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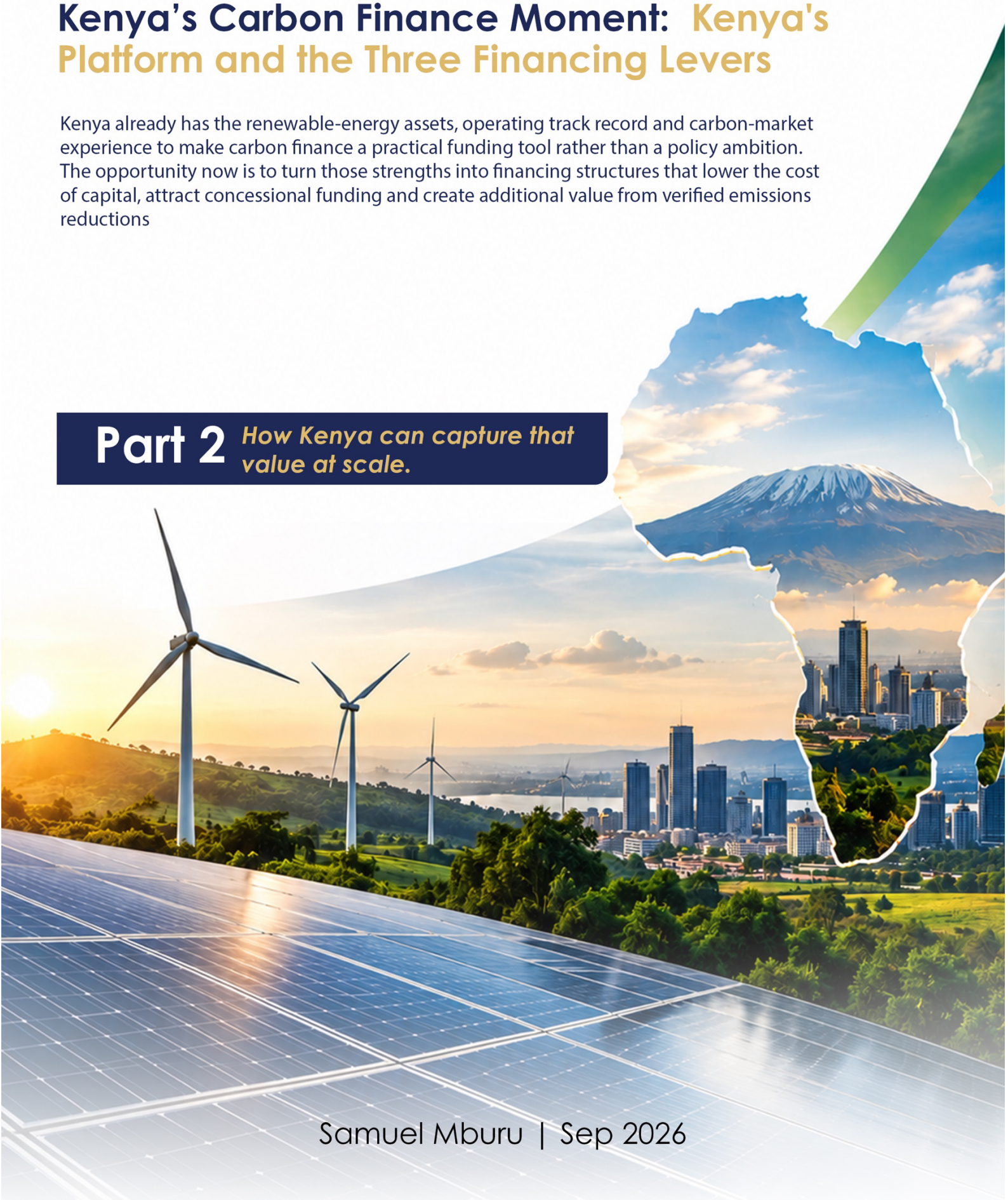
Kenya's Carbon Finance Moment: Kenya's Platform and the Three Financing Levers

Kenya already has the renewable-energy assets, operating track record and carbon-market experience to make carbon finance a practical funding tool rather than a policy ambition. The opportunity now is to turn those strengths into financing structures that lower the cost of capital, attract concessional funding and create additional value from verified emissions reductions

Part 2 *How Kenya can capture that value at scale.*



Samuel Mburu | Sep 2026

Kenya's Existing Platform: Geothermal, Hydro and Carbon Credits

Kenya is not starting from a blank page. Its electricity system is already predominantly renewable, with renewables accounting for roughly 80–90% of generation depending on the reporting period and methodology. Geothermal provides a substantial share of that output. At the centre of the system is the Olkaria complex in Naivasha: five power plants with 905 MW of combined capacity, including Independent Power Producers, making it Africa's largest geothermal installation and one of the most significant globally.

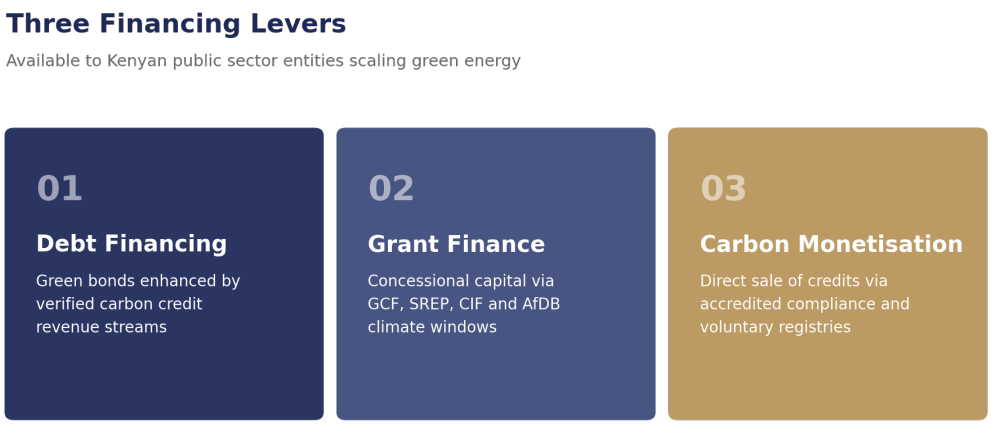
That operating platform has already produced carbon-market value. KenGen has registered six Clean Development Mechanism projects: the Olkaria II Geothermal Expansion, Olkaria IV, Olkaria I Units 4 and 5, the Tana Hydro Redevelopment, the Kiambere Hydro Optimisation and the Ngong Wind project. Together, the projects offset approximately 1.5 million tonnes of CO2e each year. By 2021, KenGen had received 2,591,496 tonnes of CO2e in issued carbon credits, valued at about USD 3.9 million and available for sale subject to the applicable public-sector disposal rules.

Menengai shows what blended climate finance can look like in practice. The Geothermal Development Company has developed the field in phases: the first 35 MW plant began generation in August 2023, a second 35 MW independent power producer plant is under construction and the full field is expected to reach 105 MW and supply power to about half a million homes. The project received USD 145 million from African Development Bank-related facilities being a USD 120 million African Development Fund loan, a USD 7.5 million SREP loan and a USD 17.5 million grant equivalent to approximately 17% of project cost.

The financing lesson from Menengai is straightforward. Credible public energy projects can attract concessional debt, grant funding and private co-investment when the technical and policy framework is clear. That is already a strong blended-finance model. The layer that remains underdeveloped is systematic carbon-credit monetisation turning the emissions reductions created by the project into an additional source of financial value.

Kenya's geothermal build-out has also strengthened the infrastructure base of the economy by improving power reliability and reducing the carbon intensity of generation. Over the decade to 2025, Kenya's nominal GDP nearly doubled from USD 70.1 billion in 2015 to USD 135.9 billion in 2025. While this growth reflects a broad range of economic drivers, reliable and increasingly lower-carbon electricity infrastructure remains an important enabler of productive activity and investment. The financing challenge is to capture value from both.

Three Financing Levers for Kenya's Public Sector Green Energy Projects



Kenya therefore has three practical financing levers. They are complementary rather than competing: debt instruments can fund large-scale capex; multilateral climate funds can absorb part of the financing burden; and carbon credits can create an additional monetisable revenue stream. The value is greatest when the three are designed together.

1. Debt Financing with Carbon Credit Enhancement

Green bonds are the most established route for raising debt specifically for climate-aligned projects. Africa issued about USD 1.4 billion of green bonds in 2023, up 125% from 2022, but the market remains small relative to the continent's financing needs. A useful precedent came in December 2024, when Zambia's Copperbelt Energy Corporation issued a USD 150 million, 15-year green bond to finance 230 MW of solar capacity without a government guarantee, supported by commercial creditors.

For Kenyan public-sector issuers, the proposition is to combine the credibility of a sovereign or quasi-sovereign green instrument with verified carbon-credit cash flows that strengthen project economics. The World Bank's May 2024 Development Policy Operation for Kenya explicitly supported greater use of carbon credits and green and sustainability-linked bonds as part of the country's fiscal strategy. Where a green-labelled bond achieves a 'greenium'; even a few basis points of pricing benefit versus a comparable conventional bond being the cumulative reduction in financing cost can be meaningful over a long project life.

2. Grant Finance Through Multilateral Climate Funds

Grant and concessional capital remain equally important, particularly for early-stage or higher-risk infrastructure. The Green Climate Fund, SREP, the Climate Investment Funds and the African Development Bank's climate windows provide funding pools for African governments with credible project pipelines. Rwanda's FONERWA model offers a practical lesson: a dedicated national vehicle with direct access accreditation can sit between international climate funds and domestic project sponsors, reducing friction and accelerating deployment.

Kenya does not yet have a direct-access GCF-accredited national fund with the breadth of FONERWA. A comparable vehicle whether housed within the National Treasury, the

Nairobi International Finance Centre or a dedicated climate-finance institution could create a single pipeline for grant and concessional capital into geothermal, hydro, solar and forestry projects. Just as importantly, a credible national platform can make it easier to crowd in private co-investment.

3. Carbon Credit Monetisation Through Accredited Institutions

Carbon-credit monetisation is the most direct of the three levers: convert verified emissions reductions from public energy assets into saleable credits through accredited institutions and eligible compliance or voluntary markets. In 2024, Africa's voluntary carbon markets issued approximately 50 million credits, or roughly 13–16% of global voluntary supply, according to the Africa Carbon Markets Initiative and the Berkeley Carbon Trading Project. Kenya's geothermal and hydro portfolio could therefore become a recurring multi-million-dollar revenue source for state entities if the credits are properly registered, verified and brought to market.

> *"Kenya has leveraged existing market mechanisms, issuing over 50 million carbon credits via the Clean Development Mechanism (CDM) and Voluntary Carbon Market standards. With the largest CDM portfolio in Eastern Africa, Kenya also hosts a substantial Voluntary Carbon Market portfolio as well".*
> Source: International Energy Agency / Energy Policy Review, Kenya 2026

The market infrastructure is beginning to take shape. The Kenya Carbon Exchange alliance involving the Nairobi International Finance Centre, the Nairobi Securities Exchange and the AirCarbon Exchange provides a domestic trading platform. Kenya's NDC framework under Article 6 of the Paris Agreement also creates a route for internationally transferred mitigation outcomes if the country overachieves its 32% emissions-reduction target by 2030. In practical terms, investment in clean generation can serve two purposes at once: meet domestic development needs and, where the rules are satisfied, create internationally tradeable environmental assets.

What Kenya Can Replicate from Rwanda and What It Still Needs to Build

Rwanda's lesson is not that Kenya should copy its model line for line. Kenya operates at a different scale, with a larger renewable asset base and a more mature electricity system. The useful lesson is institutional: carbon-market value is easier to finance when the rules, approvals and market access sit within a coherent national framework.

Kenya already exceeds Rwanda in renewable-energy installed capacity, grid electrification and the volume of registered CDM projects. Its gap is coordination. Rwanda's 2023 National Carbon Market Framework established a clearer governance architecture for credit validation, cap-and-trade mechanisms and bilateral arrangements under Article 6. Kenya's framework remains spread across different regulatory bodies, without a single institution coordinating carbon-market participation end to end.

The legislative base is in place through the Climate Change Act 2016 and the Climate Change (Amendment) Act 2023. The harder work is operational: clear registration protocols, predictable revenue-sharing arrangements with local communities and a

defined role for the Kenya Carbon Exchange. The World Bank's 2024 Development Policy Operation is an important signal in this respect. International capital is available, but investors need governance that is clear enough to underwrite.

Olkaria III offers a practical precedent for capital mobilisation. Government exploration support, international public-finance loans and political-risk insurance absorbed risks that private investors were least willing to take. Climate Policy Initiative found that the project delivered power at a lower levelised cost than comparable Kenyan projects. The same risk-sharing logic where public capital used to de-risk, rather than fund, the entire project is relevant to Menengai, Suswa and other prospective geothermal fields.

> *Olkaria III delivered power at 13% below the average LCOE for comparable Kenyan projects. Exploration grants, political-risk insurance and PPA guarantees helped unlock private capital.*
> Source: Climate Policy Initiative, Olkaria III Case Study

Part 3 of this series turns to the advisory mandate itself how investment banks can structure these transactions, the governance discipline needed to protect market credibility, and why Kenya's window to move early is narrower than it may appear.

Key Sources

- ✓ World Bank. (2024). Kenya: New Financing to Address Fiscal Pressures and Accelerate Inclusive and Green Growth. Washington D.C.: World Bank Group.
- ✓ African Development Bank. (2024). Annual Meetings 2024: Reforming the Global Financial Architecture to Free Up Financing for Kenya and Africa. AfDB.
- ✓ KenGen PLC. (2021). KenGen Receives Two Million Additional Carbon Credits for its Olkaria Geothermal Projects. Nairobi: Kenya Electricity Generating Company.
- ✓ Climate Policy Initiative. (2015). Using Public Finance to Attract Private Investment in Geothermal: Olkaria III Case Study, Kenya. CPI San Giorgio Group Report.
- ✓ UN Economic Commission for Africa. (2024). Economic Report on Africa 2024: Carbon Markets and Africa's Climate Finance Opportunity. Addis Ababa: UNECA.
- ✓ FSD Africa. (2025). Impact of Green Bonds in Africa. Nairobi: Financial Sector Deepening Africa.
- ✓ World Economic Forum. (2024). How Legislation Can Help Boost Renewable Energy Investments in Africa. WEF.
- ✓ Rwanda Green Fund (FONERWA). UNFCCC Climate Action Momentum for Change. Available at: unfccc.int.
- ✓ IFC. (2024). Kenya's Carbon Finance Moment. Washington D.C.: International Finance Corporation.
- ✓ Africa Renewal / UNECA. (2024). New Revenue Streams: Using Africa's Renewable Energy and Natural Resources for Premium Carbon Credits.
- ✓ Nairobi International Finance Centre (NIFC). (2022). Kenya Carbon Exchange Alliance with NSE and AirCarbon Exchange. esi-africa.com.
- ✓ Climate Action Tracker. (2023). Kenya Country Profile. Available at: climateactiontracker.org.
- ✓ Businessfront. (February 2026). Inside Africa's $15 Billion Carbon Credit Opportunity.
- ✓ Energy News Network. (2024). Green Bonds Usher in a New Era for African Energy Finance.
- ✓ AllAfrica. (2025). East Africa: Rwanda and the Rise of Carbon Diplomacy in East Africa.

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