

# The Problem

Limited access to quality, technology-based educational resources hinders environmental awareness and conservation efforts in rural communities across Africa.

## Why it Matters

Educated and empowered local communities are critical for protecting Africa's wildlife and ensuring a sustainable future for both people and the environment.



## Muna's Story

14-year-old Muna Ali lives in a remote Ethiopian village bordering a national park. Her family farms for a living, and their annual income barely covers basic needs. Muna's school lacks resources, with outdated textbooks and overworked teachers. Despite limited access to technology (only available at a nearby internet cafe), Muna's determination to learn fuels her journey to environmental awareness.





A UNESCO report highlights that while 47% of sub-Saharan Africa has access to mobile broadband networks, there's a significant digital divide in rural areas, where internet connectivity and access to technology are limited [1]. This lack of access hinders students' ability to utilize online educational resources.

[1] UNESCO. (2023, March 9). Mobile Broadband and Policy Options for Least Developed Countries: The Case of Sub-Saharan Africa. [unesdoc.unesco.org](https://unesdoc.unesco.org)

# Learning Inequality

A World Bank study indicates that learning outcomes in Sub-Saharan Africa remain low, with many students failing to achieve basic literacy and numeracy skills [2]. This lack of foundational knowledge creates further barriers to accessing and comprehending online educational resources.

[2] World Bank. (2020, September 14). Learning Poverty: How Much Learning Have Most Children in School Actually Acquired? [worldbank.org](https://www.worldbank.org)

# Teacher Challenges

A report from the African Union emphasizes that teacher shortages and inadequate training are major challenges in rural schools [3]. This limits the ability of teachers to effectively integrate technology into their lesson plans and support students in utilizing online educational resources.

[3] African Union. (2018, January 25). Continental Education Strategy for Africa (CESA 16–25): The Teacher. [unesdoc.unesco.org](https://unesdoc.unesco.org)



# Who Can Solve This? The Ed-Tech Innovator

- **Tech-Savvy:** They possess a strong understanding of technology and its potential for education.
- **Community-Oriented:** They believe in collaborating with local communities to develop culturally relevant educational tools.
- **Resourceful:** They can identify and utilize existing resources to create sustainable solutions with limited budgets.
- **Passionate:** They are driven by a desire to empower rural communities through education and environmental awareness.

# 20-Year Goal



An education system across Africa that leverages technology to provide all students, regardless of location, with access to high-quality, interactive environmental education resources.

## 10-Year Goal



Develop and implement a suite of mobile learning applications specifically designed for rural schools in Africa, focusing on environmental science and conservation.



# 5-Year Goal

Partner with an NGO working in rural education to pilot test a mobile learning application in a selected community in Ethiopia, evaluating its impact on student learning and environmental awareness.



## 1-Year Goal



Conduct thorough research on existing educational technology initiatives in rural Africa, identify gaps and opportunities, and develop a comprehensive plan for the mobile learning application.

# Sources

**Slide 3:** UNESCO. (2023, March 9). *Mobile Broadband and Policy Options for Least Developed Countries: The Case of Sub-Saharan Africa* <https://www.sciencedirect.com/science/article/abs/pii/S0308596120300367>

**Slide 4:** World Bank. (2020, September 14). *Learning Poverty: How Much Learning Have Most Children in School Actually Acquired?*

<https://www.worldbank.org/en/news/press-release/2022/06/23/70-of-10-year-olds-now-in-learning-poverty-unable-to-read-and-understand-a-simple-text>

**Slide 5:** African Union. (2018, January 25). *Continental Education Strategy for Africa (CESA 16–25): The Teacher.* *pen\_spark*

<https://ecosocc.au.int/sites/default/files/files/2021-09/continental-strategy-education-africa-english.pdf>