



Less than 1%, Yet Rich in Knowledge

Making African Research Discoverable

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THE PROBLEM

Ghana — A Case Study (UNESCO Institute for Statistics / GTEC, 2022–2024)

635,000

students enrolled in tertiary education

UNESCO IUS, 2022 — confirmed figure

~120,000

postgraduate students (MPhil, PhD, Masters)

est. ~19% of total enrollment

~500,000

undergraduate dissertations produced annually

est. based on undergraduate enrollment cohort

~15,000

postgraduate theses produced annually

est. based on postgraduate enrollment

< 3,000

research papers from Ghana indexed in Scopus or Web of Science per year

Asubiaro et al., 2024

63.2%

of African journals are not discoverable on Google Scholar or Scopus. At the individual output level, Sub-Saharan Africa accounts for less than 1% of the world's indexed research output.

Gates Open Research, 2025 · Asubiaro & Onaolapo, 2023

WHY THIS HAPPENS

- ▶ **Research not digitised**— most dissertations and theses exist only as printed copies in departmental libraries
- ▶ **No persistent identifiers**— work is unfindable even when it exists online
- ▶ **APCs cost \$2,000–\$5,000 per article**— prohibitive for most African researchers
- ▶ **Knowledge extraction**— published abroad, rights transferred, then paywalled back to Africa

WACREN'S RESPONSE — Building the Alternative Infrastructure

BAOBAB / InvenioRDM — Sovereign Repository

Open science repository hosted on WACREN infrastructure in Africa. Research produced in Africa stays in Africa.

183 active users · growing · baobab.wacren.net

PIDsLink — ARK Persistent Identifiers

African research made globally discoverable and citable — owned locally with no dependency on foreign PID registries.

493 active ARKs · integrated with BAOBAB and PublishNow · pidslink.wacren.net

PublishNow — Open Access Journal Publishing

Diamond open access publishing for African journals — no article processing charges sent to European publishers.

GhAFoST 70 users · COPPHA 16 users · cost recovered locally · publishnow.wacren.net

EduAI Sandbox — AI for Research

AI and machine learning tools accessible to African researchers without commercial platform dependency.

NVIDIA L4 GPU live on WACREN cluster · JupyterHub in development · under AfricaConnect4

eduMEET — Federated Video Conferencing

Sovereign WebRTC video infrastructure with institutional single sign-on — no Zoom dependency, community governed.

4 instances live across WACREN PoPs · 8 by end September · NgREN first NREN adopter · edumet.africa