The GLOCEPS Policy Brief

Financing Africa's Knowledge Future: Case for Kenya's Research Sustainability, Policy Influence, and Strategic Autonomy

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Executive Summary

Africa's research and knowledge-production ecosystem faces a structural financing and institutional challenge that constrains the continent's capacity to generate and apply knowledge to its development priorities. In Kenya, investment in science, research, and innovation stood at approximately 0.78% of Gross Domestic Product (GDP) in 2026, against the statutory target of 2%, while more than half of research financing was externally sourced. This funding deficit limits research infrastructure, institutional continuity, and the development of specialised human capital.

The challenge is reinforced by short-term project funding, externally influenced research priorities, inadequate domestic resource mobilization, fragmented collaboration, and weak mechanisms for integrating evidence into policymaking. These constraints reduce institutional independence, discourage sustained multidisciplinary research, and weaken the translation of findings into public-sector reforms, technological innovation, and productive investment. Consequently, governments risk making decisions without sufficient locally generated evidence, while research institutions remain constrained in addressing priorities such as climate resilience, food security, and the green transition.

If sustained, these weaknesses will deepen Africa's knowledge dependency, undermine policy effectiveness, and limit its capacity to shape deve-

lopment priorities and influence global policy debates. The brief recommends increased domestic research investment, sustainable institutional research funds, stronger African research partnerships, institutionalised evidence-informed policymaking, university–industry collaboration, and locally grounded research to strengthen research sovereignty and development outcomes.



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Context

Research and knowledge production are vital to Africa's capacity to address development challenges, strengthen public institutions, and shape its position in an increasingly competitive global order. Yet, the continent continues to face a structural mismatch between the scale of its development challenges and the resources committed to generating the knowledge required to address them. According to the African Population and Health Research Center's October 2026 assessment, Kenya's investment in science, research and innovation stood at approximately 0.78% of GDP, below the statutory 2% target. The report also identifies substantial dependence on external research financing and persistent institutional capacity gaps. Against this backdrop, underinvestment in Research and Development (R&D), dependence on external financing, fragmented research institutions, and weak links between research and policymaking constrain Africa's ability to generate, retain, and apply knowledge in support of its strategic priorities. Moreover, while African countries spend too little on research, the existing fifinancing arrangements also influence influence the types of questions investigated, the institutions that receive support, and the extent to which research findings inform public decisions.

The launch of Kenya's Research Financing and Capacity Strengthening Masterplan 2026–2036 signals recognition of these structural challenges. However, financing reforms alone will not transform Africa's knowledge ecosystem. The principal policy question is whether African governments, universities, research institutions, and private-sector actors can establish sustainable financing arrangements, protect research independence and institutionalise the use of credible evidence in decision-making. The policy imperative is therefore to move from fragmented project-based research towards a coordinated, adequately financed, and policy-responsive knowledge ecosystem capable of supporting Africa's development priorities and strategic interests.

Key Issues


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Domestic Research Financing Gap and the Sustainability of Knowledge Production

Underinvestment in R&D remains a major constraint on Africa's capacity to generate knowledge, drive innovation, and develop context-specific solutions to its development challenges. According to the UNESCO Institute for Statistics (UIS) 2026 update on R&D statistics, global investment in R&D has increased steadily, with expenditure rising from 1.71% of global GDP in 2015 to 1.92% in 2023. However, significant regional disparities persist. Europe and Northern America recorded the highest R&D expenditure at 2.55% of GDP, followed by Eastern and South-Eastern Asia at 2.42%. By contrast, Sub-Saharan Africa continues to lag considerably, with R&D expenditure standing at just 0.38% of GDP.

This disparity underscores the persistent research financing gap and the need for greater investment to strengthen Africa's research capacity, technological innovation, and evidence-based policymaking. The shortfall reflects the limited prioritisation of research in national resource allocation and the vulnerability of research institutions to unpredictable funding cycles. Beyond limiting the volume of research undertaken, inadequate financing constrains the maintenance of laboratories, acquisition of modern technology, recruitment and retention of researchers, postgraduate training and development of reliable national datasets. These limitations weaken the institutional foundations necessary for sustained knowledge production and scientific advancement.

The challenge is further compounded by fragmented funding arrangements, which often favour short-term projects over long-term institutional development. Research institutions are consequently compelled to compete for grants rather than establish predictable funding streams that sustain research programmes, preserve institutional memory, and build specialised expertise. This creates discontinuity when projects end, weakens the capacity to investigate emerging issues and limits the development of multidisciplinary research teams. Without sustainable domestic financing, African research institutions risk remaining heavily dependent on external funding cycles, constraining their ability to build the infrastructure, expertise and institutional capacity required to address long-term national and continental priorities.

External Funding Dependence, Research Sovereignty and Institutional Independence

External development partners, foundations, and international research agencies remain important contributors to African research financing. However, dependence on these sources creates a structural vulnerability when funding priorities are predominantly determined outside the countries and institutions expected to use the resulting knowledge. Research agendas may consequently respond more strongly to donor priorities, funding windows and international policy debates than to locally identified problems. The issue is not the presence of external financing itself, but the imbalance in agenda-setting power and the limited capacity of African institutions to negotiate research priorities on equal terms. Although Sub-Saharan Africa receives over USD 60 billion in Official Development Assistance (ODA) annually, less than 3% of this financing supports Science, Technology and Innovation (STI). This funding gap constrains the region's capacity to strengthen research institutions, generate homegrown knowledge, and develop innovative solutions to its development challenges.

This imbalance has implications for research independence, institutional identity, and the continent's ability to shape its own development narratives. The concentration of funding in selected disciplines and thematic areas can leave critical gaps in fields such as engineering, basic sciences, humanities and locally grounded political economy research. It can also encourage institutions to prioritise grant acquisition over the development of distinctive research programmes. This challenge is reinforced by short funding cycles. Many donor-funded initiatives operate within two or three-year funding windows, which are often inadequate for building enduring research institutions and developing the next generation of scientists. Research sovereignty should therefore be understood as the capacity of African institutions to determine research priorities, establish ethical and methodological standards, negotiate partnerships and retain ownership of knowledge, while engaging international partners on mutually beneficial terms.



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Weak Research–Policy Linkages and Limited Uptake of Evidence

The production of research does not automatically translate into better policymaking. Across many African countries, research institutions and public agencies operate within institutional environments where evidence is not consistently integrated into policy formulation, budgeting, implementation and evaluation. Government departments may commission studies without establishing clear mechanisms for applying their findings, while researchers may produce technically sound reports that do not respond to the timing, information needs or decision-making processes of policymakers. This disconnect weakens the contribution of research to public-sector performance and reduces the return on investments in knowledge production. The UNESCO 2026 R&D Data Report asserts that Sub-Saharan Africa had only 88 researchers per million inhabitants in 2023, compared with the global average of 1,486 and 4,358 in Europe and Northern America. This limited research workforce constrains the capacity of African institutions to generate the evidence required to inform public policy and development priorities.

The underlying problem is both institutional and political. Policymaking is shaped by competing interests, resource constraints, electoral incentives and political priorities, meaning that evidence competes with other considerations in public decisions. Research uptake is also constrained when policymakers lack the technical capacity to assess evidence, when findings are communicated in inaccessible formats or when researchers engage government only after completing their studies. The wider capacity constraints are reflected in the fact that fewer than one in five African firms engages in technological innovation, while higher education enrolment averages only 9%, compared with over 60% in OECD countries. These limitations are compounded by fragmented innovation systems, where research institutions, government ministries, and agencies often operate in isolation, with weak coordination and limited data-sharing. The result is a persistent gap between evidence generation and policy implementation.



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Fragmented Research Ecosystems and Weak Translation of Knowledge into Development Outcomes

Africa's research ecosystem is characterised by uneven institutional capacity and limited coordination among universities, think tanks, public research agencies, industry, and government. Although individual institutions generate important knowledge, fragmentation can lead to duplication of research, competition for limited resources and insufficient collaboration across disciplines and national borders. Smaller research institutions may lack the infrastructure and administrative capacity required to compete for large regional and international grants. At the same time, limited research networks and weak data-sharing arrangements constrain the accumulation of knowledge and the development of collaborative responses to complex continental challenges. National innovation systems across Africa remain poorly coordinated across ministries and agencies, with research institutions frequently operating in isolation, limited private-sector collaboration, and minimal cross-border cooperation. This is reflected in the finding that fewer than one in five African firms engages in any form of technological innovation. Further illustrating the weakness of these linkages, no African country reached the halfway mark in university–industry collaboration in the 2022 Global Innovation Index.

The consequences extend beyond research institutions to economic transformation and public-sector innovation. Where universities and research centres have weak links with industry and government, research findings may remain in academic publications rather than inform new technologies, productive investments, public services, or institutional reforms. The challenge is also connected to weaknesses in the education pipeline. According to UNESCO figures cited in an October 2026 Africa Science News report, upper-secondary completion in Sub-Saharan Africa stood at 29%, compared with the global average of 62%. The report also highlights the need for stronger postgraduate programmes, properly equipped laboratories and stable career



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pathways to develop and retain African research talent. Strengthening university–industry linkages is equally important. International partnerships can help compensate for limitations in local markets and institutional capacity. For instance, a World Bank-facilitated initiative connecting Japanese companies with African universities resulted in 12 distinct universities–industry partnerships by 2021. However, such partnerships require clear expectations, defined deliverables, and sustained collaboration to translate research into practical outcomes.

Stronger intellectual property protection and technology-transfer arrangements can further encourage industry investment and research commercialisation. The economic potential is illustrated by the approximately US$2.94 billion in licensing revenue generated by US universities in 2018 through the commercialisation of academic inventions. The distinction between research and consultancy also becomes important. Consultancy can generate revenue and respond to immediate client needs, but excessive dependence on short-term assignments may displace independent research and long-term knowledge development. Africa's challenge is therefore to build an integrated research ecosystem in which collaboration, knowledge exchange and practical application reinforce, rather than undermine, independent research.

Climate Research, Development Priorities, and the Need for Home-grown Solutions

Climate change illustrates the strategic importance of strengthening African research capacity. The continent faces interconnected challenges involving food insecurity, water stress, energy access, biodiversity loss and climate-related displacement. Yet, the knowledge required to address these challenges is not always generated or applied in ways that adequately reflect local ecological, economic and social conditions. Limited domestic research capacity and dependence on externally designed research frameworks can constrain the development of context-specific solutions, particularly where local production systems, community knowledge, institutional capacity and regional vulnerabilities are insufficiently incorporated. This is especially important as African countries seek to balance climate action with industrialisation, energy access, food security and broader development priorities. The imbalance is also evident in the production of climate knowledge. An IPCC assessment drawing on more than 15,000 climate change publications found that, in over 75% of African countries, between 60% and 100% of publications on their climate challenges had no local author. This raises concerns about whose priorities shape research questions, how findings reflect local realities and whether African institutions participate as equal partners in knowledge production.

The political economy of climate finance further complicates the research challenge. African countries require credible, locally generated evidence to assess climate risks, identify investment priorities, evaluate adaptation options and negotiate financing arrangements that reflect their development circumstances. The scale of the financing gap reinforces this need. Africa requires an estimated US$70 billion annually for climate adaptation, yet tracked adaptation finance reached only US$14.8 billion in 2023. Furthermore, external sources account for approximately 87% of climate finance flows to the continent, highlighting the importance of strengthening domestic capacity to determine priorities and assess the terms and outcomes of funded interventions. Limited research capacity can weaken governments' ability to scrutinise proposed projects, measure their distributional effects and determine whether financing arrangements generate

sustainable development benefits. Community-level knowledge is equally important because climate interventions that overlook local livelihoods, production systems and institutional realities may fail during implementation. Strengthening African climate research is therefore central not only to environmental resilience but also to food security, energy transition, fiscal sustainability and the continent's capacity to shape international climate negotiations.



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Conclusion

Africa's research and knowledge-production deficit is a structural development and strategic policy challenge. Inadequate domestic financing, dependence on external funding, fragmented research institutions and weak research–policy linkages reinforce one another, limiting the continent's capacity to generate independent knowledge and translate it into development outcomes. The challenge is not merely to increase research expenditure, but to establish institutions and financing systems capable of sustaining credible, multidisciplinary and locally relevant research.

The strategic opportunity lies in repositioning research as an essential component of national development planning, regional integration and Africa's engagement with the global economy. A stronger knowledge ecosystem would improve public-sector decision-making, support technological and industrial transformation, strengthen climate resilience and increase Africa's influence in international policy debates. The extent to which the continent can achieve these outcomes will depend on the ability of governments and research institutions to mobilise domestic resources, protect intellectual independence and build durable linkages that connect knowledge production to public priorities.



Recommendations

1. **The National Treasury, the State Department for Science, Research and Innovation and the National Research Fund should progressively increase domestic investment in research and development towards Kenya's statutory 2 per cent of GDP target.** This should be supported by predictable multi-year budget allocations, transparent disbursement arrangements and public reporting on research expenditure. The objective should be to reduce the gap between statutory commitments and actual investment while strengthening national research infrastructure and institutional capacity.

2. **Universities, public research institutions, and think tanks should establish institutional research sustainability funds.** These funds could be supported through endowments, a proportion of institutional income, alumni contributions, competitive research reserves and carefully governed investment returns. Institutions should also develop diversified revenue models through executive education, professional training and commissioned research, while maintaining clear safeguards that protect independent research priorities.

3. **The African Union Commission, regional economic communities, and national research agencies should strengthen continental research coordination and African research sovereignty.** This should include supporting cross-border research consortia, shared research infrastructure, collaborative grant mechanisms and regional knowledge repositories. Partnerships with international development agencies should be negotiated around jointly determined priorities, equitable authorship, data governance, intellectual property and institutional capacity development.

4. **The Ministry responsible for Science, Research and Innovation and private-sector associations should expand structured university–industry–government partnerships.** Public incentives should encourage businesses to co-finance research, support innovation laboratories and collaborate

with universities on technological development and commercialisation. Partnership agreements should specify research objectives, ownership of intellectual property and mechanisms for translating research outputs into productive applications.

5. **The National Treasury, the National Assembly, county governments and relevant ministries should institutionalise evidence-informed policymaking.** Ministries and counties should strengthen research and policy analysis units, establish mechanisms for commissioning independent studies and require major policies and programmes to draw on credible evidence. Parliamentary committees should also have access to independent research support to strengthen legislative scrutiny, budget oversight and evaluation of public programmes.

6. **Research institutions and government agencies should establish regular research–policy engagement mechanisms.** These should include structured policy dialogues, technical working groups, research briefings and consultation platforms that bring researchers, public officials, industry representatives and citizens into policy processes. Engagement should begin during research design and continue through dissemination and implementation, ensuring that evidence responds to actual policy questions and reaches decision-makers when it can inform decisions.

7. **The National Research Fund, universities and research institutions should develop research performance and impact frameworks that go beyond publication counts.** Assessment should consider policy uptake, contributions to public-sector reform, technological innovation, community outcomes, research quality and the development of local research capacity. Such frameworks would help institutions demonstrate the public value of research while avoiding incentives that reduce research quality to publication volume or short-term consultancy revenue.

8. **The State Department for Science, Research and Innovation, the Ministry responsible for Environment and Climate Change, and county governments should prioritise locally grounded research on climate resilience, food systems and the green transition.** Funding should support interdisciplinary research that integrates scientific evidence with community knowledge and evaluates the economic and social implications of proposed interventions. This would strengthen national negotiating capacity, improve the design of climate investments and ensure that international commitments remain responsive to domestic development priorities.

9. **The National Treasury, in collaboration with the Kenya Revenue Authority (KRA), National Research Fund (NRF), National Commission for Science, Technology and Innovation (NACOSTI), and Public Benefit Organizations Regulatory Authority (PBORA).** To establish a targeted philanthropic research financing framework that leverages existing provisions of the Income Tax Act and the Science, Technology and Innovation Act, 2013, while introducing additional fiscal incentives for qualifying research contributions. This would entail providing enhanced tax deductions or targeted tax credits for individuals and corporations financing accredited research programmes, encouraging the establishment of research endowment funds, and introducing government matching grants to attract domestic philanthropic capital. They should coordinate the development of eligibility criteria, accreditation mechanisms and priority research areas aligned with national development objectives.



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