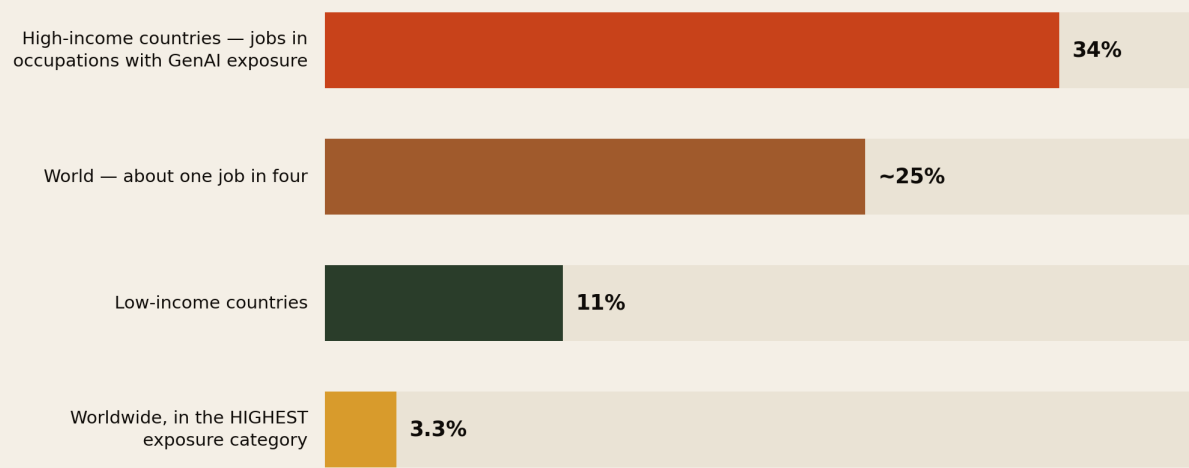
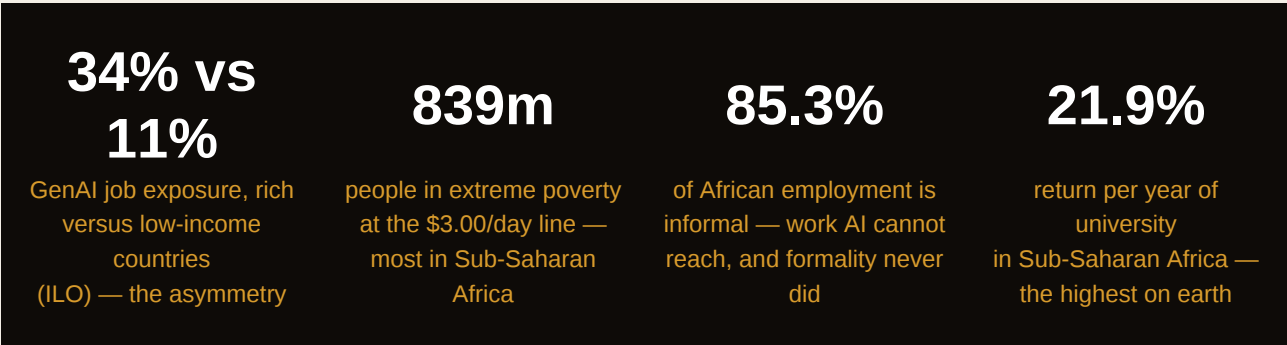


AGF RESEARCH · FACT-CHECKED · 2026

The Leapfrog test.

Our two previous AI reports watched the wave from the departure lounge. This one turns around and looks at home. The paradox: the developing world has the least AI exposure on paper — 11% of jobs in low-income countries versus 34% in rich ones — and the most at stake in practice, because the ladder it planned to climb (call centres, back offices, services exports) runs straight through the work AI does best. Will unemployment rise? Will poverty increase? Does education become worth more, or less? And how should a student in Nairobi, Lagos or Accra choose a university for a market nobody has seen yet? The evidence, question by question.



ILO GenAI occupational-exposure index. Exposure measures technical potential, not job losses — and actual adoption lags far behind it: only 20.2% of OECD firms reported using AI in 2025 (52% of large firms, 17% of small). The wave hits offices, not farms — and the developing world's employment is mostly not in offices.

Fig 1 — The ILO's refined global exposure index: the wave hits offices, and the developing world's employment is mostly not in offices.

Published September 2026 by Africa Global Forum · africaglobalforum.com/reports/leapfrog-test-2026

01 · The Short Version

Every member of this network has a version of the same question waiting at home: a sibling choosing a degree, a cousin asking whether the BPO job is safe, parents asking whether school fees still make sense. The answers, evidence first:

- **The exposure is asymmetric — and it cuts both ways.** The ILO finds 34% of employment in high-income countries in occupations with generative-AI exposure versus 11% in low-income ones, with only 3.3% of jobs worldwide in the highest-exposure category. The developing world's farms and stalls are out of AI's reach — but the jobs that ARE exposed are precisely the modern, formal, exportable ones every development plan depends on.
- **Will unemployment rise? Mostly the wrong question.** With 85.3% of African employment informal, the unemployment rate will barely move. The real number: 10–12 million young Africans enter the labour market yearly against ~3 million formal jobs. AI threatens to freeze that 4-to-1 shortfall in place by automating the routine office work poor countries hoped to sell.
- **Will poverty increase? Not directly — but the escape routes narrow.** 839 million people live under the \$3.00/day line. AI will not fire the farmer; the risk is slower exits — the services-export ladder (India's 5.4M IT-BPM workers, the Philippines' 1.8M BPO workers with ~1M roles at automation risk by 2030) is being pulled up just as Africa reaches for it. Expect inequality to widen before poverty moves.
- **Does education become worth more? Yes — with a twist.** Returns to university in Sub-Saharan Africa are 21.9% per year of schooling, the highest on earth. AI raises the value of what scarce educated people do while deflating the credential-alone. Education is worth more; generic education is worth less.
- **The strategy is a fork, not a verdict.** Choose fields where AI amplifies scarce professionals — health, agriculture, energy, engineering, teaching — or build for local problems; stack AI-fluency on any degree as the free second major. Ten rules inside.

The mobile phone found Africa without landlines and made it the world leader in mobile money. AI now arrives at a continent without enough teachers, doctors or formal jobs. Whether it repeats the leapfrog or pulls up the ladder is the defining economic test of the next decade.

02 · The Asymmetry

When the ILO mapped every occupation on earth against what generative AI can do, the exposure landed where the offices are: about one job in four worldwide, but 34% in high-income countries against 11% in low-income ones — and only 3.3% of world employment in the highest-exposure category, overwhelmingly clerical. Read naively, the developing world is safe: the farmer, the trader, the mason and the matatu driver do work AI cannot touch.

Read properly, it is harsher. Exposure is where the productivity gains land too — the rich world's offices are about to get cheaper to run while the poor world's fields are not. And the exposed 11% is not a random 11%: it is the civil service, the banks, the telecoms, the BPO parks — the formal, tax-paying, exportable sliver every development strategy treats as the seed of the future economy. AI spares the developing world's present and aims at its planned future. Adoption is early everywhere — only 20.2% of OECD firms used AI in 2025 (52% of large firms, 17% of small) — which is exactly why the next five years of choices still matter.

03 · The Ladder Being Pulled Up

The ladder being pulled up — the services-export path that lifted Asia's middle classes meets the machine that does the same work

5.4m

workers in India's IT-BPM sector — the largest services-export escape ladder any developing country ever built

1.8m

workers in the Philippines' BPO industry (~\$40bn, 7-8% of GDP) — with industry estimates putting ~1m roles at automation risk by 2030

~20,000

new BPO jobs Kenya added in one recent year — Nairobi, Accra and Kigali are climbing onto the same ladder as it starts to shake

**The
mechanic**

the ladder ran on rich-world firms sending routine information work to cheaper English-speaking workers. AI now does routine information work. What gets pulled up is not Africa's jobs — it is Africa's NEXT jobs

Fig 2 — The escape ladder that worked meets the machine that does the same work (NASSCOM, IBPAP, Philippine government statements).

The one development strategy of the last thirty years that reliably worked without factories: India built a 5.4-million-worker IT-BPM industry on rich-world firms sending routine information work to cheaper, English-speaking graduates; the Philippines followed with a 1.8-million-worker, ~\$40-billion BPO industry that became its economic crown jewel. No ports, no heavy industry, no mineral luck — just educated young people, connectivity and wage differences.

African capitals have spent a decade climbing onto the same ladder — Kenya's Silicon Savannah added on the order of 20,000 BPO jobs in a single recent year, with Ghana, Rwanda, Senegal and Egypt running versions of the same play. The timing is the tragedy: generative AI's most proven skill is routine information work — exactly the ladder's bottom rungs. Estimates put around a million Philippine BPO roles at automation risk by 2030 (the planning secretary calls the figure possibly overstated — the debate itself is the point). What gets pulled up is not Africa's existing jobs; it is Africa's NEXT jobs.

One counter-current: the QJE field experiment found support agents 15% more productive with an AI assistant, the largest gains going to the least experienced — in a Philippine-staffed operation. Read one way, automation in slow motion. Read the other, AI narrows the experience gap and makes the cheaper worker MORE competitive per dollar for as long as humans stay in the loop. Which reading wins will be decided market by market.

04 · Will Unemployment Rise?

Will unemployment rise? The honest arithmetic — the formal-jobs crisis is not coming with AI. It was already here.

10-12m

young Africans entering the labour market every year
(African Development Bank)

~3m

formal jobs available for them — a 4-to-1 shortfall that
predates AI entirely

85.3%

of African employment is informal (ILO, 2024) — farms, stalls,
workshops: work AI cannot reach, and formality never did either

408m

the ILO's global jobs gap — people wanting paid work the
conventional unemployment rate does not count

Fig 3 — The honest arithmetic (AfDB, ILO). The formal-jobs crisis is not coming with AI — it was already here.

The statistically honest answer: the unemployment rate will probably not move much — and that is not good news. Sub-Saharan Africa records some of the world's LOWEST youth unemployment rates (~8.4%) for a reason that flatters nobody: where there is no unemployment insurance, almost nobody can afford to be unemployed. 85.3% of African employment is informal, and informal work is nearly AI-proof. The rate is a rich-country instrument pointed at a poor-country economy; the ILO's 408-million global jobs gap is the truer gauge.

The number that will move is the one already broken: 10–12 million young Africans enter the labour market yearly against roughly 3 million formal jobs — a 4-to-1 gap that predates ChatGPT. What AI threatens is the gap's closing mechanism: the classic first formal jobs — clerk, teller, data-entry operator, junior accountant, call-centre agent — are the highest-exposure occupations in the ILO index. The forecast is not mass unemployment; it is a longer queue for the same scarce formal doors, more educated young people absorbed downward into informality, and a widening gap between the credentialed and the connected few who cross. Readers of our New Ladder report will recognise the shape: the entry rung thins first, everywhere — the developing world simply had fewer rungs to begin with.

05 · Will Poverty Increase?

Will poverty increase? The chain, link by link

01 AI will not fire the farmer

839 million people live under the new \$3.00/day line — 46% of Sub-Saharan Africa. Most are in informal and agricultural work with near-zero AI exposure. Mass AI-driven firing of the poor is not the risk.

02 The risk is slower escape routes

Poverty falls through exits: the formal wage job, the services-export role, the remittance from abroad. AI narrows the first two directly — and the third through the diaspora's own squeezed ladder.

03 Inequality widens before poverty moves

AI's gains land first on the connected, educated, urban and powered. The likelier near future is not more poverty — it is a wider gap inside every developing country.

04 The counterweight is real

AI also cuts the cost of what poverty is made of: no doctor, no tutor, no advisor, no market information. Delivered through the phone already in hand, it attacks poverty's symptoms at unprecedented price: near zero.

05 So the answer is conditional

Poverty will not surge because of AI. But whether it keeps falling depends on which force wins: the pulled-up ladder, or the leapfrog. That contest is this report's subject.

Fig 4 — The poverty question, link by link. 839 million under the \$3.00 line (World Bank, 2021 PPP); nearly half of Sub-Saharan Africa.

The extreme poor are overwhelmingly rural, informal and agricultural — the LEAST AI-exposed workers on earth. AI cannot fire people it never employed; there is no direct mechanism by which it throws the world's poorest out of work. The indirect mechanism is the one to watch: poverty falls through exits — the formal wage job, the services-export role, the remittance from abroad (which our research priced at an 8.78% corridor cost) — and AI narrows the first two directly while squeezing the third through the diaspora's own thinning entry rung. Slower exits mean poverty falling more slowly than it should, while AI's gains pile up on the connected, educated, urban and powered: a wider gap inside every developing country.

Yet the counterweight is real. Poverty is a bundle of absences — no doctor, no tutor, no lawyer, no market information — and AI collapses the price of exactly these, delivered through the phone mobile money already put in the poorest hands. So: no, poverty will not surge because of AI — but whether it keeps FALLING depends on which force wins, the pulled-up ladder or the leapfrog.

06 · The Leapfrog Case

The leapfrog case — why the wave could lift instead of drown

01 The precedent is real

Africa skipped landlines for mobile, banks for M-Pesa, desktops for phones. Leapfrogging is not a hope; it is the continent's documented habit.

02 AI is the most leapfroggable technology yet

Its capital requirement is a connection; its interface is language. No factories, no branch networks, no fixed lines to build first.

03 The tutor, doctor and advisor in the pocket

The scarcest development inputs — teachers, clinicians, counselors, agronomists, lawyers — now have a near-free first-draft substitute that speaks to a phone in Kiswahili.

04 The value chain is climbable

Kenya's \$2/hour annotation work is exploitative AND a foothold — the same skills ladder runs from labelling to \$1,000–2,000/month remote roles to building for local problems.

05 The demographic asymmetry

Median age ~19, the world's youngest workforce, adopting the tool fastest — while the ageing rich world runs out of exactly these people.

Fig 5 — Why the wave could lift instead of drown — stated as strongly as the evidence allows.

Africa skipped the landline for mobile and the bank branch for M-Pesa, which moves value equal to roughly half of Kenya's GDP through phones. Leapfrogging is the documented national habit, and AI is the most leapfroggable technology ever shipped: no factory, no branch network — its capital requirement is a connection and its interface is human language. The continent that could never train enough teachers, doctors and agronomists can now put a competent first draft of each in every pocket at near-zero marginal cost.

The value chain is climbable, and this network watches people climb it: from the ugly \$2/hour annotation floor (exploitative AND a foothold, both true at once) to structured remote roles at \$1,000–2,000 a month, to developers fine-tuning models for African languages, to founders building for problems the Valley cannot see. Add the demographic asymmetry — median age near 19, the youngest workforce on earth, while the ageing rich world runs short of exactly such people — and the leapfrog case stops sounding like a TED talk and starts sounding like arithmetic.

The pessimists' case is Section 03; the optimists' case is this section. Both are real, both are running, and no serious economist knows which wins. That is why this report is called a test.

07 · The Constraints

The constraints — what stands between the developing world and the leapfrog, stated honestly

600m

Africans without reliable electricity — more than 80% of the world's access gap. No power, no compute, no leapfrog

Compute deserts

the continent hosts a sliver of global data-centre capacity; models, chips and clouds are owned elsewhere — the leapfrog runs on rented rails

Language gaps

African languages are a rounding error in training data; tools work worst exactly where they are needed most — a fixable, unfixed gap

The talent drain

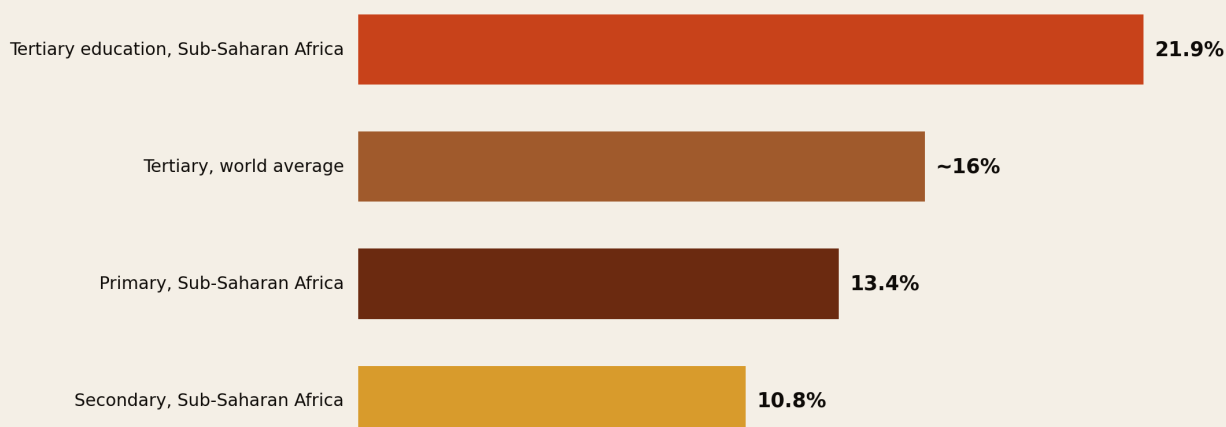
the engineers who could build local AI are the same people the rich world's shortage lists are recruiting — the oldest constraint of all

Fig 6 — What stands between the developing world and the leapfrog (IEA/World Bank Mission 300 data).

Six hundred million Africans lack reliable electricity — more than four-fifths of the world's access gap — and no model capability reaches a phone that cannot charge. The continent hosts a sliver of global data-centre capacity, so the leapfrog runs on rented rails: models trained, priced and governed elsewhere, payable in dollars. African languages remain a rounding error in training data, so the tools perform worst for the users who need them most. And the oldest constraint compounds them all: the engineers who could build local AI are the same individuals on every rich-world shortage list.

The conclusion, without flinching: the leapfrog is possible, not promised. The countries that clear the constraints — Mission 300, the push to connect 300 million Africans to electricity by 2030, is the scale required — get the leapfrog. The countries that do not will consume AI as an import, and the value will flow the way it always has.

08 · Is Education Worth More Now?



Private returns per year of schooling (Psacharopoulos & Patrinos, World Bank global compilation).
A year of university in Sub-Saharan Africa raises earnings more than anywhere on earth — because educated people are scarce. AI changes what the education must contain, not whether it pays.

Fig 7 — Psacharopoulos & Patrinos (World Bank): a year of university in Sub-Saharan Africa raises earnings more than anywhere on earth.

Step one, the baseline almost nobody in the anxiety-discourse knows: returns to education in Sub-Saharan Africa are the highest in the world — 21.9% per year of tertiary schooling against a world average near 16% — because educated people are scarce (tertiary enrolment near 9–10% versus ~40% worldwide). This is the opposite of the rich-world problem, where degrees are abundant and the graduate premium erodes.

Step two, what AI does to the premium: it deflates the credential that certifies routine information-handling — the degree headed for data entry, basic bookkeeping or scripted support — while amplifying the professional whose scarce judgement it extends: the doctor supervising AI triage across three counties, the agronomist whose advice reaches a million farmers through a chatbot she trains, the teacher orchestrating AI tutors. In an economy where the educated are scarce, augmentation is worth more, not less. Education becomes worth more in the AI era — and the degree-as-paper worth less — at the same time. The 21.9% was always an average across both kinds of graduate; AI is prising the average apart.

“Is university still worth it?” has different answers in London and Lagos. Where degrees are abundant, AI erodes the premium. Where degrees are scarce, AI multiplies what the degree-holder can do. Scarcity was always Africa's educational curse. In the AI era it quietly becomes the hedge.

09 · The University Decision

The old playbook said: get ANY degree, because the paper itself opened formal doors. That playbook is dying. The new one has three moving parts.

Run the substitute-or-amplify fork on the local economy

Ask of any intended career: does AI do this job's core tasks, or does it extend the reach of the scarce person doing them? The amplify list is long and physical: medicine and nursing, agriculture and agronomy, energy and electrical engineering, construction and the licensed trades, teaching, logistics, water. The substitute list is the tragic one: generic business-administration, clerical tracks, routine accounting, the “computer packages” certificates — training aimed at exactly the office work AI eats first. The fork is not STEM-versus-arts; it is routine-versus-judgement.

Price the local university honestly against the foreign one

With the rich world's graduate rung thinning and its student doorways narrowing by policy, the study-abroad-at-any-cost premium is shrinking — while the local degree plus demonstrable AI-era skills plus a shipped project increasingly beats the foreign degree alone. The foreign university still wins for frontier specialisations and research careers. But it is now a considered purchase, not a default — and the student who builds locally first and goes abroad at master's level, funded and specialised, extracts more from both systems at a fraction of the family's risk.

Treat AI-fluency as the free second major

Nurse-plus-AI, agronomist-plus-AI, accountant-plus-AI each out-earn all three alone — and in a low-adoption economy, the first fluent person in any organisation becomes its de facto transformation officer, whatever the job title says. That is a promotion path no curriculum lists.

10 · Ten Rules for the Class of 2030

For the student choosing a university in the developing world — the five rules (five more in the text)

01 Run the fork on your own economy

Before choosing a course: does AI substitute for this job's tasks here, or amplify its people? Health, agriculture, energy, construction and trades amplify. Generic BPO-prep and routine office degrees substitute.

02 Don't train for the ladder being pulled up

The call-centre, data-entry and back-office route your older cousins took is the one AI eats first. Aim at work with hands, licences, judgement — or at building the tools.

03 Stack AI-fluency on any degree

Agronomist + AI, nurse + AI, accountant + AI beats all three alone. The tool is free; the multiplier compounds through your whole career.

04 Build for a local problem before you graduate

Your unfair advantage is problems the Valley cannot see: matatu logistics, chama accounting, clinic queues, farm-gate prices. A shipped solution is a portfolio, a business, and a visa-proof asset at once.

05 Treat university as network and lab, not paper

The credential deflates; the classmates, professors, and projects compound. Choose institutions for what they let you build and who you build it with — the degree comes along either way.

Fig 8 — The first five rules; the second five below. Written for the student in the developing country — the mirror of the ten we wrote for the student leaving.

- **1. Run the fork on your own economy.** Substitute or amplify — asked of the career here, not in California. Health, agriculture, energy, trades and teaching amplify; generic office-prep substitutes.
- **2. Don't train for the ladder being pulled up.** If BPO is the entry point available, take it — but climb immediately: quality assurance, team lead, workflow design, the parts that supervise the machine.
- **3. Stack AI-fluency on any degree.** The tools are free and the multiplier compounds for forty years. One hour a day is the cheapest career insurance ever sold.

- **4. Build for a local problem before you graduate.** A shipped solution — however small — is a portfolio, a possible business and a visa-independent asset at once.
- **5. Treat university as network and lab, not paper.** The credential deflates; the classmates, professors and projects compound.
- **6. Aim at the professions scarcity protects.** A country with one doctor per several thousand people cannot automate doctors; it can only amplify them. Licensed, physical, scarce — three properties AI respects.
- **7. Learn to sell what you know across borders without moving.** Remote work and the \$1,000–2,000/month structured roles are the new middle rung between the \$2 annotation floor and emigration.
- **8. If you go abroad, go up — not out.** Leave for a specific specialisation, funded, at postgraduate level, with a return thesis — not for a generic degree at the moment the doorway narrows.
- **9. Watch electricity, not headlines.** Whether your country clears the constraints — power, connectivity, compute — tells you more about your decade than any AI announcement.
- **10. Keep the family ledger honest.** University still pays 21.9% a year here — the best return the family can buy — IF rules 1–6 choose what it buys. The fees WhatsApp group deserves the fork, not the fear.

11 · What Governments and Universities Must Do

Students choose inside systems, and the systems have their own exam to sit. The checklist that decides which countries pass the leapfrog test:

- **Power first, rhetoric later.** Mission 300 — 300 million more Africans connected by 2030 — is the single highest-leverage AI policy on the continent.
- **Buy compute access, not compute vanity.** Few developing countries need sovereign frontier models; all need negotiated cloud capacity, data-centre investment and survivable pricing — plus trustworthy data-protection law.
- **Fix the curriculum lag.** The fastest reform is not new AI faculties; it is threading the tools through the medicine, agriculture, education and engineering programmes that already exist.
- **Fund the language gap.** Kiswahili, Hausa, Yoruba, Amharic, Wolof: small money by global standards, transformative locally — and fixable without anyone's permission.
- **Regulate the annotation floor.** The \$2/hour tier is the continent's AI sweatshop and its on-ramp simultaneously; lift the floor without burning the ramp.
- **Count honestly.** Track the formal-jobs gap, underemployment and the informal majority — the unemployment rate hides the story.

12 · The Home-Ground Advantage

The diaspora member reading this holds a position neither the cousin at home nor the local employer abroad quite sees. You have watched AI arrive in rich-world workplaces two or three years before it saturates home markets — you are, functionally, a time traveller with respect to your home economy's adoption curve. You hold rich-world savings against home-market costs. You know both the problems the Valley cannot see and the tools it built. Every previous wave — mobile, fintech, e-commerce — minted a cohort of diaspora returnees and remote co-founders who arbitrated exactly this gap.

The practical forms are concrete: the professional abroad who spends a weekend a month making a sibling's business AI-literate; the remittance that buys a laptop and a course instead of only consumption; the mid-career

specialist who takes the mid-level premium home, where scarcity makes it worth double; the Forum member who mentors three students through the ten rules — free to give, compounding for decades. The leapfrog, if it happens, will not be executed by governments alone. It will be executed by networks — and this is one.

13 · The Uncomfortable Part

- **Much of this report is forecast, and AI forecasts have aged badly in both directions.** The 2013 predictions that automation would erase half of all jobs were wrong; so were the 2023 assurances that nothing would change. This report joins its two AI siblings on the revisit-by-mid-2027 list.
- **The leapfrog framing flatters us, and we chose it anyway.** The harsher reading — that AI ends the labour-arbitrage development model outright and M-Pesa is a story about payments, not a general law of catching up — is held by serious people, not straw men.
- **The 21.9% education return is an average over people who got formal jobs in the old economy.** If AI thins the formal sector, yesterday's return may overstate tomorrow's — which is precisely why the strategy sections insist the return now depends on WHAT the degree contains.
- **This network exists because people left, and Rule 8 quietly argues that fewer should — or should leave differently.** We would rather name the tension than perform neutrality: the question was never whether to go, but when, at what rung, and with what plan.

14 · Method & Limits

- **Exposure and adoption:** ILO refined global index of occupational GenAI exposure (34%/11% split, ~25% world, 3.3% highest-exposure, clerical concentration); OECD adoption surveys (20.2% of firms, 2025). Exposure measures technical potential, not realised job loss.
- **Poverty:** World Bank \$3.00/day (2021 PPP) line — 839 million in extreme poverty, Sub-Saharan Africa near 46% of its population and a majority of the global total. Line revisions changed levels, not trends.
- **Labour markets:** ILO (85.3% African informality 2024; 408M global jobs gap; SSA youth unemployment ~8.4% with the insecurity caveat); AfDB (10–12M annual entrants vs ~3M formal jobs).
- **The services ladder:** NASSCOM (India ~5.4M), IBPAP and Philippine government statements (1.8M workers, ~\$40B, ~1M at automation risk by 2030, with the official “may be overstated” caveat quoted); the QJE support-agent experiment (+15%, largest gains to the least experienced).
- **Education:** Psacharopoulos & Patrinos, World Bank global compilation (SSA tertiary 21.9%, primary 13.4%, secondary 10.8%). Private returns estimated on past graduates; the forward-looking caveat is stated.
- **Infrastructure:** IEA/World Bank — 600M Africans without electricity; Mission 300.
- **Softened or unverifiable:** country-level BPO automation counts; African data-centre shares (order of magnitude only); the \$2/hour and \$1,000–2,000 figures are journalistic and platform-reported ranges. All forward-looking sections are analysis, not measurement.
- **AI use in production:** drafted, charted and fact-checked with AI assistance under editorial control — the same tools it analyses. Every load-bearing number was verified against the primary source; the interpretation and errors are ours.

Companion reports: The Algorithm at the Border (AI × moving abroad) and The New Ladder (jobs before and after AI) view the same wave from the migrant's side; The Uncounted Year and The Black Tax Ledger price the escape-route economics. All at africaglobalforum.com/reports. · Africa Global Forum · Research · 2026 · Free to read and share.