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POLICY BRIEF

Integrating Regenerative
Agriculture and Productive Use of
Renewable Energy (RA-PURE) for
Resilient Food Systems in Kenya



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Integrating Regenerative Agriculture and Productive Use of Renewable Energy (RA-PURE) for Resilient Food Systems in Kenya¹



**Power for Food
Partnership**

Renewable, Regenerative, Resilient.

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¹This brief was prepared by AKADEMIYA2063 (Paul M. Guthiga, Meera Shah, Katrin Glatzel, and Aisha M. S. Nakitto).

1. Background and Context

Kenya faces multiple, interconnected development challenges, yet policy frameworks, institutional structures, and investment programs are often organized in silos, overlooking important synergies among related sectors such as agriculture, energy, water, and social inclusion. While the country has achieved one of the world's cleanest electricity systems, millions of rural households and productive enterprises still lack reliable access to clean and affordable energy services. Meanwhile, Kenya's agricultural sector, which underpins rural livelihoods and food security, faces mounting pressures from climate change, declining soil fertility, and biodiversity loss. It is also a significant contributor to these impacts, underscoring the need for more resilient and environmentally sustainable production systems. As public resources become increasingly constrained, there is a growing need for integrated solutions that deliver multiple development objectives simultaneously.

The RA-PURE nexus provides an integrated solution; its value proposition is delivering multiple development benefits through a single intervention. In the Power for Food Partnership's framing, RA and PURE are structurally interdependent parts of a larger system, where progress in one actively drives options and outcomes in the other, rather than a simple cross-sector coordination exercise. RA is a farming approach encompassing land management practices that restore and rebuild ecosystem health, resilience, and biodiversity. PURE, by contrast, is defined independently of the farm as any application of renewable and clean energy that supports productivity and income generation; within RA-PURE, this is narrowed to agri-PURE applications such as irrigation pumps, cold storage, dryers, and biogas. RA-PURE is implemented at the farm level, but the nexus itself spans farms, value chains, markets, and national and regional policy.

This policy brief draws on a policy dialogue convened by SNV in close collaboration with AGRA, GOGLA and partners on July 9, 2026, in Nairobi, Kenya under the Power for Food Partnership to integrate RA-PURE for resilient food systems in Kenya and catalyze coordination and investment across sectors. The dialogue brought together stakeholders from government (national and county levels), the private sector, the research community, farmer organizations, development partners, and NGOs with expertise in renewable energy and RA. The findings below are expected to inform regional and continental platforms and events, including the Africa Food Systems Forum (AFSF) 2026, Global Off-Grid Solar Forum & Expo (GOGSFE) 2026, and UNFCCC COP32, ensuring that Kenya's experience informs broader regional dialogue on integrated food-energy systems.



2. National-level and Continental Policies Supporting RA-PURE in Kenya

Several policies and strategies across the two sectors create a strong entry point for scaling RA-PURE. Kenya's Climate Change Act 2016, successive National Climate Change Action Plans, Nationally Determined Contributions (NDCs), and the National Energy Act 2019 create mandates to reduce GHG emissions and build resilience across agriculture and energy. Despite burdensome regulatory requirements for mini-grids and last-mile deployment constraints, these frameworks also establish the basis for market incentives to scale the uptake and use of renewable energy technologies, for example through tax and import incentives for off-grid solar and power purchase agreements (PPAs) for utility projects. At the same time, stemming from the overall national development plan (Vision 2030), Kenya's food systems and agriculture policy frameworks – including the Agricultural Sector Transformation and Growth Strategy (ASTGS 2019-2029), the National Agroecology Strategy for Food System Transformation (NAS-FST 2024-2033), the Kenya Climate-Smart Agriculture Strategy (2017–2026), and the National Agrifood System Investment Plan (NASIP 2026-2030) – all promote agricultural systems that are more resilient to climate change and reduce impacts on the environment and biodiversity. Despite a strong basis for alignment, it is clear that cross-sectoral integration of RA-PURE in Kenya currently occurs more as a by-product of parallel policymaking than as something deliberately promoted: agriculture and energy strategies have largely been developed separately, each driven primarily by its own access and productivity goals rather than by a shared objective. Moreover, while several of the agricultural policies have in turn been devolved to county-level, where implementation is organized and resourced, energy remains largely centrally organized. This further complicates integration. Deliberately connecting the two, as the policy dialogue set out to do, remains the exception for now. Harnessing RA-PURE's "multi-benefits" requires a supportive policy and institutional environment, viable business models for integrated solutions, financial products that capture joint returns, and greater awareness and technical training to scale adoption.



At the continental level, the African Union (AU) and Regional Economic Communities (RECs) have adopted various policy frameworks and strategies that support RA-PURE, even though RA-PURE is not explicitly mentioned.

Policy Framework	RA-PURE Relevance
Agenda 2063	Anchors RA-PURE's energy dimension at continental level: targets universal access to modern energy, large-scale renewable generation (solar, wind, hydro, geothermal), distributed energy (mini-grids, off-grid solar) for underserved areas, and higher renewable shares in national/regional energy mixes and power pools.
African Continental Free Trade Area (AfCFTA)	Complements RA-PURE on the market side: provides a regional market and trade-facilitation framework to reduce barriers to scaling adoption of renewable-energy technologies and services, strengthen sustainable agricultural value chains, and expand markets for value-added food products. AfCFTA also flags that most renewable-energy equipment is manufactured outside the continent and reaches African markets with high import duties and financing costs, raising entry costs for smallholders and small agribusinesses in particular.
Kampala CAADP Declaration, Strategy and Action Plan (2026–2035)	Provides the clearest and most direct entry points. Strategic Objective 1 (sustainable food production, agro-industrialization and trade) promotes climate-smart and regenerative agriculture, conservation agriculture, agroecological practices, and integrated soil fertility management. Strategic Objective 5 (resilient agrifood systems) prioritizes sustainable grazing, reforestation/afforestation, and preservation of indigenous genetic resources. Both SOs call for investment in research, extension, and farmer field schools to scale regenerative/ climate-smart practices, and for policy and finance incentives — subsidies, finance instruments, and mainstreaming into NASIPs and RASIPs — to drive adoption. Key gaps flagged: limited public finance, weak cross-sector coordination, and capacity constraints. SOs 1 and 5 are the strongest levers for embedding RA-PURE in Kenya's Kampala CAADP engagement, particularly on efficient irrigation, expanded renewable energy use in agriculture, and financing for emerging agri-technologies.
EAC Commitments	Nests Kenya's RA-PURE work regionally through the EAC Agriculture and Rural Development Policy and Strategy and the EAC CAADP RASIP, plus a new ten-year EAC Climate Change Strategy (validated 2026, pending formal adoption) that names low-carbon/circular economy via renewable energy and efficiency as one of four priority areas — a channel for Kenya's July 9 dialogue lessons to feed into EAC-level agriculture and climate processes.



3. Priority Actions

The policy dialogue was organized around three objectives — strengthening policy coherence and coordination, mobilizing investment and market opportunities, and generating and sharing evidence for scale. A set of priority actions at the national level and at the regional level was identified under each of the three objectives:

3.1 Priority actions at the national level

The national- and subnational-level recommendations address the coordination, incentive, and measurement gaps identified through the dialogue, so that integration becomes a deliberate design choice. They are presented here as discussion outputs rather than a fully sequenced action plan.

Objective 1 *Strengthening policy coherence and coordination*

- **RA-PURE coordination platform:** To address policy incoherence and weak institutional coordination across agriculture, energy, water, climate, and finance, an interministerial RA-PURE coordination platform is needed, with a clear mandate, adequate resources, and linkages to the county government level. Rather than establishing a brand-new structure, this coordination platform could be embedded within the Joint Agriculture Sector Coordination and Cooperation Mechanisms (JASCCOM), the Kenya Climate-Smart Agriculture Multi-Stakeholder Platform (CSA-MSP), County Agriculture Sector Steering Committees (CASSCOMS) for the agriculture sector, or the International Growth Centre (IGC) for PURE by expanding their mandates to capture the RA-PURE nexus.
- **Devolved implementation:** RA-PURE is particularly suited to county-level implementation in Kenya because the solutions are highly context-specific. National policy can provide standards, financing frameworks, and coordination, while county-level policies can translate these into locally appropriate investments, incentives, and extension services. National-to-county policy domestication frameworks play an important role in aligning national policies (e.g., the NAS-FST, NASIP) with the county level, especially through the County Integrated Development Plans (CIDPs). The Power for Food Partnership's ongoing support to counties — spanning Agroecology Policies, County Energy Plans (CEPs), and investment prospectuses aligned with the Integrated National Electrification Plan (INEP) — illustrates how this devolved implementation can work in practice.

- **Implement a Results and Accountability Framework for RA-PURE with clear mandates, financing mechanisms, implementation milestones, monitoring systems, defined roles, and independent verification.** Because Kenya's existing agriculture and energy policies do not currently share directly comparable targets, a first task of the framework would be to adopt joint RA-PURE indicators with measurable impacts (e.g., soil health) against which mandates and financing can be held accountable. The development of this framework should be led by the Ministry of Agriculture and Livestock Development in collaboration with the Ministry of Energy and Petroleum and the Council of Governors (CoG).

Objective 2 *Mobilize investment and develop market opportunities*

- **Elevate private sector participation:** Although several RA-PURE solutions have been piloted and validated in the Kenyan context, they have not achieved scale. Supply-side incentives, such as tax breaks and priority investments, along with partnerships between technology manufacturers and agribusinesses, are needed to improve market conditions for long-term sustainability.
- **“Design with, not for”:** Involve all stakeholders, particularly women and young people, from the start to ensure that solutions are co-created and reflect their needs and context-specific requirements. This includes designing more user-friendly technologies and business models, such as pay-as-you-go solar irrigation, equipment leasing, energy-as-a-service, and cooperative ownership models that can spread costs over time and align payments with agricultural cash flows.
- **Identify avenues to channel climate finance to scale the adoption of RA-PURE solutions:** Kenya's County Climate Change Funds are already a pioneering success. Connecting their distribution to clear RA-PURE implementation targets and complementing it with a dedicated share of county agriculture and energy budgets would accelerate the uptake of integrated solutions. For example, allocating a minimum share of county agriculture or energy budgets to RA-PURE investments.

Objective 3 *Generate and share evidence for scale*

- **Proof of concept:** Scale evidence generation by establishing research fund pilots, university research partnerships, and demonstration trials to strengthen the evidence base and the investment case for private investors. Enhancing uptake of available research findings will be critical to building awareness and knowledge-sharing about RA-PURE.
- **Promotions and advocacy:** Consolidate data, research lessons, and business cases from existing pilots and programs to inform policy refinement, guide future investments, and support replication across counties and value chains. Collaboration among local researchers, development partners, and the private sector will be essential.
- **Try-before-you-buy:** Strengthen the investment case for RA-PURE solutions by demonstrating clear returns on investment (ROI), including through try-before-you-buy schemes and appropriate training to optimize the multi-benefits of solutions.

3.2 Regional level alignment

Regional-level recommendations connect Kenya's experience to the frameworks mapped in Section 2. The two tiers are sequential: national coordination platforms, indicators, and financing instruments provide the regional level with a concrete basis to plug into.

Objective 1 *Strengthen regional policy coherence and coordination*

- **Track RA-PURE against existing NASIP/RASIP indicators and propose dedicated indicators at the next revision:** With Kenya's NASIP 2026–2030 and the RASIP already finalized, track progress using existing indicators (e.g., irrigation coverage, land under sustainable management) and propose a dedicated RA-PURE indicator set for the next revision cycle.
- **Report against the CAADP Biennial Review indicators that already capture RA-PURE:** Use the CAADP mutual accountability process as a reporting channel, scoped to the indicators, notably the indicator on land under sustainable management (strategic objective 5).
- **Embed RA-PURE in RASIP or a dedicated regional policy instrument:** Since RASIP is already finalized, the more immediate path is to use a dedicated policy instrument or a technical guidance note, with formal RASIP integration at its next revision. Regional bodies such as the EAC Sectoral Council on Agriculture and Food Security (SCAF) can provide political endorsement in the interim, while the technical design remains with the instrument.

Objective 2 *Mobilize regional investment and market opportunities*

- **Use the AfCFTA to lower equipment costs regionally:** Section 2 identifies high import duties as a core barrier recognized by the AfCFTA. Harmonizing standards for RA-PURE technologies (solar pumps, cold storage, dryers) across EAC states would support regional manufacturing and reduce entry costs for smallholders.
- **Link to regional power-pool investment:** Position RA-PURE within Agenda 2063's regional power-pool and cross-border interconnection agenda to ensure agri-energy demand is captured in regional infrastructure planning.



Objective 3 *Generate and share evidence for regional scale*

- **Feed Kenya’s evidence base into CAADP M&E systems:** The seven-county gap analysis and the July 9 dialogue outcomes should be formally submitted as inputs to CAADP’s Biennial Review and to AU knowledge platforms.
- **Pilot replication through the EAC Secretariat:** Propose EAC-coordinated RA-PURE pilots in one or two partner states, with AKADEMIYA2063 serving as the regional knowledge broker linking Kenyan lessons to EAC processes.
- **Convert continental convenings into commitments, not just visibility:** AFSF 2026, GOGSFE 2026, and COP32 offer key opportunities to secure specific follow-up commitments (e.g., a CAADP working group on RA-PURE or language in the EAC Climate Strategy on integrated food-energy systems).

4. Conclusion

The evidence from the seven-county gap analysis² and the July 9 policy dialogue is consistent: farmer demand for RA-PURE is strong, the underlying policy frameworks already exist, and Kenya’s electricity mix is among the cleanest globally — yet coordination, financing, and measurement remain siloed by sector rather than organized around the nexus itself. Closing this gap is, therefore, primarily an institutional and financing challenge, not a technical one. Priorities for near-term action on both fronts stand out: **institutionally**, establishing the interministerial RA-PURE coordination platform, nested within existing structures such as JASCCOM, CSA-MSP, and CASSCOMS, and consolidating evidence and business cases from existing pilots to de-risk private investment at scale; and, on the **investment side**, channeling climate finance and county budget allocations toward solar-powered irrigation and biogas-bioslurry systems, where farmer demand is already highest; scaling blended-finance and pay-as-you-go business models—equipment leasing, energy-as-a-service, and cooperative ownership that spread costs in line with agricultural cash flows; and supporting regional manufacturing and assembly of RA-PURE equipment under harmonized AfCFTA standards to bring down import costs for smallholders. Delivering on these priorities will require sustained leadership from Kenya’s Ministry of Agriculture and Livestock Development and Ministry of Energy and Petroleum, working with the CoG to cascade coordination and financing to the county level, with continued support from technical partners in translating dialogue outcomes into policy and investment instruments. Kenya’s experience also has relevance beyond its borders: with the Kampala CAADP Action Plan already embedding smart irrigation, renewable energy use, and blended finance, RA-PURE can be mainstreamed through existing continental and regional mechanisms rather than requiring new ones. AFSF 2026, GOGSFE 2026, and COP32 offer near-term opportunities to turn this momentum into concrete commitments—from a CAADP working group on RA-PURE to EAC Climate Strategy language on integrated food-energy systems—positioning Kenya to move from dialogue to delivery and offering a model other countries in the region can build on.

²CoELIB, Egerton University. 2026. Policy Brief: Gap Analysis for Unlocking the RA-PURE Nexus in Kenya. Nairobi. <https://www.coelib.org/index.php/index.php/gap-analysis-report#downloads>

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