Advancing Climate Tech Innovations in Nigeria: Strategic Pathways from UNGA 79 Resolutions

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Background

The 79th United Nations General Assembly (UNGA 79) brought renewed focus on climate technology (climate tech) as a crucial tool for addressing the climate crisis. Nigeria, with its growing technological sector and high vulnerability to climate change, has the potential to become a leader in climate tech innovation. UNGA 79's resolutions offer strategic pathways for Nigeria to harness international collaboration, attract investment, and scale climate tech solutions for sustainable development. This brief examines the opportunities presented by these resolutions and outlines recommendations to position Nigeria as a hub for climate tech innovations.

As the global climate crisis deepens, technology has emerged as one of the most promising avenues for mitigation and adaptation. Nigeria, the largest economy in Africa, stands at a critical juncture where climate technology can play a transformative role in its climate action agenda. At UNGA 79, world leaders highlighted the importance of scaling up climate technology to meet the targets of the Paris Agreement. UN Secretary-General António Guterres remarked, "Climate technology is central to the solutions we seek. It can turn the tide against climate change by empowering nations with the tools they need to act swiftly."[1]

Nigeria, with its dynamic tech ecosystem, is well-positioned to integrate and expand climate tech solutions. However, realizing this potential requires strategic policy alignment, investment, and partnerships, as discussed at UNGA 79.

UNGA 79 Resolutions on Climate Tech: Key Highlights

The resolutions from UNGA 79 underscored the critical role of technology in combating climate change, particularly for developing nations. One of the key outcomes was the adoption of a resolution that encourages the transfer of climate technologies to developing countries and fosters international cooperation for tech-driven climate action[2]. This presents a significant opportunity for Nigeria, where climate tech can enhance renewable energy access, improve agricultural resilience, and support the transition to a low-carbon economy.

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1. Pact for the Future. https://documents.un.org/doc/undoc/ltd/n24/252/89/pdf/n2425289.pdf

The push for climate tech innovation aligns with Nigeria's broader development goals. As President Bola Tinubu emphasized at UNGA 79, "Nigeria's future lies in our ability to innovate for sustainability. Climate tech offers the key to unlocking that future, driving economic growth while safeguarding our environment." [1]

Strategic Issues

In consideration of local content policy for the health industry in Nigeria, it is important to identify the key justifications and strategic imperatives to pursue that course.

1. **Enhancing Technology Transfer and Capacity Building for Climate Tech Adoption**
   A crucial strategic imperative for advancing climate tech innovations in Nigeria is enhancing technology transfer and building local capacity. The UNGA 79 resolutions emphasized the importance of facilitating technology transfer from developed to developing nations as a means of addressing the climate crisis[1]. For Nigeria, accessing and adapting climate technologies is critical for mitigating the adverse impacts of climate change and ensuring sustainable development. Effective technology transfer mechanisms can help Nigeria accelerate the adoption of climate technologies, particularly in key sectors such as renewable energy, climate-resilient infrastructure, and smart agriculture.

   Technology transfer involves the dissemination of both physical and intangible assets, including innovations, knowledge, and best practices. Nigeria's capacity to utilize these technologies is, however, limited by a lack of technical expertise, regulatory frameworks, and institutional support. The first challenge is aligning Nigeria's legal and regulatory framework with international standards. This includes strengthening policies on intellectual property rights (IPR) to encourage private firms to share proprietary climate technologies without fearing a loss of ownership. As the International Energy Agency noted, "technology transfer must occur under a regime of strong intellectual property protection and respect for the rights of innovators" [2]. Nigeria must therefore ensure that its IPR laws are sufficiently robust to support the effective transfer of technologies.

   Another critical element of this issue is local capacity-building. Currently, Nigeria faces a shortage of professionals trained to operate and manage climate technologies. To address this, the Nigerian government should prioritize educational and vocational programs that enhance technical expertise in renewable energy, environmental engineering, and climate science. Establishing partnerships between local universities, international research institutions, and climate tech companies would help bridge this skills gap. Furthermore, capacity-building initiatives must go beyond technical skills to include financial literacy and project management, ensuring that professionals can lead projects from ideation to implementation.

Nigeria should create an enabling environment for such collaborations by providing tax incentives and streamlining regulatory processes. By doing so, the country can attract international climate tech firms and promote the co-development of solutions tailored to Nigeria's specific climate challenges. Technology transfer and capacity-building are strategic imperatives for Nigeria's climate tech adoption. The UNGA 79 resolutions offer a clear pathway for developing nations to access these technologies, but Nigeria must build the necessary frameworks to take advantage of these opportunities. By enhancing its legal framework and investing in human capital, Nigeria can foster a thriving climate tech ecosystem that strengthens its resilience against climate change.

2. **Fostering Innovation Ecosystems through Public-Private Partnerships (PPPs)**
Developing a strong innovation ecosystem through public-private partnerships (PPPs) is another strategic imperative for advancing climate tech innovations in Nigeria. The resolutions from UNGA 79 placed significant emphasis on leveraging private sector investment and fostering collaborative ecosystems that drive climate solutions[3]. In Nigeria, where the tech industry is growing rapidly, PPPs offer an essential mechanism for scaling climate technologies and ensuring their successful implementation.

An innovation ecosystem is a network of entities including businesses, government agencies, research institutions, and investors that interact to foster technological advancements. For climate tech, this ecosystem is essential in generating new solutions for Nigeria's adaptation and mitigation efforts. However, a major challenge in Nigeria's current innovation ecosystem is the lack of access to finance for small and medium-sized enterprises (SMEs) and startups that work in climate technology. The World Bank reports that "access to finance is a critical barrier for SMEs, particularly in sectors that involve high risks, such as climate tech"[2]. Nigeria must develop financing models that de-risk investments in climate technologies, making it more attractive for private companies to invest in green projects. Blended finance models, where public funds are used to leverage private sector investments, are particularly effective in this context.

Another benefit of fostering an innovation ecosystem through PPPs is the potential for knowledge transfer. By collaborating with international climate tech firms, Nigerian companies and research institutions can gain valuable insights into global best practices and technological advancements. These partnerships are crucial for adapting global technologies to Nigeria's specific needs, as well as for developing indigenous solutions. As the African Development Bank has noted, "public-private partnerships can be a powerful tool for transferring technology and expertise, while also fostering local innovation".[2]

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[3]Eugene and Gerald, 2021. "Strengthening the role of the private sector in meeting Nigeria's Nationally Determined Contributions (NDCs) targets." Available at: https://cccd.funai.edu.ng/wp-content/uploads/dae-uploads/Private-Sector-inNigeria-NDC-FINAL.pdf

The Nigerian government's role in this ecosystem is to create an enabling environment for PPPs. This includes offering policy incentives, such as tax breaks for companies investing in climate tech, and ensuring that public procurement processes prioritize climate-friendly technologies. Establishing innovation hubs and incubators can also play a key role in this ecosystem by providing startups and entrepreneurs with access to funding, mentorship, and technical expertise. These hubs would serve as platforms for collaboration, driving the development and deployment of climate technologies that address Nigeria's unique challenges.

Investing in climate tech through PPPs also aligns with Nigeria's broader economic diversification agenda. By fostering a vibrant climate tech sector, Nigeria can reduce its dependence on oil and gas revenues while promoting sustainable economic growth. The green economy offers significant opportunities for job creation, particularly in renewable energy, smart agriculture, and sustainable infrastructure. As President Tinubu remarked at UNGA 79, "our economic future depends on innovation, and climate tech offers the path forward for both sustainability and growth" [1].

Climate Tech Opportunities in Nigeria's Climate Strategy

Nigeria faces a multitude of climate-related challenges, including severe flooding, desertification, and erratic rainfall patterns, which threaten its food security and economic stability. According to the World Bank, the annual economic cost of climate impacts in Nigeria is estimated to reach between $100 billion and $150 billion by 2050 if no action is taken[2]. Climate technology offers solutions that can mitigate these impacts by providing innovative tools for monitoring, adaptation, and resilience.

Key areas where climate tech can make a significant impact include:

- **Renewable Energy**: Nigeria has abundant solar and wind energy potential. Climate tech innovations can help expand access to clean energy by improving storage solutions, grid management, and off-grid renewable systems.
- **Climate-Smart Agriculture**: With over 70% of Nigerians relying on agriculture for their livelihoods[3], climate tech can revolutionize the sector by providing tools for precision farming, drought-resistant crops, and real-time climate monitoring.
- **Sustainable Infrastructure**: Climate tech can enable the development of resilient infrastructure to withstand climate extremes, reducing the vulnerability of critical assets like roads, bridges, and urban centers.[3]

Despite the vast potential of climate tech, Nigeria has lagged in adopting these innovations at scale. The UNGA 79 resolutions on technology transfer and capacity-building offer a pathway for Nigeria to bridge this gap, provided it can overcome challenges related to financing, governance, and technical expertise

Key Policy Implications of UNGA 79 Resolutions for Nigeria

Fostering International Partnerships for Technology Transfer: One of the most significant outcomes of UNGA 79 was the resolution to enhance technology transfer to developing countries. Nigeria should actively seek partnerships with global tech leaders and multilateral organizations to access cutting-edge climate technologies. As stated by UN Deputy Secretary-General Amina Mohammed, "The transfer of climate technologies is not just a technical issue—it's a lifeline for many developing countries."[1]

1. **Building Local Capacity for Climate Tech Innovation**: For Nigeria to fully leverage the opportunities presented by climate technology, it must invest in local capacity-building. This includes training scientists, engineers, and entrepreneurs to develop and scale indigenous climate tech solutions. Such capacity-building aligns with UNGA 79's call for inclusive innovation ecosystems in developing nations.
2. **Promoting Public-Private Sector Collaboration**: The private sector plays a critical role in driving climate tech innovation. Nigeria should foster stronger collaboration between government and private tech firms to create an enabling environment for climate tech startups.

   U.S. Special Presidential Envoy for Climate John Kerry highlighted the importance of this at UNGA 79, stating, "Innovation thrives where the public and private sectors work hand-in-hand to develop and deploy climate solutions."[1]

3. **Creating Incentives for Climate Tech Investment**: To attract investment in climate tech, Nigeria must create financial and regulatory incentives.[4] These include tax breaks, subsidies for renewable energy projects, and streamlined processes for tech-driven infrastructure projects. The resolutions from UNGA 79 encourage developing nations to establish policies that de-risk investments in climate technology, which could catalyze private sector engagement in Nigeria.

Recommendations

1. **Establish a National Climate Tech Innovation Hub**: Nigeria should create a dedicated national hub for climate tech innovation, where researchers, entrepreneurs, and investors can collaborate on developing solutions tailored to the country's unique climate challenges. This hub should be supported by both government funding and private sector partnerships.
2. **Strengthen Climate Tech Policies through Legislation**: Nigeria should develop a comprehensive legislative framework that supports climate tech innovation. This

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[3]Eugene and Gerald, 2021. "Strengthening the role of the private sector in meeting Nigeria's Nationally Determined Contributions (NDCs) targets." Available at: https://cccd.funai.edu.ng/wp-content/uploads/dae-uploads/Private-Sector-inNigeria-NDC-FINAL.pdf

[4] Mabe, J. and Wang, X. (2018). Green Aggregation Tech Enterprise (GATE) - CPI. CPI. https://www.climatepolicyinitiative.org/publication/green-aggregation-tech-enterprise-gate/

framework should include incentives for tech startups, protections for intellectual property, and measures to facilitate technology transfer from global partners.[3]

3. **Leverage International Climate Tech Funding**: Nigeria must actively engage with international climate finance mechanisms such as the Green Climate Fund (GCF) and the Climate Investment Funds (CIF) to secure funding for climate tech projects. By aligning national priorities with these global funds, Nigeria can attract the necessary capital to scale climate tech solutions.
4. **Promote Climate Tech in Education**: To build a pipeline of skilled professionals in climate tech, Nigeria should integrate climate technology education into its academic institutions. This includes establishing specialized degree programs, research grants, and innovation competitions focused on climate tech.

Conclusion

The resolutions from UNGA 79 provide Nigeria with a unique opportunity to advance its climate tech agenda and position itself as a leader in sustainable innovation. By fostering international partnerships, building local capacity, and promoting public-private collaboration, Nigeria can unlock the full potential of climate technology to drive both climate action and economic growth. As President Tinubu noted in his UNGA address, "Our ability to innovate will define our future. We must harness the power of climate tech to create a sustainable, prosperous Nigeria."[1]

Further Reading

1. 79th United Nations General Assembly (UNGA 79), 2024. https://news.un.org/en/events/unga79
2. FC4S Lagos & CBI, 2022. "Nigeria Green Tagging Banking Review." Available at: https://www.greenfinanceplatform.org/sites/default/files/downloads/tools/Nigeria%20-%20Nigeria%20Green%20Tagging%20Banking%20Review_0.pdf FCDO, 2020.
3. "Annual Review Report. Solar Nigeria Programme." Available at: https://iati.fcdo.gov.uk/iati_documents/58487347.odt
4. Federal Government of Nigeria, 2021. "Nigeria's First Nationally Determined Contribution – 2021 Update." Available at: https://unfccc.int/NDCREG Federal Republic of Nigeria, 2021.
5. "Adaptation Communication to the United Nations Framework Convention on Climate Change." Available at: https://unfccc.int/sites/default/ files/resource/Nigeria-Adaptation-Communication-UNFCCC-2.pdf