Progress Report: SDG 15 (Life on Land) – Chukwuemeka Odumegwu Ojukwu University (COOU)

2024/2025 Session

Executive Overview

Chukwuemeka Odumegwu Ojukwu University (COOU) aligns its institutional strategy, academic research, and physical campus management with **Sustainable Development Goal 15 (SDG 15: Life on Land)**. Guided by the university's **"3Vs Agenda" (Values, Viability, Visibility)** under the leadership of Vice-Chancellor Prof. Kate Azuka Omenugha, COOU actively fights land degradation, deforestation, and biodiversity loss across Anambra State. Operating across three campuses in Igbariam, Uli, and Awka, COOU combines mass afforestation campaigns, applied forestry research, gully erosion mitigation, and sustainable land management to protect terrestrial ecosystems.

Key Areas of Progress & Implementation

1. Strategic Reforestation & Mass Afforestation Initiatives

COOU has institutionalized campus-wide afforestation drives to sequester carbon, restore degraded soil, and expand green canopy coverage:

- **5-Year Strategic Plan for Tree Planting:** COOU launched a strategic 5-year tree planting and climate action framework driven by the flagship **"One Staff One Tree, One Student One Tree"** campaign. The program aims to plant **1,000,000 native trees** across the Igbariam, Uli, and Awka campuses.

- **The VC's Orchard of Unity:** The university established the "Orchard of Unity," where university leadership, including the 8th Governing Council led by Pro-Chancellor Prof. Peter Azikiwe Onwualu, conducts economic tree planting exercises to foster institutional sustainability and legacy greening.

- **Windbreaks & Microclimate Regulation:** Strategic tree placement around campus boundaries acts as natural windbreaks to protect campus infrastructure from storm damage while mitigating local heat island effects.

2. Applied Forestry Research & Indigenous Flora Propagation

Academic units within the **Department of Forestry and Wildlife Management** generate scientific solutions to accelerate ecosystem restoration:

- **Seed Dormancy & Reforestation Science:** COOU forestry researchers conduct empirical studies on breaking seed dormancy in ecologically vital tropical trees—such as the Siris tree (*Albizia lebbeck*) and Bitter Kola (*Garcinia kola*)—using accessible organic extracts (e.g., pawpaw and plantain extracts). This research provides cost-effective propagation techniques for local farmers and reforestation groups to increase seedling survival in degraded or drought-prone soils.

- **Biodiversity Conservation:** Faculty researchers document and propagate endangered native tree species, ensuring the preservation of regional plant genetic resources and supporting tropical wildlife habitats.

3. Land Degradation Neutrality & Erosion Mitigation

Anambra State faces severe environmental threats from soil erosion and gully formation, which COOU addresses through technical research and land management:

- **Soil Stabilization & Bio-Engineering:** Research teams in the Faculty of Agriculture and Faculty of Environmental Sciences evaluate deep-rooting native vegetation and agro-forestry configurations to stabilize fragile soil matrices and prevent slope failure.

- **Sustainable Agricultural Land Use:** The Faculty of Agriculture (Igbariam Campus) practices sustainable soil management—including crop rotation, organic mulching, and reduced tillage—on campus farms to prevent soil nutrient depletion and erosion runoff.

4. Ecosystem Stewardship & Environmental Governance

- **Centre for Climate Change and Environmental Sustainability:** The Centre coordinates interdisciplinary research and external partnerships (collaborating with environmental NGOs, health organizations, and community groups) to conduct land impact assessments and ecosystem health monitoring.

- **Student Environmental Enforcement:** Student safety marshals and environmental clubs enforce strict anti-littering and anti-deforestation rules across university grounds, preserving natural green belts and forested patches around the campuses.

Performance Summary against SDG 15 Targets

SDG 15 Target Area	COOU Operational & Academic Contribution	Impact Level
15.1 Terrestrial & Inland Freshwater Ecosystem Conservation	Campus green belt preservation and environmental impact monitoring via the Centre for Climate Change.	**High** (University Land Holdings)
15.2 Sustainable Forest Management & Afforestation	"One Staff One Tree, One Student One Tree" campaign targeting 1M trees, and the Orchard of Unity.	**High** (Regional & Campus Canopy)
15.3 Combat Desertification & Restore Degraded Land	Forestry research on drought-tolerant species propagation (*Albizia lebbeck*) and gully stabilization.	**High** (Anambra State Ecology)
15.5 Halt Biodiversity Loss & Protect Threatened Species	Propagation and research on threatened native species like *Garcinia kola* in the Dept of Forestry & Wildlife.	**Moderate to High** (Botanical Conservation)

Strategic Recommendations for Acceleration

1. **Establish a Dedicated University Botanical Garden & Nursery Hub:** Expand campus nursery facilities at Igbariam to mass-produce indigenous fruit and timber seedlings for distribution to surrounding Anambra State communities.
2. **Deploy Geographic Information Systems (GIS) for Canopy Tracking:** Utilize drone imaging and satellite GIS mapping to track tree growth rates, carbon sequestration metrics, and canopy cover changes across all three campuses.
3. **Formalize Community-Led Gully Restoration Coalitions:** Partner with local government authorities and host community leaders to deploy COOU-developed bio-engineering soil stabilization techniques along active gully sites in Anambra State.

Signature:  Date: 24/09/2026

Prof. Kate Azuka Omenugha, Fnipr

Vice Chancellor