

# Pushing the Frontiers of African Development in Public Health, Education, and Agriculture through the Multimodal NGO Approach

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**Abstract:** Development interventions in Africa often operate within sector-specific silos, resulting in fragmented outcomes and limited sustainability. This paper examines the potential of multimodal Non-Governmental Organisations that integrate interventions across public health, education, and agriculture to address poverty and underdevelopment in a coordinated manner. Using a structured desk review of literature, policy documents, and case examples from organisations operating in sub-Saharan Africa, findings show that multimodal NGOs leverage inter-sectoral synergies to maximise developmental impact. However, funding silos, measurement complexities, and cross-sectoral capacity gaps remain major barriers. The paper recommends flexible funding mechanisms, integrated monitoring, and capacity building to sustain multimodal approaches.

**Keywords:** Multimodal Ngos, Integrated Development, Cross-Sectoral Interventions, Sub-Saharan Africa, Community Development, Sustainable Development.

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## I. INTRODUCTION

Africa's development trajectory illustrates a paradox of substantial opportunities constrained by persistent, interconnected challenges. Despite progress in areas such as poverty reduction and improved health indicators, the continent continues to grapple with high burdens of preventable diseases, educational inequities, and chronic food insecurity (World Bank 2023; WHO 2022). These deficits reinforce one another: poor health undermines educational attainment, weak education limits agricultural innovation, and food insecurity perpetuates cycles of poverty and disease.

Non-Governmental Organisations have long played critical roles in complementing government-led development. Yet most continue to operate within narrow

sectoral silos, delivering programmes in either health, education, or agriculture. While such specialisation yields technical depth, it often fails to capture the cross-sectoral dynamics of poverty (Hulme 2013; Efevbera 2020) as well as the overlapping synergistic effects. Evidence increasingly shows that integrated, multi-sectoral interventions achieve more sustainable outcomes than isolated approaches (Bennett *et al.* 2018). However, coordinated strategies remain scarce across much of sub-Saharan Africa.

This paper advances the argument for multimodal NGOs, organisations that deliberately design and implement interventions spanning health, education, and agriculture within a unified framework. By leveraging synergies across these sectors, multimodal NGOs aim to address root causes of underdevelopment rather than its symptoms, thereby

fostering more resilient communities.

Drawing on a structured review of literature and illustrative African case studies, this paper defines the concept of multimodal NGOs, analyses their contributions in public health, education, and agriculture, identifies challenges inherent in multi-sectoral coordination, and proposes strategies to strengthen their impact. In doing so, the study contributes both to development practice and theory, positioning multimodal NGOs as critical actors in advancing comprehensive, equitable, and sustainable African development.

#### ➤ *Methodology Research Design*

This study employs a qualitative, structured desk review design aimed at analyzing the operational models, synergies, and challenges of multimodal NGOs integrating public health, education, and agriculture interventions in sub-Saharan Africa. The research adopts a systems perspective aligned with the multimodal approach to development, seeking to understand the interconnected impacts across these sectors through a comprehensive synthesis of existing literature, policy documents, and illustrative case studies.

#### ➤ *Data Sources and Selection*

Data sources include published academic literature, grey literature such as NGO reports, evaluation studies, policy frameworks, and organizational case examples from multimodal NGOs operating in Africa. Key sources include programmatic documents from BRAC, One Acre Fund, Safe-Revive Africa, World Vision, and other organizations implementing integrated interventions.

Selection criteria prioritized materials published within the last 15 years to ensure contemporary relevance, sources highlighting integrated programming outcomes and cross-sectoral synergies, regional focus on sub-Saharan Africa, and evidence of operational strategies and capacity development.

A systematic search strategy was employed, including electronic databases such as PubMed, Scopus, and Web of Science, grey literature repositories, and official NGO websites. Keywords included combinations of multimodal NGOs, integrated development, cross-sectoral interventions, health education agriculture, and sub-Saharan Africa.

#### ➤ *Analytical Framework*

The analysis is structured around five thematic dimensions reflecting the multimodal paradigm: operational models of multimodal NGOs integrating health, education, and agriculture; cross- sectoral synergies manifesting as reinforcing impacts among the sectors; challenges and limitations inhibiting effective multi-sector coordination; strategic directions for enhancing impact and sustainability; and policy and funding implications supporting integrated programming.

The study leverages systems theory and complexity science to interpret observed dynamics, emphasizing feedback loops, virtuous cycles, and interdependencies created through tri- sectoral integration.

#### ➤ *Data Analysis*

A thematic content analysis approach was applied to synthesize findings from diverse data sources. Documents were reviewed, coded, and categorized according to the predefined analytical framework. Cross-case comparisons enabled the identification of common synergy patterns and recurring barriers. Evidence was triangulated between literature, NGO-reported outcomes, and policy frameworks to enhance validity.

Coding procedures involved iterative reading, development of a thematic codebook, and categorization of findings under the five analytical dimensions. Where possible, inter-coder reliability was ensured through independent review of a subset of documents by multiple researchers.

#### ➤ *Case Study Integration*

Selected case studies served as both exemplars and empirical evidence for the multimodal approach. Cases were purposively selected based on demonstrated integration of health, education, and agriculture interventions, evidence of cross-sectoral synergies and measurable outcomes, and availability of detailed programmatic documentation. Each case was analyzed to illustrate how integrated programming advances development outcomes, with attention to contextual adaptations and operational tactics that generate synergy.

#### ➤ *Ethical Considerations*

All data used in this study were publicly available or obtained from organizational documents with permission. No primary human subjects were involved, and confidentiality was maintained for sensitive organizational information.

## II. RESULTS

#### ➤ *Background and Context of African Development*

Africa's development landscape is shaped by a complex interplay of economic, social, and environmental factors. Despite vast natural resources, a growing youth population, and the world's largest free-trade area, the continent remains burdened by sluggish economic growth, high poverty, and persistent structural vulnerabilities (World Bank 2024).

As of 2024, approximately 464 million people in Sub-Saharan Africa live in extreme poverty, below US \$2.15 per day, with nearly 120 million experiencing acute food insecurity, 80 percent of whom are in conflict-affected countries (World Bank 2024; Le Monde 2024). Growth projections are modest: per capita growth is expected to rise marginally to 3.5 percent in 2025, reaching 4.3 percent by 2027, still insufficient to significantly narrow entrenched poverty (World Bank 2024).

Conflict, fragility, and violence continue to hamper progress. Over two-thirds of Sub-Saharan countries have been classified as fragile, conflict-affected, or violent, at least once since 1998, undermining poverty reduction and developmental budgets (World Bank 2024). Furthermore, the Multidimensional Poverty Index data reveal that more than 1 billion people worldwide live in acute poverty, with sub-

Saharan Africa disproportionately represented, including 317 million children under age 18 (UNDP 2024).

➤ *Sectoral Challenges: Health, Education and Agriculture*

Malnutrition remains a crisis, particularly for children under five. In Sub-Saharan Africa, malnutrition rates span 26 to 38 percent, and the past decade saw malnourished children increase from 5.5 million to 30 million, contributing to over 3.5 million under-five deaths annually (Ayelign and Mekonen 2022; WHO 2022). Childhood stunting persists in more than one-third of young children, severely constraining cognitive development and educational outcomes (WHO 2022).

Gains in school enrolment have been significant, yet learning remains low. Between 1999 and 2011, primary school enrolment rose from 82 million to 136 million children, yet literacy rates and learning quality remain very low, especially in conflict zones where admission rates can be nearly 30 percent lower than in peaceful areas (UNESCO 2022). COVID-19 further disrupted education. Sub-Saharan Africa experienced prolonged closures, exacerbating learning deficits and potentially increasing dropout rates (Azevedo *et al.* 2021).

In respect of agriculture and food security, sub-Saharan agriculture remains heavily rain-dependent and under-invested. Only 5 percent of irrigable land is equipped for irrigation, compared to 37 percent in Asia (FAO 2022). Climate change amplifies vulnerabilities, projected yield reductions reach up to 50 percent in some countries, directly threatening food security and livelihoods (Niang *et al.* 2014; Singh *et al.* 2024).

This trisectoral analysis underscores the multidimensional, interlinked nature of Africa's development challenges. Contemporary research on integrated systems approaches to rural development demonstrates the critical need for a comprehensive understanding of interconnections among various systems within development ecosystems (Dube and Telukdarie 2025).

➤ *Why Sectoral Silos Fall Short*

Development interventions remain largely sector-specific, limiting their systemic impact. Poverty, undernutrition, educational deficits, and agricultural inefficiencies are deeply intertwined, yet often addressed in isolation. Health interventions may neglect nutritional education, and educational programmes may overlook food insecurity, all of which undermine long-term outcomes. Evidence suggests that multisectoral, integrated strategies yield greater resilience and developmental returns (Efevbera 2020; Bennett *et al.* 2018).

➤ *Opportunity Amidst Complexity*

Despite these challenges, Africa holds unique assets. The continent is poised to experience the fastest growth in its working-age population, with an additional 740 million people entering the workforce by 2050. Yet, current formal job creation is insufficient, only about 3 million new jobs are created annually, compared to the 12 million youth entering the labor market (World Bank 2024). This demographic trend highlights a critical opportunity window to invest in human capital, aligning health, education, and agriculture to unlock collective potential (African Development Bank 2023).

Table 1 Key Development Challenges in Sub-Saharan Africa

Sector	Key Challenges
Poverty and Food Security	Approximately 464 million people in extreme poverty; approximately 120 million acutely food insecure; fragility and conflict exacerbate risks
Health and Nutrition	Child malnutrition affects 26 to 38 percent of under-fives; approximately 3.5 million annual under-five deaths linked to undernutrition
Education	Enrolment improved from 82 million in 1999 to 136 million in 2011, but learning outcomes remain low, particularly in conflict-affected zones
Agriculture and Climate	Only 5 percent of arable land is irrigated versus 37 percent in Asia; climate change threatens yields by up to 50 percent in some countries
Demographics	Workforce projected to grow by approximately 740 million by 2050, yet only approximately 3 million formal jobs created annually against 12 million youth entering the labour market

Sources: World Bank 2024; Le Monde 2024; Ayelign and Mekonen 2022; WHO 2022; UNESCO 2022; Azevedo *et al.* 2021; FAO 2022; Niang *et al.* 2014; Singh *et al.* 2024

➤ *Defining Multimodal NGOs*

Multimodal Non-Governmental Organisations are development actors that deliberately design and implement integrated, cross-sectoral interventions in at least three foundational domains such as public health, education, and agriculture. Unlike traditional NGOs that concentrate on a single thematic area such as maternal health, school enrolment, or crop productivity, multimodal NGOs employ a tri-sectoral philosophy that recognises the interdependence of human well-being, knowledge, and livelihoods (Chambers 1997; Sachs 2005).

The defining principle is that progress in one sector reinforces outcomes in the others. Improvements in child health enhance school attendance and learning capacity. Better-educated farmers are more likely to adopt climate-smart practices, and agricultural productivity strengthens household nutrition and income, enabling investment in education and health (Banerjee and Duflo 2011; Banerjee *et al.* 2025).

This approach reflects an understanding of poverty as multidimensional, encompassing deprivations in health, education, and livelihoods simultaneously (Alkire and Foster

2011). Multimodal NGOs therefore align closely with the United Nations Sustainable Development Goals, particularly SDG 2 on Zero Hunger, SDG 3 on Good Health and Well-being, SDG 4 on Quality Education, and SDG 6 on Clean Water and Sanitation, which are mutually reinforcing (United Nations 2015; UNDP 2024).

The theoretical underpinnings of multimodal approaches draw from systems theory (Bertalanffy 1998) and the big push theory of development, which posits that simultaneous, coordinated investments across multiple sectors can trigger self-sustaining growth dynamics (Rosenstein-Rodan 1943; Dube and Telukdarie 2025). In practice, multimodal NGOs establish positive feedback loops where healthier children become better learners, better-educated households improve agricultural resilience, and higher agricultural yields enhance nutrition and income, thereby reinforcing development gains across all three sectors.

#### ➤ *Integrated Impact in Key Sectors Public Health: The Foundation*

Public health forms the foundation of multimodal NGO programming, since no sustainable progress in education or agriculture can occur without a healthy population. Multimodal NGOs provide preventive health services, maternal and child health interventions, infectious disease control, and water, sanitation, and hygiene programmes (Coman *et al.* 2020; WHO 2022).

Health initiatives are not delivered in isolation but are integrated with education and agriculture. Prenatal care is linked with nutrition education, and communities and relevant stakeholders are taught to cultivate nutrient-rich crops to combat micronutrient deficiencies (Ruel and Alderman 2013; Fanzo *et al.* 2020). Similarly, school-based WASH interventions not only reduce diarrhoeal diseases but also improve attendance, especially among adolescent girls, thereby demonstrating a direct link between health infrastructure and education outcomes (Freeman *et al.* 2014; Garn *et al.* 2017).

Health education, when well embedded into school curricula, community meetings, and agricultural extension services, often results in multimodal NGOs creating multiplier effects that strengthen resilience at both household and community levels.

#### ➤ *Education: The Catalyst*

Education serves as the catalyst for long-term development by equipping communities as well as stakeholders with the knowledge and skills necessary to maintain health improvements and adopt sustainable

agricultural practices. Unlike traditional education programmes, multimodal NGOs explicitly connect schooling with health and agriculture (McDonnell *et al.* 2022).

Integrated models often include school feeding programmes, which improve student nutrition, reduce absenteeism, and enhance cognitive outcomes while simultaneously creating markets for local farmers (Pollitt 1990; African Union 2025). Furthermore, educational content frequently incorporates health literacy, nutrition, environmental resource management, and climate-smart agriculture, ensuring that students gain both academic knowledge and life skills relevant to their communities (Lee and Khadka 2018; UNESCO 2022). Adult and community education programmes also play a pivotal role. By combining literacy training with agricultural extension and health awareness, multimodal NGOs particularly empower women, who are both primary caregivers and key contributors to local food systems (Kabeer 2005; Ghosh and Yaya 2023).

#### ➤ *Agriculture: The Sustainer*

Agriculture functions as the sustainer of multimodal development, providing food security, nutrition, and income that reinforce both education and health. Multimodal NGOs promote climate-resilient agricultural practices, such as conservation agriculture, drought-resistant crops, agroecology, and efficient irrigation (Lipper *et al.* 2014; Singh *et al.* 2024).

Interventions also emphasise nutrition-sensitive agriculture by promoting kitchen gardens and nutrient-dense crops, with a focus on empowering women to diversify diets and reduce household food insecurity (Ahmad *et al.* 2024; FAO 2022). Beyond primary production, multimodal NGOs support value addition, food processing, and market access, enabling farmers to capture higher returns and invest more in healthcare and education (Barrett 2008; FAO 2023).

This tri-sectoral synergy ensures that agricultural productivity not only secures livelihoods but also generates virtuous cycles: healthier, better-educated farmers are more resilient and innovative, sustaining long-term development outcomes.

#### ➤ *Synergies and Cross-Sectoral Impact*

One of the most compelling strengths of multimodal NGOs is their ability to generate cross-sectoral synergies. Rather than producing isolated results, these organisations create reinforcing dynamics where progress in one sector strengthens outcomes in others. This systems-based integration not only maximises resource utilisation but also builds long-term community resilience (Senge 1990; Folke 2006).



Table 2 Cross-Sectoral Synergies of Multimodal NGOs

Synergy Dimension	Pathways of Impact	Illustrative Evidence
Health to Education	Improved health reduces absenteeism; well-nourished children perform better cognitively	Grantham-McGregor <i>et al.</i> 2007
Education to Health	Schools provide health literacy; informed students adopt preventive behaviours	Jasper <i>et al.</i> 2012; Matinho <i>et al.</i> 2022
Education to Agriculture	Literacy and vocational training enable the adoption of modern farming and financial literacy	Wagner 1989; Alkire 2013, 2023
Agriculture to Education	School feeding from local farms increases enrolment and retention	Pollitt 1990; African Union 2025
Health to Agriculture	Healthy farmers are more productive; reduced disease burden increases labour capacity	Strauss and Thomas 1998; Fanzo <i>et al.</i> 2020
Agriculture to Health	Nutrition-sensitive farming reduces malnutrition and micronutrient deficiencies	Ruel and Alderman 2013; Ahmad <i>et al.</i> 2024
Tri-sectoral Integration	Simultaneous progress creates virtuous cycles of resilience such as better diets leading to better learning leading to more productive farming	Folke 2006; Ngongo <i>et al.</i> 2024; Kulumba <i>et al.</i> 2024

By linking health, education, and agriculture in mutually reinforcing ways, multimodal NGOs generate compound benefits that exceed the sum of individual interventions. For example, school feeding initiatives not only improve nutrition and learning but also create stable markets for smallholder farmers. Similarly, water infrastructure benefits both household health and agricultural productivity, while also increasing school attendance (Prüss-Üstün *et al.* 2008). These interlocking synergies position multimodal NGOs as catalysts for sustainable, self-reinforcing

community development.

#### ➤ Examples of Multimodal NGOs in Africa

Across Africa, several organisations have adopted multimodal strategies integrating health, education, and agriculture. While approaches vary, they share a common philosophy: addressing interconnected challenges simultaneously to achieve more sustainable outcomes than single-sector interventions.

Table 3 Illustrative Multimodal NGOs and Their Integrated Approaches

Organisation	Integrated Approach	Reported or Observed Outcomes
BRAC (Uganda, Tanzania)	Combines microfinance, agricultural training, health services, and community schooling	Women's empowerment, higher crop yields, maternal and child nutrition gains, expanded access to education
OneAcreFund (East Africa)	Provides seed, fertiliser, training, and market access, alongside health insurance and education scholarships	Increased farmer productivity, improved food security, reduced health shocks, higher school enrolment
World Vision (Multiple Countries)	15-year Area Development Programmes integrating school feeding with local agriculture, WASH, and hygiene education	Improved child nutrition, higher school attendance, stronger community ownership
Safe-Revive Africa (Nigeria)	Integrates infectious disease prevention, agricultural awareness, and functional education	Linked health literacy to agricultural extension and school-based nutrition education, building grassroots resilience
Society for Family Health (Nigeria)	Combines reproductive health services with agricultural nutrition programmes and education initiatives	Broader reach of health services, improved community diets, and stronger education outcomes, especially among women
ActionAid (Nigeria)	Adult literacy linked to sustainable farming and community health promotion	Increased women's participation, improved livelihoods, and better adoption of health-seeking behaviours
Zakat and Sadaqa Foundation (Nigeria)	Supports education, health, and economic empowerment simultaneously through faith-based programming	Effective grassroots poverty reduction, community health improvement, and expanded educational access

Sources: BRAC 2021; One Acre Fund 2023; World Vision 2022; Safe-Revive Africa 2024; ActionAid Nigeria 2023

These examples demonstrate that multimodal integration is not theoretical but already in practice across Africa. Organisations vary in size, from large transnational NGOs like BRAC and World Vision to burgeoning grassroots initiatives such as Safe-Revive Africa. Collectively, their experiences highlight both the scalability of integrated programming and its adaptability to diverse cultural, economic, and political contexts. Evidence from these organisations shows that holistic interventions optimise resources by addressing multiple needs in a single programme, strengthen community resilience through

overlapping benefits, and generate sustainable outcomes by reinforcing feedback loops across sectors.

### III. CHALLENGES AND LIMITATIONS

While multimodal NGOs hold significant promise, their operations face structural and operational barriers that may limit scale and sustainability. These challenges often stem from funding structures, methodological constraints, workforce capacity, and context-specific dynamics.

Table 4 Key Challenges Facing Multimodal NGOs

Challenge	Implication	Evidence or Examples	Recommendation
Funding Silos	Donor mechanisms remain sector-specific, making it difficult to sustain integrated programmes	Only approximately 15 percent of development funding in Kenya in 2024 was multisectoral; majority split across health, education, and agriculture	Promote pooled funding, multi-year flexible grants, and outcome-based financing that recognises cross-sectoral benefits
Measuring Integrated Impact	Traditional monitoring and evaluation tools struggle to capture cross-sectoral synergies; attribution remains methodologically difficult	Multisectoral programme evaluations require longer timeframes and complex designs	Develop integrated monitoring and evaluation frameworks, using mixed-methods and participatory approaches to capture nuanced impacts
Capacity Building	Recruiting and retaining professionals with expertise spanning health, education, and agriculture is difficult	Interdisciplinary training opportunities remain limited across African universities	Establish cross-sectoral training, graduate programmers, and professional exchanges to build holistic NGO capacity
Contextual Adaptation	Programmes may not fit diverse cultural, political, or ecological contexts; one-size-fits-all approaches fail	Local communities have varying priorities; for example, drought-prone areas prioritise agriculture over education	Strengthen community consultation and adaptive programming tailored to local realities while preserving integration principles

Sources: Lee 2024; White 2013; Badewa and Dinbabo 2023; Fowler 1997; Lah 2025; Chambers 1997; Pretty *et al.* 2019

These challenges demonstrate that while the logic of multimodal programming is sound, implementation requires significant adaptation in funding, monitoring, and capacity. The persistence of funding silos reflects the inertia of donor systems, while difficulties in impact measurement slow the recognition of holistic benefits. Moreover, building a workforce capable of thinking across sectors remains an urgent priority. Overcoming these challenges demands not only institutional reform among NGOs but also policy shifts from donors and governments to recognise that integrated approaches better reflect the real lives of African communities, where health, education, and livelihoods are inseparably linked.

Table 5 Strategic Directions

Strategic Direction	Rationale	Roadmap or Action Points	Key Stakeholders
Flexible and Multi-Year Funding	Current sector-specific funding restricts holistic programming and prevents cross- sectoral synergies	Donors provide multi-year, pooled funding and outcome- based financing. NGOs develop integrated proposals with measurable cross-sectoral outcomes. Governments align frameworks with donor programmes	Donors, NGOs, and Governments
Strengthened Capacity Building and Workforce Development	Integrated programmes require staff with competencies across health, education, and agriculture, which are currently limited	Universities and educational institutions establish interdisciplinary graduate, microcertifications, and professional programmes. NGOs implement cross- training, mentorship, and Knowledge exchanges. Regional bodies facilitate workshops and networks for best practice sharing	Universities, NGOs, and Regional bodies
Robust Monitoring and Evaluation Frameworks	Traditional monitoring and evaluation fails to document cross- sectoral benefits, mitevidence for scaling and donor support	NGOs and research institutions co-create mixed-method evaluation frameworks. Policy- makers standardise integrated programme indicators. Donors allow flexible reporting, recognising cross-sectoral impacts	NGOs, Research Institutions, Policy-makers, Donors
Policy Advocacy and Institutional Alignment	Policy and bureaucratic silos impede holistic interventions. Aligning governance structures enhances sustainability and responsiveness	NGOs engage governments in policy dialogues. Governments establish inter-ministerial committees for integrated planning. Regional bodies harmonise standards across countries	NGOs, overnments, and Regional Bodies
Technological Integration for Scalable Impact	Non-use of digital tools which improve coordination, reduce costs, and strengthen data-driven decision-making	NGOs deploy mobile health apps, e-learning platforms, and agricultural data analytics. Governments and private sector support infrastructure and training. Communities co- design technology solutions	NGOs, Governments, Private Sector, Communities
African Cooperation and Knowledge Exchange	Collaboration reduces duplication, Shares best practices, and Accelerates the adoption of effectiveinterventions	NGOs and regional bodies establish platforms for peer learning, mentoring, and joint training. Donors support Regional workshops and conferences. Academic Institutions document and publish lessons learned	NGOs, Regional Bodies, Donors, and AcademicInstitutions

#### IV. CONCLUSION AND FUTURE RESEARCH

Multimodal NGOs offer a practical and transformative approach to African development by addressing health, education, and agriculture simultaneously. Integrated interventions generate synergistic effects, optimise resources, strengthen community resilience, and foster sustainable development. Evidence from organisations like BRAC, World Vision, and Safe-Revive Africa demonstrates that tri-sectoral programming is both feasible and impactful.

Future research should focus on several critical areas to strengthen the evidence base and practical application of multimodal NGO programming. One key area is the measurement of cross-sectoral synergies and impacts, which require the development of standardised metrics and the use of mixed-method evaluation approaches capable of capturing the complex interactions between health, education, and agriculture interventions. Another important focus is the sustainability and scalability of integrated programmes, investigating how these models can maintain effectiveness over time and adapt across diverse cultural, ecological, and

policy contexts. Equally important is the study of workforce development, examining strategies for training interdisciplinary NGO staff who can effectively manage tri-sectoral programmes and support local capacity building.

Policy integration represents a further area for exploration, particularly mechanisms for interministerial coordination and institutional alignment that facilitate cross-sectoral programming. Research on technological enablers is also vital, as is assessing how mobile applications, digital platforms, and data analytics can enhance service delivery, monitoring, and overall programme efficiency.

Finally, attention must be given to community co-design, understanding how participatory approaches can strengthen ownership, adaptation, and local relevance of integrated interventions. Together, these research directions will provide the knowledge needed to optimise multimodal programming, inform policy, and guide future investment in sustainable African development.

The shift from fragmented, single-sector programmes to integrated, multimodal approaches represents a promising

pathway for sustainable African development. Success depends on coordinated action by policymakers, donors, NGOs, stakeholders, and communities to embrace complexity and implement solutions reflecting the interconnected nature of people's lives.

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