNFCC, there has been significant progress on adaptation, with more than $230 million in new pledges made to the Adaptation Fund (iii). A mitigation work programme was also launched, which will start immediately after COP27 and continue until 2026. (iv). Governments were also asked to strengthen their national climate plans by the end of 2023.

COP28, representatives from nearly 200 countries agreed to a landmark deal to start transitioning away from fossil fuels (Energy Transition). This was the first time fossil fuels were expressly mentioned in a UNFCCC COP decision. More than 100 countries have called for an agreement to phase out oil, gas, and coal use. Instead, the summit agreed to transition

away from fossil fuels in energy systems in a just, orderly and equitable manner.

A key part of the negotiations at COP28 was delivering a response to the first Global Stock take (GST), which is a process for assessing countries' progress against their commitments under the Paris Agreement. The Global Stock take found that countries needed significantly more action to keep global warming below dangerous levels. In response, countries made a range of commitments, including agreeing to triple renewables and double energy efficiency by 2030 and planning to halt deforestation by 2030.

COP29, known as the "Finance COP," (Baku, 2024), focused on mobilizing resources for developing nations and finalizing the rules for international carbon trading. Developed countries committed to mobilizing $300 billion annually by 2035 for developing nations, a ztripling of the previous goal.

COP30 was branded the "Implementation COP," (Belem 2025), focused on turning the pledges from previous years into concrete, on-the-ground actions, particularly through the "Belém Political Package". A major outcome was the agreement to triple adaptation finance for developing nations by 2035 to help them cope with climate impacts.

Walking

Your Feet Are the Ultimate Eco-Vehicle

In an era of electric cars and high-tech carbon offsets, we often overlook the most sophisticated piece of green technology ever created: the human foot. While we wait for a global transition to renewable energy, we forget that we are born with an "eco-vehicle" that requires no charging stations, emits zero greenhouse gases, and is fueled entirely by the food we eat.

Walking is the "heart of sustainability" because it is a zero-emission mode of transport that requires no external energy sources while simultaneously improving your health and the planet. Choosing to walk isn't just a fitness choice; it is a radical act of sustainability. By shifting our perspective and viewing our feet as our primary mode of short-distance transport, we can bypass the noise, pollution, and costs of the modern commute, reclaiming our connection to the world at a human pace.

When you operate your "eco-vehicle," the rewards are distributed across three key areas: (i) Walking is the only truly carbon-neutral form of transportation. Unlike EVs, it requires no lithium mining or heavy industrial manufacturing. (ii). Foot traffic causes zero wear and tear on roads and reduces the "heat island effect" caused by massive asphalt parking lots. (iii). Walking acts as a natural preventative medicine, lowering blood pressure and strengthening the heart. (iv). Boost mental clarity.



Walking is good even in the rain

(vi). Walking eliminates the "hidden costs" of living such as fuel, insurance, maintenance, and parking fees. Over a lifetime, choosing your feet for short errands can save tens of thousands of dollars.

Switching from four wheels to two feet requires a shift in strategy rather than just willpower. Here is how to optimize your new mode of transport: (i). Commit to a policy where any trip under two kilometers is done on foot. In most urban settings, this takes roughly 30 minutes (often comparable to the time spent driving and finding parking space). (ii). Identify appropriate time in your schedule. (iii). To treat your feet like a vehicle, you need the right equipment. High-quality, ergonomic walking shoes and weather-appropriate gear (a solid umbrella or a breathable rain shell) ensure that the "eco-vehicle" can operate in all conditions. (iv). Trek that short distance- Park further away from the office or walk to a distant bus stop to incorporate movement into a longer commute. (v). If you use public transit, get off one stop early and walk the rest of the way.

Walking bridges, the gap between personal wellness and global responsibility. It turns a mundane commute into a restorative ritual and a silent protest against a carbon-heavy world. The transition to a sustainable lifestyle does not always require complex technology or expensive investments. Sometimes, it simply requires us to step outside. When we choose to walk, we are not just moving from point A to point B; we are actively reducing our carbon footprint, improving our physical resilience, and engaging with our communities in a way that a car window prevents.

Your feet are the ultimate eco-vehicle (reliable, efficient, and powered by you). It's time to start the engine. Every step you take is a vote for a cleaner, quieter, and healthier community.



Early Morning Walk



Beyond the Balance Sheet

Nigeria's Banks Embrace the ESG Mandate

Introduction
Public concerns caused by climate change and misuse of natural resources are forcing lenders to shift their lenses toward sustainable businesses and weed out the ones with outdated practices such as unfair wages, investments in fossil fuels, unsustainable agriculture methods and the manufacturing of non-recyclable products. Today investment decisions are based on climate data utilization, social and good governance of corporate organizations. Many investors now look to incorporate ESG factors into the investment process alongside traditional financial analysis.

ESG stands for Environmental, Social and Governance. It is a criteria used to evaluate a company's performance in its environmental impact, social responsibility, and corporate governance practices. **E**nvironmental **S**ocial and **G**overnance, is a generic term used in capital markets and commonly used by investors to evaluate the activities of companies, as well as determining their future financial performance.

Environmental criteria, which examines how a business performs as a steward of our natural environment, focuses on: Waste management programme, Air and Water Pollution control strategies, Resource (Raw material) depletion, Greenhouse gas emission and Carbon footprint, Energy efficiencies, Biodiversity, and water usage.

Social criteria cover a vast range of potential issues. There are many separate social aspects of ESG, but all of them are essentially about social relationships. The following social issues matters for ESG: Basic wages or salary, employees' benefits, prevention of sexual harassment, employee training and education programs, level of employee engagement with management, company's mission statement, support to charitable causes, working conditions eg provision of PPEs, health and safety policies, community relations policy, supply-chain management
Corporate governance is the structures and processes that direct and control companies. Indicators of Corporate Governance includes: Corporate Behavior of the CEO, Measuring the Business ethics, Anti-competitive practices, Corruption, Tax and providing accounting transparency for stakeholders. CEO / board chair split, shareholder right to nominate board candidates, stock buy backs, and dark money given to influence elections, Management structure, Employee relations, Executive compensation, Employee compensation, equitable pay of other employees is a consideration in the governance of an organization.
ESG Disclosure

Collective global efforts toward greater sustainability has created the need for organizations of all sizes to be more transparent about what they are doing to manage environmental, social, and governance risks. As a result, stock exchanges, regulatory bodies, and other government agencies have mandated ESG-related reporting; this reporting is widely known as *ESG disclosure.* **ESG disclosure is a specific type of public reporting about an organization's performance around Environmental, Social, and Governance (ESG) issues or criteria. In order to ensure consistency and comparability.** ESG disclosure helps stakeholders (like investors, creditors, employees, prospective customers, etc.) understand how a company is managing ESG risks and opportunities. Ineffective or misleading ESG disclosures may be considered greenwashing. The report (ESG Disclosure) helps external stakeholders (like asset managers, authorities, or potential customers) better understand risks around operations, emissions, or supply chain issues that company management may have previously kept private.

The Anatomy of ESG Disclosure in Nigeria Banks
For decades, the success of Nigerian

banks was measured solely by profit margins, loan-to-deposit ratios, and dividend payouts. However, a new era has dawned. As the global community grapples with climate change, social inequality, and the need for ethical corporate conduct, Nigerian financial institutions are shifting their gaze. Environmental, Social, and Governance (ESG) disclosure is no longer a nice-to-have CSR initiative; it has become a strategic imperative. By integrating ESG into their core operations, Nigerian banks are signaling to international investors and local stakeholders that they are prepared for a sustainable future, recognizing that financial stability is inextricably linked to environmental health and social equity.

ESG disclosure is shifting from qualitative narratives (stories) to quantitative data (numbers). Nigerian banks are now benchmarking their performance across three critical pillars of Environment, Social and Governance. Banks are increasingly adopting international frameworks such as the Global Reporting Initiative (GRI) and the Task Force on Climate-related Financial Disclosures (TCFD).

Nigerian banks are currently categorized by their level of compliance with the **IFRS S1 and S2** sustainability standards:
(i). Early Adopters (Full Compliance): Only two commercial banks (**Access Bank Plc** and **Fidelity Bank Plc)** were recognized for fully implementing the ISSB standards in their inaugural reports (covering the 2023 financial year).

(ii). Voluntary Adopters (Current Phase): This phase, running from January 1, 2024, to December 31, 2027, includes banks that have committed to readiness assessments and are transitioning to full disclosure. Notable participants include: **Tier-1 Banks:** First Bank of Nigeria, Zenith Bank, United Bank for Africa (UBA), and Guaranty Trust Bank (GTB). **Other Commercial & Merchant Banks:** Stanbic IBTC, Wema Bank, Globus Bank, and First City Monument Bank (FCMB).
(iii). Strategic Leaders: Research from early 2026 identifies **First Bank, Access Bank**, and the **Bank of Industry** as the current industry leaders leveraging ESG credentials to access international green financing.

(iv). Banks are no longer just looking at their clients' emissions; they are measuring their own operational footprints. Banks now report on energy consumption, with many like Access Bank and United Bank for Africa (UBA) disclosing the percentage of branches powered by solar energy versus diesel generators.
(v). A growing metric is the percentage of the total loan book dedicated to "green" projects (renewable energy, waste management) versus "brown" projects (fossil fuels).

Adoption Level	Banks	Implementation Score (Est.)
High	Access Bank, GTBank, Zenith Bank	**95%**
Medium	First Bank, Fidelity Bank, UBA	**85%**
Developing	FCMB, Union Bank	**70%**

(vi). In the Nigerian context, the Social pillar is perhaps the most visible, focusing on demographic shifts and financial access. Reporting now includes the percentage of women in senior management and on boards. For instance, Standard Chartered Nigeria and Fidelity Bank often highlight their progress toward the CBN's 40% female representation goal.

(vii). Banks are providing data on the number of staff trained in Anti-Money Laundering (AML) and the effectiveness of their anonymous whistleblowing channels.

(viii). Green Bond: Access bank is the among the first to issue a Green Bond in Africa, specifically aimed at financing climate-resilient projects. In addition, the Bank has reduced operational emissions by 13.4% in 2024 and more than doubled its sustainability-focused loan book to $580.24 million.

(ix). Zenith bank for example has integrated ESG into its risk management framework, ensuring that credit facilities are extended to businesses that demonstrate environmental responsibility. Their annual reports now feature dedicated sections on carbon footprint reduction and gender diversity. In addition, their book has maintained an overall score of 39%, with governance accounting for the largest share of its maturity at 39%, while environmental metrics stood at 14%.

A 2025 assessment of ESG implementation levels among major players showed varying degrees of integration



The Role of the Central Bank of Nigeria (CBN) and Financial Reporting Council (FRC)

The transition toward ESG disclosure hasn't been accidental; it is heavily driven by the Central Bank of Nigeria (CBN), alongside the Financial Reporting Council (FRC). The CBN recognizes that the financial system is a powerful lever for national development. The Central Bank of Nigeria (CBN) has made sustainability a core pillar of its 2026 reform agenda, moving beyond traditional monetary policy to ensure the long-term resilience of the financial sector.

What were their initiatives:

(i). The apex bank is leading this transition through mandatory recapitalisation, enhanced ESG (Environmental, Social, and Governance) reporting, and financial inclusion initiatives aimed at supporting a projected $1 trillion economy.

(ii). Financial Resilience: To ensure banks can withstand global economic shocks, the CBN mandated new minimum capital requirements (e.g., ₦500 billion for international banks) effective March 31, 2026. As of early 2026, over 20 banks have already met these thresholds.

(iii). The CBN, alongside the Financial Reporting Council (FRC), has updated the Sustainability Reporting Roadmap for 2026. This includes the Sustainability Reporting Guideline 1 (SRG 1), which provides a framework for banks to comply with ISSB (International Sustainability Standards Board) disclosures

(iv). Green Finance Leadership: Building on Nigeria's 2017 sovereign green bond, the CBN is promoting "climate-aligned lending". In 2026, the focus is on broadening private sector participation and strengthening the pipeline for renewable energy and clean transport projects.

(v). Inclusive Economic Development: The 2026 priorities include modernising payment systems to reach unbanked populations and expanding initiatives like the Women Entrepreneurs Finance (We-FI) to bridge the gender gap in financial access.

(vi). Corporate Governance: The CBN has instituted a "zero-tolerance" policy regarding corporate governance to protect depositor funds and maintain market integrity.

(vii). Sustainable Growth: By enforcing stricter capital buffers, the CBN aims to increase banks' capacity to finance large-scale, sustainable projects across the federation.

(viii). Environmental Responsibility: Banks are now encouraged to report on their E&S (Environmental and Social) risk assessment processes, including the number of clients assessed for environmental impact.

(ix). Sustainable Banking Principles (NSBP): Launched in 2012, these principles mandated banks to consider the environmental and social impacts of their lending activities.

(x). Mandatory Reporting: The CBN has moved from voluntary guidelines to requiring periodic disclosures on sustainability metrics. This ensures transparency and prevents greenwashing.

(xi). Capacity Building: Through the Bankers' Committee, the CBN provides a platform for knowledge sharing, helping smaller banks align with global ESG standards.

(xii). Incentivizing Green Finance: By creating frameworks for green bonds and sustainable intervention funds, the CBN has made ESG a viable business strategy rather than a regulatory burden.

Conclusion

The embrace of ESG disclosure by Nigerian banks marks a maturation of the nation's financial ecosystem. While challenges (such as data collection complexities and the need for standardized local metrics) remain the momentum is undeniable.

As banks continue to peel back the curtain on their environmental impact and social contributions, they do more than just satisfy regulators; they build trust. In an era of global volatility, that trust is the most valuable currency a bank can hold. Nigerian banks are proving that they can be both profitable and purposeful, leading the charge toward a more resilient economy.

THE PRACTICE OF CIRCULAR WARDROBE

A **circular wardrobe** is a systemic and conscious approach of personal material flow management that maximizes a garment's service life while aligning consumption with planetary limits. It involves managing personal clothing that moves away from the traditional take-make-dispose (linear model) to circular model of Reduce-reuse-recycle. It prioritizes extending the lifespan of garments through a continuous loop of use, maintenance, and responsible end-of-life management. Circular wardrobe is shifting the focus from endless consumption and fleeting trends to a deeper, more intentional relationship with clothing.

Circular wardrobe is a closed-loop system where wardrobe resources (clothes) are valued and kept in circulation as long as possible through reuse, repair, and recycling, rather than being discarded as waste.

The circular wardrobe is built on several fundamental pillar such as;
(i). Prioritizing the acquisition of high-quality, durable, and timeless pieces designed to last through multiple seasons and owners.

(ii). Extending life cycles through proper care (e.g., cold washing), repair (mending holes, replacing buttons), and creative upcycling.
(iii). Using alternative consumption models such as **secondhand shopping**, **clothing swaps**, and **rental services** to keep items in use.

(iv). Ensuring garments that are truly worn out are diverted from landfills via textile recycling or returned safely to the environment if they are biodegradable.

Circular wardrobe is actually driven by the fact that the modern fashion industry is one of the world's most polluting, responsible for approximately 10% of global carbon emissions and 92 million tons of textile waste annually. Transitioning to circularity is not just an ethical choice but a strategic one. Keeping clothes in use for an extra nine months can reduce their carbon, water, and waste footprints by 20–30%. Economically, the circular fashion market could be worth $700 billion by 2030, representing nearly a quarter of the global fashion market.

A circular wardrobe directly challenges this by emphasizing quality over quantity and shifting the consumer's role from a passive buyer to a temporary steward of a garment's lifecycle. Building a circular wardrobe is a gradual shift in habits rather than an overnight overhaul. You can start by;
(i). Re-evaluate and style what you already own before buying anything new.

(ii). Wash clothes less frequently, use cold water, and air dry to reduce wear and tear.

(iii). Look for companies that offer repair services or take-back programs.

(vi). Practice the habit of giving out fairly used clothes but not worn out clothes.

(v). Explore sites for buying and selling pre-loved items.

(vi). Buy only items after asking yourself whether or not you truly needed it.





The concept of Sustainable Wardrobe

The Yobe Sahara Restoration Drive Project (YSRDP)


Tree Seedlings of YSRDP

The Yobe Sahara Restoration Drive Project (YSRDP) is a bold, multi-faceted environmental and sustainable initiative aimed at reversing desertification, rehabilitating degraded ecosystems, and building climate-resilient communities in Yobe State, Nigeria. Located in the fragile Sahel region, Yobe faces escalating environmental threats, dwindling forests, expanding desertification, soil erosion, and declining agricultural productivity all of which undermine livelihoods and exacerbate poverty. YSRDP responds to these challenges with a science-based, community-driven approach, combining large-scale land restoration, sustainable agroforestry, water conservation, and grassroots environmental education. The project was designed to strengthen food security, enhances biodiversity, and empowers local communities to become stewards of their environment. Beyond environmental restoration, the initiative supports climate-smart agriculture and the creation of green jobs to improve food security and economic prosperity.

Core project initiatives are: (i) Desert Reclamation: The project aims to halt the southward encroachment of the Sahara Desert, which is estimated to advance at approximately 600 meters per year in the region. (ii). Massive Afforestation: A flagship goal of the initiative is the preparation and planting of five million tree seedlings across designated catchment areas. (iii). Shelterbelt Establishment: Seedlings are used to create shelterbelts that provide wind protection, improve microclimates, and enhance biodiversity. (iv). Community Ownership: Once trees are planted, the state government plans to hand over full ownership to local communities to ensure long-term monitoring and sustainability.

The ongoing project is driven by Participatory Approach methodologies involving, the application of science, traditional rulers and local elders to foster grassroots participation. YSRDP partners with the Sahara and Sahel Observatory (OSS), the United Nations Convention to Combat Desertification (UNCCD), and the National Council on Climate Change.


Community People Involvement in YSRDP

LAGOS STATE UNVEILS UPDATED CLIMATE CHANGE ACTION PLAN

Lagos State Governor, Mr Babajide Sanwo-Olu, has unveiled a Climate Change Action Plan for the state. The plan will develop a strategy to address the impact of climate change in the state. While speaking at the State's eighth Climate Change Summit, the governor stated that the plan aligns with the targets and goals of the Paris Climate Change Agreement. He added that the state intends to implement several projects to address climate change and accelerate its net-zero emission targets. The governor stated that the updated Climate Action Plan focuses on the three main sectors (energy, waste and transport) that threaten the state's zero-carbon ambitions.

The updated plan emphasised the need for public transport reform to reduce vehicular emissions. The state plans to introduce low-emission public buses and rail transport and encourage private vehicles to transition to low-emission versions. In waste management, the state will introduce composting, recycling, waste-to-energy initiatives to improve waste management. One key strategy to achieve the plan is to pursue off-grid solar systems for public schools, hospitals and other government facilities initiatives. The state will also encourage users of fossil fuel generators to switch to solar systems.

Other components of the plan are; (i). The establishment of Lagos Carbon Exchange that will target the generation of $1Billion in revenue over 15 years through the trading of 1.2 million carbon credits. (ii). The distribution of 80 Million clean stoves to reduce firewood and kerosene dependency. (iii). A structured plan to phase out diesel and petrol-powered mass transit buses by 2040. (iv). A multi-year initiative (2024–2030) to modernise water transportation, aimed at reducing road congestion and vehicular emissions while boosting coastal resilience. (v). Lagos plans to invest approximately $9 billion in 2026 toward climate resilience and infrastructure renewal. (vi). The target of planting 400 million economic trees has been set to combat deforestation and improve food security.

Unlocking the Offshore: Chevron and NNPC's Awodi-07 Discovery Signals New Growth for Nigeria

In a major win for Nigeria's upstream sector, the NNPC Ltd/Chevron/Nigeria Limited (CNL) Joint Venture has announced a significant hydrocarbon discovery at the Awodi-07 well. Located in the shallow offshore western Niger Delta, this success marks Chevron's third major exploration breakthrough in the region since late 2024, following previous successes like the Meji NW -1 well.

The Awodi-07 well was spudded on November 30, 2025, and reached a total depth of 12,420 feet by mid-December. The discovery is not just a technical victory; it is a pillar of Chevron's near-field exploration strategy. The Awodi-07 discovery is central to the joint venture's goal of ramping up production to 146,000 barrels per day.

The discovery was executed under the long-standing partnership where NNPC Limited holds a 60% stake and Chevron Nigeria Limited (CNL) holds 40%.

The immediate focus for the JV will be the monetization and timely development of these newly identified reserves. By leveraging existing infrastructure in the western Niger Delta, the partners aim for a shorter development cycle to bring this new crude to the global market quickly.

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