



Planting Horticultural and Ergonomic Trees Showcasing Artistic Expression Along Nigeria's Airports: A FOSEA Initiative

In a resplendent endeavor to harmonize ecological stewardship with aesthetic grandeur, the Friends of Sustainability and Ecology Association (FOSEA) has embarked on an audacious campaign to plant horticultural and ergonomic trees across Nigeria's airports, transforming these gateways into verdant sanctuaries of artistic expression. This initiative, a paragon of environmental ingenuity, seeks to ameliorate the ecological footprint of Nigeria's aviation sector while elevating the cultural and visual tapestry of its airports. By interweaving biodiversity with artistic verve, FOSEA's vision aligns with Nigeria's sustainability imperatives and global environmental paradigms, as enshrined in the United Nations' Sustainable Development Goals (SDGs). This essay elucidates the multifaceted dimensions of this initiative, celebrating its ecological, ergonomic, and aesthetic virtues.

The ecological exigency of Nigeria's airports cannot be overstated, as these hubs of human transit contribute to carbon emissions and urban heat islands. The aviation sector, accounting for approximately 2% of global greenhouse gas emissions, necessitates innovative mitigation strategies (IPCC, 2022). FOSEA's initiative to plant horticultural trees—such as moringa, neem, and cashew—addresses this imperative by enhancing carbon sequestration and mitigating air pollution. These species, known for their resilience in Nigeria's diverse climates, serve as ecological bulwarks, absorbing carbon dioxide and releasing oxygen in prodigious quantities. By integrating such trees, FOSEA contributes to Nigeria's Nationally Determined Contribution (NDC) under the Paris Agreement, which pledges a 47% reduction in emissions by 2030 (Federal Ministry of Environment, 2020).

Ergonomic design, a cornerstone of FOSEA's initiative, ensures that these arboreal installations enhance the functionality of airport spaces. Ergonomic trees, strategically positioned to provide shade and reduce ambient temperatures, create salubrious microclimates for travelers and airport personnel. Studies demonstrate that urban tree canopies can lower temperatures by up to 5°C, mitigating the urban heat island effect (Akbari et al., 2016). At airports like Murtala Muhammed International Airport in Lagos and Nnamdi Azikiwe International Airport in Abuja, FOSEA's plantings optimize pedestrian comfort, reduce energy demands for cooling, and enhance the overall user experience, embodying a symbiosis of form and function.

The artistic expression embedded in FOSEA's initiative elevates Nigeria's airports into galleries of natural splendor. By sculpting tree arrangements into visually arresting patterns—such as spirals or mosaics inspired by Nigerian cultural motifs—FOSEA transforms utilitarian spaces

into emblems of national pride. The use of species like the flamboyant *Delonix regia*, with its vibrant red blossoms, and the sculptural *Adansonia digitata* (baobab), creates a visual symphony that resonates with Nigeria's rich cultural heritage. This approach draws inspiration from global precedents, such as Singapore's Changi Airport, where green walls and artistic landscapes enhance aesthetic appeal (Changi Airport Group, 2023).

FOSEA's campaign aligns with Nigeria's Climate Change Act (CCA) 2021, which mandates sustainable urban planning and emissions reduction. By integrating horticultural trees into airport landscapes, FOSEA contributes to the CCA's goal of creating carbon-neutral urban spaces. The initiative also supports the Nigeria Energy Transition Plan (ETP), which emphasizes renewable energy and green infrastructure to achieve net-zero emissions by 2060 (Nigeria ETP, 2023). Airports, as high-traffic zones, serve as ideal platforms for showcasing sustainable practices, amplifying FOSEA's message of environmental stewardship to a global audience.

Community engagement is a linchpin of FOSEA's strategy, ensuring that the initiative resonates with local stakeholders. By collaborating with airport authorities, local artisans, and community groups, FOSEA fosters a sense of ownership and cultural relevance. In Port Harcourt International Airport, for instance, FOSEA engages local communities to plant native species like *Terminalia catappa*, whose broad canopies provide shade and aesthetic allure. This participatory approach mirrors the success of the Nigeria Erosion and Watershed Management Project (NEWMAP), which trained 185,000 individuals in environmental management, demonstrating the power of grassroots involvement (World Bank, 2022).

The economic ramifications of FOSEA's initiative are profound, catalyzing job creation and sustainable tourism. The planting and maintenance of horticultural trees generate employment opportunities for horticulturists, landscapers, and artisans, aligning with Nigeria's goal of creating 52,000 climate-related jobs through green bonds (Nigeria Climate Change Forum, 2025). Moreover, aesthetically enhanced airports attract tourists, boosting Nigeria's tourism sector, which contributes 5.2% to GDP (World Travel & Tourism Council, 2024). By showcasing Nigeria's ecological and cultural richness, FOSEA's initiative positions airports as gateways to sustainable tourism.

The initiative's focus on biodiversity conservation is a clarion call to protect Nigeria's ecological heritage. Nigeria's deforestation rate, among the highest globally, threatens endemic species and ecosystems (FAO, 2020). FOSEA's selection of native trees, such as *Parkia biglobosa* and *Vitellaria paradoxa*, bolsters biodiversity by providing habitats for pollinators and birds. At Kano's Mallam Aminu Kano International Airport, these plantings create ecological corridors, enhancing resilience against climate change impacts like desertification, a pressing issue in northern Nigeria.

Policy advocacy underpins FOSEA's campaign, ensuring its scalability and sustainability. By engaging with the Federal Airports Authority of Nigeria (FAAN) and the Ministry of Environment, FOSEA advocates for regulations that prioritize green infrastructure in airport development. The

campaign draws on global frameworks, such as the International Civil Aviation Organization's (ICAO) Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), which encourages sustainable aviation practices (ICAO, 2023). FOSEA's efforts ensure that Nigeria's airports align with these international standards, enhancing their global reputation.

The aesthetic dimension of FOSEA's initiative is not merely ornamental but a catalyst for cultural dialogue. By incorporating artistic tree arrangements inspired by Nigerian textiles and Adire patterns, FOSEA celebrates the nation's cultural diversity. At Enugu's Akanu Ibiam International Airport, for instance, tree layouts reflect Igbo geometric designs, fostering a sense of cultural pride among travelers. This approach aligns with UNESCO's emphasis on integrating culture into sustainable development, enhancing the social impact of environmental initiatives (UNESCO, 2022).

Financing such an ambitious project requires innovative mechanisms. FOSEA's advocacy for green bonds and carbon credits, as highlighted at the Africa's Green Economy Summit 2025, attracts investment from international donors and private entities. These funds support the procurement of saplings, irrigation systems, and maintenance programs, ensuring the longevity of the initiative. The success of similar funding models in Ethiopia's Green Legacy Initiative, which planted 32.5 billion trees, underscores the viability of this approach (UNEP, 2024).

The initiative addresses urban planning challenges in Nigeria's airports, where rapid expansion often outpaces environmental considerations. By integrating green spaces into airport master plans, FOSEA mitigates the environmental impact of infrastructure development. The use of drought-resistant species like *Azadirachta indica* (neem) ensures low maintenance costs and resilience against Nigeria's variable climate, as supported by research on climate-resilient urban planning (Ogunbodede & Sun, 2023).

Public awareness is a vital component of FOSEA's campaign, fostering a green culture among travelers and airport staff. Through its website, FOSEA.COM.NG, the organization disseminates educational materials on the benefits of horticultural trees, drawing on Earth.Org's call for sustainable behaviors (Earth.Org, 2025). Workshops and art exhibitions at airports further engage the public, showcasing the nexus of ecology and aesthetics. This approach mirrors global campaigns like the UN's Decade on Ecosystem Restoration, which emphasizes public participation (UNEP, 2021).

The initiative's scalability across Nigeria's 22 airports underscores FOSEA's ambitious vision. From smaller airports like Akure to major hubs like Lagos, the campaign adapts to regional ecological and cultural contexts. In Calabar's Margaret Ekpo International Airport, FOSEA incorporates mangrove species to combat coastal erosion, reflecting site-specific environmental needs. This adaptability ensures that the initiative is both replicable and impactful, contributing to Nigeria's broader sustainability agenda.

In conclusion, FOSEA's initiative to plant horticultural and ergonomic trees across Nigeria's airports is a tour de force of environmental innovation, ergonomic design, and artistic expression. By transforming airports into verdant oases, FOSEA not only mitigates the ecological impact of aviation but also elevates Nigeria's global image as a beacon of sustainability. Through community engagement, policy advocacy, and innovative financing, this campaign exemplifies the confluence of ecology, culture, and progress. As Nigeria strides toward a sustainable future, FOSEA's arboreal legacy will flourish, inspiring generations to embrace environmental stewardship with exuberance and pride.

References

- Akbari, H., et al. (2016). Local climate change and urban heat island mitigation techniques. *Energy and Buildings*, 128, 102-113.
- Changi Airport Group. (2023). Sustainable Design at Changi Airport.
- Earth.Org. (2025). 15 Biggest Environmental Problems of 2025.
- FAO. (2020). Global Forest Resources Assessment.
- Federal Ministry of Environment. (2020). Nigeria's Nationally Determined Contribution.
- ICAO. (2023). Carbon Offsetting and Reduction Scheme for International Aviation.
- IPCC. (2022). Sixth Assessment Report: Mitigation of Climate Change.
- Nigeria Climate Change Forum. (2025). Green Economy Summit Report.
- Nigeria Energy Transition Plan. (2023). Federal Government of Nigeria.
- Ogunbodede, E., & Sun, Y. (2023). Climate-resilient urban planning in Nigeria. *Journal of Urban Management*, 12(3), 245-260.
- UNEP. (2021). Decade on Ecosystem Restoration.
- UNEP. (2024). Ethiopia's Green Legacy Initiative: A Case Study.
- UNESCO. (2022). Culture for Sustainable Development.
- World Bank. (2022). Nigeria Erosion and Watershed Management Project (NEWMAP).
- World Travel & Tourism Council. (2024). Economic Impact Report: Nigeria.
- FOSEA.COM.NG. (2025). Friends of Sustainability and Ecology Association Initiatives.