# A Critical Framework for Technology-for-Development

*AiCE Africanism & Pan-African Studies — When technology helps, and when it does not*

## When Technology Helps — and When It Does Not

The technology-for-development field has a difficult history of enthusiasm and disappointment: technologies that seemed transformative in pilot projects failed to deliver at scale; organisations invested enormous resources in technological solutions to problems that were actually governance or political economy problems that no technology could solve; and communities that had not been consulted about technological interventions designed for them found the interventions irrelevant to their actual needs.

The most important intellectual tool for anyone working at the intersection of technology and African development is a critical framework for evaluating whether a proposed technology intervention is actually likely to generate development impact — or whether it is a solution in search of a problem, an impressive demonstration project, or a well-intentioned failure in the making.

| The African Tech-for-Development Critical Checklist |
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| 1. Problem clarity: is the development problem clearly defined and empirically documented? Is technology the binding constraint, or is it political will, governance, funding, or human capacity? |
| 2. User centricity: has the product been designed with the actual target users — not imagined users — through genuine co-design and testing in real conditions? |
| 3. Evidence base: is there rigorous evidence that this type of intervention improves the outcome it targets? |
| 4. System integration: does the technology work within existing systems (health, school, financial) rather than creating parallel structures that cannot survive without project funding? |

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| 5. Cost-effectiveness: is it more cost-effective than the best available alternative? Working is not enough if it costs more than an analogue alternative that achieves the same outcome. |
| 6. Scalability: can the intervention scale beyond the pilot with available resources, human capacity, and infrastructure, without losing effectiveness? |
| 7. Sustainability: does it have a viable funding model beyond pilot grants? Who pays at scale — government, users, donors, private sector? Is that funding realistic? |
| 8. Equity: does it reach the most marginalised populations, or does it primarily benefit those already better served? |
| 9. African ownership: is it African-owned and African-led, or designed and controlled by external actors who will disengage when funding runs out? |
| 10. Digital rights: does it protect users' data rights, privacy, and digital security, or does it create new vulnerabilities in the name of development? |

This checklist is not a reason to be pessimistic about technology's role in African development. It is a tool for ensuring that the enormous energy, creativity, and resources flowing into African technology-for-development are directed toward interventions that actually work, actually scale, and actually serve African communities — rather than generating impressive reports and conference presentations while leaving development challenges unaddressed.

The African technology innovations that have generated the most genuine development impact — M-Pesa, Zipline, Twiga Foods, Eneza Education — all score well on this checklist. They solved clearly defined problems. They were designed with and for their users. They had rigorous evidence of effectiveness. They integrated with existing systems. They were cost-effective. They scaled. They had sustainable funding models. They reached marginalised populations. They were African-led. And they protected their users' rights. The checklist is not an obstacle to innovation. It is a map of the path from pilot to impact.

> *"Technology for development is not about the technology. It is about the development. The technology is only as valuable as the problem it solves, the people it serves, and the change it sustains long after the pilot funding runs out."*
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> **— Adesina Olagunju, Founder, AiCE**

## Key Takeaways

The ten-point Tech-for-Development Checklist — problem clarity, user centricity, evidence, system integration, cost-effectiveness, scalability, sustainability, equity, African ownership, and digital rights — is the tool that distinguishes genuine development impact from an impressive pilot that will not outlast its grant funding. Every intervention examined in this lesson series that achieved real scale — M-Pesa, Zipline, Twiga Foods, Eneza — scores well across all ten criteria.