From bankable projects to dynamic markets in Kenya

Financial instruments, partnerships, & PIDG's role

Market transformation study

Private Infrastructure Development Group



steward redqueen

Commissioned by the Private Infrastructure Development Group, an innovative infrastructure developer and investor. PIDG mobilises private investment in sustainable and inclusive infrastructure in Africa and South and Southeast Asia. Our investments promote socio-economic development within a just transition to net zero emissions, combat poverty and contribute to the SDGs.

This report is part of the Market Transformation Studies Programme.

Authored by Steward Redqueen, a boutique consulting firm with the mission to *make business work for society*. We specialise in integrating sustainability, quantifying impact, and facilitating change, supporting commercial and impact-focused financial institutions, industry associations, multinationals, and government agencies in developed and emerging markets.

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Acronyms

AfDB	African Development Bank
ALP	Africa Logistics Properties
AUM	Assets Under Management
BETA	Bottom-Up Economic Transformation Agenda
BII	British International Investment
CBK	Central Bank of Kenya
CBR	Central Bank Rate
CEF	Credit Enhancement Facility
CMA	Capital Markets Authority
COO	Chief Operating Officer
DFI	Development Finance Institution
DRE	Distributed Renewable Energy
D-REIT	Development Real Estate Investment Trust
EAAIF	Emerging Africa and Asia Infrastructure Fund
EABL	East African Breweries Limited
EIB	European Investment Bank
EOI	Expression of Interest
EPRA	Energy and Petroleum Regulatory Authority
ESAK	Energy Sector Association of Kenya
ESMAP	Energy Sector Management Assistance Program
FCDO	Foreign, Commonwealth & Development Office
FiT / FiTs	Feed-in Tariff(s)
FMO	Dutch Entrepreneurial Development Bank (Financierings-Maatschappij voor Ontwikkelingslanden)
FY	Financial Year
GDC	Geothermal Development Company
GDP	Gross Domestic Product
GOGLA	Global Off-Grid Lighting Association
H&S	Health and Safety
HFO	Heavy Fuel Oil
HSES	Health, Safety, Environment and Social
ICN	InfraCredit Nigeria
IFC	International Finance Corporation
I-REIT	Income Real Estate Investment Trust

ILAM	ICEA Lion Asset Management
IMF	International Monetary Fund
IPPs	Independent Power Producers
InfraCo	Infrastructure Development Company (PIDG's project-development business)
IPO	Initial Public Offering
IPP	Independent Power Producer
KBA	Kenya Bankers Association
KDF	Kenya Defence Forces
KES	Kenyan Shilling
KESONIA	Kenya Shilling Overnight Interbank Average
KETRACO	Kenya Electricity Transmission Company Limited
K-OSAP	Kenya Off-Grid Solar Access Project
KNBS	Kenya National Bureau of Statistics
KPLC	Kenya Power & Lighting Company
KMRC	Kenya Mortgage Refinance Company
MWh	Megawatt-hour
MOWSI	Ministry of Water and Sanitation and Irrigation
NAIVAWASCO	Naivasha Water and Sanitation Company
NAV	Net Asset Value
NSE	Nairobi Securities Exchange
NPL	Non-Performing Loan
OPIC	Overseas Private Investment Corporation
PAYGO	Pay-As-You-Go
PBSA	Purpose-Built Student Accommodation
PIDG	Private Infrastructure Development Group
POLD	Public Offers, Listing and Disclosures Regulations
PPA	Power Purchase Agreement
PPP	Public-Private Partnership
PPPD	Public-Private Partnerships Directorate
PPIAF	Public-Private Infrastructure Advisory Facility
PSSP	Privately Sponsored Students Programme
RAK	REITS Association of Kenya
RBA	Retirement Benefits Authority
REA	Rural Electrification Authority
REIT(s)	Real Estate Investment Trust(s)
REREC	Rural Electrification and Renewable Energy Corporation

RfP	Request for Proposal
SACCO	Savings and Credit Cooperative Organisation
SHS	Solar Home System
SPV	Special Purpose Vehicle
TA	Technical Assistance
TRIFIC	Trade and Investment Finance Corporation (issuer of TRIFIC Green USD I-REIT)
USP	Unquoted Securities Platform
VGF	Viability Gap Funding
WASH	Water, Sanitation and Hygiene
YUP	Young Urban Professional

Executive Summary

Background

1. **Introduction**: This study is part of the Market Transformation Studies Programme, which consists of five market studies commissioned by the Private Infrastructure Development Group (PIDG), to assess how PIDG's interventions have contributed to transformative changes in sectors and economies.

   1.1 **PIDG interventions in Kenya**: The study assesses a portfolio of PIDG-supported interventions across Kenya's infrastructure and capital markets.

   1.2 **Approach and methods:** The study combines transaction-level document review, secondary research and stakeholder interviews. For the power sector, this is complemented by quantitative modelling of Kenya's on-grid power system. The analysis examines market changes and PIDG's contribution through demonstration and replication effects, enabling frameworks, and skills and capacity building.

2. **Kenya's macroeconomic and investment context** examines the broader conditions shaping infrastructure finance and market development in Kenya.

   2.1 Kenya has substantial domestic savings, but high public debt and attractive returns on government securities have crowded out private borrowers and constrained access to long-term, affordable financing. As a result, the country's infrastructure financing challenge lies in its ability to channel available capital into productive investments.

   2.2 Although regulatory frameworks for capital market instruments such as bonds and REITs exist, investor confidence weakened after confidence-shaking issuances soon after the regulatory frameworks for both were created. As such, capital market instruments are underutilized.

Key findings

3. **Powering private investment in infrastructure** focuses on Kenya's power sector, looking both at on-grid independent power producers and at distributed renewable energy projects.

   3.1 **Context:** Following power-sector reforms in the late 2000s, Kenya developed one of Africa's strongest examples of private participation in electricity generation. Independent power producers helped expand generation capacity and diversify the energy mix. By the late 2010s, high tariffs, financial pressure on the utility, and limited leverage over costs under existing PPA structures led to a moratorium on new PPAs, stalling the expansion of power capacity to the grid.

   3.2 **PIDG's interventions**:

   - EAAIF has a long track record supporting on-grid projects, including Rabai Power (EAAIF, 2008), Olkaria III (EAAIF, 2009), KPLC (EAAIF, 2014), and Kesses Solar (EAAIF, 2019); and
   - PIDG has more recently been in the DRE space, in mini-grids through KUDURA (InfraCo & PIDG TA, 2021-2026), and solar home systems through Bboxx (GuarantCo, 2021; InfraCo, 2022).

   3.3 **Change in the market:** Between 2008 and 2019, private investment helped Kenya's grid keep up with rising demand and support an electricity mix where renewables account for over 80% of

generation. Private sector players established financing models across technologies. The effects of the subsequent slowdown, moratorium, and reform of PPAs (2019 – 2025) remain to be seen.

From the early 2010s onwards, off-grid solar companies pivoted from lanterns to home systems, establishing Kenya as a globally leading market in the space. Mini-grid companies have driven rural access to electricity but struggle with regulatory ambiguity and constrained unit economics.

3.4 **Channel of market transformation**: Demonstration and replication effects were strongest in the on-grid market. Rabai demonstrated a bankable thermal IPP model in Kenya, Olkaria III demonstrated private involvement in geothermal, and Kesses was the latest in a series of utility-scale solar financed on increasingly commercial terms. Solar home systems achieved scale and subsequently consolidated the market but still face challenges accessing local currency financing.

3.5 **PIDG's role:** PIDG played a supportive role in transforming the on-grid market. While transformation was driven by the policy and enabling environment, EAAIF was critical in helping demonstrate a bankable model for thermal. Olkaria III influenced private investment in geothermal in Kenya and Ethiopia. The potential demonstration effect of the Kesses and Bboxx transactions was interrupted by the moratorium and changes in banking regulations respectively.

4. **Enabling public-private partnerships** focuses on Kenya's PPP ecosystem, including project preparation, transaction advisory support and institutional strengthening

4.1 **Context**: Building on successes in the power sector, Kenya has developed one of the more advanced PPP frameworks in Sub-Saharan Africa, supported by dedicated legislation, a PPP Directorate and project preparation. However, few projects have progressed from preparation to implementation, reflecting persistent coordination and capacity constraints.

4.2 **PIDG's Interventions:** Support to the PPP Directorate (PIDG TA, 2021), specifically through the University of Nairobi Student Accommodation PPP (PIDG TA, 2021), Nairobi Smart Street Lighting PPP (PIDG TA, 2022), the PIDG-PPIAF Programme (PIDG TA, 2024).

4.3 **Change in the market:** Reforms and development support improved project preparation and transaction readiness. More projects are progressing through early-stage development and PPP models are being applied in diverse sectors. However, upstream improvements have yet to translate into an increase in projects reaching financial close or implementation.

4.4 **Channel of transformation:** Supported projects demonstrated how PPP structures can be applied to sectors such as housing, sanitation, and water, while TA, transaction advisory support and embedded expertise strengthened institutional capabilities and built ecosystem capacity.

4.5 **PIDG's role:** PIDG's contribution was concentrated on project preparation, transaction support and institutional strengthening, improving enabling conditions for PPPs in the country.

5. **Using capital markets for social infrastructure** focuses on Acorn's green bond and REIT platform and their contribution to social infrastructure finance and capital market development.

5.1 **Context:** Demand for housing and student accommodation significantly exceeded available supply. Limited long-term financing meant that most developers used balance sheet or project financing for commercial projects or bank mortgages for higher-end housing. Private student accommodation was largely addressed by informal hostels or paying guest arrangements.

5.2 **PIDG's Interventions:** Acorn financed affordable student housing projects through several financial structures. PIDG supported the issuance of Acorn's green bond as a guarantor and investor (GuarantCo, EAAIF, PIDG TA, 2018) and backed the launch and scaling of the D-REIT and I-REIT (GuarantCo, InfraCo & PIDG TA, 2020). InfraCo also supported Acorn YUP in 2024.

5.3 **Change in the market:** The purpose-built student accommodation (PBSA) market shows early signs of transformation, with a number of new developers entering the market. Capital market financing for social infrastructure transformed was catalysed with increasing participation by institutional investors. This has had spillover effects, with REITs being replicated across asset classes.

5.4 **Channel of market transformation:** Acorn demonstrated the commercial viability of PBSA and of new financing pathways through its green bond, D-REIT and I-REIT structures. These transactions rebuilt investor confidence in REITs, expanded participation, supported replication by later issuers and strengthened market capabilities among regulators, advisers, fund managers and investors

5.5 **PIDG's role:** Acorn had a transformative impact, proving the viability of PBSA, and deploying innovative financial structures to align financing with development needs. PIDG, with its range of solutions and ability to structure complex transactions, served as an ideal partner to ensure these structures reached close. PIDG helped provide technical support and capacity building for another REIT issuer, ensuring that the establishment of REITs was a durable change in the market.

Further study

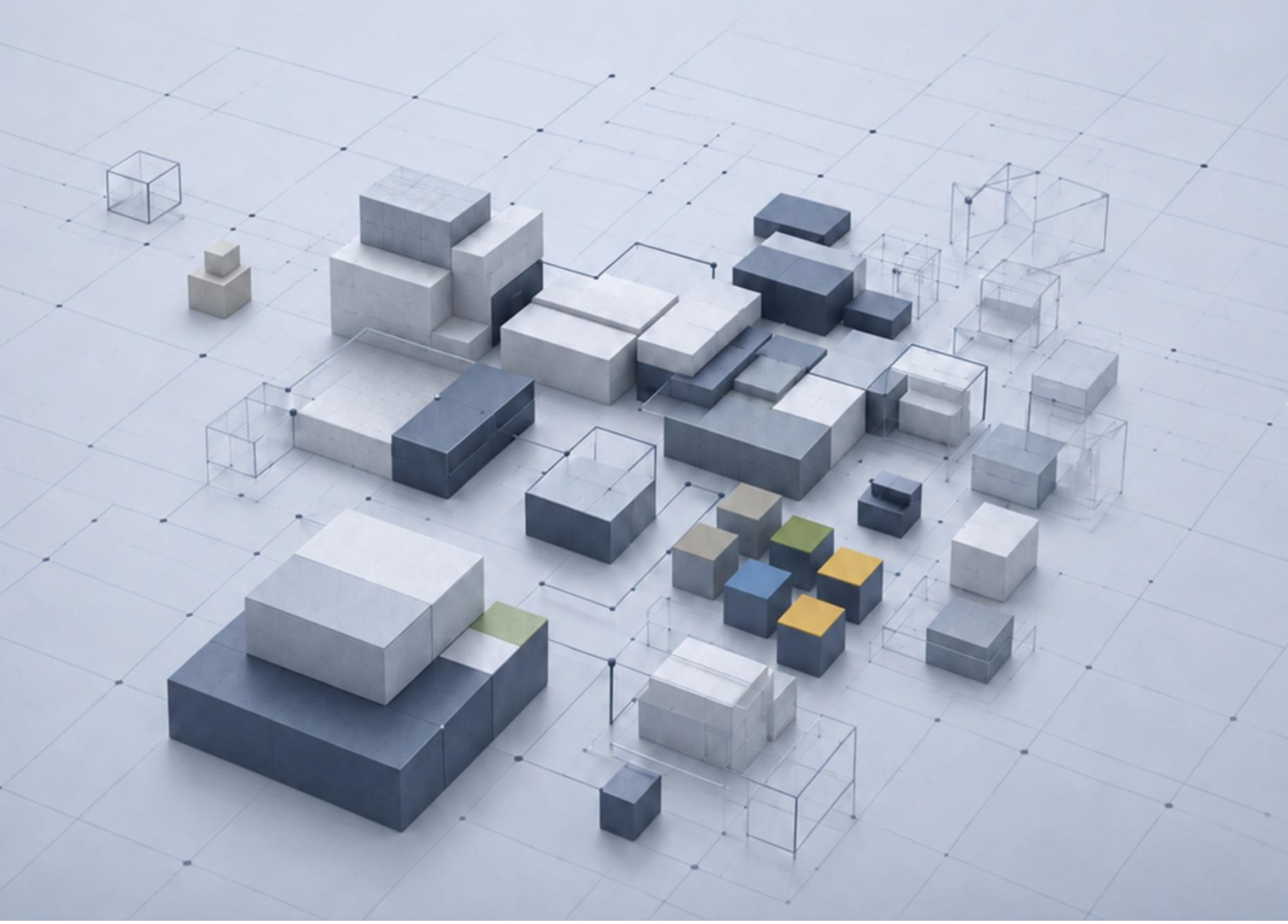
6. **Leveraging instrument focus for strategic fit** assesses why certain financial instruments succeeded, why others struggled, and implications for the development of Kenya's capital markets, applying an IMF framework for financial market development.

6.1 **Corporate bonds:** Acorn's green bond demonstrated that long-term corporate debt could be issued in Kenya, but only after the standard bond contract was supplemented with external mechanisms such as guarantees, ratings and anchor investments, meaningfully affecting the maturity-control compromise between lenders and borrowers. The difficulty of striking this compromise makes replication under the current conditions less likely.

6.2 **REITs:** Acorn's REITs demonstrated that a financial contract could mobilise institutional capital into social infrastructure when investors had sufficient visibility over assets, cash flows and governance arrangements, solving for the seniority-control compromise. Subsequent issuances suggest that this compromise became increasingly accepted by both issuers and investors, allowing for replication.

6.3 Credit enhancement: PIDG's interventions in Kenya include the creation of a regional credit enhancement facility, Dhamana (InfraCo, GuarantCo & PIDG TA, 2023-2024). Given the nascent state of this facility, market transformation analysis cannot be applied. An ex-ante application of the IMF framework suggests that the path to scale will likely differ from InfraCredit Nigeria.

6.4 Synthesis: PIDG's successes in transforming the market in Kenya rely on a continuous engagement in the market and within each sector. Taking an instrument view can help PIDG develop strategies to support future areas of market transformation.



1 Introduction

The Market Transformation Studies Programme is a series of five market studies commissioned by the Private Infrastructure Development Group (PIDG) to assess how PIDG's interventions have contributed to transformative changes in sectors and economies. The programme examines whether PIDG-supported interventions have contributed to durable market-level changes, including the introduction of new financing instruments, changes in market behaviour and risk perception, replication of business models, strengthening of market institutions, and improvements in sector performance that persist beyond PIDG's direct involvement.

This study focuses on Kenya, a country where infrastructure financing constraints have increasingly shifted from a lack of capital towards challenges in connecting available capital with investable opportunities. A study on Nigeria has been completed and an upcoming study on Vietnam is planned. The remaining studies will be scoped based on priority themes or areas emerging from the preceding studies. After the five studies are complete, the programme will end with a learnings phase focused on practical recommendations for the PIDG team.

Box 1: Definition of market transformation

'The extent to which a market undergoes fundamental and durable changes in its structures, incentives, behaviours, and institutional arrangements, resulting in sustained market-level shifts in how the market functions and delivers outcomes'

Box 2: About PIDG

The Private Infrastructure Development Group (PIDG) is an innovative infrastructure project developer and investor which has been mobilising private investment in sustainable and inclusive infrastructure in Sub-Saharan Africa and South and Southeast Asia for 25 years. PIDG investments promote socio-economic development within a just transition to net zero emissions, combat poverty and contribute to the Sustainable Development Goals (SDGs). PIDG delivers its ambition in line with its values of pioneering, partnership, safety, inclusivity, and urgency. PIDG offers:

- **Technical assistance** for upstream, early-stage activities and concessional capital;
- **early-stage project development** and project and corporate equity through its project development solution, InfraCo;
- **debt solutions** through EAAIF (the Emerging Africa & Asia Infrastructure Fund), one of the first and more successful blended debt funds in low-income markets; and
- **guarantee solutions** through GuarantCo, which provides credit enhancement and local currency solutions to de-risk projects.

PIDG also supports a growing portfolio of local credit enhancement facilities, which unlock domestic institutional capital for infrastructure financing.

PIDG has committed US$6.6bn since 2002, closing 286 infrastructure projects, mobilising US$32.7bn in private capital, and providing an estimated 240 million people with access to new or improved infrastructure. PIDG is funded by the governments of the United Kingdom, the Netherlands, Switzerland, Australia, Sweden, and Global Affairs Canada.

A key pillar of PIDG's approach is to transform markets by proving innovative solutions, proving their viability in fragile environments and their potential for replication by investors, developers, and institutions.

The report begins by setting out the broader economic and investment context within which PIDG operates. It examines Kenya's market development, the macroeconomic environment and the structural factors shaping private investment and capital allocation.

Following that, in section three, the study explores how Kenya's power sector evolved into one of the country's successful examples of private-sector participation in infrastructure, the difficulties in maintaining that success, and the implications this has for applying similar models elsewhere.

In section four, the study assesses whether PIDG-supported interventions in project preparation for public-private partnerships have strengthened Kenya's ability to originate, structure and finance infrastructure investments.

Section five examines the development of Kenya's social infrastructure financing market through Acorn and assesses whether the introduction of new financing structures has contributed to broader capital market transformation.

Finally, the report ends with an analysis of financial market development from the lens of different instruments, specifically Real Estate Investment Trusts (REITs), bonds, and credit enhancement.

1.1 PIDG's interventions in the market

The study assesses a selected set of PIDG-supported interventions across Kenya's infrastructure and capital markets. The rationale behind the selected sectors and transactions is further detailed in Appendix B.

In the power sector, these interventions include support to on-grid independent power producers (IPPs), mini-grids and solar home systems.

Subsequently, the study analyses several transactions that try to enable greater efficiency in the development and delivery of infrastructure projects. This includes PIDG's support to the PPP Directorate, transaction preparation for PPP projects, the PIDG-PPIAF programme, and the establishment of Dhamana as a local credit-enhancement facility. Together, these interventions sought to strengthen project preparation capabilities, improve PPP processes, and connect infrastructure opportunities with domestic sources of capital.

Lastly, the study assesses PIDG's support to Acorn, including technical assistance (TA), guarantees and anchor investments supporting Acorn's green bond programme, Development REIT (D-REIT), Income REIT (I-REIT) and subsequent expansion of its social infrastructure financing platform. These interventions sought to address the student housing gap and demonstrate financing structures capable of mobilising institutional capital into social infrastructure assets and to establish a functioning capital-market pathway for financing and scaling social infrastructure development.

Table 1: Overview of projects assessed in the study

Report section	Project name	Year of signing	PIDG funding
Power	Rabai Power	2008	USD 32.77m (EAAIF)
	Olkaria III	2009	USD 15m (EAAIF)
	KPLC	2014	USD 25m (EAAIF)
	Kesses	2019	USD 35m (EAAIF)
	Bboxx	2021 2022	USD 11.25m (GuarantCo) USD 15m (InfraCo)
	KUDURA	2021 2024 2025	USD 0.2m (PIDG TA) EUR 3.50m (InfraCo) USD 0.25m (PIDG TA) EUR 0.445m (InfraCo)
Market-enabling support	PPPD TA Support Programme	2021	USD 0.3m (PIDG TA)
	University of Nairobi PBSA PPP	2021	USD 1.03m (PIDG TA)
	Nairobi Smart Street Lighting PPP	2022	USD 1.12m (PIDG TA)
	PIDG-PPIAF Programme	2024	USD 1.5m (PIDG TA)
	Dhamana	2023 2024	USD 0.06m (PIDG TA) USD 0.1m (PIDG TA) USD 20m (InfraCo) USD 15m (GuarantCo)
	Naivasha Bulk Water and Wastewater Treatment	2025	EUR <0.4m (PIDG TA) EUR 1.1m (InfraCo)
	Sanivation	2025	USD 0.5m (PIDG TA) USD 3.3m (InfraCo)
Social infrastructure	Acorn	2018 2020	USD 0.2m (PIDG TA) USD 30m (GuarantCo) USD 12.6m (EAAIF) USD 0.06m (PIDG TA) USD 8.1m (GuarantCo) USD 10m (InfraCo)
	Acorn YUP	2024	USD 10m (InfraCo)

1.2 Approach and methods

The study draws on three main sources of evidence. First, it combines transaction-level document review with secondary research covering Kenya's economic development, infrastructure sectors, capital markets, housing sector, and PPP ecosystem. Second, it incorporates evidence from stakeholder interviews conducted with market participants, public institutions, investors, developers, regulators and PIDG representatives. Third, for the power sector, the study draws on quantitative findings from a supply-demand model of Kenya's on-grid power system. The analysis assesses both observed market changes and PIDG's contribution to those changes through triangulation of documentary evidence and stakeholder perspectives.

1.3 Theory

Across this programme of studies, the concept of market transformation is applied as a conduit to driving development. Private sector actors have a significant role to play in market transformation, magnifying development impact beyond what constrained government budgets alone can achieve. Naturally, many factors that enable or constrain market transformation are outside the control of project developers and financiers, requiring coordination with other actors or changes to macroeconomic and political factors.

Box 3: Market transformation channels & outcomes

This report applies PIDG's approach to market transformation. This consists of three channels through which transformation takes place, and three market outcomes that track its progress. Examples are provided below, while these concepts are applied to the sectors under study in 0.

Market transformation channels

- **Demonstration & replication effects:** First-of-a-kind transactions in nascent markets, business model innovations
- **Enabling frameworks:** Legal/regulatory framework changes, development and use of industry standards
- **Building skills and capacity:** Skills transfer, training, increasing capabilities and expertise in the sector

Market transformation outcomes

- **Efficiency:** Optimal allocation and utilisation of capital, technology and productive assets through competitive markets
- **Resilience:** Ability to withstand shocks, through technology, market governance, or industry practices
- **Integration:** Physical, technological, and financial connectivity, within and across sectors and markets

Key to achieving impact is the development of financial markets that can allocate capital towards productive use, as the development of financial markets is correlated with long-term and sustainable economic growth.[1] Studies posit that the sequencing of developments in a market varies based on the existing conditions and often require market engagement on an instrument-by-instrument basis. This is taken into consideration when applying the market transformation lens, as developments in the power sector may not be broadly applicable to other infrastructure assets without significant work to develop enabling frameworks and build skills and capacity.

[1] IMF. (2009)



2 Kenya's macroeconomic & investment context

Kenya's infrastructure finance market is characterised less by a shortage of capital than by an inability to channel available domestic capital into productive investments. Despite substantial pools of local currency savings held by pension funds, banks and other institutional investors, much of this capital has historically remained concentrated in government securities due to their perceived safety, liquidity and attractive returns. At the same time, infrastructure projects and growing businesses have struggled to access long-term financing without exposure to currency risk. Capital-market activity has remained limited and banks have generally been unable to provide credit at the tenor required for infrastructure investment. As a result, a financing gap emerged between domestic investors seeking low-risk assets and infrastructure sponsors requiring long-term capital, creating demand for mechanisms that could reduce (perceived) risk, improve credit quality and facilitate the flow of domestic capital into the real economy.

For this contextual analysis, Kenya's development trajectory is considered thematically, as market constraints have compounded over time, and apply across sectors. Relevant themes include:

- Macroeconomic performance and fiscal constraints – the government's debt burden consumes a third of revenue and shapes every financing decision
- The risk-free rate and crowding-out mechanism – heavy government needs for borrowing set the cost of capital, with high Treasury yields crowding out private borrowers

- The banking sector – the shift from expanding credit to pulling back and allocating in safe government returns over lending to businesses
- Capital markets – investors allocate in government paper by default, with limited confidence in other financial instruments and potential for pension capital to be deployed in more productive investments

These themes are explored in the sub-sections below.

Macroeconomic performance and fiscal constraints

Kenya's growth has been resilient, but its public expenditure was not matched by tax revenue. The resulting debt now dictates financial conditions. Growth had stalled at 0.6% in 2002. The Economic Recovery Strategy of 2003–2007 reversed this by restoring stability and reviving public investment, lifting growth to around 7% by 2007.[2] That confidence was institutionalised in Vision 2030, the 2008 framework built on large-scale infrastructure, an ambition every government since has inherited, including the current Bottom-Up Economic Transformation Agenda (BETA), the government's programme focused on jobs and affordable housing.[3]

Against this backdrop of ambition financed by borrowing, the headline figures looked good. Real GDP expanded by 5.6% per year on average over 2014–2018,[4] grew 5.7% in 2023 and 4.7% in 2024. The slowdown in 2024 was mainly due to anti-tax protests, but it quickly recovered to around 5% during 2025 with inflation within target, a stable exchange rate, and record foreign reserves.[5] However, this did not tell the full story. Public debt reached 67% of GDP in 2024[6] and Kenya was classified as high risk of debt distress,[7] with interest costs absorbing roughly one third of ordinary revenue, or KSh 33 for KSh 100 collected in taxes.[8] As the graph shows, Kenya's debt has grown, from barely a third of GDP in the mid-2000s, to roughly two-thirds. The debt burden became acute in June 2024, as a USD 2 billion Eurobond matured. The yields on the note and speculation over default drove sharp shilling depreciation until a USD 1.5 billion issuance and buyback in February 2024 calmed markets. After this, the shilling appreciated by more than 15% against the dollar and Eurobond yields eased.[9]

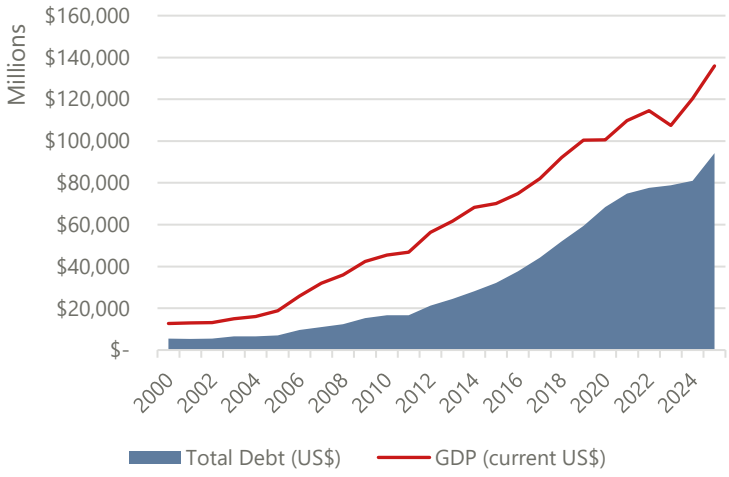


Figure 1: Debt has grown faster than GDP

The Central Bank of Kenya raised the policy rate to a peak of 13.0% in February 2024 to contain inflation and support the currency, before cutting to 11.25% by December 2024 as conditions stabilised.[10] This shows that

[2] Government of the Republic of Kenya. (2007)
[3] Government of the Republic of Kenya. (2007); State Department for Economic Planning. (n.d.); African Business. (2011)
[4] World Bank. (2019a)
[5] World Bank. (2025b)
[6] IMF. (2026)
[7] Miriri, D. (2025)
[8] Business Daily Africa. (2024)
[9] Business Daily Africa. (2024); African Business. (2024)
[10] Credendo. (2024); Retirement Benefits Authority. (2025)

Kenya was able to avert the crisis and avoid default, but did not resolve the underlying debt servicing commitments that keep its cost of capital high.

Government spending still outran revenue, and closing the gap through taxation has proven politically explosive. The Finance Act 2023 introduced new revenue-raising measures, including the affordable housing levy of 1.5% intended to fund affordable housing initiatives.[11] Its successor, the Finance Bill 2024, designed to raise roughly USD 2.7 billion more, but was met with protests leading to its withdrawal. This left an estimated KSh 200 billion hole in the 2024/25 budget and pushed the government toward roughly KSh 1 trillion of additional domestic borrowing.[12]

The risk-free rate and the crowding-out mechanism

The government's financing needs set the price of money in Kenya. From 2001 the government deliberately restructured domestic debt to build a long-term bond market, cutting the cash reserve ratio in 2003 to release bank liquidity and reweighting its borrowing plan toward bonds. Treasury bond volumes rose from KSh 80 billion in June 2001 to KSh 318 billion by end-2008, and in January 2009 Kenya issued the region's first dedicated infrastructure bond, a 12-year KSh 18.5 billion note that was 45% oversubscribed.[13] The government succeeded in developing the bond market – at least for sovereign issuances.

Through 2024, 364-day Treasury bills yielded around 16–17% against a policy rate of 13%. A gap is normal; a one-year bill should yield more than the overnight rate the policy rate reflects, but a spread this wide points to more than tenor. With debt service consuming a large share of revenue, investors demand a fiscal premium against rollover risk, the risk that the government struggles to refinance its maturing debt, and the government competes directly with private borrowers for the same pool of domestic savings.[14] The increased domestic borrowing, coupled with high lending rates, is crowding out the private sector, while the government still has outstanding bills and revenue falls short, undermining consolidation.

The total cost of credit for any private borrower builds on this base of 16–17%, plus a risk premium and fees, making long-tenor financing, which would further increase the cost, out of reach for most in the private sector. The consequence is a market that is deep but circular: savings flow into short-tenor, high-yield, liquid government paper, while projects seeking long-tenor patient capital find no matching instrument. With few transactions, there is little price discovery for infrastructure or corporate credit, and without price information the market cannot self-correct.

The banking sector

Kenya's banking sector was one of the reform era's clearest successes. The 2000s produced a deepening system. M-Pesa's launch as a mobile phone-based money transfer service in 2007 transformed financial access, with micro deposit accounts in formal institutions growing more than tenfold over the following decade and mobile money reaching 84% of Kenyans living on under USD 2 a day.[15] By the mid-2010s, banks were expanding private credit broadly, with double-digit growth across most economic sectors. This means that when banks later retreated from private lending, they did so from a position of proven capability.

Since then, the sector has moved to cautious, uneven lending, culminating in contraction. Credit to the private sector declined by 1.4% in December 2024, against growth of 13.9% a year earlier.[16] Local currency lending

[11] Bowmans. (2024)
[12] The EastAfrican. (2024); allAfrica. (2024)
[13] Ndung'u, N. (2009, January 28); Overseas Development Institute. (2010)
[14] World Bank. (2025a)
[15] IMF. (2014)
[16] World Bank. (2025a); Miriri, D. (2025)

slowed from 15% to 1.2%, while foreign currency credit contracted by 11.4%; however, this was partly a mechanical effect of the shilling's appreciation on the value of dollar loans. The pullback was largest in the productive sectors, with credit to manufacturing shrinking by 9.4% and to building & construction by 6.1% in 2024.[17] Beyond weak demand at high rates, the strongest driver was the sovereign itself, with Treasury bills yielding 16–17% risk-free. Banks rationally parked liquidity there in government securities rather than extending private loans.[18] The chart shows this trade-off. As Treasury yields climbed to 16–17%, banks earned more on risk-free government paper than on lending, and private sector credit growth declined.

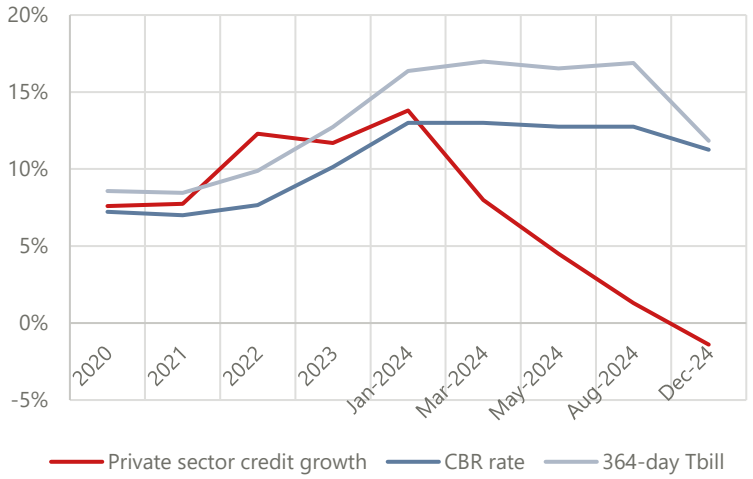


Figure 2: High interest rates crowd out private credit

The banks did not act without precedent. In September 2016, the Banking (Amendment) Act capped the interest banks could charge at four points above the Central Bank Rate. The effect was the opposite of what was intended. Instead of them lending more cheaply, banks stopped lending to borrowers they saw as risky, especially small and medium enterprises, which also led to them putting their money into government securities instead.[19] Private sector credit growth fell from 13.5% in 2016 to 2.8% by April 2018.[20] The courts removed the cap in March 2019, and it was repealed that November.[21] This left two lasting marks. First, it made government paper the banking sector's default asset, and it showed that the rules of lending can be rewritten by law at short notice. In that environment, caution is rational. Banks behave alike, competing for deposits to fund their government bond holdings rather than competing to lend.

Two further factors deepened the caution. First was weak asset quality and the shape of the market. NPLs rose from 16.8% of all lending in January 2025 to 17.6% by June.[22] Smaller banks were hit hardest, as they have less room to diversify their risk,[23] while the market's dominance by a few large banks meant there was little competitive pressure on any of them to lend more. The picture began to change only when the central bank started cutting interest rates. Cheaper credit and an easier monetary stance brought private sector lending back to about 5% growth by September 2025, and the World Bank raised its 2025 growth forecast to 4.9%.[24]

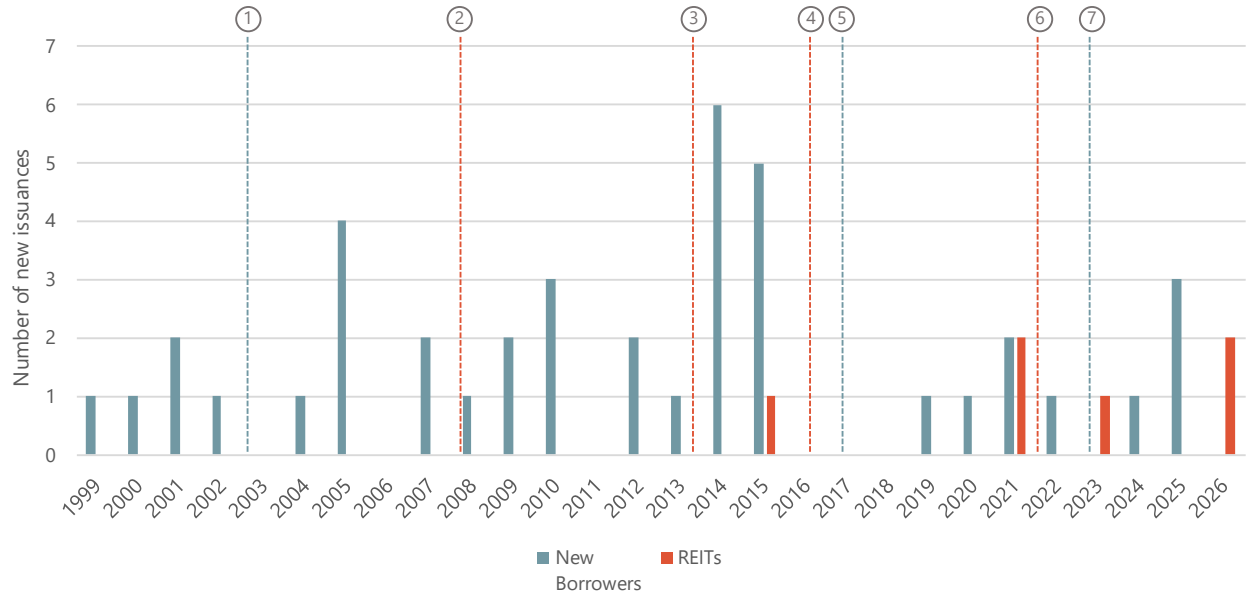
Capital markets

The same dynamic that has driven investors and banks towards government securities also shapes Kenya's capital markets. As government borrowing increased, Treasury securities became the effective benchmark across the financial system. Private issuers found it increasingly difficult to compete for capital. Yet the potential of Kenya's capital markets has been demonstrated. The 2006 Initial Public Offering (IPO) of KenGen, which

[17] World Bank. (2025a)
[18] World Bank. (2025a)
[19] MicroSave Consulting. (2019); The EastAfrican. (2019)
[20] World Bank. (2017)
[21] Bowmans. (2019); The EastAfrican. (2019).
[22] Kenya Bankers Association. (2025)
[23] World Bank. (2025a)
[24] World Bank. (2025b)

allowed private parties to buy ownership stakes in the dominant and formerly fully state-owned electricity generation company, was 337% oversubscribed and its shares more than quadrupled on debut. This triggered a wave of offerings that led to the Safaricom IPO in 2008 which ended up being the largest IPO in Kenya's history. It drew KSh 236 billion against the KSh 50 billion sought.[25] This means that there was strong demand for non-sovereign assets, yet the pipeline then dried up leading to a prolonged listing drought[25] as government securities crowded out private issuances.

In the bond market, Treasury bonds accounted for 99.88% of total bond trading in the 2nd quarter of 2018, compared with 0.12% for corporate bonds.[26] There were no corporate-bond issuances in either 2023 or 2024, and the Central Bank of Kenya described the market as inactive. With the sovereign offering high, liquid, tax-favoured returns, few issuers could compete for investors, and the market that had once channelled capital into companies now primarily channelled it into the state. Green finance was similarly nascent, with Kenya's first green bond issued by Acorn in 2019, and no further green bond issuances until Safaricom's 2025 issuance, which built on the blue-chip company's sustainability-linked loan portfolio with local banks.



1 - POLD Regulations • 2001
2 - Asset-backed securities framework • 2006
3 - REIT framework • 2013
4 - Pension-fund REIT cap raised to 30% • 2016
5 - Green bond programme • 2017
6 - Unlisted REITs opened to pension funds • 2022
7 - POLD replacement • 2023

Figure 3: New borrowers and REIT issuances against regulatory milestones

Kenya's market regulator, the Capital Markets Authority (CMA), has built the frameworks to widen the markets beyond government and blue-chip equity, deliberately introducing new products to draw in private issuers. It created the framework for asset-backed securities in 2007 and for REITs in 2013, making Kenya the fourth African market to allow them. In February 2019 it launched rules for green bonds, whose proceeds must fund environmentally beneficial projects explicitly as part of a strategy to diversify the products on offer, developed with the Nairobi Securities Exchange and partners under the Kenya Green Bond Programme.[27] In 2023 it rewrote the core listing rules, replacing the 2002 Public Offers, Listing and Disclosures Regulations (POLD)

[25] Business Daily Africa. (2023); The East African. (2006)
[26] CMA. (2024)
[27] Bowmans. (2017); CMA. (2023); Cytonn Investments. (2026)

which was long seen as a barrier to new issuance.[28] The structures, in other words, exist, but what has been missing is companies actually using them.

High Treasury yields don't just take over the markets but also draw in institutional investors in Kenya. Pension assets under management reached 2.25 trillion in 2024, but 48.5% sat in government securities. The RBA guidelines do permit schemes to hold up to 30% in REITs and 10% in infrastructure and private equity. However, actual allocations to these asset classes remain below 1% of assets.[29] The laws permit more diversification yet returns discourage it. Price is only part of it; these instruments are less familiar, so investors and institutions must also understand and trust them to justify moving capital out of something like government paper.

These financing constraints are particularly important given Kenya's growing infrastructure investment needs. By the end of 2025, public debt had reached KSh 11.8 trillion, equivalent to 67.8% of GDP,[30] while total debt-service obligations, including both interest and principal repayments, consumed approximately 71% of government revenue was being used to service debt.[31] At the same time, infrastructure investment requirements continue to increase, with the World Bank estimating that Kenya requires almost USD 4 billion annually across transport, energy, water and social infrastructure sectors.[32] As fiscal space becomes increasingly constrained, mobilising private capital is becoming less an option and more a necessity for meeting Kenya's infrastructure development needs.

[28] Bowmans. (2017); Kenyan Wall Street. (2024)
[29] Pensions Policy International. (2024); The Standard. (2025)
[30] National Treasury. (2025)
[31] Kodongo. O. (2026)
[32] International Trade Administration. (2024)

3 Powering private investment in infrastructure

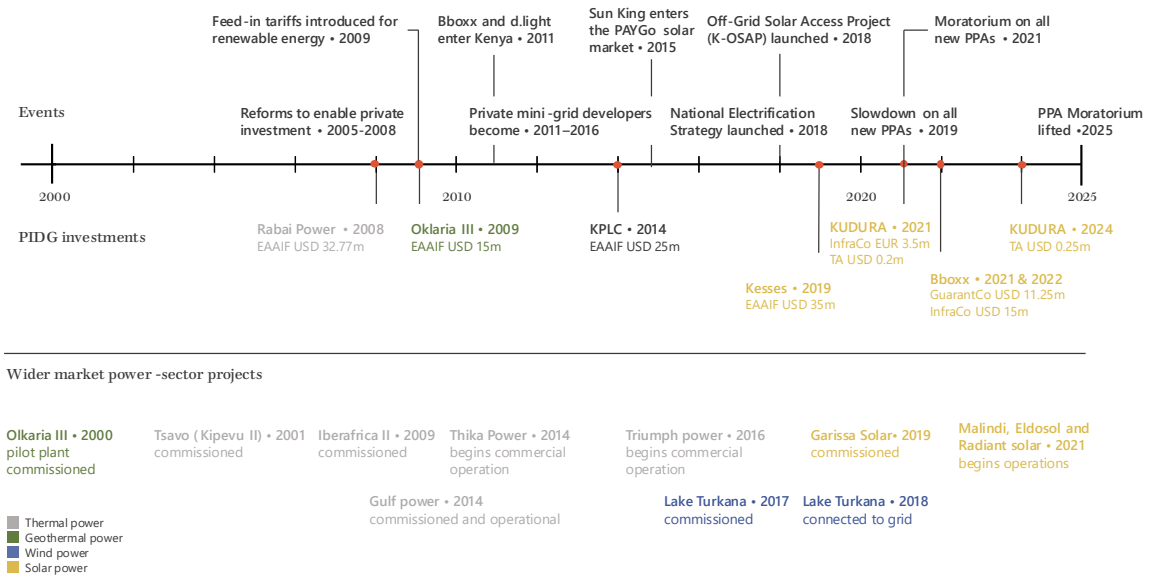


Figure 4: Overview of power financing, relevant events and wider power-sector projects[33]

The evidence points to market transformation in Kenya's power sector, although progress has been uneven and partially reversed by later policy developments. Between 2008 and 2019, regulatory developments helped independent power producers (IPPs) enter the generation market. This helped Kenya keep pace with growing electricity demand, expand private participation across thermal, geothermal, wind and solar technologies, and support a generation mix in which renewable sources accounted for more than 80% of electricity production. These changes improved the reliability, resilience and integration of the power system and established the power sector as one of Kenya's strongest examples of private-sector participation in infrastructure. However, the transformation was not durable. The slowdown (from 2019) and subsequent moratorium (2021 – 2025) in new Power Purchase Agreements halted project development and interrupted the momentum of private investment in the power sector.

PIDG contributed to transformation in the on-grid space. Through long-tenor debt, EAAIF's support to Rabai, the first IPP after Kenya's power sector reforms, helped prove the bankability of privately financed power generation. EAAIF's support for the expansion of the geothermal Olkaria III plant and development of the utility-scale solar Kesses plant could have had a similar transformative effect but was disrupted by external factors.

In distributed renewable energy, InfraCo supported KUDURA with equity investments to prove models for mini-grids, and GuarantCo supported the creation of a local currency financing facility for Bboxx. However, the inherent challenges of the mini-grid business model are further constrained by a lack of policy clarity, limiting transformation, whereas the creation of a local currency facility was restructured due to changes in banking regulation.

Broadly, PIDG's activities helped reduce perceived risk in the market and crowded private capital into Kenya's power sector, which continues to serve as a successful model for private-sector investment in other sectors in the country and across the East Africa region.

3.1 The evolution of Kenya's power sector

Kenya's IPPs created a model for private sector participation until the moratorium

Kenya's experience with private participation on the grid began in the late 1990s, as a response to drought-related power shortages and supply constraints. Emergency power providers and several thermal generation plants, including Tsavo & Iberafrica, were contracted to provide capacity. Far from a structured programme, these were designed to solve short-term problems, and private investment was contingent on public-sector support, guarantees, and risk mitigation mechanisms. Olkaria III, the first privately run geothermal plant in Kenya, was also developed in 2000 by Ormat – this however was a pilot plant of only 13 MW of capacity.

Between 2005 and 2008, Kenya reformed the sector, clarifying and separating responsibilities of publicly owned companies across generation (Kenya Electricity Generating Company or "KenGen"), transmission (Kenya Electricity Transmission Company Limited or "KETRACO"), system operation (Kenya Power & Lighting Company or "KPLC") and regulation (Energy and Petroleum Regulatory Authority or "EPRA"). The country also set up processes for government- and private-sector-initiated power projects and arranged for power purchase agreements (PPAs) backed by letters of guarantee to enhance investor confidence and enable long-term project financing.[34]

[33] See Appendix C for landscape view of timeline
[34] World Bank (2019c)

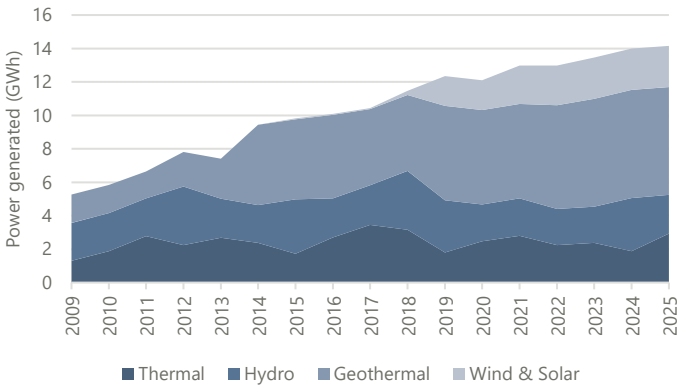


Figure 5: Electricity generation by technology

The period from approximately 2008 onwards marked a new wave of IPP activity. Projects such as Rabai Power and the expansion of Olkaria III reached financial close with support from international investors and development finance institutions, followed shortly after by further thermal investments such as Thika, Triumph, and Gulf Power.

The period from 2009 onwards also marked an expansion in intermittent solar technologies. Kenya introduced feed-in tariffs (FiTs), catalysing wind and solar development. Utility-scale wind grew quickly, culminating in the 310 MW Lake Turkana Wind Power project. It served as a benchmark for the large-scale assets private developers could build, but highlighted governance and coordination challenges, with delays in transmission lines creating considerable costs for the utility. Utility-scale solar also emerged 2015 onwards. These continued the trend of Kenya's power generation being driven by renewable energy (Figure 5).

By 2019, IPPs had helped power supply keep up with demand (Figure 6) and reduce the reliance on fossil fuels, but electricity tariffs had stayed high, with Kenya having the most expensive power in the East Africa region, limiting competitiveness of sectors such as manufacturing. KPLC was in a difficult financial state with power purchase liabilities in foreign currency but collections in Kenyan shillings, worsened by the liabilities that Government Support Measures placed on the Treasury's balance sheet.[35] These factors led to the appointment of a taskforce, which placed a moratorium on all new PPAs in 2021, to give the taskforce time to address the issues with private generation. Due to lower-than-expected electricity growth, KPLC saw high reserve margins, and was contracted to pay capacity payments to plants which were underused but still contributed to high tariffs. These issues were compounded by the number of contracts issued in foreign currency, increasing financial pressures on KPLC.

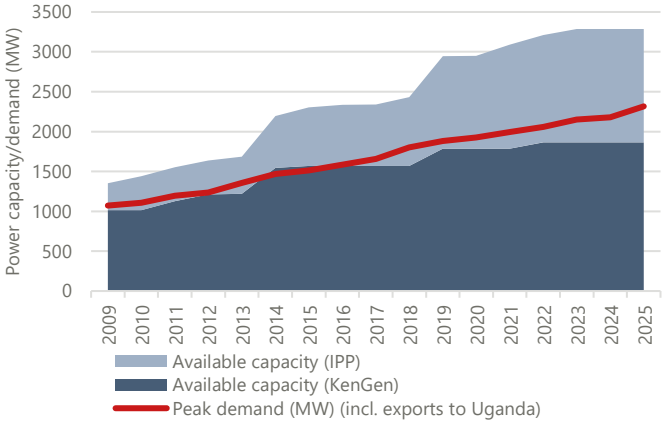


Figure 6: Kenya's power capacity & demand per year

The moratorium gave the taskforce and government agencies time to develop a more competitive framework for private participation, moving away from bilateral contracts towards structures that reduced the demands on the public purse. The moratorium also effectively halted the development pipeline for new IPP projects, with several projects delayed or cancelled as a result, despite continued growth in electricity demand.

Following the end of the moratorium in November 2025, Kenya is now trying to quickly ramp up a pipeline of power projects, as demand for electricity continued to increase in the intervening years. The objective is to reduce the use of tools such as feed-in tariffs and take-or-pay agreements and explore local currency or hybrid

[35] Presidential Taskforce on the Review of PPAs (2021)

PPAs as well as create a competitive auction system. Given that the moratorium has been lifted recently, it remains to be seen whether private sector actors will return at the same scale as seen between 2008 and 2019.

Distributed renewable energy models fill gaps in energy access and affordability

Alongside the development of Kenya's grid, the distributed renewable energy (DRE) space also developed in the 2010s, solving problems that the grid could not. Mini-grid models in the public and private space focused on connecting rural and peri-urban communities, while solar home systems (SHS) connected urban users and reduced their cost of power.

Mini-grids

Kenya's mini-grid sector has evolved through a combination of public electrification programmes and private-sector innovation. The government began deploying isolated diesel-powered mini-grids in remote areas through KPLC and later the Rural Electrification Authority (REA, now the Rural Electrification and Renewable Energy Corporation (REREC), with off-grid mini-grids already serving remote communities by the 2000s. By 2015, Kenya's off-grid system included approximately 28 MW of diesel, solar and wind generation connected through mini-grids. At that time, falling solar PV costs and the spread of mobile money enabled pay-as-you-go and productive-use business models, with companies such as Powerhive, PowerGen, and KUDURA entering the market.[36]

While there have been projects that prove technical success, a mix of commercial and governance issues make it difficult for players to find scale. Mini-grid models have challenging unit economics, with different models attempting to tie grid development to productive anchor users.[37] On the governance side, while there have been efforts to coordinate public and private efforts through initiatives such as the Kenya National Electrification Strategy (2018) and the Kenya Off-Grid Solar Access Project (K-OSAP, launched in 2018),[38] stakeholder interviews indicate a lack of clarity on the remit between KPLC, REREC, and private actors. This makes it difficult for private developers to design a commercial model that can accommodate extension by REREC or KPLC into areas served by privately owned mini-grids.

Solar Home Systems

While solar home systems have a long history in Kenya,[39] from 2010 onwards, the solar home systems sector grew rapidly as falling solar PV costs, widespread mobile-money adoption and pay-as-you-go financing enabled private companies to serve lower-income consumers at scale.[40] In order of market entry, firms such as d. light, Sun King, M-KOPA, Bboxx, and Azuri helped shift the market from off-grid integrated solar products (such as lanterns) to home electricity systems. These companies pioneered and mainstreamed Pay-As-You-Go (PAYGO) solar models that allowed customers to acquire systems through instalment payments, helping Kenya become one of the largest and most mature market for solar off-grid globally.[41] By the late 2010s and early 2020s, private investment, innovation and market competition had transformed the sector from a niche market into a mature industry, with increasing consolidation around larger providers and growing integration with national electrification efforts. Outside of the main urban areas, growth was supported by policies such as K-OSAP, which provided subsidies for deploying solar home systems in underserved areas.[42]

[36] ESMAP (2017)
[37] Pedersen & Nygaard (2018)
[38] Energypedia (2018)
[39] Jacobson (2006)
[40] ESMAP & GOGLA (2020)
[41] IEA (2024)
[42] GOGLA (2025)

3.2 Long-term IPP debt; equity & guarantees for DRE

PIDG's involvement on-grid was focused on providing patient long-term debt capital through EAAIF, supporting Rabai Power in 2008, the refinancing of construction costs as part of the Olkaria III expansion in 2009, and utility-scale solar through Kesses. In between these, EAAIF also provided debt to KPLC for capital maintenance and grid expansion, as part of a larger loan arranged by FirstRand Bank, to support with a funding gap rather than a specific change in the market.

In the DRE space, PIDG has backed two different models. KUDURA, a mini-grid developer, has been supported by InfraCo through a 2021 equity investment, along with TA funding in 2021 and 2024. Bboxx, a solar home systems provider, has been supported by a partial guarantee (75%) from GuarantCo to unlock a KES 1.6 billion financing facility from SBM bank, one of the early local currency facilities in the market. This was followed by an InfraCo equity injection into the Bboxx holding company (across markets) in 2022.

Market transformation pathway

Given variations in capital expenditure and returns for different power generation technologies, IPP market transformation relies on replication of PIDG's financing models on a technology-by-technology basis.

In the distributed renewable energy space, the KUDURA transaction relies on demonstration effects to create a proof of concept for the market. Bboxx relies on capacity building and replication to enable further local currency financing facilities.

3.3 Initial progress has been undone by external factors

Kenya saw a lot of progress in the on-grid IPP space before project development was effectively paused due to the PPA moratorium. In the DRE space, mini-grids have been replicated but long-term sustainability remains elusive, whereas the solar home system sector has matured and consolidated.

On-grid – models for private investment

Between 2008 and 2019, private investment substantially expanded Kenya's generation capacity and enabled the power system to keep pace with rising electricity demand. Although KenGen also added new generation capacity, the system depended on private generation to keep up with growing demand. Private investment also contributed to diversification of the generation mix. While early IPPs were predominantly thermal, later investments expanded geothermal, wind and solar generation, reducing reliance on hydropower during drought periods.

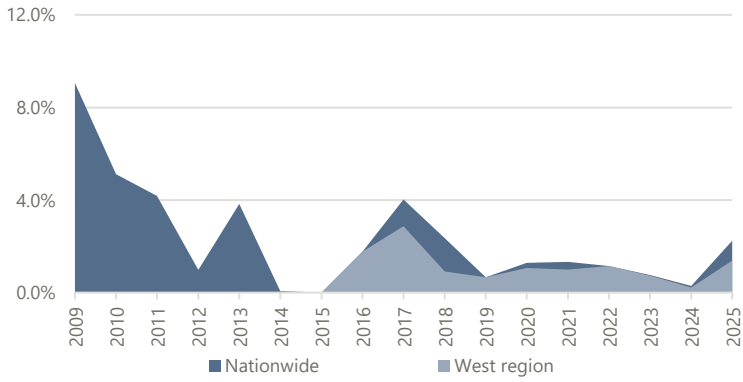


Figure 7: Modelled outages as a % of estimated demand

To support this analysis, Kenya's power system has been modelled against three key objectives of the energy trilemma: cost, reliability, and emissions. The trilemma is thus named as typically individual interventions in the power system can only support one or two of the three objectives.[43]

Tracking Kenya's grid since 2009, additional generation capacity improved reliability over time by reducing supply shortages.

[43] World Energy Council (2024)

There were still losses due to transmission and distribution (primarily increasing outages in the West region, as can be seen in Figure 7, but the supply problem was solved.

Modelled findings indicate that most of the outages seen in 2019 – 2023 were due to two factors: transmission constraints and drought, as Kenya's reliance on hydropower for baseload power continued to constrain the grid. The concerning trend in Figure 7 relates to the increase in outages in 2024, as that year experienced heavier rainfall than usual, increasing the available supply of hydropower. However, given the lack of capacity addition to the grid while demand continued to grow, 2024 still saw outages nationwide, underlining the need for reform and resuming private investment in generation.

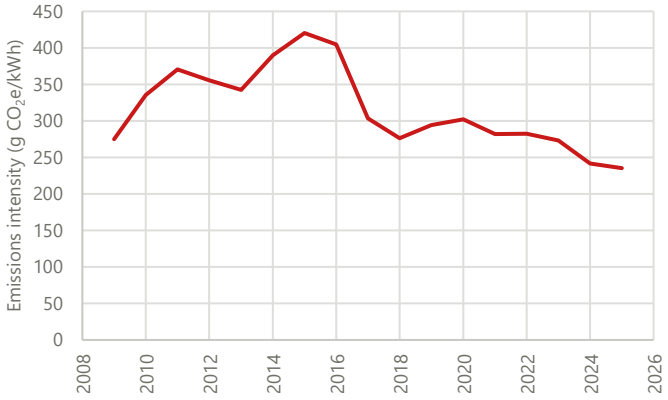


Figure 8: Emissions intensity of the grid

Private investment also supported the continued decarbonisation of the power sector. Although Kenya primarily relied on Hydropower in 2009, the fear was that the growing demand for electricity could only be met by thermal power. By the late 2010s, however, more than 80% of Kenya's electricity generation originated from renewable sources, with significant geothermal, wind and solar capacity coming online. This reduced the emissions intensity of the grid, even as generation expanded to keep up with capacity, helping make Kenya one of the cleanest electricity systems in the region, and cleaner than the global average of 440 g CO_2e/kWh[44].

The impact on electricity costs was mixed. Private generation reduced the need for costly emergency power procurement and improved reliability. However, capacity payment obligations, deemed-energy costs and take-or-pay arrangements increasingly attracted scrutiny as concerns grew over electricity tariffs and utility finances.

While Kenya already had one of the higher power tariffs in its region, Figure 9 demonstrates how most of the increase in power production costs came from non-government owned power plants (IPPs and imports). On the IPP side, the increase and volatility in costs is attributed to the following factors:

- KPLC's exposure to currency and fuel cost risk
- Dry years, where reduced hydropower increases use of thermal power, coincided with high fuel costs
- Fixed feed-in-tariffs catalysed renewables but prevented KPLC from benefiting from cost efficiencies.

The currency risk was realised between 2022–2024 as the Kenyan shilling depreciated, making the increased costs more permanent rather than volatile. These factors are what the 2019 – 2025 PPA moratorium sought to address.

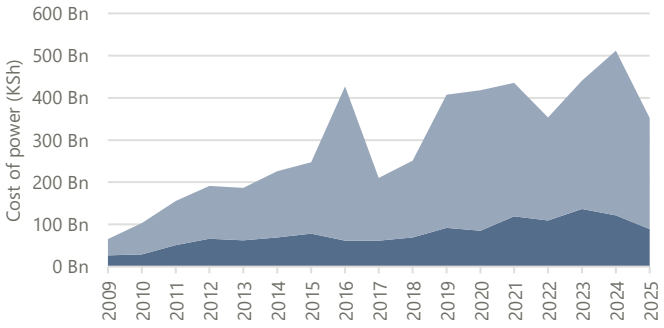


Figure 9: Cost of power production for KPLC

[44] IEA (2026)

Change in the IPP market – thermal power

After Rabai Power was commissioned, a new cohort of thermal IPPs followed. As Rabai solved shortages at the coast, Thika, Triumph and Gulf Power were commissioned to provide thermal power in the Nairobi region.

Change in the IPP market – geothermal power

Following the completion of the Olkaria III package of upgrades, there was interest from private investors in the geothermal space. Given the success of the Olkaria III site, the Kenyan government formed the Geothermal Development Company (GDC) in 2008 to allow GDC to engage in costly site exploration and streamline private involvement once a site was identified.

The largest planned investment following Olkaria III upgrades, Akiira Geothermal, was eventually cancelled during the development phase due to myriad issues, with financing stalling due to improper handling of community-related grievances, and the impact of the moratorium. However, the GDC process has been used in the development of the Menengai Geothermal Project. The Menengai site was identified as early as 2009, and three IPPs were awarded contracts to build 35 MW plants each in 2013. Following a lengthy development process and changes in ownership and financing structures of the three vehicles, all three plants are expected to come online by middle of 2026.

Change in the IPP market – utility-scale solar power

Following in the footsteps of wind-power, several utility-scale solar plants were awarded PPAs in the late 2010s and were commissioned and connected to the grid by 2024. Of these, Garissa Solar Power Station, developed by REREC, was the first. Following this proof-of-concept, the Malindi, Eldosol, Radiant, Cedate, and Selenkei power plants were developed, each with significant involvement of development capital (BII/FCDO, FMO, EIB).

Kesses was commissioned in 2023, with financing from EAAIF and two commercial banks (Standard Bank of South Africa, Stanbic Bank). Although Kesses reached financial close during the PPA moratorium, the negotiation of its 20-year PPA with KPLC had been concluded in June 2017, and the plant was licensed and under construction by March 2021. Kesses was thus able to complete financing and commissioning under the existing agreement, though it was subject to the taskforce's review of tariffs, PPA terms, and implementation milestones.

Although further utility-scale power plants were proposed with less need for catalytic or development capital, these were shelved following the PPA moratorium.

Distributed renewable energy

Mini-grids

Since 2010, Kenya's mini-grid sector has evolved from a public, diesel-focused rural electrification scheme to a solar-focused mixed space with both public and private involvement. Mini-grids have inherent difficulties, for example, commercial viability requires dense settlements, yet most mini-grids are pointed towards moderately populated peri-urban and rural communities.[45] However, businesses have addressed these through significant business model innovation, leveraging the reducing cost of solar photovoltaic (PV) technology, existence of PAYGO and bundled payment models, and incorporating anchor productive users to stabilise collection rates.

Despite the innovation, affordability concerns constrain growth. Continued inflation has had implications on household expenditure, with consumers reducing electricity use and being unable to afford the products and services offered by anchor productive users, such as milled grain or salon services.[46] Although commercial

[45] Ogeya, Ogara, & Andersen (2025)
[46] Mt Kenya Times (2026)

companies have sustained operations and created significant impact by expanding access to electricity, they still struggle to scale, achieve financial success, and transform the market.

A key issue highlighted by stakeholders is exits – successful mini-grid development in peri-urban areas often leads to interest from KPLC to connect the mini-grid to the national grid, but there is no clear process or compensation as part of this process, creating an unclear return on the development investment from the private sector. The regulatory ambiguity exists as EPRA has not finalised draft mini-grid regulations, initially drafted in 2017, with revisions published in the Kenya Gazette in 2021 and 2022. Although public programmes such as KOSAP have increased the pipeline of transactions, individual transactions still struggle to recover costs.

Solar home systems

With falling PV costs and the potential unlocked by financing models like PAYGO, Kenya's SHS sector evolved from a relatively niche solar lantern market into a globally leading off-grid solar market. Companies such as d.light, Sun King, M-KOPA, Bboxx and Azuri helped turn SHS into a consumer-finance model, allowing households to pay in instalments for lighting, phone charging and progressively larger appliances.

However, the sector's maturation has also revealed constraints: despite increased access to electricity, customer repayment stress remains significant, with GOGLA finding that many PAYGO customers in Kenya and Uganda struggle with instalments due to unstable incomes, other debts, climate shocks and technical issues.[47] With the competitive landscape, companies have had to consolidate and streamline their operations.

Given the more constrained environment, several SHS companies have tried to access stable local currency financing to sustain growth at a lower cost of capital. M-Kopa was the first to secure a local currency financing facility in 2017, arranged by Stanbic with support from BII, FMO, and Norfund.[48] Bboxx's facility, arranged by SBM Bank with a 75% guarantee from GuarantCo had a different model, but also allowed the company to access local currency financing. Sun King, the market leader, was the latest to engage in a local currency financing facility, but this followed yet another model, securitising customer receivables into a senior tranche for local commercial banks, supported by a mezzanine tranche funded by BII, FMO, and Norfund.[49]

3.4 Bankable projects create replicable models

The framework for on-grid IPPs is still the benchmark for private sector involvement in infrastructure in the country, with other sectors referencing the power sector as a model. The 2008–2019 period was transformative and created multiple replicable models specific to different generation technologies, with demonstration followed by replication. However, the PPA moratorium paused new project development and heightened investor perception of risk. The approach that the government and the utility take in the coming months will determine whether the previous model of public and private collaboration can be reinstated.

Rabai created a replicable model for thermal IPPs

Rabai was among the first projects to reach financial close under Kenya's reformed IPP framework and standardised contractual structure, helping establish a bankable template for privately financed power generation. Rabai Power's impact was transformational, demonstrating a model for IPPs at large, and creating a bankable template for thermal IPP investment. Although Iberafrica and Tsavo were commissioned in the late 1990s and early 2000s by Kenya Power, these were done on a case-by-case basis to ease power shortages and with customised PPAs, a high level of state protection, specialised merit-order dispatch terms, and high-

[47] GOGLA (2025)
[48] Norfund (2020)
[49] BII (2025)

capacity payments.[50] Following the reforms in the power sector, Rabai Power was the first PPA to be awarded under the more transparent and competitive framework, and a more limited and standardised Government Letter of Support.

Rabai established that privately financed thermal generation could be developed, financed, and operated successfully within Kenya Power's off-take framework. It also demonstrated the credibility of the PPA, normalising private participation and reducing market entry-risk for future investors.

Though the primary channel of transformation across the sector was *demonstration*, stakeholder interviews suggest that Rabai's financing structure was also *replicated* for further IPP investment, specifically with three more plants, namely Thika, Triumph, and Gulf Power, which were developed shortly after Rabai was commissioned as a part of the World Bank's Private Sector Power Generation Support Project.[51]

Olkaria III's expansion was part of more private investment in geothermal

Kenya's power regulator followed a strategy of developing pilot private sector projects for a generation technology before establishing a regulatory framework. In thermal power, Tsavo & Iberafrica served as proofs of concept in the late 1990s and early 2000s, before the updated PPA structure was introduced in 2007. Olkaria III, the first phase of which was built in the early 2000s, was the first geothermal plant with private sector participation both in Kenya and on the African continent.

The PPP model followed at the Olkaria III site was one where the risk of finding and developing a geothermal site was taken by the public sector, previously through KPLC and later through the establishment of the Geothermal Development Company (GDC). With the Olkaria III site, the government identified the sites' potential for geothermal energy, tendered a bid for private sector development with the support of the World Bank, and Ormat developed the power plant. With the planned expansion of Olkaria III, although there was significant private sector interest, there was a need to refinance initial equity and debt from the construction of the site to free up capital for expansion.[52] The refinancing of the debt provided by OPIC was provided by EAAIF with a longer tenor than commercial banks were able to provide. Supporting refinancing efforts facilitated other investors to fund the expansion of the site.

The successes and learnings from Olkaria III led to further private investment in geothermal power, albeit with different PPP models. By 2018, successive expansion projects had increased Olkaria's capacity from an original 13 MW to 150 MW. In Kenya, given the efforts required to refinance Olkaria III, a new *enabling framework* was developed for the next phase of geothermal investment.[53] At the Menengai site, GDC not only identifies the site, but also drilled the sites and provides the steam to three IPPs operating on site. These IPPs are coming online in the middle of 2026, so the success of these plants and potential for further replication remains to be seen. Ethiopia, with the projects at the Corbetti and Tulu Moyo sites, is also exploring a model similar to the Olkaria III plant, wherein an IPP works with the state utility to jointly develop wells and a power plant under a build-own-operate-transfer mechanism.[53]

Without the *demonstrated* success of the Olkaria III plant, it is unlikely that either state actors (i.e., GDC, Ethiopian utility) or private sector players would have proceeded with the development of Menengai, Corbetti, or Tulu Moyo.

[50] Eberhard & Gratwick (2011)
[51] World Bank (2012)
[52] Climate Policy Initiative (2015)
[53] ThinkGeoEnergy (2024)

Progress in privately developed utility-scale solar stalled due to the moratorium

Development of utility-scale solar progressively moved from the public to private sphere, until progress was stalled due to the PPA moratorium. As indicated above, the first plant was developed by REREC, an agency of the Kenyan government, followed by plants funded with development finance capital. Kesses was the first plant with limited public or development finance involvement. EAAIF's involvement in raising the debt helped catalyse capital from commercial banks, *demonstrating* the potential for privately funded development of utility-scale solar in Kenya.

The government and private sector actors wanted to build on this success with further utility-scale solar, as well as smaller projects that could be developed under PPAs pegged to local currency. InfraCo was involved in early project development for two of these plants, but development on all on-grid solar projects stalled with the PPA moratorium of 2019.

Mini-grid models work, but have constraints to scale and grid integration

The inherent difficulties of the mini-grid model have been amplified due to uncertainty around the policy framework on grid expansion.[54] This ambiguity significantly increases risk, with mini-grid companies experiencing commercial risk due to grid encroachment.

Mini-grid companies including KUDURA have continued to sustain and build new sites and drive electricity access, but this relies on concessional financing from donors and through government programmes focused on rural electricity access, with limited success in driving scale.

Banking policy changes inhibit further local currency finance for consumer solar

Bboxx was the second solar home system company with a local currency debt financing facility, but the conditions allowing such facilities have since changed. Bboxx's facility relies on the guarantee to unlock a standard commercial loan from the local market, however, the interest on this loan has since increased due to a change in how the Central Bank of Kenya mandates that banks price risk in interest rates.[55] The introduction of the KESONIA[56] model led to a significant increase in Bboxx's interest payments. Meanwhile, other market actors did not replicate the guarantee structure, with d.light (in 2020) and Sun King (in 2025) instead following models relying on securitising PAYGO receivables into multiple tranches.

3.5 PIDG sustains support for power sector development

On-grid power

PIDG significantly contributed to the on-grid IPP market, where EAAIF provided long-tenor, patient debt to prove bankable models. Rabai Power has the highest level of contribution, as EAAIF acted as lead arranger, and Rabai served as the first transaction under the reformed PPA model. EAAIF remained engaged through a difficult development period marked by political uncertainty and unrest, helping the project reach financial close and establish a bankable template for subsequent IPPs. Project evaluations by the DFIs involved in the equity tranche also found that there were no commercial parties willing to provide debt without a guarantee or backstop – it is unlikely that another entity would have been able to support the project as EAAIF did, and definitely could not do so at the same financing terms and within the same timelines.[57] This support mattered because Rabai was not only an individual generation asset; it helped demonstrate that privately financed power

[54] Ogeya, Ogara, & Andersen (2025)
[55] CDH (2026)
[56] KESONIA (Kenya Shilling Overnight Interbank Average) is the benchmark rate for overnight interbank lending in Kenya. Under CBK's revised pricing model, variable loan rates are set as KESONIA plus a bank-specific premium reflecting costs and borrower risk.
[57] Dalberg (2012).

projects could be structured around a credible PPA, a standardised government support framework and a lender group willing to take long-term Kenyan power-sector risk.

EAAIF's role in Olkaria III and Kesses was less about creating the first template for private power investment and more about extending that template into new technologies and financing structures. In both cases, EAAIF offered terms that commercial banks could not provide, particularly longer tenor debt aligned with the life of infrastructure assets. For Olkaria III, this helped refinance and support the expansion of a privately operated geothermal plant, allowing other financiers to participate in a technically complex sector with long development timelines.

For Kesses, EAAIF's participation helped structure the debt package for one of Kenya's first privately financed utility-scale solar projects with commercial bank involvement, crowding in lenders by improving the overall bankability of the transaction. Although the PPA moratorium prevented replication of these models in the last seven years, development of the Menengai plants and upcoming grid-connected solar PPAs may yet prove the value of the Olkaria III and Kesses transactions.

PIDG thus plays a key role in contributing to transformation in the on-grid sector. While transformation of the thermal, geothermal, and utility-scale solar sectors was occurring, EAAIF was a first mover that took the risk to help these projects reach financial close. While the transformation in each of these generation markets could have feasibly occurred without PIDG's involvement, it would have likely taken longer, and it is not clear whether the specific projects of Rabai, Olkaria III, and Kesses would have been completed or if other projects would have had to take their place in the transformation story.

Distributed Renewable Energy

In the off-grid segment, despite significant involvement and support from PIDG, market transformation simply has not taken place. InfraCo's equity and TA support to KUDURA helped sustain and test mini-grid models in underserved areas, while GuarantCo's guarantee for Bboxx helped unlock local currency financing for a solar home systems provider. These interventions addressed important constraints at the transaction level, including early-stage capital, commercial viability and access to local finance. However, the wider mini-grid market has remained constrained by uncertain grid-integration rules, weak unit economics and dependence on subsidy or concessional capital, while the Bboxx local currency structure was not widely replicated and was affected by changes in interest-rate pricing. These ongoing challenges are being addressed by the PIDG and project teams, such as the focus on developing mini-grid platforms which allow for investment at scale. PIDG therefore played a meaningful supportive role at a transaction level, but the evidence points to demonstration and targeted problem-solving rather than durable market-level transformation at this stage.



4 Enabling public-private partnerships

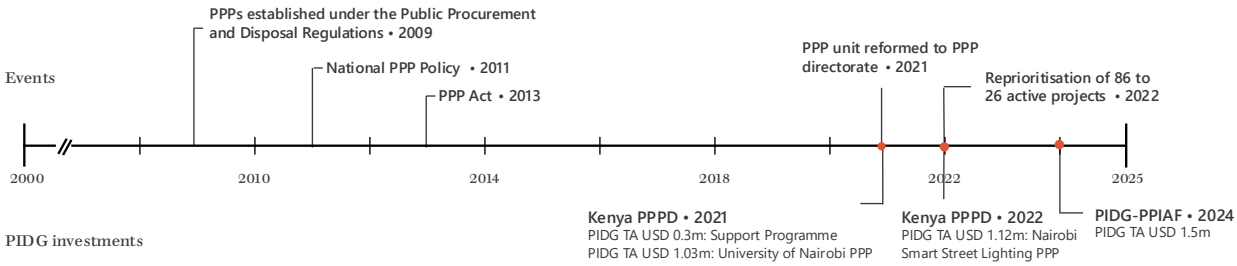


Figure 10: Overview of PPP financing and relevant events[58]

The evidence suggests that Kenya's public-private partnership (PPP) process has become more effective at originating, preparing, prioritising and structuring infrastructure opportunities, though the overall PPP market remains underdeveloped and there is not yet sufficient evidence of broader market transformation. PIDG's support for project preparation, PPP institutions, and credit enhancement mechanisms has strengthened the PPP project pipeline. This has improved the quality and readiness of PPPs. However, these improvements have not yet translated into a sustained increase in projects reaching financial close and implementation. Persistent

[58] See Appendix C for landscape view of timeline

capacity, coordination, institutional, political and financing constraints continue to create bottlenecks further downstream in the project cycle.

The analysis finds that most changes are found upstream in the project pipeline. For this reason, the analysis of PPPs treats PIDG's role as market enabling and pre-transformational, rather than as evidence of fully materialised market transformation.

4.1 PPP framework has resulted in few complete projects

Kenya's PPP market remains underdeveloped, constrained by a mismatch between ambitions for PPP delivery and the capacity and resources available to implement projects. These constraints continue to slow the progression of projects from preparation to implementation.

Over the last decade, Kenya has developed one of the more advanced PPP frameworks in Sub-Saharan Africa, supported by dedicated PPP legislation, a specialised PPP Directorate and project preparation facilities. PPPs have since become a central instrument for addressing infrastructure financing needs, following their success in the power sector. Historically, Kenya's infrastructure was financed through direct budgetary allocations, concessional lending and grants from development partners. From the mid-2000s, it was increasingly through non-concessional sovereign borrowing, including Eurobond issuances and bilateral loans. As public debt rose and fiscal space narrowed, the limits of this debt-financed model became apparent. For sectors that have traditionally depended on government funding, including transport, water, housing and healthcare, PPPs have emerged as an alternative means of financing growth. This reflects a broader shift towards market-based approaches to infrastructure development to address the public financing gap.

The 2021 PPP Act reformed the PPP Unit into the PPP Directorate, strengthening its role and simplifying parts of the approval process, including reducing the number of approvals required from different government authorities. For example, PPP projects previously required approval at 12 separate stages. Following the reform, this was reduced to 3 key approval points: feasibility study approval, contract award approval, and approval of any contract variations. This reduced, to some extent, procedural complexity and associated costs, and shortened approval pathways for PPP transactions.

It also enabled the PPP Directorate to enter into strategic partnerships with development partners acting under delegated mandates to procure transaction advisers for contracting authorities. This supported shorter procurement timelines, and the development of more standardised Expression of Interest (EOI) and Request for Proposal (RfP) templates that can be reused across future PPP procurements.

4.2 Support was focused on upstream project preparation

Limited project-preparation capacity and coordination challenges across institutions constrained the development of bankable projects and contributed to lengthy and uncertain delivery processes.

The PPP Directorate relies on external support to fund advisory contracts to help structure and advance projects. It partnered with PIDG and the World Bank's Public-Private Infrastructure Advisory Facility (PPIAF) to strengthen project preparation and delivery capacity. Support has focused on developing a pipeline of investment-ready PPP projects while strengthening the technical, legal, financial and environmental capabilities required to bring projects to market. Activities included feasibility studies, transaction structuring, procurement support, embedded advisory services and support for the development of PPP systems and processes. While this upstream support is resource intensive, stakeholder interviews suggest that it is broadly seen as necessary and worthwhile to build the institutional backbone through which a stronger pipeline could develop.

Support was delivered through a series of pilots, and the subsequent PIDG-PPIAF programme expanded support to county governments, focusing on climate-resilient infrastructure, county PPP capacity and water-sector investments.

Enabling conditions for market transformation

This study examines whether PIDG-supported interventions are having a market transforming effect on Kenya's PPP projects. Given the recency of these interventions, it is unlikely that any market transformation is visible or complete, and thus the study looks for indicators of progress and bottlenecks.

PIDG's interventions in the PPP space combined project preparation, transaction advisory, and institutional strengthening to address constraints that prevent infrastructure opportunities from progressing. The interventions are intended to improve the supply of bankable investment opportunities, strengthen the institutions and capabilities responsible for project development, connect projects to sources of finance, and mobilise private capital into PPPs and sectors that have historically struggled to attract investment. The pathways to achieve these market transformational effects are detailed below and the underlying hypotheses are presented in 0.

Market transformation pathway

The transformation pathway examines whether PIDG contributed to the development of Kenya's infrastructure financing ecosystem by improving the way investment opportunities are identified, prepared, structured and financed. Over time, these changes would be expected to contribute to a more efficient, resilient and integrated market-enabling ecosystem capable of converting infrastructure needs into financed investments with less reliance on ad hoc support or on custom structures on a transaction-by-transaction basis.

4.3 Preparation improved, but bottlenecks persist

The evidence suggests that the enabling conditions for market transformation in Kenya's infrastructure financing ecosystem have strengthened since 2021. The changes reflect a combination of broader PPP reforms, actions taken by the GoK and PPP Directorate, and support provided by development partners including PIDG.

The strongest evidence of change relates to improvements in project preparation, institutional capabilities and PPP governance. However, these improvements have not yet translated into sustained increases in financed and implemented projects, as significant bottlenecks remain. While these developments indicate meaningful improvement in project preparation and pipeline management, they do not yet constitute evidence of a self-sustaining PPP market capable of consistently converting prepared projects into financed and implemented investments.

Support to Kenya's market enabling ecosystem has been associated with changes across the following areas: (i) improved project preparation, and transaction readiness of projects; and (ii) increased testing and demonstration of PPP models.

The PPP project preparation pipeline became more focused

The Kenya PPP Directorate has become more effective at preparing and structuring infrastructure opportunities for private investment. Prior to the reform of the PPP unit, projects were stuck in the early stages of the pipeline with only 4 out of the 86 approved projects ever reaching construction or operation from 2013 to 2021. After the reform, the focus shifted from expanding the pipeline to moving projects through it. The portfolio was cut

to 26 priority projects, and the number of projects delivered has since more than doubled, reaching 10 by June 2026.[59] Yet bottlenecks persist later in the project cycle.

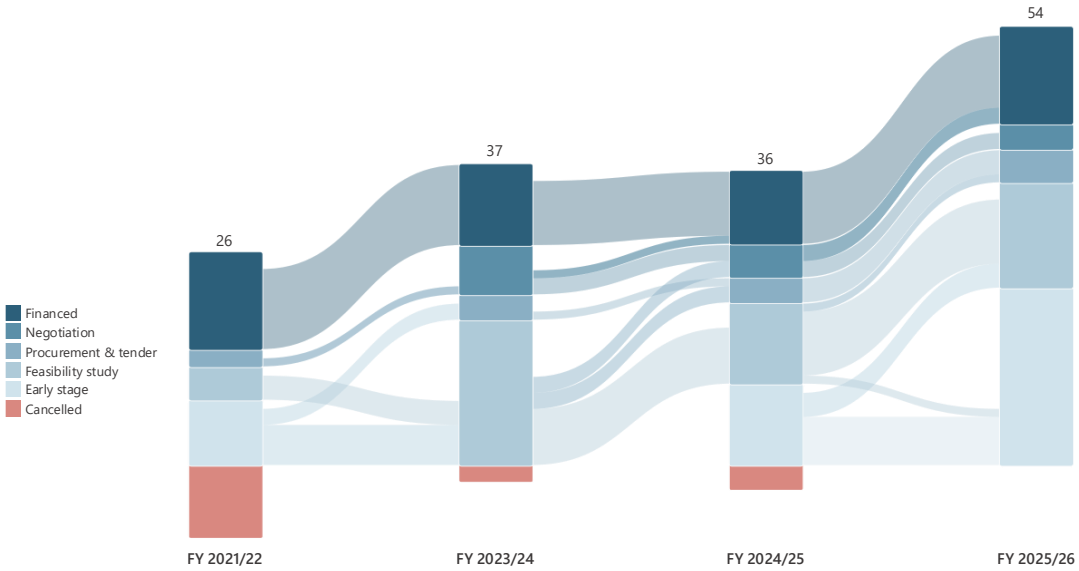


Figure 11: Projects in the PPP Directorate's pipeline, sorted by stage[60, 61]

More projects are now progressing through preparation and structuring stages, indicating improvements in upstream project development. Figure 11 illustrates that the number of projects in early and feasibility stages have grown in the later periods, rising from 12 projects in FY 2021/22 to 35 in FY 2025/26. However, the number of projects reaching financial close, construction or operation has increased more slowly, increasing about one or two projects per year (see Financed in Figure 11), suggesting the main bottleneck has shifted downstream. Interviews reinforce this. While the PPP Directorate has strengthened governance and project prioritisation, gaps in institutional coordination and capacity persist. While projects are progressing further through preparation and structuring, persistent delays at later stages, alongside political and macroeconomic uncertainty, continue to heighten investor risk perceptions, limiting the ability of projects to reach financial close.

More projects are reaching advanced stages in different sectors, but few reach financial close

At the same time, the PPP model is increasingly being applied in sectors where private participation has historically been limited. The PPP pipeline now includes a growing number of projects in sectors such as water, sanitation, housing and agriculture, reflecting greater willingness to apply these approaches beyond the traditional transport and energy sectors. In FY2021/22, as mentioned, only four projects had reached construction or operation, all of which were road projects. By April 2026, up to 10 projects had reached these stages, including the operational Galana-Kulalu food security project and the construction of the Kenya

[59] PPP Directorate (2026)

[60] FY2021/22 active pipeline figures exclude 60 Stalled/Deferred and 9 Cancelled projects formally written off during the PPP Directorate's reprioritisation exercise in July 2022. The 26 projects shown reflect the retained priority pipeline only and project counts reflect all projects tracked within each reporting period, including those carried forward from prior years.

[61] Stage groupings have been consolidated by the authors for comparability across reporting periods, as stage definitions vary between the Annual PPP Reports for FY2021/22, FY2023/24 and FY2024/25, and the June 2026 Quarterly PPP Report. Groupings are as follows: *Financed* (Operations & Maintenance, Construction, Commercial Close); *Negotiation* (Contract Negotiations, contracts not yet signed); *Procurement & Tender* (Procurement of Private Party, Procurement of Service Provider, Ready for Tender); *Feasibility Study* (Feasibility Study, Pre-Feasibility Study); *Early Stage* (Procurement of Transaction Advisor, PIP Evaluation, Early Stage Preparations).

Defence Forces (KDF) residential accommodation project. Major water projects, including the Sabaki Water Carrier and Lamu desalination plant, had also advanced to contract negotiation.[59]

Despite these changes, significant constraints remain. Limited capacity, unclear roles and coordination challenges continue to create delays and uncertainty throughout the project cycle. The resulting long and uncertain process can lead to a project being cancelled or push the cost of capital to a point where the project no longer makes financial sense. This is made worse by projects remaining in limbo until the macroeconomic situation worsens; recent high yields on government securities have pushed the required return on riskier infrastructure projects above what many can realistically deliver.

4.4 Solving bottlenecks requires building skills and will

The changes described above were driven through demonstration and replication effects, as well as the development of institutional capabilities. Together, these pathways strengthened Kenya's ability to identify, prepare and structure infrastructure investments, contributing to a more effective market-enabling ecosystem.

PPP models are being tested beyond traditional sectors

The interventions *demonstrated* how PPP structures could be applied in sectors that had historically attracted limited private investment. Projects such as the University of Nairobi student accommodation PPP, and the Nairobi Smart Street Lighting PPP provided practical examples of how infrastructure projects could be prepared, structured and brought to market through PPP approaches. By testing project preparation, transaction structuring, risk allocation and stakeholder coordination under real market conditions, these projects helped reduce uncertainty around the application of PPP models beyond traditional transport and energy infrastructure.

The demonstration of these PPP structures appears to have informed subsequent PPP opportunities. For instance, the expansion of teaching and student accommodation at Moi Teaching and Referral Hospital has since completed its feasibility study and obtained approval. Similarly, the Nairobi Smart Street Lighting PPP helped test the commercial and technical viability of a street-lighting PPP. While these examples do not yet constitute replication at scale, they suggest that elements of the supported approaches are being considered in subsequent PPP developments.

Although it is clear that some of the support projects have demonstrated how PPPs can work for different asset classes and have had structural aspects replicated, the evidence suggests that these have yet to translate into projects on the ground.

PPP preparation capabilities are improving but remain dependent on external support

Building skills and capacity occurred through the use of technical assistance, feasibility studies, transaction advisory support and embedded advisors. These interventions helped address gaps in the ability of the PPP Directorate, utilities, contracting authorities and other public-sector institutions to identify, prepare and structure PPP projects. Interviewees highlighted that support extended beyond individual transactions to the development of PPP policies, regulations, project-development tools, viability-gap funding frameworks and project-facilitation mechanisms, alongside training for PPP officials and contracting authorities. However, interviewees also noted that translating policy ambition into bankable projects continues to require sustained external support, repeated engagement and resource overlays from development partners. A key point of support is in the coordination function, as often different government actors are unable to align on project requirements, significantly slowing progress.

4.5 PIDG supported early project development for PPPs

PIDG's contribution was concentrated on addressing constraints that limited Kenya's financing infrastructure. Through TA, project-preparation support, and the establishment of new financing mechanisms, PIDG supported institutions and market infrastructure required to finance these projects. These interventions were upstream in nature and, while they have strengthened the conditions necessary for transformation, the envisioned market-level outcomes have not yet materialised, as there are still other bottlenecks downstream in the PPP process.

Since 2021, PIDG has committed approximately USD 1.8 million of upstream TA funding in Kenya, initially through a USD 300,000 TA Support Programme for the PPP Directorate and subsequently through a USD 1.5 million commitment under the PIDG-PPIAF Programme for the Development of Climate-Resilient Infrastructure and Financing Solutions for Kenyan Counties. The support funded feasibility studies, transaction advisory services, project structuring, procurement preparation and embedded technical expertise to strengthen the preparation of PPP projects and improve their readiness for private investment.

Through the PPPD support programme, two pilot projects were supported: the University of Nairobi Student Accommodation PPP, implemented at a cost of approximately USD 1.03 million, and the Nairobi Smart Street Lighting PPP, at a cost of approximately USD 1.12 million. Both projects progressed through feasibility, structuring and procurement preparation stages. However, neither project has yet reached commercial or financial close, due to political and governance factors outside of the project developer's control. The University of Nairobi Student Accommodation project was delayed due to governance issues at the University's Council,[62] whereas the Nairobi Smart Street Lighting PPP has been affected by concerns around protection of streetlight assets from vandalism and ensuring adequate policy and financing for maintenance.[63]

While the evidence suggests improved project-preparation capability and stronger institutional support for PPP development, it does not yet indicate that the market has become materially more efficient at converting prepared projects into financed investments. Projects still face a range of constraints including financing, coordination and institutional challenges, as well as governance and changing public-sector priorities

The experience of the supported PPP transactions suggests that even well-prepared projects may be delayed by factors beyond the transaction structure itself. This reinforces the narrative that bottlenecks have shifted downstream from project origination and preparation towards the conditions required for implementation and financial close.

Box 4: PPPs in hard-to-finance sectors – the case of WASH

The WASH sector illustrates why PPPs have remained difficult to implement in Kenya despite a supportive policy environment. Globally, WASH projects are often hard to finance because affordability, utility capacity, constrained cost recovery, political sensitivity around tariffs, and long payback periods make private participation difficult. As a result, the sector has historically relied on public funding and development finance, with relatively limited private participation.

The 2017 Water Act established a formal basis for private participation, but implementation has continued to face capacity constraints, limited government utility readiness, and challenges in structuring projects that are both commercially viable and affordable. Interviews also highlighted that the withdrawal of USAID

[62] Daily Nation (2024).
[63] Eastleigh Voice (2025).

financing and guarantees increased the need for alternative approaches to mobilising private capital and financing water infrastructure.

It is in this context that PPPs can be used as an instrument to address financing gaps, structure risk and crowd in private capital that might not otherwise enter the sector. Interviews suggest that two routes to private participation are emerging. PPPs follow the formal PPP Directorate process where mandated due to interactions with the central government or with regional bodies such as water works development agencies. While they offer a structured route to mobilising investment, they can face lengthy approval processes and require coordination across multiple public institutions. Private contracts, which can sidestep the PPP process as their interaction is limited to contractual engagements with a single public entity, increased in popularity in response to these frictions, enabling smaller and more commercially viable projects to progress through more flexible implementation pathways.

PIDG-supported interventions show how different approaches are beginning to test private-sector participation within the sector. The Naivasha bulk water project represents the PPP route, a privately initiated proposal taken through the Directorate and built around a long-term agreement with the Ministry of Water and Sanitation and the local utility, NAIVAWASCO, giving it a replicable structure that can be repeated at scale. Sanivation represents the private contract route, moving faster and proving commercial viability at a smaller scale.

Table 2: Overview of projects assessed in the water sector

Project	Approach	What it says about the PPP market
Naivasha Bulk Water PPP	PPP	The framework exists, but progressing large projects, in hard-to-finance sectors remains complex and time-consuming.
Sabaki Water Carrier Project	PPP	More projects are reaching advanced preparation stages, but financing and implementation bottlenecks persist.
Sanivation	Private contract	Developers are adapting to implementation challenges through more flexible delivery models rather than relying exclusively on formal PPP structures.

The observed market changes remain concentrated at the project level. While these projects have improved understanding of sector-specific risks and demonstrated alternative delivery models, there is not yet sufficient evidence that they have translated into broader market adoption of PPPs or significantly increased private investment across the WASH sector.

The case illustrates this section's broader finding: progress has been made in creating the enabling conditions for private investment, but transformation has not yet materialised at market level.

5 Using capital markets for social infrastructure

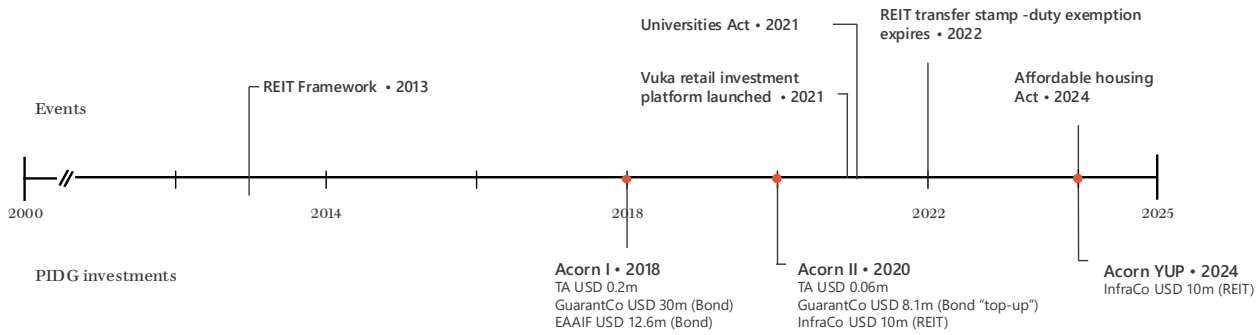


Figure 12: Overview of social infrastructure financing and relevant events[64]

The evidence points to market transformation in Kenya's capital markets for social infrastructure, and early-stage real market transformation. The shift from a highly underdeveloped market towards moderate development of the REIT instrument in the capital markets (see definitions of development criteria in 0) is evidenced by increased participation from domestic institutional investors, renewed confidence in REITs as an investment vehicle, and the replication of REIT structures across a growing number of issuers in the real-estate sector. Together, these changes contributed to a more active and diversified market for financing social

[64] See Appendix C for landscape view of timeline

infrastructure assets. In the real market, the transformation is in its early stages, where there are new entrants in the social infrastructure space, but they have not been operational long enough to evidence durable change.

PIDG's role was catalytic at the transaction level and supportive at the market level. Through credit enhancement, anchor investment and technical assistance, PIDG helped de-risk first-of-a-kind transactions and support the introduction of financing structures that had not previously been used to finance social infrastructure in Kenya. While the subsequent growth of Kenya's REIT market reflects the actions of multiple market participants, PIDG played an important role in enabling Acorn to demonstrate the commercial viability of new financing approaches and establish a proof of concept for institutional investment in social infrastructure assets.

5.1 Demand for housing outpaced available financing

The affordable housing and social infrastructure sector is characterised by strong structural demand but limited capacity to finance and deliver supply at scale. Rapid urbanisation and growing tertiary enrolment, following the government's higher-education policies and programmes have greatly expanded access to university education. These policies include the Universities Act, and the Privately Sponsored Students Programme (PSSP), which allowed public universities to admit self-sponsored (fee-paying) students alongside government-sponsored ones. This has increased demand for affordable rental accommodation and student housing, while limited fiscal space has heightened the need for private investment.

However, the existing housing development and financing ecosystem could not match the demand for affordable rental housing. Banks had limited access to long-term funding, while SACCOs and microfinance banks relied primarily on shorter-term deposits, limiting the availability of long-term local currency finance for housing development. Widening fiscal deficits and government borrowing were crowding out private-sector credit, weakening the capacity of domestic finance to respond to housing and infrastructure needs.[65]

The result is a finance market that does not address financing for housing, despite an increase in financial inclusion. Formal financial access increased from 26.7% of adults in 2006 to 84.8% in 2024, largely driven by mobile money and digital finance.[66] However, the expansion of reach has not translated to access to housing finance. In 2024, Kenya had only 30,016 mortgage accounts, while mortgage interest rates averaged 14.9%.[67]

At the same time, the World Bank estimated Kenya's housing deficit at around two million units with annual demand of approximately 250,000 homes against a supply of roughly 50,000.[68] This leaves an annual shortfall of around 200,000 homes that continues to increase the overall housing deficit. This unmet need for housing is most pronounced for lower-income households, as 83% of new housing supply serves high- and upper-middle-income segments. This is compared to the 15% for lower-middle-income households and 2% for low-income households.[66] Demand for affordable housing thus continues to outpace both the financing and housing supply available to meet it.

The shortage was particularly large in student accommodation. University enrolment increased from approximately 27,000 students in 1990 to around 550,000 in 2019. Universities themselves provided fewer than 40,000 beds for the growing student population.[69] A broader market estimate, including vocational students

[65] World Bank (2019)
[66] KNBS (2024)
[67] CBK (2024)
[68] Kisia, A. (2024); Habitat for Humanity International (n.d)
[69] PIDG (2025)

and private accommodation such as hostels, placed the student population at close to one million against just over 300,000 accommodation spaces in 2020.[70]

In response to the limited fiscal ability by both banks and the government to fund this gap, the Affordable Housing Act in 2024 established a permanent public funding stream for housing for the first time, levying 1.5% of gross salary on every employee with a matching employer contribution, and 1.5% of gross income on the self-employed collected by the Kenya Revenue Authority into an Affordable Housing Fund.[71] The levy raised KES 73.2 billion in the year to June 2025, surpassing the government's target by about KES 10 billion.[72] However, since the Act, delivery has lagged, with 1,795 units completed.[73] Also, the levy subsidises units that occupants eventually own rather than buildings held long term by investors, leaving the long-term local currency financing gap identified above unaddressed.

In the real estate investment space, REITs were shaped by the broader regulatory and tax framework. Although Kenya introduced a dedicated REIT framework in 2013, uptake has been a slower process, with significant investor scepticism after the collapse of Stanlib Fahari I-REIT, Kenya's first REIT issuance. Although perspectives vary, the two key issues were the lack of sufficient investor engagement and lower than expected initial returns from the underlying assets, which led to many retail investors selling their REIT units to the point where the listed value of the REIT was below the net asset value (NAV).[74] Until Acorn, there were no new REIT issuances in Kenya.

5.2 Acorn grew from a developer to a financing platform

Prior to Acorn, social infrastructure projects were financed primarily through sponsor balance sheets, traditional lending, or project finance. Although Kenya had established legal and regulatory frameworks for bonds and REITs, market activity remained limited and few examples existed of social infrastructure assets successfully accessing capital markets. As a result, completed assets often struggled to transition from project financing into long-term institutional ownership.

To address these constraints, Acorn developed a financing model that expanded its access to long-term capital and reduced reliance on balance-sheet financing. During the assessment period, Acorn introduced a series of financing structures that helped address the long-term financing gap and expanded the range of instruments available to investors. These included East Africa's first green bond, the region's first project bond with a deferred drawdown structure, and the first Kenyan bond to obtain an international Moody's credit rating. Acorn subsequently established a D-REIT and I-REIT, creating mechanisms for financing, holding and recycling capital between assets under development and stabilised assets offering a steady return. Together, these structures formed the basis of Acorn's transition from a project-by-project developer to a capital-market platform.

From balance sheet financing to capital-market financing

As a commercial developer, Acorn's initial financing model relied on its own balance sheet, recycling capital from completed developments into new projects. With the 2015 equity investment from Helios, Acorn pivoted to student housing development, but its initial financing model constrained its ability to scale construction. Balance sheet financing enabled the first phase of growth but limited the speed at which capital could be redeployed into additional developments.

[70] This figure includes the spaces from the initial student housing projects built by Acorn
[71] Affordable Housing Act (2024).
[72] Business Daily Africa (2025).
[73] Business Daily Africa (2025).
[74] The Standard (2017).

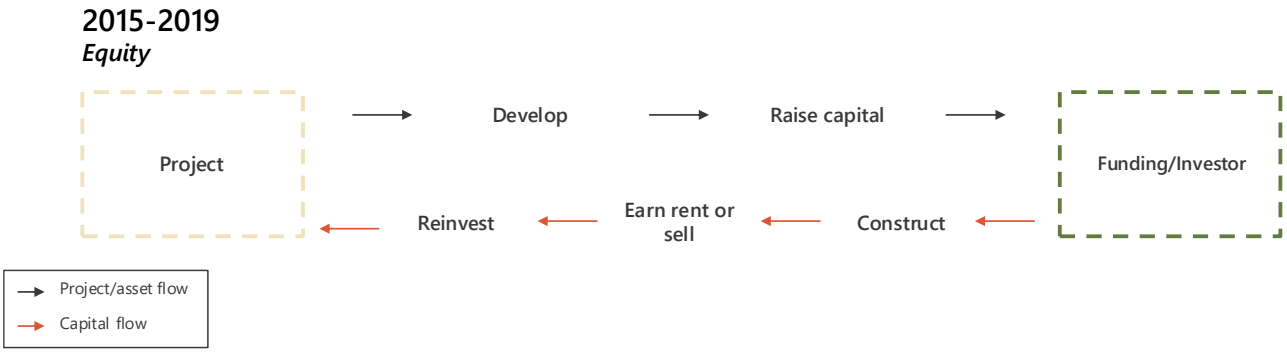


Figure 13: Balance-sheet financing model [75]

The green bond enabled Acorn to scale beyond the constraints of project-by-project balance-sheet financing. By providing access to capital through a dedicated financing instrument linked to its development pipeline, the bond allowed funding to be deployed across multiple projects as required rather than waiting for capital to be recycled from completed developments. In doing so, it demonstrated that Purpose-Built Student Accommodation (PBSA) could access capital markets rather than relying solely on sponsor financing. PIDG supported this transition through a partial credit guarantee, anchor investment and technical assistance for bond structuring and issuance on the Nairobi Securities Exchange and London Stock Exchange.

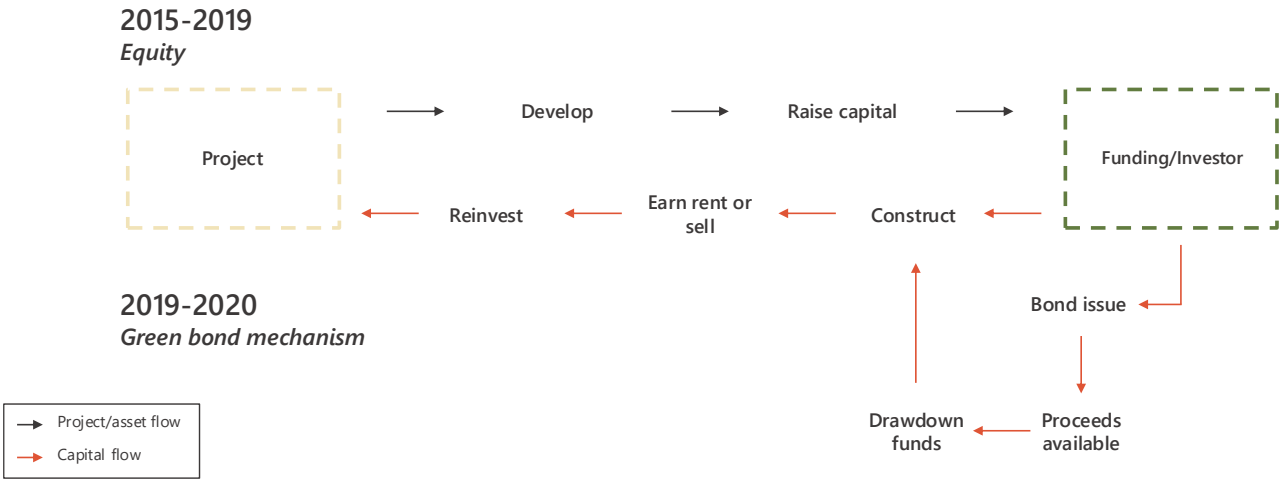


Figure 14: Green bond financing model

The REIT structure created a scalable capital recycling platform for student housing development. Acorn established separate development and income vehicles that enabled capital to be recycled from stabilised assets into new projects, reducing reliance on balance-sheet financing and creating a pathway from development to long-term institutional ownership. This allowed different investor groups to participate according to their risk-return preferences and provided a more durable financing platform for sector growth.

[75] Cost of capital flows are not pictured

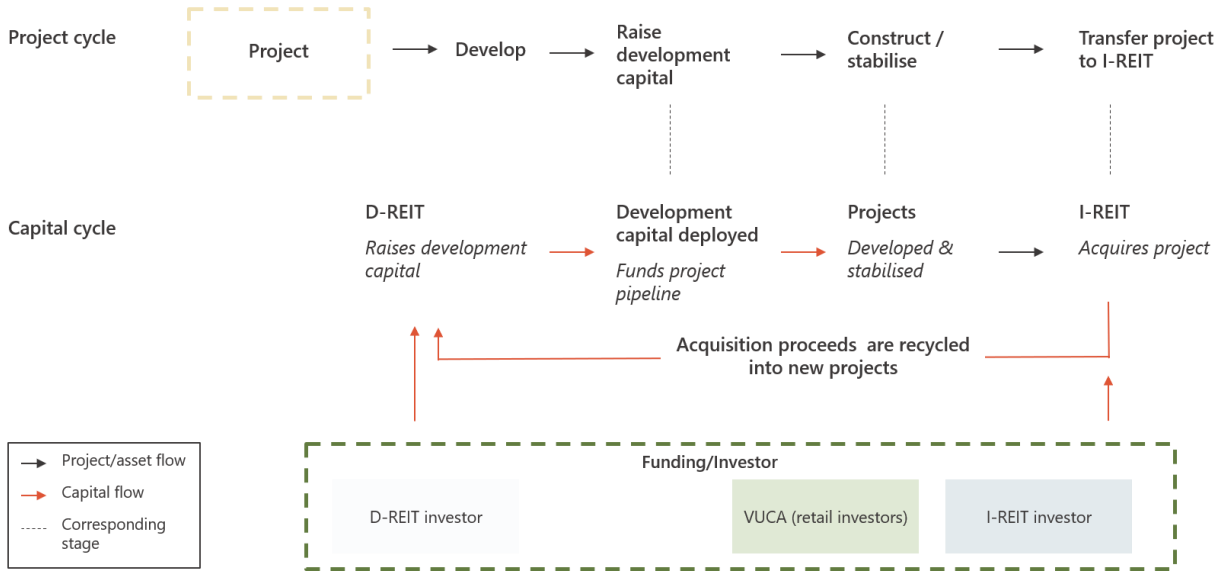


Figure 15: REIT model

As a result, Acorn evolved from a developer financing projects individually into a platform capable of mobilising institutional capital at scale. This transition, from balance-sheet financing to bond financing to a capital recycling model built around REITs, forms the basis for assessing Acorn's contribution to both capital market transformation and real market transformation in Kenya's student housing sector.

Building on the success of its student accommodation REITs, Acorn is extending the REIT model to the young urban professional (YUP) rental housing segment. The objective is to apply the same financing structures to a broader group in Kenya's housing market and help address the shortage of affordable, professionally managed housing options in a market where housing and access to finance remain limited.

Expected market transformation

Against the context above, the study examines the transformational effect of PIDG-supported interventions across capital markets and social infrastructure sector. Acorn's financing model combines both financial and non-financial interventions to address the constraints that limit the flow of institutional capital into social infrastructure. The expected market transformation is therefore two-fold. First, it was expected to support real-sector transformation by demonstrating the viability of the sector as a scalable solution to Kenya's student housing shortage and encouraging wider market participation. Second, the interventions were expected to strengthen capital markets by demonstrating viable financing structures capable of mobilising domestic institutional investors into a new asset class using new solutions. The expected pathways are detailed below, and the underlying hypotheses are presented in 0.

Real market transformation pathway

The real market transformation pathway examines whether Acorn contributed to the transformation of Kenya's social infrastructure sector through the demonstration of commercially viable social infrastructure models. The intervention was expected to demonstrate the viability of student accommodation as an investable asset class, encourage other developers to enter the market, improve standards in the design and management of student housing, and ultimately increase the supply and quality of accommodation available to students. Over time, these changes would be expected to contribute to a larger, more competitive and more professionalised social infrastructure sector capable of meeting a greater share of student housing demand.

Capital market transformation pathway

The capital market transformation pathway examines whether Acorn contributed to transformation within Kenya's capital markets for social infrastructure by demonstrating and institutionalising new financing structures. The intervention was expected to improve access to long-term financing for social infrastructure assets, increase investor confidence in REITs and related capital-market instruments, attract greater participation from domestic institutional investors and encourage replication by other market participants. Over time, these changes would be expected to contribute to a deeper and more diversified market for financing social infrastructure, reducing reliance on sponsor balance sheets and traditional bank lending.

5.3 Capital markets for social infrastructure were transformed; real market exhibits early signs

The evidence suggests that Acorn was transformational within Kenya's capital markets for social infrastructure, while contributing to early signs of transformation in the real market. Assessed against the PIDG framework, which evaluates sectors across efficiency, integration, and resilience outcomes, Kenya's social infrastructure sector has advanced from an underdeveloped baseline in 2018 to moderately developed in 2025, particularly in efficiency and resilience. Full definitions, development stage criteria, and the reasoning underpinning these placements are set out in 0.

Across this transformation, Acorn contributed to observable changes in Kenya's real and capital markets for social infrastructure. In the real markets: (i) PBSA has demonstrated commercial viability, and (ii) delivery standards have improved, establishing a new benchmark for student housing. In the capital markets for social infrastructure (i) Acorn has established a new financing model for social infrastructure, (ii) investor confidence in REITs has improved, and (iii) there is broadly increased investor participation in the asset class.

Real market

PBSA demonstrates commercial viability

Acorn demonstrated that student housing could be developed, financed and operated as an institutional real-estate product capable of attracting private investment and generating sustainable returns, shifting the market from highly underdeveloped to underdeveloped. Prior to Acorn, student accommodation was largely provided through university-owned housing, informal hostels and the broader rental market despite growing demand from rising tertiary enrolment. Since Acorn, there have been at least three specialised developers and operators that have entered the market, including Homescope, Sasabil, and Student Factory Africa, though they operate at a smaller scale and without the capital efficiency of Acorn.

Higher operational delivery standards emerged, but remain concentrated around Acorn

Acorn established delivery standards that exceed those observed in the Kenyan PBSA market, but this remains at an organisational level and has not yet shifted the market. A PIDG commissioned HSES study identified Acorn's purpose-built developments, professional property management, formal maintenance systems, enhanced fire-safety measures and integrated health-and-safety management systems, as areas where the company demonstrated a new standard. These extended beyond the physical asset itself and included operational management, worker welfare, safety governance and resident services.

Capital market

REITs became an established financing pathway

While Acorn has not yet led to a broader increase in financing for PBSA, REITs evolved from an underutilised instrument into a financing pathway for real estate, shifting the market from underdeveloped to moderately developed.

Prior to Acorn, Kenya's REIT market remained limited, with the Fahari I-REIT the only listed vehicle. As the country's first REIT, the Fahari I-REIT faced a range of challenges, including low investor awareness, regulatory uncertainty, and concerns around the underlying assets within the portfolio. Stakeholders mentioned the lack of familiarity with the instrument and concerns around the performance of the underlying assets contributed to it trading below NAV. Its eventual delisting from the publicly quoted securities exchange further undermined confidence in REITs as a viable investment and financing instrument.

The later successful establishment of Acorn's D-REIT and I-REIT provided evidence that REIT structures could be used to mobilise capital into income-generating real-estate assets. In 2015, the market consisted of only the Stanlib Fahari I-REIT. In 2021, the market expanded to include Acorn's D-REIT and I-REIT, followed by the pension-sponsored LAPTrust Imara I-REIT in 2023 with a portfolio of commercial and residential assets. Issuances have since extended into new asset classes and currencies (see Figure 16).

The KSh 3.8 billion Africa Logistics Properties (ALP) I-REIT became East Africa's first industrial REIT backed by logistics and warehouse facilities, and the first US dollar-denominated security to trade on the NSE. The TRIFIC Green USD I-REIT, Kenya's first dollar-denominated green REIT, followed in 2026, backed by green-certified office space within a special economic zone. Stakeholders mentioned that the growing number of issuances is now supporting efforts to standardise REIT structures, processes and documentation. It suggests that REITs have evolved from a largely untested and underutilised instrument into an increasingly established financing vehicle spanning commercial, residential, student housing, industrial and green office assets.

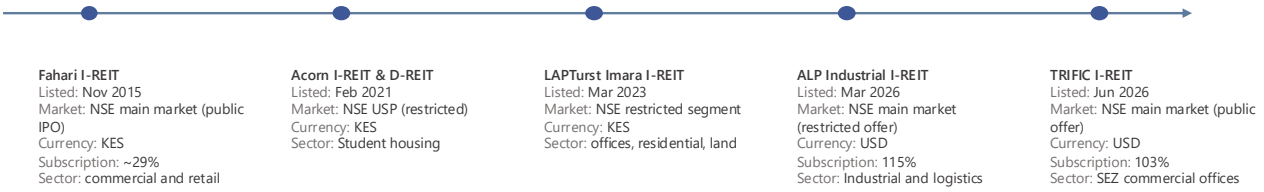


Figure 16: REIT issuances in Kenya to date[76]

Investor confidence in REITs improved

Investor confidence in REITs improved during the assessment period, and this is evidenced across pricing and trading activity. The market moved from a period characterised by weak performance and low investor confidence following the underperformance of Fahari I-REIT towards one in which new REIT issuances were able to attract strong investor demand. Fahari's 2015 offer raised KSh 3.6 billion against a KSh 12.5 billion target, a 28.8% subscription rate.[77] The ALP I-REIT had a subscription rate of 98.5% before additional commitments increased the total beyond its target, eventually reaching 115.2% of the target. TRIFIC Green USD I-REIT achieved a subscription rate of 103.3%.

[76] See Appendix C for landscape view of REIT issuances to date
[77] Cytonn Investments (2026)

This improvement in confidence is also reflected in broader market indicators. The Kenya REIT Price Index rose in every year of the assessment period, from a base of 1,000 in 2020 to 1,411 by end-2025, equivalent to roughly 7% annualised capital appreciation.[78] Participation broadened alongside it. Annual REIT turnover across NSE and the unquoted securities platform (USP)[79] grew from close to nothing in 2019 to KSh 2.4 billion in 2025, while market capitalisation rose from KSh 1.0 billion in 2020 to KSh 25.2 billion in 2025. The latter reflects the entry of new vehicles and the growth of existing ones.[78] Turnover nonetheless remains under 10% of market capitalisation, so the market is better described as a growing market rather than a liquid one.

However, although institutional investors such as pension funds are able to allocate up to 30% of holdings to REITs, they have not significantly shifted their allocation by percentage. Pension allocation to REITs rose from KES 710 million in 2018 to KES 11.2 billion in 2023 and KES 11.7 billion in 2024,[80] but in terms of allocation it remained under 1% of AUM.[80] Most of the increase was LAPTrust's listing of its property portfolio as the Imara I-REIT in March 2023, the first pension-issued REIT in Kenya, valued at KES 6.9 billion.[81] As the first pension-issued REIT in Kenya, it allowed the scheme's members to retain exposure to the same buildings while holding them through a listed instrument rather than direct title, improving liquidity and transferability.[82] Yet Imara was a conversion of existing property holdings rather than a new allocation of pension capital, and broader portfolios have barely moved. Stakeholders attributed this to competitive returns on government securities.

Investor participation broadened

A clear shift in investor participation in Kenyan REITs has been evident, shifting the market to a more developed state. Starting with Stanlib Fahari, whose main-market debut marked an early setback due to weak performance, ending in its delisting from the NSE, and prompted a retreat toward more restricted participation. Followed by Acorn, which took the more sheltered route of the USP. Finally, to the most recent REITs, which have all listed on the NSE Main Investment Market Segment. The two venues differ sharply. The main market offers broader investor access, particularly for retail investors, alongside greater transparency and price discovery, whereas the USP is more lightly regulated and shields issuers from market forces and price discovery, but at the cost of limited investor participation.

Fahari, having listed on the main market in 2015, fell from KSh 20 per unit at IPO to roughly KSh 6, a decline of around 70% for original investors, before delisting from the Main Investment Market and transitioning to the USP in 2024.[83] However, the direction of the REIT issuances has since reversed. The ALP I-REIT listed on the main market in 2026, and the TRIFIC followed in June 2026, both achieving oversubscription. Acorn is working on shifting to the NSE as well, away from the USP.

Retail participation represents new entry rather than restructured holdings. Direct investment in the Acorn REITs was effectively closed to retail savers, as trading on the USP requires a minimum of KES 5 million. In response, Acorn launched Vuka in 2021, an investment platform admitted under the CMA Regulatory Sandbox that pools small contributions to purchase I-REIT units on investors' behalf, reducing the effective minimum investment to KES 5,000. Membership grew from 257 investors holding KES 6.4 million at the end of 2021 to approximately 7,300 registered unitholders.[84] The TRIFIC I-REIT was also structured to accept retail investment at issuance, indicating that the approach has been taken up by sponsors beyond Acorn. The amounts remain

[78] REITS Association of Kenya (2025).
[79] USP: The Nairobi Securities Exchange's Unquoted Securities Platform, which facilitates trading in securities that are not formally listed on the NSE's main market.
[80] RBA (n.d).
[81] Business Daily Africa (2023).
[82] African Markets (2023).
[83] Kenyan Wall Street (2024).
[84] Vuka (n.d).

small relative to institutional holdings, but the route itself is new. Domestic savers can now access institutional-grade real estate, which was not previously possible in Kenya.

This broadening of the investor base has been accompanied by deeper secondary-market activity. Trading liquidity in the Kenyan REIT segment has deepened, with total annual turnover rising from KES 0.1 billion in 2020 to KES 2.4 billion in 2025.[85] This sustained increase in trading activity points to growing investor participation and improving market depth and liquidity.

Box 5: Changes in taxation structure for REITs

Interviewees highlighted that changes to stamp duty and capital gains tax treatment had a direct impact on issuer activity and investor sentiment. Before 2022, REITs benefited from a stamp duty exemption when transferring property into registered REITs. The investor perspective behind this was that gains on REITs would be taxed regardless, and thus selling a property to a REIT would be a form of double taxation.

The lapse of the stamp duty exemption at the end of 2022, alongside an increase in the capital gains tax rate, raised transaction costs and made the instrument less attractive. Interviews indicated that REIT market participants, including PIDG investees, advocated for reforms to address this. The Finance Act 2026 has since reversed it by reinstating the stamp duty exemption and introducing a capital gains tax exemption on property transfers into registered REITs, lowering structuring costs and removing two of the main frictions that had discouraged uptake.[86]

5.4 Acorn's success drives replication

The market changes described above were driven through three interconnected pathways: demonstration and replication effects, enabling frameworks, and building skills and capacity. Together, these pathways contributed to improvements in the efficiency, resilience and integration of Kenya's capital and real markets for social infrastructure.

Real markets

Social infrastructure was demonstrated with some initial replication

This *demonstration effect* of Acorn was followed by replication. At least three developers and operators subsequently entered the market, including providers such as Homescope, Sasabil, and Student Factory Africa. The emergence of additional PBSA developments suggests growing recognition of student accommodation as an investable real-estate segment rather than solely a university service. However, market activity remains concentrated among a small number of specialised providers and Acorn continues to account for a significant share of institutional PBSA supply. There is also the emerging possibility of market saturation, as the total addressable market in Nairobi may be limited, so replication may take place in other cities in Kenya or in other countries with similar constraints.

Acorn set higher standards that remain limited within its network

The demonstration of higher standards in the PBSA space was followed by limited adoption in the market beyond Acorn itself. Acorn embedded health and safety (H&S) requirements into contractor selection and procurement processes, requiring contractors to meet higher standards. Contractors adopted these practices beyond Acorn projects, including China Zhongxing Construction, which reported applying Acorn-derived safety

[85] RAK (2025).
[86] Business Daily Africa (2026).

protocols, reporting systems and construction practices across its sites, including projects for other clients. Evidence also suggests that workers trained on Acorn sites carried these practices into subsequent employment, while industry stakeholders increasingly regarded Acorn as a benchmark for quality and safety performance.

These effects occurred through both *enabling frameworks and building skills and capacity*. By embedding H&S requirements within procurement and contractor management processes, Acorn created incentives for contractors to adopt higher standards and incorporate them into their own operations. At the same time, training, on-site implementation and workforce mobility helped transfer knowledge and practices beyond Acorn developments, contributing to the diffusion of skills and standards within parts of the construction ecosystem. However, the observed changes remain concentrated around Acorn and its immediate network and do not yet provide evidence of widespread adoption across the broader PBSA or housing market.

Capital markets

Acorn supported REIT replication

Acorn also had a *demonstration effect* in the capital markets. The successful use of the green bond, D-REIT and I-REIT demonstrated that institutional capital could be mobilised into social infrastructure through capital-market instruments rather than relying solely on sponsor balance sheets, or bank lending. At a time when confidence in REITs had been weakened by the performance of Fahari I-REIT, Acorn provided a visible example that REIT structures could successfully raise capital, operate sustainably, and attract a diverse set of investors, including the pension funds of some of the largest companies in Kenya, across sectors. This helped rebuild confidence in the instrument and contributed to broader investor participation in the REIT market.

The evidence suggests this model has been *replicated*. New REIT issuers, including LAPTrust, ALP and TRIFIC, adopted similar structures across different real-estate segments. The growth in issuers, investor participation and market capitalisation suggests that REITs evolved from a largely untested instrument into an increasingly accepted financing vehicle. While these developments cannot be attributed solely to Acorn, interviews confirmed that the transaction provided an important proof of concept that reduced uncertainty for subsequent issuers and investors.

High interest rates subdued corporate bond activity across the Kenyan market, limiting the conditions for replication of Acorn's green bond. While the transaction demonstrated that a green corporate bond could be successfully issued, this has not translated into direct replication to date.

REIT market capabilities deepened through repeat transactions and teams

Alongside the demonstration effect, Acorn contributed to *building capacity* within Kenya's REIT ecosystem. The process of structuring, listing and managing REITs developed technical expertise among fund managers, advisers, regulators and investors. Evidence suggests that knowledge, experience and professional networks developed through Acorn were subsequently applied in later transactions, including ALP and other REIT issuances. This contributed to a broader market capability to originate, structure and manage REIT-based financing vehicles. Interviewees indicated that once Acorn had been successfully structured, approved and listed, transactions connected to Acorn can progress more efficiently because regulators are more familiar with the instrument and the specific teams involved compared to REITs that did not have Acorn's team.

The establishment of the REITS Association of Kenya, and its ability to support new issuers such as TRIFIC to collaborate with the regulator (CMA) and exchange (NSE) demonstrates this deepened market capability. As this capability diffuses across the market, issuances and deal flow will increase, creating a virtuous cycle to develop the market for this financial instrument.

Box 6: Most plausible counterfactual – Acorn's journey without PIDG

Acorn's pivot from a commercial developer to PBSA began with an equity partnership with Helios Investment Partners. However, leveraging this equity with affordable debt was critical to building affordable PBSA. This was not available in the Kenyan market. Student housing development is capital intensive, requiring significant upfront investment before assets generate income, which is not always stable. At the same time, existing investors required a pathway to realise returns and recycle capital.

Without the green bond issuance, Acorn would have had limited ability to deploy capital as effectively as they have. Acorn may have had to either deploy cash from the company's balance sheet or sponsor equity, or procure debt at higher rates, reducing the affordability of the built units. The green bond also increased both the scale and speed at which Acorn was able to build PBSA. PIDG was critical to the issuance of this bond. Section 2 and 5.1 explain that corporate bond issuances were effectively non-existent in the Kenyan market, and GuarantCo's guarantee, EAAIF's anchor investment, and PIDG TA's support for transaction structuring and listing costs proved critical to the issuance, and the difficulty with which further bonds have come to the market make PIDG's additionality clear here.

However, Acorn needed liquidity in order to fund the coupons and continue the development process after the green bond issuance. Creating the D-REIT allowed Acorn to expand the pool of investors and ensure enough cash flow to fund coupon payments. Once assets were stabilised, they were moved to the I-REITs, allowing for capital to be fully recycled into new projects. Similar to the bonds, Section 2 covers how REIT issuances were non-existent in the market. InfraCo's investment and support in capacity building work with the NSE ensured that the REITs could be issued.

The sequencing of the green bond followed by the REITs was critical to scale and speed with which Acorn has built housing. The green bond helped finance Acorn's growing development pipeline, while the later REIT platform created a mechanism to recycle capital from completed assets into new projects. Without this, Acorn would likely have become increasingly cash-flow constrained as capital became tied up in completed assets, and institutional investment in student housing would likely have occurred significantly more slowly.

5.5 PIDG enabled Acorn's innovative financing models

PIDG played a catalytic role for Acorn and a meaningful contribution within the broader capital-market changes observed in Kenya. At the outset, Acorn's student housing developments were financed largely through its own balance sheet and equity capital. While this model demonstrated demand for PBSA, it was not a scalable mechanism for mobilising institutional capital or rapidly recycling funds into new developments. PIDG's support helped Acorn evolve from a developer financing projects individually into a platform capable of repeatedly accessing capital markets and attracting institutional investors. Through a combination of guarantees, anchor investments and technical assistance, PIDG helped bridge the gaps that prevented capital from flowing into productive assets.

PIDG's contribution evolved alongside Acorn's financing model. During the green bond phase, PIDG provided support through a combination of a guarantee, investment, and TA. GuarantCo provided a partial credit guarantee covering 50% of principal and interest payments under Acorn's KES 5 billion Medium Term Note programme, while EAAIF invested KES 1.28 billion (USD 12.6 million), becoming the largest investor in the issuance. In addition, PIDG provided approximately USD 385,000 in TA to support transaction preparation,

legal, rating and listing costs. Together, these interventions reduced execution risks and helped facilitate a first-of-a-kind transaction in Kenya's capital markets.

PIDG's role became more significant with the transition to the REIT structure. Across Acorn's D-REIT and I-REIT, PIDG entities committed the anchor investment of USD 10 million through InfraCo Africa and TA up to USD 0.3 million. This was at a time when the Kenyan REIT market remained relatively inactive and investor confidence had been affected by the performance of earlier REIT structures and an uncertain regulatory environment. PIDG's participation supported the launch and early scaling of the vehicles.

While the Acorn team led the design and thinking around which financial instruments could help them unlock scale and move away from a project-by-project financing model, PIDG's flexibility and range of solutions allowed for a transformative partnership.

Box 7: Spillover effects with ALP

PIDG's contribution extended beyond the Acorn REITs themselves. Following its support for the Acorn REIT platform, InfraCo Africa participated as a USD 15 million anchor investor in the ALP REIT. The REIT is built on the experience, relationships and credibility developed through the establishment of the Acorn REITs and demonstrated how the model could be applied to a different asset class, logistics real estate.

PIDG's role extended beyond financial investment. As an anchor investor, PIDG helped crowd in additional institutional capital and supported investor engagement and capital-raising activities, including roadshows used to familiarise investors with the REIT structure. Through board and investment committee participation, PIDG also supported governance, conflict management and asset quality standards that were important in building confidence in the platform. The experience gained through Acorn, including engagement with the CMA and the execution of a first REIT structure, also reduced barriers for subsequent transactions such as for ALP.



6 Leveraging instrument focus for strategic fit

Market transformation analysis of Kenya and Nigeria has focused on how deepening local financial markets can support infrastructure financing and drive sustainable economic growth. Financial markets perform a critical intermediary function, transferring resources from savers to investors and helping match long-term savings with long-term investment opportunities. Where these functions work effectively, capital can be channelled into productive assets that support economic development and infrastructure expansion. For example, in an effective market, when a project needs a 10-year loan, financial markets have instruments that can deploy long-term savings. Tenor and price align on both sides, allowing capital to flow and be priced accordingly, and ensuring that capital is deployed in productivity-raising investments.

In line with the findings of the Kenya study, the 2009 IMF Framework for Financial Market Development finds that development occurs on an instrument-by-instrument basis, either through wider use of an existing instrument or the introduction of a new instrument to a market.[87] However, the success of these instruments depends not only on their technical design, but also on whether they align with the incentives of borrowers, lenders, liquidity providers, and regulators. These incentives often revolve around trade-offs between maturity or tenor and the amount of collateral required, as well as compromises between seniority and the level of control financiers can exert.

[87] IMF (2009)

Kenya illustrates this challenge clearly. The country has a relatively large banking sector and substantial domestic savings, yet high borrowing costs and risk perceptions continue to limit access to long-term finance. Apart from government and blue-chip companies, few have access to bank loans. This makes it difficult for smaller and developing companies, let alone long-term infrastructure projects, to be financed through bank lending. As discussed in Section 2, banks can obtain high, liquid, and comparatively low risk returns from government securities, while lending to private borrowers involves additional risks such as credit, tenor or transaction risks. Banks therefore have limited incentive to reduce margins or extend maturities required by infrastructure projects or less established borrowers.

As a result, capital-market development remains important not only as an alternative source of financing, but also as a mechanism for improving the allocation of capital across the economy and, as markets deepen, for lowering the overall cost of capital.

Box 8: Key trade-offs in financial contract design

The IMF framework argues that financial market development occurs when financial instruments create contracts that reconcile the preferences of different market actors. Two key compromises underpin many financial transactions.

Maturity - Collateral Compromise: Borrowers typically seek long-term finance with limited collateral requirements, while lenders and investors prefer stronger security or shorter maturities to reduce risk.

Seniority - Control Compromise: Borrowers seek to retain control over assets and business decisions, while investors seek rights, oversight and protections to safeguard their investment.

The IMF framework views financial instruments as contracts between market participants. Understanding why a particular instrument succeeds therefore requires understanding the preferences of the actors involved. They define four stakeholders – borrowers, lenders, regulators and liquidity providers – which each seek different outcomes. The resulting financial contract must reconcile these competing preferences (see Table 3) through the maturity-collateral and seniority-control compromises described above.

Table 3: Applying the IMF framework in Kenya

Key stakeholders	Corporate bonds	REITs	Credit Enhancement
Borrowers	Access long-term funding at a cost lower than delaying investment or relying on internal or alternative financing	Recycle capital from completed assets, access long-term capital, reduce reliance on balance-sheet financing	Access longer tenors and lower financing costs despite perceived project risk
Lenders	Achieve returns high enough to justify moving from government securities to corporate credit, and diversifying portfolio	Diversify beyond government securities while maintaining low risk and have visibility over assets and cashflows	Earn returns while reducing expected losses and increasing confidence in repayment
Regulators	Broaden non-bank financing, increase corporate participation	Channel domestic savings into productive assets and deepen capital markets	Support capital mobilisation without excessive risk
Liquidity providers	Improve secondary-market liquidity and bond market activity	Create trading, price discovery and secondary market participation	Support the functioning of underlying lending and debt markets

In the following sub-sections, the framework is applied to the three instruments examined in this study: REITs, corporate bonds and credit enhancement. For each instrument, the analysis identifies the relevant market actors, examines the market conditions shaping their incentives, and assesses whether the instrument creates a sufficiently attractive contract to achieve adoption and wider market use.

6.1 Corporate bonds

Acorn's green bond demonstrated that long-term corporate debt could be issued in Kenya, but only after the standard bond contract was supplemented with mechanisms that reduced the additional risk to a level that investors were willing to accept.

Acorn sought longer-term capital at an acceptable cost, while investors were asked to accept a higher level of repayment risk. A longer maturity ties up investors' funds for longer, raising the opportunity cost of lending, and it removes the protection that short-term lenders have of declining to renew a loan. The analysis therefore focuses on the maturity–collateral compromise. Kenyan investors were familiar with long maturities, but lending to Acorn meant relying on a corporate issuer's future financial performance rather than the government. The challenge was therefore not maturity alone, but whether sufficient collateral, reputation or other assurances existed to make Acorn's bond acceptable.

Why was it not accepted earlier?

Despite having a regulatory framework, institutional investors and capital-market infrastructure, Kenya's corporate bond market remained characterised by limited issuance, weak secondary-market activity and a shortage of observable repayment histories.

The Real People Kenya scandal damaged confidence in the bond market and remained a cited example of governance failures within the corporate bond market. In 2015, Real People Kenya raised approximately KSh 2.5 billion from investors through a corporate bond marketed as supporting small businesses. The funds were instead used to pay off debt in another country, damaging investor confidence and reinforcing concerns regarding the corporate bond market[88].

At the same time, government securities offered investors high returns, liquidity and familiarity. Corporate issuers therefore faced the challenge of providing sufficient compensation to attract investors away from government paper while still accessing capital at a cost that remained commercially viable. The result was a crowding out of corporate borrowers and a market in which only a small group of highly familiar issuers, such as Safaricom, EABL and KMRC, could issue bonds without substantial enhancement mechanisms. These issuers possessed the scale, repayment history and reputational capital required for investors to accept longer maturities without demanding the same level of guarantee, rating or external validation required by newer borrowers.

This helps explain why subsequent issuance has remained concentrated among blue-chip borrowers. These firms have accumulated what the IMF describes as reputational collateral through successful repayment and repeated market participation. New issuers face a circular challenge, reputational capital is built through successful issuance and repayment, but access to the market is often required to establish that reputation in the first place. The introduction of initiatives such as the Spearhead Infrastructure Fund could potentially alleviate some of that concern.[89]

[88] Business Daily Africa (2025).
[89] MOBILIST (2026).

Why it worked

Acorn's bond worked because of several complementary mechanisms which collectively targeted a different part of the maturity-collateral compromise. These mechanisms narrowed the gap between the risk investors were prepared to accept and the cost the borrower was willing to pay.

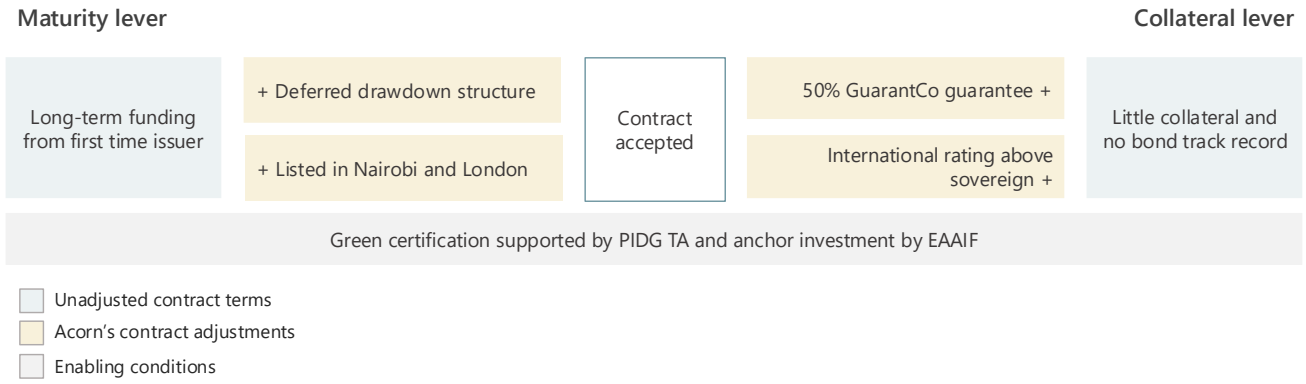


Figure 17: The maturity-collateral compromise for Acorn's green bond

On the maturity side, the project-bond draw down structure tied to rental income gave investors an identifiable source of cash flow for the maturity of the bond. Listing on the Nairobi Securities Exchange and the London Stock Exchange, offered a potential route to exit before maturity.

On the collateral side, Acorn lacked a track record, so it borrowed credibility from others. GuarantCo covered 50% of principal and interest payments under Acorn's KES 5 billion Medium Term Note programme, providing an external source of repayment protection rather than requiring investors to rely solely on Acorn's repayment history. The Moody's rating, which was higher than the Kenyan sovereign rating, gave investors an independent assessment as a supplement to Acorn's reputation.

These terms were made acceptable through wider enabling conditions. The rating, green certification and associated disclosure requirements increased the amount of information available. EAAIF's KES 1.28 billion investment reduced the portion requiring placement with the wider market and signalled that an institutional investor had assessed and accepted the transaction.

What did it reveal about the market?

Acorn's bond demonstrated that long-dated corporate issuance was feasible under specific conditions and through mechanisms but did not demonstrate that the standard corporate-bond contract had become broadly feasible in Kenya. The transaction showed that the maturity-collateral compromise could be achieved, but only after guarantees, ratings and institutional support compensated for the information, collateral and reputational capital that were otherwise absent.

6.2 REITs

Acorn's REITs demonstrated that institutional capital could be mobilised into social infrastructure through a structure that gave investors exposure to identifiable assets and their cash flows. Whereas green bond investors were lenders, entitled to fixed repayments, REIT investors became owners, or unitholders, sharing in whatever the underlying assets earned. This allowed them to assess the assets, income streams and governance arrangements supporting their returns.

Acorn sought long-term capital and a mechanism to recycle capital from completed developments into new projects. Investors, in turn, were asked to accept a junior claim whose returns depended on asset performance, with limited direct control over how the assets were managed. The analysis therefore focuses on the seniority–control compromise. Because the green bond had already established Acorn's credibility with capital-market investors, the challenge was less whether Acorn could honour a future obligation, and more whether sufficient income visibility, transparency and alignment of interests existed to make a lower-ranking claim acceptable.

Why was it not accepted earlier?

The experience of the Fahari REIT (see chapter 5.3) illustrates how the framework alone was not enough to create a sustained market for the instrument. Stakeholders offered two broad explanations for Fahari's underperformance.

The first was a retail-investor explanation. Under this interpretation, some investors may have evaluated the REIT more like a listed equity, expecting capital appreciation similar to a stock rather than returns generated through rental income and underlying asset performance, which typically accumulate more gradually over time. When those expectations were not met, confidence in the instrument weakened.

The second explanation was institutional. Fahari entered a market in which investors, regulators, advisers and market intermediaries had limited experience with REIT structures. Market participants were still learning how REITs generated returns, how to assess the underlying assets, and how the instrument should be valued. Under this interpretation, the challenge was not solely the assets themselves, but the fact that the broader market ecosystem required to support the instrument had not yet developed sufficiently.

The outcome of both explanations was the same. Investors required greater assurance. The result was that Fahari traded below NAV and confidence in the instrument weakened. Investors were not prepared to accept the seniority-control compromise being offered because the understanding, transparency and visibility over the underlying assets were insufficient to assess risk and the source of returns with confidence.

Why it worked for Acorn

Acorn's REITs worked because confidence in the instrument was deliberately built over time. The contracts for the I-REIT and D-REIT were accepted because of the mechanisms Acorn introduced, and they held because of the steps and processes set out in Section 5.2.

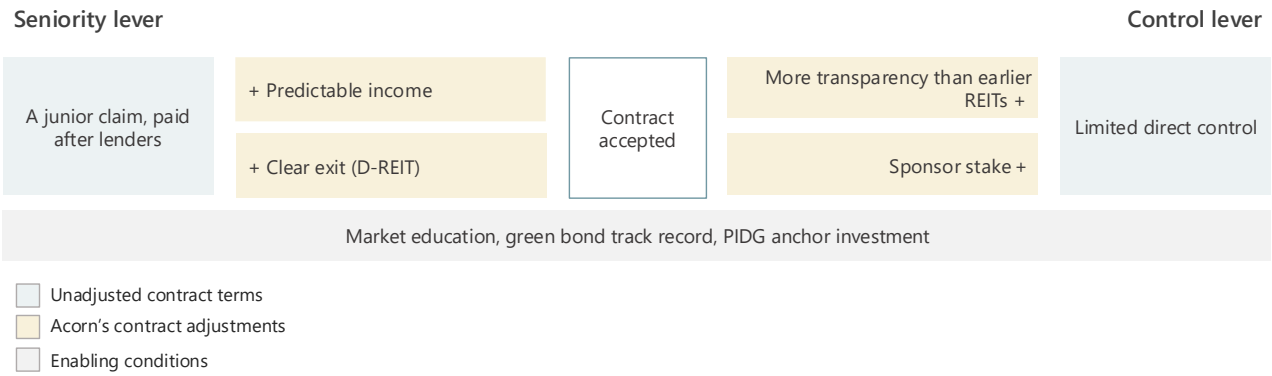


Figure 18: the seniority-control compromise for Acorn's REIT

On the seniority side, investors accepted a junior claim whose returns depend on asset performance. Acorn made this position acceptable by giving investors a claim on identifiable assets and cash flows. Student housing offered stable rental demand, and investors could assess occupancy levels, rental income and operating performance directly. The separation of development and stabilised assets through the D-REIT and I-REIT

allowed investors to participate according to their risk-return preferences, while the planned sale of completed accommodation to the I-REIT gave D-REIT investors a clear exit.

On the control side, investors had limited direct control over how the assets were managed. Acorn compensated through greater transparency and reporting, giving investors more visibility over both the assets and the structure than had been available in earlier REIT transactions. Acorn's own stake in the REITs further aligned its interests with those of investors. At the same time, Acorn retained control over its wider development platform while gaining access to institutional capital.

These terms were made possible by enabling conditions that built confidence in both Acorn and the REIT structure. Acorn participated in investor engagement, roadshows, market education and regulator engagement to build familiarity with REITs in the Kenyan market. The participation of trusted institutions, such as PIDG, provided further reassurance. Acorn's earlier green bond had already established a degree of credibility with capital-market investors, while PIDG's anchor investment and technical assistance supported the launch and early scaling of both the D-REIT and the I-REIT. The initial listing on the USP added to this, prioritising a more controlled environment for sophisticated investors while familiarity with the instrument developed. Together, these mechanisms created a contract sufficiently attractive for adoption.

These additions came on top of features that apply to all Kenyan REITs. Registered REITs are exempt from the 30% corporate income tax[90], and income REITs must distribute at least 80%[91] of their net after-tax income to investors. Income REITs are also subject to an independent trustee structure and a 35% borrowing cap[92].

What did it reveal about the market?

Acorn made the contract feasible by building market capabilities alongside the instrument. However, this does not show that REIT adoption comes without difficulties. The transaction relied on extensive investor engagement, market education, anchor investors and institutional support, and the market still required confidence-building before investors were willing to accept the seniority–control compromise.

Following its issuance, LAPTrust, ALP and TRIFIC applied REIT structures across commercial and residential property, logistics and green office assets. Growing transaction volumes are also supporting greater standardisation of REIT structures and processes across new sectors.

6.3 Dhamana is introducing a new instrument

Credit enhancement is at an earlier stage of instrument development than REITs or corporate bonds, as those instruments already existed in Kenya's financial system. Thus, the relevant question for Dhamana is not whether guarantees have had a transformational impact, but whether the conditions for adoption and future market transformation are emerging.

As discussed in Section 2, institutional investors remain concentrated in government securities, while companies and projects requiring long-term financing often struggle to compete for capital. The result is that domestic capital is available, but productive-sector borrowers often struggle to access it on terms that match their financing needs.

Credit enhancement can address this gap by reducing perceived credit risk and improving the attractiveness of transactions for lenders and investors. However, introducing a new instrument requires acceptance by the key players. In Dhamana's case, these are primarily lenders and regulators. Interviews indicated that guarantee

[90] Income Tax Act (rev. ed. 2026)
[91] RAK (2026)
[92] Capital Markets (REITs) Regulations (2013)

products[93] remain relatively unfamiliar within Kenya's domestic market and are still primarily associated with international institutions such as the IFC and AfDB. Domestic financial institutions therefore had limited experience using locally provided guarantees, creating uncertainty around how these instruments should be treated within internal risk frameworks, lending decisions and prudential regulation.

Similarly, banks' internal risk-pricing models did not fully recognise domestic guarantees, while the interest-rate cap removed in 2019 also contributed to greater risk aversion in bank lending. At the same time, CBK did not recognise guarantees for regulatory capital relief. Stakeholders also explained that recent draft regulations had been designed primarily for non-bank financial institutions, particularly buy-now-pay-later providers, rather than guarantee companies. Their potential application to guarantee providers therefore created additional uncertainty around the regulatory treatment of guarantees and access to capital relief.

Interviews highlighted the importance of this, as the value of a guarantee depends not only on its legal enforceability, but also on whether lenders are able to recognise it for risk-management and capital-allocation purposes. More broadly, investors continued to favour government securities and highly rated issuers, while infrastructure and productive-sector investments were often perceived as less familiar and therefore riskier.

Applying the IMF framework – credit enhancement bridges the gap

Credit enhancement seeks to bridge the gap in long tenor financing by intervening in the maturity-collateral compromise: reducing perceived credit risk and thus allowing for longer tenors without increasing collateral requirements.

Dhamana therefore can occupy an intermediate position within Kenya's market development. It aims to increase participation in productive-sector investments by reducing perceived risk and connecting capital with investment opportunities. In doing so, it has two potential pathways to transformation, outlined in Box 9.

Box 9: Dhamana's two potential pathways to transformation

Dhamana has potential to scale through two distinct channels:

- **In capital markets**, guarantees can improve the credit quality of infrastructure and corporate debt instruments, making them more suitable for pension funds, insurers and other institutional investors.
- **In the banking sector**, guarantees can support longer-tenor lending and, where recognised by regulators and lenders, may help banks manage concentration and capital constraints associated with large infrastructure transactions.

Interviews suggested that these benefits may not be evenly distributed across the market. Larger banks often have sufficient balance-sheet capacity and established relationships to finance many transactions without external support, while smaller lenders may have greater demand for credit-enhancement products because of tighter exposure limits and risk concentrations.

Early evidence of adoption

Given Dhamana's recent establishment, evidence of market adoption remains limited. The first transaction supported by Dhamana is the Ofgen-Safaricom solarisation financing facility, where a local contractor required approximately USD 20 million of local currency financing over a five-year period. The initial lender could not provide the full exposure within its existing constraints. Dhamana therefore provided a refinancing guarantee, enabling the transaction to be connected to a longer-term lender willing to take the underlying Safaricom risk.

[93] Referring to credit enhancement, as opposed to other guarantee mechanisms such as government-backed letters of guarantee.

The transaction demonstrates how guarantees can bridge lender risk appetite and tenor requirements. Rather than replacing financing, the guarantee reallocated risk acceptable to multiple market participants. This supports the argument above that guarantees can act as an intermediate instrument, connecting domestic capital with investment opportunities that may otherwise struggle to secure financing.

At the same time, the transaction highlights the limits of current market acceptance. Stakeholders noted that the guarantee was cash-backed because the bank (lender) had not yet fully onboarded Dhamana as a guarantor and remained uncertain about its regulatory treatment. While the transaction demonstrates that the instrument can work, it also illustrates that lender confidence and regulatory clarity remain important constraints to wider adoption. The findings therefore suggest early progress towards further market integration, as guarantee structures are starting to connect domestic lenders and investors with infrastructure-related opportunities.

What comes next?

Following in the footsteps of InfraCredit Nigeria (ICN) will require Dhamana to continue engaging the market across several dimensions. A key step in ICN's success, which itself took several years to materialise, was working with the regulator to create an environment that provided clarity to all actors engaging with guarantees. This is particularly important in Kenya, where stakeholders suggested that clearer regulatory treatment of guarantee providers, including appropriate exemptions and recognition of guarantees for capital-relief purposes, could support wider market adoption. Continued engagement is also necessary to build trust and capacity in the market to use guarantees: the introduction of a new instrument needs to clear a higher bar, as different market actors determine how the instrument meets their needs, and where an acceptable compromise lies.

6.4 Taking an instrument-focused perspective

When financing an individual project, it is often easiest to consider which instrument or financing option best fits the need of the projects. At a market level, however, development often occurs instrument by instrument. Understanding market transformation therefore requires looking beyond the development of financial markets as a whole and examining how individual instruments evolve, as each instrument faces different constraints, stakeholders and requirements. A market can only develop with sufficient transaction volume, and only once key actors involved in a transaction are familiar with the workings of an instrument.

Building investor confidence in an instrument can also accelerate investment in that instrument or asset class, sometimes independently of the quality of the underlying assets. Safeguards are therefore particularly important during the early stages of market development. This dynamic is evident in the development of the market for both bonds and REITs in Kenya, especially after scandals in each market, as investors, regulators, and other market actors all looked for ways to confirm the quality of the assets behind new issuances.

So why were REITs replicated far sooner than corporate bond activity picked up? Essentially, REITs helped bridge market gaps through capacity building within existing institutions. Acorn's green bond required several interventions to show the quality of the issuance, including listing on an overseas exchange, whereas even the more recent bond issuance by a reputed company like Safaricom needed a guarantee. This required market conditions to favour the use of guarantees, even with the associated costs, as compared to other sources of financing. It remains to be seen whether further issuances by blue-chip companies in Kenya can help develop the corporate bond market.

Looking at credit enhancement as an instrument, the same fundamentals that supported InfraCredit's model in Nigeria also apply to Dhamana in Kenya. Despite a relatively developed banking ecosystem, Section 2 showed that long-tenor financing remains limited and that further capital market development is sorely needed. Going back to the velocity of money concept discussed in the Nigeria study, Kenya too has a high velocity of money (Table 4), implying that money circulates largely in short duration uses such as consumption, trade, and transactions in the informal economy. This creates space for any intervention that helps to extend financing tenors.

Table 4: Velocity of money in selected markets, 2025[94]

Country	Nigeria	Kenya	Vietnam	Bangladesh	USA	UK
Velocity of money (M2 Money Supply)[95]	3.6	3.0	0.9	2.4	1.4	0.9

However, Dhamana's success will depend as much on building confidence in the credit enhancement instrument as on the quality of the instrument or underlying assets. Dhamana is at a similar stage to InfraCredit seven to eight years ago, meaning substantial market-building work remains. The market dynamics also differ: the pools of local capital, pipeline of infrastructure projects (including through PPPs) and the willingness of regulators to engage in market development will vary. Dhamana will therefore need to adapt its strategy and approach to the Kenyan context.

Financial markets do not develop uniformly; the development is tied to the successful introduction of instruments, which requires market participants to become comfortable with the inherent compromises. PIDG's successes in developing and transforming markets in Kenya thus far have been tied to sustained engagement within a sector, helping build the confidence and market capabilities required for new instruments and financing models to be accepted and replicated. This is evident in the power sector, where strong market understanding has enabled PIDG to take on perceived risk as an early mover and demonstrate that bankable models can exist. In social infrastructure, it has allowed PIDG to support an innovative organisation such as Acorn with its full suite of products, helping to create new financing pathways. PIDG's longstanding engagement in Kenya has also given it the credibility to convey private-sector views on public-private partnerships to the government and build capacity for PPP preparation and structuring. The next phase of market development will require the same sustained approach, not only at the sector level but also at the instrument level.

[94] Trading Economics (2025) – Money Supply M2; World Bank (2025) – GDP (current LCU).
[95] Actual velocity of money in the formal sector is expected to be lower due to high percentage of GDP activity taking place informally.

Appendices

Market transformation study

Private Infrastructure Development Group



steward redqueen

Appendix A: List of interviewees

Table 5: List of interviewees

Entity	Role of stakeholder	Type
Acorn	Executive Director	Investee
Acorn	Executive Director	Investee
ALP	Investments & Strategy	Investee
ALP	Financial Planning & Analysis	Investee
Bboxx	Managing Director	Investee
Bboxx	Financial Controller	Investee
Berkeley Energy	Head of Transactions	Infrastructure investor and fund manager
CMA	CEO	Financial-sector regulator
CMA	Market Deepening	Financial-sector regulator
Crisil	Associate Director	Financial advisory and ratings provider
Crisil	Manager	Financial advisory and ratings provider
Dhamana	CEO	Investee
Dhamana	Project & Structured Finance	Investee
ESAK	ESAK Head	Industry association
FCDO	Infrastructure Lead	Bilateral development partner
FCDO	Programme Manager	Bilateral development partner
Manufacturing Africa	Country Manager	Technical-assistance provider
MOWSI	Engineer	Government ministry
MOWSI	Engineer	Government ministry
NAIVAWASCO	Managing Director	Investee
NAIVAWASCO	Technical Manager	Investee
NSE	Business Development Manager	Capital-market institution
NSE	Executive Programmes Manager, Strategic Partnerships & Special Projects	Capital-market institution
Rabai	Former Facility Manager	Investee
RAK	General Manager	Industry association

Rebel Group	Principal	Infrastructure and PPP adviser
Sanivation	COO	Investee
Stanbic	VP	Commercial bank
TRIFIC	CEO	Project developer and REIT issuer
Trine	Investment Manager	Impact investor
World Bank (PPIAF)	Infrastructure Specialist	Multilateral development partner
World Bank (PPIAF)	Senior PPP Specialist	Multilateral development partner
PIDG	Chief Executive Officer	PIDG and affiliated entities
PIDG	Sustainable Impact Director	PIDG and affiliated entities
PIDG	Senior Technical Manager, Africa	PIDG and affiliated entities
PIDG	Managing Counsel, Africa	PIDG and affiliated entities
PIDG	Impact Team	PIDG and affiliated entities
PIDG	Head of Credit Enhancement Facility	PIDG and affiliated entities
PIDG	Global Head of TA	PIDG and affiliated entities
PIDG	Chief of Staff and Global Head of Communications	PIDG and affiliated entities
PIDG	Global Head of Investor Relations	PIDG and affiliated entities
PIDG	Chief Sustainable Impact Officer	PIDG and affiliated entities
PIDG	Chief Investment and Project Development Officer	PIDG and affiliated entities
PIDG	Investment Team	PIDG and affiliated entities
PIDG	Investment Manager	PIDG and affiliated entities
PIDG	Assistant Investment Manager	PIDG and affiliated entities
PIDG	Non-Executive Board Impact and Audit Committee Member	PIDG and affiliated entities
PIDG/ InfraCo	Head of Business Development, Asia	PIDG and affiliated entities
GuarantCo / PIDG	Managing Director; Head of Asia	PIDG and affiliated entities
GuarantCo	Investment Associate Director	PIDG and affiliated entities
GuarantCo	Investment Director – North, West and Francophone Africa Lead	PIDG and affiliated entities
GuarantCo	Investment Manager	PIDG and affiliated entities
GuarantCo	Investment Analyst	PIDG and affiliated entities
GuarantCo	Senior Impact Advisor	PIDG and affiliated entities

GuarantCo	Senior Impact Advisor	PIDG and affiliated entities
GuarantCo	Impact Manager	PIDG and affiliated entities
GuarantCo	Impact Advisor	PIDG and affiliated entities
Ninety One	Co-Head of Emerging Market Alternative Credit	PIDG and affiliated entities
Ninety One	Investment Professional – EM Alternative Credit	PIDG and affiliated entities
Ninety One	Impact & Sustainability Specialist, Fund manager EAAIF	PIDG and affiliated entities
InfraCo Africa	Senior Impact Advisor	PIDG and affiliated entities
InfraCo Africa	Impact Advisor	PIDG and affiliated entities
InfraCo Africa	Business Development Manager	PIDG and affiliated entities

Appendix B: List of transactions

The study considers the different projects across the three workstreams labelled 1-3 in **Figure 19**. The figure depicts how workstreams 1 and 2 intersect with the horizontal workstream market enabling support. Given the importance of PPPs in the water sector, these projects are studied as well. This approach enables the study to examine both PIDG's sector-specific contributions in social infrastructure and power/energy, while also considering the market enabling support PIDG provides in Kenya. The full list of transactions is provided in the table below.

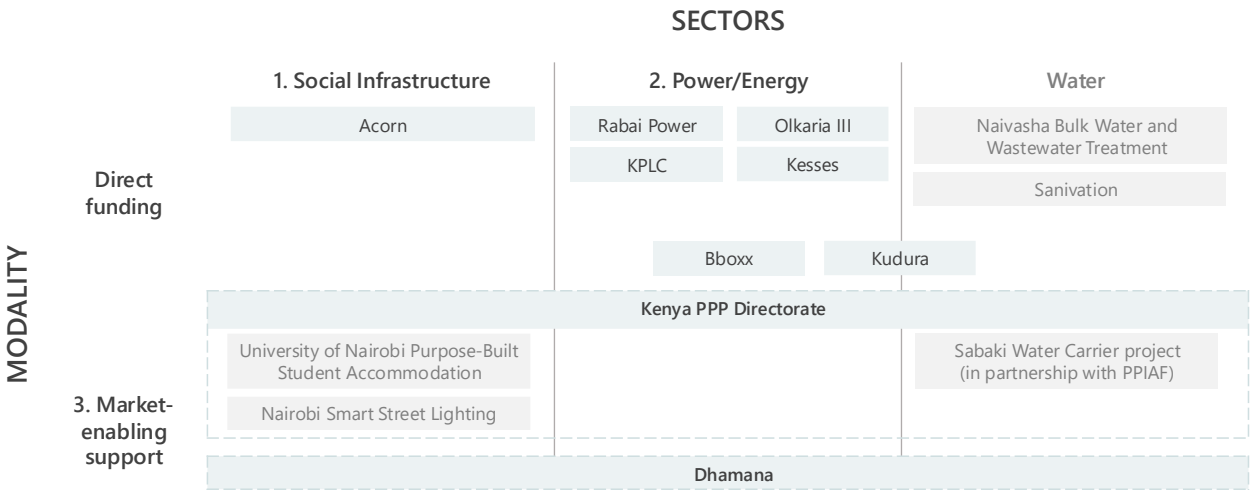


Figure 19: The workstreams assessed in the study

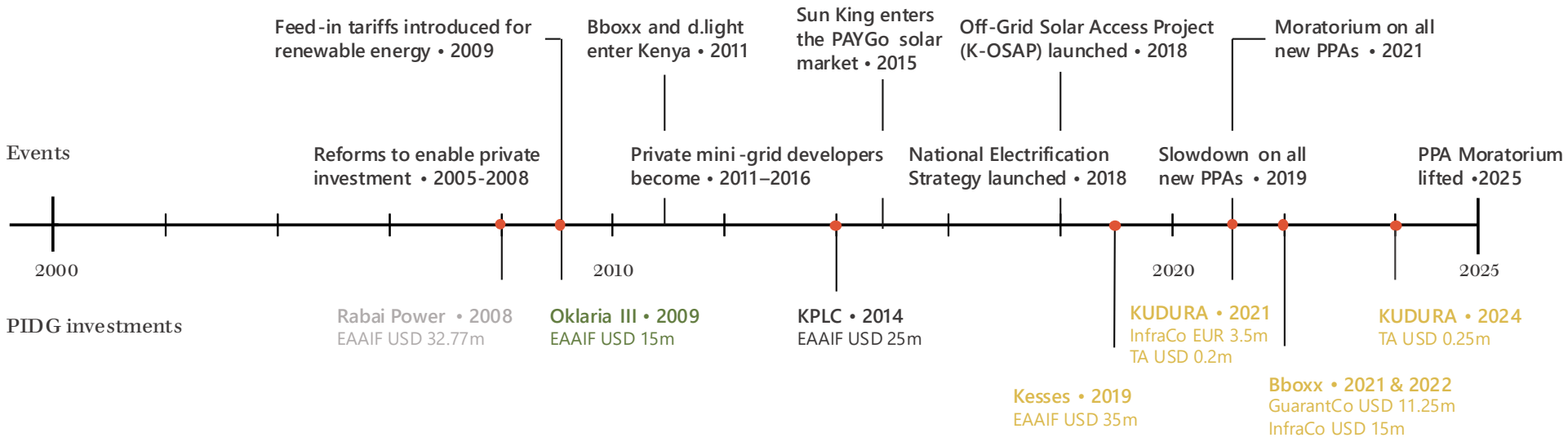
Project name	Year of signing	PIDG funding	Total investment committed	Sector	Project description
KUDURA	2021 2024 2025 *2026 (pipeline)*	USD 0.2m (TA) EUR 3.5m (InfraCo) USD 0.25m (TA) EUR 0.445m (InfraCo) EUR 2.653m (InfraCo)	EUR 8.84m EUR 8m	Market-enabling support Power/Energy (off-grid)	InfraCo Africa invested equity in KUDURA Power to finance the roll-out of solar mini-grids and associated water infrastructure in rural Kenya, enabling first-time access to electricity and water while demonstrating the commercial viability of integrated mini-grid services. A follow-on transaction is in the pipeline to scale the model and strengthen the proof of concept through expansion to additional sites and new connections.
Bboxx	2021 2022 (expansion)	USD 11.25m (GuarantCo) USD 15m (InfraCo)	USD 15m USD 27.3m	Market-enabling support Power/Energy (off-grid)	GuarantCo supported Bboxx's expansion of off-grid solar home systems through a local-currency payment default guarantee, enabling Bboxx to access longer-tenor domestic bank financing. InfraCo's further investment enables Bboxx

					acceleration in existing and new markets across Sub-Saharan Africa.
Kesses	2019	USD 35m (EAAIF)	USD 98m	Power/Energy (on-grid)	PIDG supported the development of the Kesses (40 MW solar PV) utility-scale solar project through long-tenor financing backed by a power purchase agreement (PPA), helping demonstrate viability of grid-connected solar IPPs in Kenya and supporting the expansion of low-cost renewable generation.
KPLC	2014	USD 25m (EAAIF)	USD 150m	Power/Energy (on-grid)	EAAIF provided long-tenor financing to support KPLC's capital maintenance and grid expansion programme, enabling upgrades to the electricity distribution network and expansion of access.
Olkaria III	2009	USD 15m (EAAIF)	USD 179.4m	Power/Energy (on-grid)	EAAIF provided long-tenor financing to refinance construction costs for the Olkaria III (48 MW) geothermal power plant, supporting the development of Africa's first privately owned geothermal facility and enabling additional base-load renewable power generation in Kenya.
Rabai Power	2008	USD 32.77m (EAAIF)	USD 112m	Power/Energy (on-grid)	EAAIF provided long-tenor financing to support the development and operation of 90 MW HFO Rabai Power IPP, enabling the delivery of additional firm generation capacity to address power supply shortfalls in Kenya and demonstrate the commercial viability of private thermal power projects.
Acorn Acorn YUP	2018 (initially) 2020 (expansion) 2024 (expansion)	USD 0.2m (TA) USD 30m (GuarantCo) USD 12.6m (EAAIF) USD 0.06m (TA) USD 8.1m (GuarantCo) USD 10m (InfraCo) USD 10m (InfraCo)	USD 65m (initially) USD12.7m (expansion) USD 24m (REIT) USD 59m (REIT)	Social Infrastructure	PIDG supported Acorn through a sequence of interventions. In the initial stage, it provided technical assistance to cover rating and listing costs associated with the green bond issuance, enabling Acorn to achieve an international credit rating. GuarantCo then provided a partial credit guarantee that enabled access to long-term local-currency financing, with EAAIF participating as an anchor investor. In 2020, GuarantCo supported an expansion through the establishment of a REIT, in which InfraCo Africa invested equity, helping to crowd in domestic institutional capital. InfraCo committed a further USD10m to Acorn's Young Urban Professionals (YUP) Development REIT, extending

					the REIT platform beyond student housing.
Dhamana	2023 2024	USD 0.06m (TA) USD 0.1m (TA) USD 20m (InfraCo) USD 15m (GuarantCo)	USD135m	Market-enabling support	InfraCo Africa and GuarantCo supported the establishment of Dhamana, a Kenya-based credit enhancement facility focused on East Africa, aimed at mobilising domestic institutional capital and extend long-term local-currency financing for infrastructure.
Kenya PPP Directorate *with PPIAF*	2021 2022 2024	USD 0.3m (TA) USD 1.03m (TA) USD 1.12m (TA) USD 1.5m (TA)	-	Market-enabling support	PIDG provided TA and project preparation support for Kenyan PPP Directorate (PPPD) and initiated infrastructure projects, focusing on improving project readiness, institutional capacity, and pipeline development. PIDG TA specifically supported the Nairobi Smart Street Lighting programme and University of Nairobi student accommodation. In 2024, together with the World Bank's Public Private Infrastructure Advisory Facility (PPIAF), PIDG TA supported the Sabaki Water Carrier project.

Appendix C: Detailed timeline figures

Overview of power financing, relevant events and wider power-sector projects timeline (2000-2025)



Wider market power -sector projects

Olkaria III • 2000
pilot plant commissioned

Tsavo (Kipevu II) • 2001
commissioned

Iberafrica II • 2009
commissioned

Thika Power • 2014
begins commercial operation

Gulf power • 2014
commissioned and operational

Triumph power • 2016
begins commercial operation

Lake Turkana • 2017
commissioned

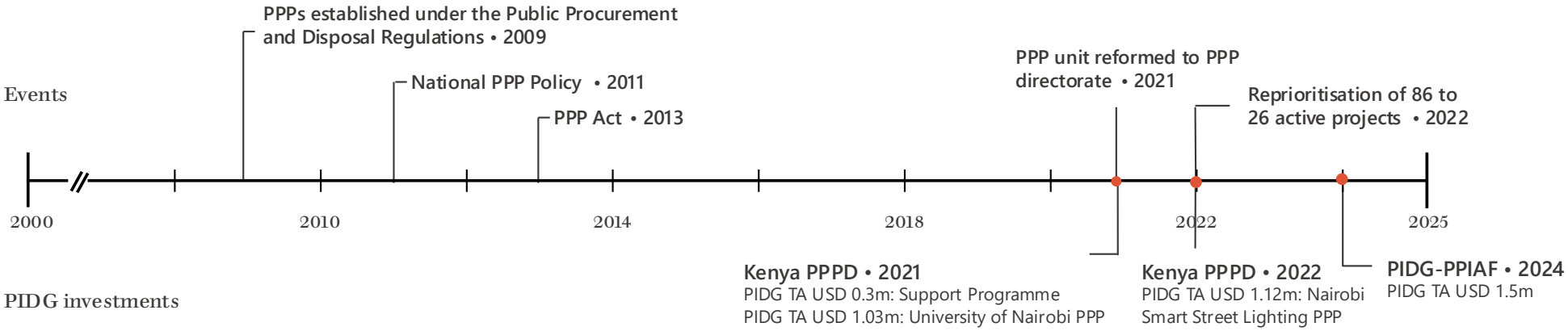
Garissa Solar• 2019
commissioned

Lake Turkana • 2018
connected to grid

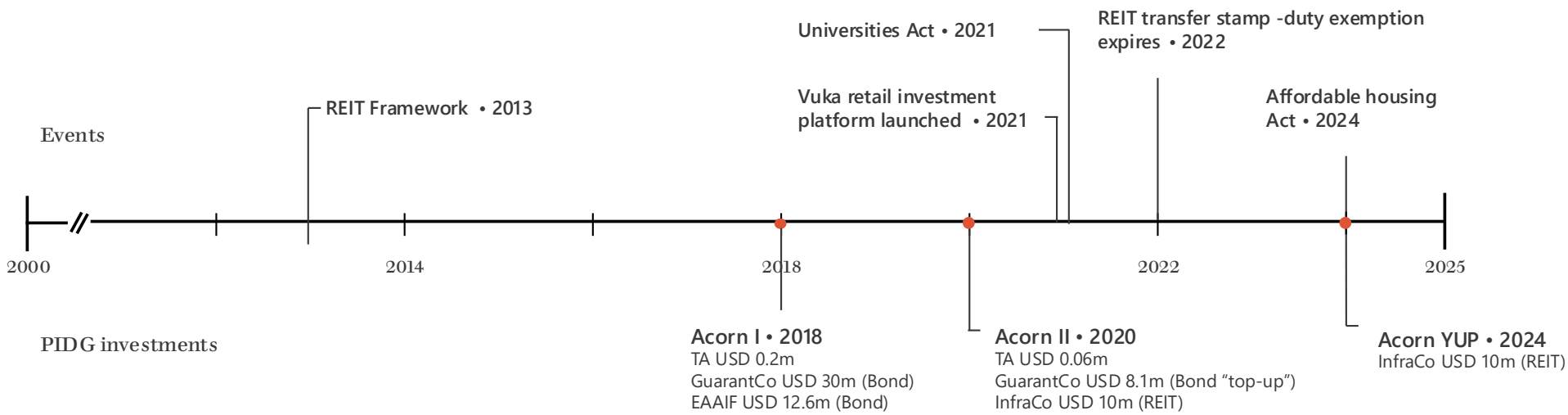
Malindi, Eldosol and Radiant solar • 2021
begins operations

- Thermal power
- Geothermal power
- Wind power
- Solar power

PPP financing and relevant events timeline (2000-2025)



Social infrastructure financing and relevant events timeline (2000-2025)



REIT issuances in Kenya to date



Fahari I-REIT
Listed: Nov 2015
Market: NSE main market (public IPO)
Currency: KES
Subscription: ~29%
Sector: commercial and retail

Acorn I-REIT & D-REIT
Listed: Feb 2021
Market: NSE USP (restricted)
Currency: KES
Sector: Student housing

LAPTurst Imara I-REIT
Listed: Mar 2023
Market: NSE restricted segment
Currency: KES
Sector: offices, residential, land

ALP Industrial I-REIT
Listed: Mar 2026
Market: NSE main market (restricted offer)
Currency: USD
Subscription: 115%
Sector: Industrial and logistics

TRIFIC I-REIT
Listed: Jun 2026
Market: NSE main market (public offer)
Currency: USD
Subscription: 103%
Sector: SEZ commercial offices

Appendix D: Approach & Methods

The hypotheses presented in this appendix were developed to test whether PIDG supported interventions contributed to market transformation in Kenya. They draw primarily on PIDG transaction documents, which set out intended effects of each intervention along PIDG market transformation definitions. The hypotheses are intended to translate PIDG intentions into testable theories of market-level changes that would be expected if an intervention were transformational.

To test the hypotheses, we apply a consistent framework across each workstream. The analysis first defines what market transformation would look like across PIDG's three transformational outcomes: efficiency, resilience and integration. These definitions are translated into assessment questions that guide the assessment. Based on these definitions, market-maturity criteria are established, allowing the market to be assessed at baseline and at the time of the study. The appendix then presents the market transformation hypotheses, setting out the intended market-level changes that would be expected if the intervention contributed to transformation.

Each hypothesis follows the same structure: (i) how the intervention could move the market; (ii) what evidence would be expected if the hypothesis were true; (iii) the observed evidence of change; and (iv) a conclusion on whether the hypothesis is accepted, partially accepted or rejected. This approach provides a consistent basis for assessing both market transformation and PIDG's contribution to it across sectors and instruments.

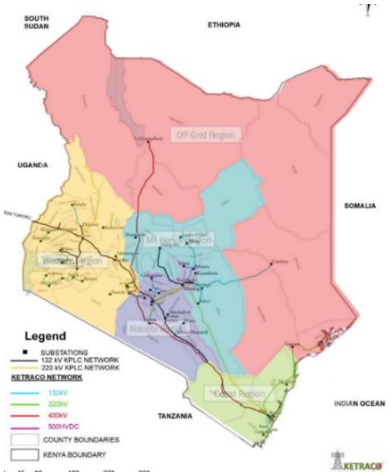
Power

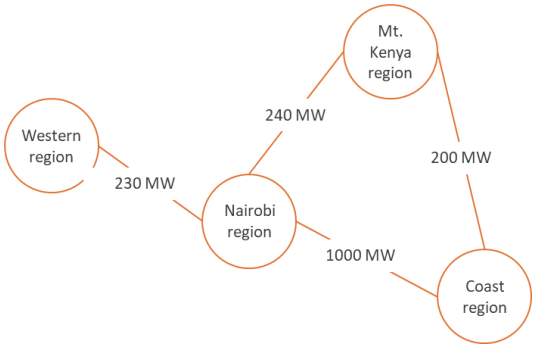
Quantitative methodology

The power-system is modelled based on all the power plants in Kenya, the electricity demand, and transmission constraints between regions. The details behind how this supply demand model works, and the sources used for information are provided below.

- **Purpose:** A country-level power-system model estimates how change in the generation and transmission capacity over time affects three objectives: reliability (measured as power outages), electricity costs and GHG emissions.
- **Power supply representation:** The model includes all operating power plants, capturing their:
    - Installed capacity and technology
    - Operating costs
    - GHG emissions
    - Availability profiles
    - Commissioning/decommissioning dates
    - Geographic location, where relevant
- **Merit-order dispatch:** Plants are dispatched primarily according to their **short-run marginal cost**—fuel plus variable operations and maintenance costs. The order is adjusted to reflect actual system conditions, including dispatchability, start-up characteristics, renewable feed-in obligations, hydrological constraints and national dispatch policies.

- **Data hierarchy:** Plant-level information from utility reports and power purchase agreements is preferred. Where unavailable, the model uses technology-level averages, utility or regulator data, and assumptions from sources such as IRENA, the IEA and academic studies.
- **Plant availability:** Availability is modelled using plant- or technology-specific profiles:
  - Thermal and geothermal plants use observed availability or default assumptions.
  - Hydropower reflects monthly and seasonal variation, including wet and dry years.
  - Solar and wind use utility data or resource profiles from the Global Solar Atlas and NASA POWER.
- **Power demand:** Hourly load curves are combined with monthly peak demand and annual electricity consumption to construct a **24-hour × 12-month demand matrix.** Demand-growth projections can also be incorporated.
- **Transmission constraints:** Kenya's transmission network is simplified to the following four regions, to incorporate the impact of key transmission bottlenecks and ensure estimated outages are reflective of actual outages.





- **Hourly supply–demand matching:** For each representative hour, available plants are dispatched in merit order until demand is met. Transmission and distribution losses are deducted from production, and the model identifies plant utilisation, electricity generated, costs, emissions and supply shortages.
- **Outage estimation:** An outage occurs when available generation is insufficient to meet demand plus a target reserve margin—generally **10%.** Reliability is measured through unserved energy or lost load, outage hours and, where available, SAIDI and SAIFI. The core model captures generation shortages rather than routine transmission and distribution failures.
- **Cost calculation:** Hourly variable generation costs are annualised and combined with fixed generation and transmission and distribution costs to estimate the overall cost of electricity. Capacity payments are treated as fixed costs rather than dispatch costs.
- **GHG calculation:** Plant-level emissions are aggregated and divided by total generation to calculate system GHG intensity. Additional capacity either displaces the marginal generator or supplies previously unmet demand.

- **Validation and calibration:** Modelled generation, outages, electricity costs and GHG intensity are compared with observed country data. Availability assumptions and demand patterns are adjusted where material discrepancies arise. The model has an average deviation of 5% from observed values.

Sources

Costs and generation

- Overall and plant-level data on cost and generated power was obtained from Kenya National Bureau of Statistics' reports from 2009 to 2025 and KPLC's annual reports from 2018 to 2025.
- Confirmatory details on IPP tariffs for renewables and capacity charges for thermal plants were taken from the 2021 Report by the Presidential Taskforce on PPAs.
- Details on currency effects were taken from the 2018 Feasibility Study on Local currency-denominated tariffs for Kenyan PPAs by GuarantCo, Kenya Power, the Kenyan Ministry of Energy, the Energy Regulatory Commission, Dalberg Advisors, and Leadwood Energy.
- The link between consumer tariffs and cost of power was established by looking at historical tariff data from Stima Tracker and through qualitative interviews.

Availability

- Hydrological data to determine the availability of hydropower plants was taken from Kenya's 2021 and 2024 Least Cost Power Development Plans.
- Available supply of solar power was calculated based on data from the Global Solar Atlas.
- Available supply of wind power was calculated based on data from the NASA Prediction of Worldwide Energy Resources (POWER) project.
- GHG intensities were determined using submissions to the United Nations Framework Convention on Climate Change's Clean Development Mechanism (CDM).
- Transmission data was obtained from the Kenyan Energy and Petroleum Regulatory Authority's portal for Renewable Energy.

Demand

- Seasonal variations in demand were determined using peak demand data from KPLC's annual reports and the 2021 Report by the Presidential Taskforce on PPAs.
- Additional details on daily and seasonal load variations were based on the work of Irungu, D.W. (2016) Simulation of the future electricity demand and supply in Kenya using the long-range energy alternative planning system and Hart, C. & Wright, J. G. (2016) Impact of novel and disruptive approaches/technologies on a distribution utility: A Kenyan case study.

Sector-level transformation

This assessment examines how Kenya's power sector has evolved as a real infrastructure market and whether PIDG-supported interventions contributed to changes in how electricity is generated, financed, delivered and accessed. The focus here is not primarily on the development of financial instruments, but on whether the power sector has become more efficient, resilient and integrated as a functioning infrastructure sector.

We define market transformation in the power sector as follows:

Efficiency: The power sector allocates generation, network infrastructure, capital and operational resources in ways that improve the cost, reliability and quality of electricity supply. Efficient market development means that projects are planned, procured, financed and operated based on system needs and performance, rather than being delayed by weak procurement, underutilised assets, distorted incentives or dependence on ad hoc public or donor support.

Question addressed: *Did the intervention improve the sector's ability to plan, finance, develop and operate electricity infrastructure efficiently and at sustainable cost?*

Resilience: The power sector is able to maintain reliable, affordable and sustainable electricity supply despite economic, climate, operational and fuel-supply shocks. A resilient power sector has a diversified generation mix, financially viable utilities, credible sector governance, adequate maintenance and investment, and business models that can continue operating through changing macroeconomic and system conditions.

Question addressed: *Did the intervention strengthen the sector's ability to maintain reliable electricity supply and continue attracting investment despite economic, climate and operational shocks?*

Integration: The power sector is integrated across the electricity value chain and with wider economic, financial and institutional systems. This means that generation, transmission, distribution and off-grid solutions are developed in a coordinated way, public and private actors operate through predictable market structures, and electricity access expands to households, businesses and underserved users through both grid-connected and distributed solutions.

Question addressed: *Did the intervention strengthen connections between public and private actors across the electricity value chain and expand access to reliable electricity services?*

Table 6: Market maturity criteria for power across PIDG market transformation dimensions

	Highly underdeveloped	Underdeveloped	Moderately developed	Highly developed
Efficiency	Electricity supply is constrained by limited generation capacity, weak planning, slow project delivery, high losses or inefficient use of assets. Projects depend on public funding, donor support or isolated champions, and investment	Private participation and project-preparation capacity emerge in selected parts of the sector, but delivery remains transaction-specific. Procurement, approvals and implementation remain slow, and operational inefficiencies	Planning, procurement and financing processes become more predictable, allowing public and private actors to develop and implement projects more consistently. Generation and network assets are better aligned with	The sector efficiently plans, procures, finances and operates electricity infrastructure based on system needs and performance. Generation, transmission, distribution and off-grid resources are deployed where they create the greatest

	decisions are not consistently linked to least-cost planning or system needs.	continue to affect generation, transmission or distribution performance.	system demand, and operational efficiency improves across parts of the value chain.	value, with limited reliance on external support or ad hoc interventions.
Resilience	Electricity supply is highly vulnerable to outages, drought, fuel-price movements, fiscal pressure and utility financial stress. Sector investment depends heavily on public budgets or donor funding, and shocks can quickly undermine reliability and affordability.	Basic regulatory, operational and private-participation structures exist, but system reliability and sector finances remain fragile. The sector can attract some investment, but confidence remains sensitive to macroeconomic, climate and utility-performance risks.	A more diversified generation mix, improved risk allocation and stronger sector governance reduce vulnerability to shocks. Utilities and private developers can continue operating and investing through moderate economic, climate or operational stress, although vulnerabilities remain.	The power sector consistently maintains reliable and affordable service through economic, climate and operational shocks. Diversified technologies, financially sustainable institutions, credible regulation and established risk-management practices support long-term system stability.
Integration	The electricity system is fragmented. Utilities, public institutions, developers, lenders and consumers operate with weak coordination, private participation is limited, and many users lack access to reliable electricity	Private developers, lenders and off-grid providers participate in selected segments, but linkages across the value chain remain weak. Access expansion and private participation remain project-specific and often depend on development finance or government support.	Public institutions, utilities, developers and financiers are increasingly connected through standardised project structures, procurement processes, PPAs and financing models. Grid and off-grid solutions both contribute to access expansion, and private participation becomes more embedded across parts of the value chain.	The sector is integrated across generation, transmission, distribution, off-grid systems and end users. Public and private actors operate through established market channels, investment is coordinated with system needs, and reliable electricity reaches consumers through both grid-connected and distributed models.

Based on our assessment, Kenya's power sector has progressed from underdeveloped at baseline (2008) to moderately developed by 2019, with some regression in efficiency due to the PPA moratorium. Strongest evidence is in resilience and integration, as that can be determined based on statistics from the power sector and related modelling, whereas evidence for efficiency in project development has a longer timeline.

Table 7: Market maturity assessment for the power sector

	Highly underdeveloped	Underdeveloped	Moderately developed	Highly developed
Efficiency		Baseline 2025	2019	
Resilience	Baseline		2025	
Integration		Baseline	2025	

Hypotheses

The hypotheses assess PIDG's intended market transformation outcomes for the power interventions. They examine whether PIDG contributed to demonstrating and scaling private participation in infrastructure financing, strengthening market capabilities, and enabling the replication of privately financed power generation models.

Table 8: Market transformation hypotheses for PIDG power sector interventions

	Type	Transactions	PIDG intervention	Market transformation outcome
H1	On-grid IPPs	Rabai Power Olkaria III Kesses Solar	Long-tenor debt financing (EAAIF); and construction refinancing for Olkaria III	Demonstrate and expand private investment in grid-connected power generation
H2	On-grid transmission & distribution	KPLC	Long-tenor debt financing (EAAIF)	Improve system reliability and reduce losses through grid expansion and maintenance[96]
H3	Mini-grid	KUDURA	Equity investment (InfraCo) / TA	Replication of distributed energy and mini-grid service models in underserved areas.
H4	Off-grid home solar	Bboxx	Local currency guarantee (GuarantCo) / financing support	Increase the use of local currency financing for off-grid energy companies.

[96] Hypothesis created ex post facto, PIDG team did not apply a market transformation lens to this investment

H1: Demonstrate and expand private investment in grid-connected power generation

	Highly underdeveloped	Underdeveloped	Moderately developed	Highly developed
Efficiency		Current →	Target	

How it can move the market

Demonstrating that privately financed power projects can be successfully developed, financed and operated would contribute to greater market efficiency by improving the sector's ability to mobilise capital and deliver generation capacity in line with system needs without straining the public purse. Successful IPPs can establish bankable financing and contractual models and support more predictable project development. Under the right conditions, this can help make power more reliable, affordable, and greener . If replicated across technologies, this would support movement from underdeveloped towards moderately developed market conditions, where generation capacity is developed more consistently and private capital becomes an established source of financing for new power infrastructure.

What we expect to observe

- Additional IPPs reaching financial close using similar financing and PPA structures
- Replication of private investment models across different generation technologies
- Growth in generation capacity supported by private capital
- Evidence that supply keeps pace with growing electricity demand
- Reduced reliance on emergency or ad hoc generation solutions
- More predictable financing and delivery of generation projects

Did it move the market

The evidence suggests that private investment became an established mechanism for developing grid-connected power generation in Kenya. Rabai demonstrated a bankable model for privately financed thermal power generation that was subsequently replicated by Thika, Triumph and Gulf Power. Olkaria III demonstrated the viability of private participation in geothermal power generation, facilitated further investment in the expansion of the site, and informed the development of a new enabling framework for geothermal investment. This framework was simplified, with less risk allocated to the private sector, and subsequently applied at Menengai and informed similar models at Corbetti and Tulu Moyo, supporting further private investment in geothermal power. Kesses demonstrated the viability of privately financed utility-scale solar with commercial bank participation. Together, these projects contributed to the expansion of private participation across grid connected generation, improving reliability and decarbonising the grid. However, due to a lack of progress on ensuring affordable power, the government put a moratorium on new PPAs to improve contractual terms around pricing. This interrupted development momentum and largely halted addition of new generation, despite growing demand.

Contributing factors

- Power-sector reforms, including the introduction of standardised PPAs and an enabling regulatory framework for IPPs, improved conditions for private participation

- Growing electricity demand created a need for additional generation capacity, increasing the likelihood of private investment regardless of PIDG's involvement
- Other DFIs, commercial lenders and government institutions also contributed to project development, refinancing and the expansion of private generation capacity

H1 is accepted. The findings support the hypothesis that PIDG helped demonstrate and expand private investment in grid-connected power generation. The expected demonstration and replication effects occurred across thermal, geothermal and solar technologies, contributing to broader private participation in Kenya's power sector.

H2: Improve system reliability and reduce losses through grid expansion and maintenance

	Highly underdeveloped	Underdeveloped	Moderately developed	Highly developed
Efficiency		Current →	Target	

How it can move the market

Improving grid reliability and reducing technical and commercial losses would contribute to greater market efficiency by strengthening the transmission and distribution network. A more reliable and efficient grid can improve quality of service, reduce electricity losses, support new customer connections and create enabling conditions for private power generation and renewable-energy investments. If sustained, this would support movement from underdeveloped towards moderately developed market conditions, where electricity infrastructure is better able to support growing demand and economic activity.

What we expect to observe

- Reduction in technical and commercial losses
- Improvements in reliability and quality of service
- Expansion of grid connections and electricity access
- Increased capacity of the transmission and distribution network
- Evidence that the grid is better able to absorb additional generation capacity
- Improved enabling conditions for private generation and renewable-energy investments

Did it move the market

The KPLC capital maintenance programme contributed to significant expansion of the grid and improvements in service quality. During the programme, more than two million additional customers were connected to the network and national electricity access increased substantially. The programme also focused on reducing technical and commercial losses, improving grid stability and upgrading transmission and distribution infrastructure. These changes strengthened the grid's ability to accommodate growing electricity demand and private generation capacity. However, system losses remained significant and continued to be a challenge for KPLC despite ongoing investments.

Contributing factors

- Government electrification policies and universal-access programmes supported expansion of the grid
- Significant financing from the World Bank, IFC, AfDB, commercial banks and the Government of Kenya also contributed to network expansion and upgrades
- Growth in electricity demand created pressure to expand and improve the network

H2 is rejected. The evidence does not demonstrate that these changes resulted in a sustained market-level shift in transmission and distribution performance. System losses remained high, KPLC continued to face financial and operational challenges, and improvements cannot be clearly separated from wider sector reforms, government programmes and financing provided by other institutions.

H3: Replication of distributed energy and mini-grid service models in underserved areas

	Highly underdeveloped	Underdeveloped	Moderately developed	Highly developed
Integration		Current →	Target	

How it can move the market

Replication of distributed energy and mini-grid service models would contribute to greater market integration by expanding electricity access in underserved areas through off-grid solutions. Successful mini-grid projects can demonstrate how private developers complement public electrification efforts and help connect households and businesses that are unlikely to be served by the grid in the near term. If replicated, this would support movement from underdeveloped towards moderately developed market conditions, where grid and off-grid solutions both contribute to electrification and private participation becomes more embedded across the electricity value chain.

What we expect to observe

- Additional mini-grid projects developed by existing or new market participants
- Private developers expanding mini-grid operations into underserved locations
- Increased electricity access through off-grid solutions
- Replication of mini-grid business models beyond pilot projects
- Greater coordination between public electrification programmes and private mini-grid providers
- Evidence that off-grid solutions complement national electrification effort

Did it move the market:

The evidence suggests that mini-grid models have demonstrated technical and operational viability, and that private developers, including KUDURA, have continued to develop and operate mini-grid sites in underserved areas. However, there is limited evidence that KUDURA's model was subsequently replicated by other market participants. While the mini-grid sector has continued to develop, growth remains dependent on concessional

capital and subsidy support, and uncertainty around grid expansion and compensation mechanisms continues to constrain scale. The evidence therefore suggests that KUDURA demonstrated the viability of the mini-grid model but did not catalyse broader replication or market-wide transformation

H3 is not accepted. The findings do not support the hypothesis that KUDURA led to the replication of mini-grid service models in underserved areas. While KUDURA demonstrated the viability of the mini-grid model and continued to expand its own operations, there is limited evidence that this resulted in wider replication by other market participants.

H4: Increase the use of local currency financing for off-grid energy companies

	Highly underdeveloped	Underdeveloped	Moderately developed	Highly developed
Efficiency		Current →	Target	

How it can move the market

Increasing the use of local currency financing for off-grid energy companies would contribute to greater market efficiency by improving access to financing that better matches the revenue profiles of distributed energy businesses. Local currency facilities can reduce currency-mismatch risks, expand access to longer-tenor financing and enable companies to finance growth through domestic capital markets rather than relying primarily on foreign-currency funding. If replicated, this would support movement from underdeveloped towards moderately developed market conditions, where financing is more readily available and aligned with the needs of distributed energy providers.

What we expect to observe

- Additional local currency financing facilities for off-grid energy companies
- Greater participation of domestic financial institutions in financing the power sector
- Longer-tenor financing becoming available to distributed energy providers
- Replication of local currency financing structures by other lenders and energy companies
- Reduced reliance on foreign-currency borrowing
- Continued growth of off-grid energy companies supported by domestic financing

Did it move the market:

The Bboxx transaction demonstrated that a local currency facility could provide financing to an off-grid solar company and better align financing with local currency revenues. However, there is no broader replication of this structure. Other market actors adopted different models, including securitisation of PAYGO receivables, while changes in banking regulation and KESONIA-linked pricing increased the cost of Bboxx's facility and reduced the attractiveness of the original model.

H4 is not accepted. The evidence does not support the hypothesis that PIDG increased the use of local currency financing for off-grid energy companies at market level.

Social infrastructure – capital markets

Sector-level transformation

This assessment examines how Kenya's social infrastructure financing market has evolved and whether PIDG-supported transactions contributed to broader transformation within capital market. Consistent with the criteria set out in Table 9, the focus is on changes in how social infrastructure is financed rather than how infrastructure is delivered. Specifically, the analysis assesses whether new financing instruments, investor participation, market structures and capital allocation mechanisms have contributed to more efficient, resilient and integrated capital markets for social infrastructure. Market development is assessed using a maturity framework ranging from highly underdeveloped to highly developed market conditions across the three PIDG transformation dimensions

We define transformation within capital markets and in the social infrastructure sector as follows:

Efficiency: Capital is allocated to social infrastructure projects through competitive and well-functioning capital markets. Issuers can access financing that matches their needs in terms of maturity, cost and risk profile, while standardised investment structures reduce transaction costs and improve access to long-term capital.

***Question addressed**: Did the intervention improve the ability of social infrastructure projects to access financing that matches their needs in terms of maturity, cost and risk profile?*

Resilience: Capital markets continue to mobilise financing for social infrastructure despite economic, financial or market shocks. Financing sources, investors and instruments are diversified, market governance is credible, and financing structures remain viable across changing interest rates, inflation, liquidity conditions and market cycles.

***Question addressed:** Did the intervention strengthen the ability of capital markets to continue mobilising financing for social infrastructure despite economic, financial and market shocks?*

Integration: Social infrastructure becomes an established asset class within domestic capital markets. Institutional and private investors routinely allocate capital through recognised investment vehicles, financing structures are replicated across transactions, and social infrastructure is integrated into the broader financial system as a mainstream destination for long-term capital.

***Question addressed**: Did the intervention help establish social infrastructure as a recognised asset class within domestic capital markets and attract a broader range of investors and financing structures?*

Table 9: Market maturity criteria for social infrastructure (capital markets) across PIDG market transformation dimensions

	Highly underdeveloped	Underdeveloped	Moderately developed	Highly developed
Efficiency	Social infrastructure projects rely almost entirely on public funding, donor support or sponsor balance sheets. Institutional investors do not participate and financing is scarce, expensive and short-term.	Isolated private transactions occur, but financing remains costly, bespoke and difficult to access. Few investors understand the asset class and projects face significant barriers to raising long-term capital.	Private and institutional investors participate in parts of the sector. Financing structures are becoming more standardised, transaction costs are falling and a broader pool of issuers can access long-term capital.	Competitive capital markets efficiently allocate capital to social infrastructure. A diverse pool of domestic and international investors provides long-term financing at competitive rates through standardised and widely understood investment structures.
Resilience	Financing is highly dependent on a small number of funders and is vulnerable to economic, fiscal and market shocks. Access to capital deteriorates rapidly during periods of uncertainty.	Funding sources begin to diversify, but capital availability remains sensitive to market conditions. Most transactions still rely on a limited number of investors or catalytic funders.	Multiple investor types participate in the sector, and financing structures can absorb moderate macroeconomic and financial-market shocks. Market confidence and governance are improving.	The social infrastructure financing market continues to mobilise capital through economic and financial shocks. Funding sources are diversified, market governance is credible, and financing structures remain viable despite changes in interest rates, inflation, liquidity or market sentiment.
Integration	Social infrastructure is not recognised as an investable asset class. Institutional investors have little or no exposure to the sector and projects remain disconnected from capital markets.	Early attempts to finance social infrastructure through capital-market instruments emerge, but activity remains limited and transaction-specific. Replication is rare.	Social infrastructure is gaining recognition within domestic capital markets. Institutional investors are beginning to allocate capital to the sector, and successful financing structures are being replicated.	Social infrastructure is an established asset class within domestic capital markets. Institutional investors routinely allocate capital through REITs, bonds and other investment vehicles, and proven financing structures are broadly replicated across the market.

Based on our assessment, Kenya's capital markets have progressed from largely underdeveloped market conditions towards moderately developed conditions. Despite a well-developed banking sector, at baseline, capital market development was limited. There were no issuances of bonds or REITs after large scandals, and the equity market was broadly limited to a few large players (Kenya's blue-chip companies).

Focusing on the capital markets for social infrastructure, there were limited ad-hoc investments from the capital markets into social infrastructure and no issuances of bonds or REITs, with financing relying largely on balance sheet, sponsor equity, or commercial debt. The sponsor equity was on typically provided on a project basis, and financing was costly, bespoke, and difficult to access, and limited diversification of sources of funding.

The strongest evidence of change is in market efficiency and resilience, with a broader mix of investors participating through the instruments, and early signs of resilience to shocks. Integration has improved from a highly underdeveloped base but remains less advanced. Other companies are attempting to use the capital markets but it is too early to judge their success. Bonds are still underutilised as a tool, and REITs are only starting to be replicated now.

Table 10: Market maturity assessment for the social infrastructure sector (capital markets)

	Highly underdeveloped	Underdeveloped	Moderately developed	Highly developed
Efficiency		Baseline	2025	
Resilience		Baseline	2025	
Integration	Baseline	2025		

Hypotheses

The hypotheses assess PIDG's intended market transformation outcomes for the Acorn intervention. H1-H2 examine whether Acorn contributed to expanding access to capital market financing for social infrastructure, while H3-H4 assess whether Acorn contributed to the development and replication of REIT structures as a financing mechanism.

Table 11: Market transformation hypotheses for PIDG social infrastructure and capital markets interventions

	Transaction	PIDG intervention	Market transformation outcome
H1	Acorn 1 / 2 / REIT	Partial credit guarantee (GuarantCo) / anchor investment in green bond (EAAIF) / TA	Mobilise & diversify private sector financing into social infrastructure
H2	Acorn 1 / 2	Partial credit guarantee (GuarantCo) / anchor investment in green bond (EAAIF) / TA	Increasing the use of bond market financing for social infrastructure
H3	Acorn REIT	Anchor equity investment into the D-REIT / I-REIT	Rebuild local confidence in investing into REITs
H4	Acorn REIT / YUP	Anchor equity investment into the D-REIT / I-REIT	Enable others to replicate REIT structure

H1: Mobilise & diversify private sector financing into social infrastructure

	Highly underdeveloped	Underdeveloped	Moderately developed	Highly developed
Efficiency		Current →	Target	

How it can move the market

Mobilising and diversifying private sector financing into the social infrastructure sector would contribute to greater market efficiency by demonstrating that social infrastructure can attract capital through market-based financing structures rather than relying on sponsor balance sheets, public funding or donor support. This could increase the availability of long-term financing, broaden investor participation and reduce barriers to capital access, helping move the sector from underdeveloped towards moderately developed market conditions.

What we expect to observe

- Increased participation of pension funds and local institutional investors in REITs and social infrastructure financing
- Growth in domestic capital allocated to REITs from a low base
- Repeat investor participation across Acorn and subsequent REIT products
- Evidence that social infrastructure is increasingly treated as an investable asset class
- Broader investor participation beyond DFI/anchor capital, including institutional and retail-facing routes where evidenced
- New REIT products attracting capital from different investor groups

Did it move the market

The evidence suggests that Acorn contributed to mobilising and diversifying private capital through REIT-based financing structures. Domestic institutional investors participated in Acorn's REITs, pension-fund allocations to REITs increased significantly from a low base, and subsequent REIT products attracted institutional, international and retail investors. Together, this indicates that a broader and more diverse group of investors participated in the REIT market than before Acorn's interventions. However, the available evidence is stronger for mobilisation into REITs as an investment vehicle than for mobilisation into the wider social infrastructure sector.

Contributing factors

- Growth in total pension assets increased the amount of capital available for allocation
- Macro trends in real estate development attracted investors regardless of the transaction
- Wider affordable housing agenda may have increased interest in housing investments
- Regulatory reforms and the broader development of the REIT framework also supported investor participation
- Subsequent REIT activity may reflect independent sponsor initiatives rather than direct replication of Acorn

H1 is partially accepted. The findings support the hypothesis that Acorn helped mobilise and diversify private capital into REIT-based financing structures. There is evidence of increased participation by domestic institutional investors and the emergence of REIT products targeting different investor groups. However, the evidence does not demonstrate that this translated into broader mobilisation of private capital across the social infrastructure sector beyond Acorn itself. Acorn's contribution is therefore strongest in expanding participation in REIT financing rather than in establishing social infrastructure as a widely financed asset class.

H2: Increasing the use of the bond market to finance social infrastructure



How it can move the market

Increasing the use of capital market financing for real estate and social infrastructure would contribute to greater market efficiency by expanding the range of financing instruments available beyond traditional bank lending. Successful use of capital-market instruments, such as green bonds, corporate bonds, asset-backed securities and other structured debt instruments, can demonstrate alternative pathways to long-term financing, attract additional institutional capital and improve the allocation of capital to infrastructure and real estate sectors. If replicated, this could support movement from underdeveloped towards moderately developed market conditions characterised by a broader range of issuers, instruments and investors.

What we expect to observe

- Additional green bonds issued
- New issuers using green frameworks
- Increased investor familiarity with green instruments
- Oversubscribed issuances demonstrating investor demand for corporate bonds
- Issuers accessing capital without requiring guarantees comparable to Acorn's structure
- Greater participation of institutional investors in corporate debt markets
- Growth in corporate bond issuance

Did it move the market

The Acorn green bond demonstrated that a real estate issuer could successfully access domestic capital markets using an innovative financing structure and internationally recognised green standards. Following the transaction, a number of issuers continued to access the debt capital markets, including Centum, Family Bank, EABL and KMRC. In addition, the Linzi Sukuk demonstrated continued innovation in housing-related capital market financing. Several subsequent transactions were successfully subscribed and completed without credit enhancement similar to Acorn's guaranteed structure, suggesting increasing investor familiarity with market-based financing instruments. However, there is limited evidence that these transactions directly replicated Acorn's structure or can be attributed to Acorn specifically. The hypothesis is therefore partially evidenced

The issuing of the green bond demonstrated that local issuers could meet international green standards and attract investors to projects with measurable green benefits. Since Acorns green bond, there have been private

and quasi-private green notes and climate finance deals aimed at specific sectors from clean cookstoves to energy efficiency, while development partners and market building programmes have worked to deepen local capacity for issuing and underwriting green debt. However, uncertain/lack of replication suggests that it did not transform markets.

H2 is not accepted: The findings do not support the hypothesis that PIDG intervention increased the use of bond-market financing for real estate and social infrastructure. Instead, the evidence suggests that the issuers would likely have issued the bonds even in the absence of PIDG support given that the repeat issuers are large blue-chip companies which had issued bonds prior to Acorn.

H3: Rebuild investor confidence in the REIT structure



How it can move the market

Rebuilding confidence in REITs would contribute to greater market integration by increasing participation from domestic institutional and retail investors in listed real estate investment vehicles. Increased investor confidence and uptake could support movement from highly underdeveloped market conditions, where REITs are not used or trusted, towards underdeveloped market conditions where REIT structures are increasingly recognised as viable investment vehicles for infrastructure.

What would we expect to observe

- Increased investor demand for REIT units
- Positive REIT price performance and liquidity
- New REIT listings or expanded fundraising
- Broader participation beyond anchor investors

Did it move the market

The evidence suggests that confidence in REITs improved following the Acorn transactions. Acorn's D-REIT and I-REIT successfully raised capital, generated positive returns, and demonstrated that REIT structures could be used to finance income-generating real estate in Kenya. Subsequent REIT transactions, most notably the oversubscribed TRIFIC Green USD I-REIT, indicate that investors were willing to allocate capital to REIT products at levels not seen during the earlier Fahari I-REIT offering. In addition, a pipeline of new REIT offerings and continued investor participation suggest that REITs are increasingly viewed as a credible investment vehicle rather than a failed market experiment. The evidence suggests movement from highly underdeveloped towards underdeveloped or moderately developed market conditions

Contributing factors

- Regulatory reforms to REIT framework.
- Falling confidence in alternative asset classes.
- Wider search for yield among institutional investors.

- Strong performance of underlying real estate assets rather than the REIT structure itself.
- TRIFIC and ALP reflect independent sponsor initiatives.

H3 is accepted. The findings support the hypothesis that Acorn rebuilt confidence in the REIT market. There is sufficient evidence that investors increasingly viewed REITs as a credible and investable instrument following the successful launch of Acorn's D-REIT and I-REIT structures. Strong fundraising performance, increasing institutional participation and the emergence of subsequent REIT products provide evidence that confidence in REITs improved during the period. While Acorn was not the sole driver of this change, the evidence suggests it played an important demonstration role in restoring market confidence following the challenges experienced by earlier REIT initiatives.

H4: Enable other market participants to replicate REIT structures

	Highly underdeveloped	Underdeveloped	Moderately developed	Highly developed
Resilience		Current →	Target	

How it can move the market

Replication of REIT structures by other market participants would strengthen the resilience of Kenya's capital markets by reducing reliance on a small number of issuers and catalytic investors. As REITs are adopted by additional sponsors and across different real-estate segments, financing sources, investors and instruments become more diversified. This would support a shift from underdeveloped market conditions, where activity depends on a limited number of actors, towards moderately developed conditions characterised by broader participation and more durable financing structures.

What would we expect to observe

- New REITs launched by other organisations
- Adoption of REIT structures beyond PBSA
- Multiple developers using REITs to finance real estate
- Growth in number and diversity of REIT vehicles

Did it move the market

The evidence suggests that REIT structures have been replicated beyond Acorn, contributing to a more resilient market. New vehicles including LAPTrust Imara I-REIT, ALP I-REIT and TRIFIC Green USD I-REIT demonstrate that the structure has been adopted by multiple sponsors and across different real-estate segments. This has reduced reliance on a single issuer and broadened the range of vehicles through which capital can be mobilised. However, the market remains relatively small, and replication is not yet sufficient to indicate a highly resilient market.

Contributing factors

- Sponsors may be replicating REIT structures because of broader regulatory improvements rather than Acorn specifically
- Increased capacity among fund managers and capital market intermediaries.

- Growth of institutional investor demand generally.
- Global and regional growth of REIT structures as an asset class.

H4 is accepted. The findings support the hypothesis that Acorn enabled the replication of REIT structures by other market participants. There is sufficient evidence that REIT activity expanded following Acorn's transactions, with additional sponsors, asset managers and developers pursuing REIT structures across different real estate segments.

Social infrastructure – real market

Sector-level transformation

This assessment examines how Kenya's social infrastructure sector has evolved and whether PIDG-supported transactions contributed to broader real market (PBSA) transformation. Consistent with the criteria set out in Table 12, the focus is on changes in how PBSA is delivered rather than financed. Specifically, the analysis assesses whether new business models, market participants, operating practices and delivery standards have contributed to a more efficient, resilient and integrated social infrastructure sector. Market transformation is assessed using a maturity framework ranging from highly underdeveloped to highly developed market conditions across the three PIDG transformation dimensions.

We define real market transformation in the PBSA sector as follows:

Efficiency: PBSA is delivered through professional, scalable, and commercially viable operating models that make better use of land, buildings, technology, and management capacity. Assets achieve high utilisation, consistent service quality, and lower lifecycle costs, enabling affordable access for users while supporting sustainable sector growth.
Question addressed: *Did the intervention improve the sector's ability to deliver social infrastructure through professional, scalable and commercially viable operating models?*

Resilience: PBSA continues to provide safe, reliable, and affordable services during economic, environmental, and operational shocks. Assets are built and managed to recognised industry standards, adapt to climate and market risks, maintain occupancy and operational performance, and rely on diversified revenue and service delivery models.
Question addressed *Did the intervention strengthen the sector's ability to sustain service quality, occupancy and operational performance during economic, environmental and operational shocks?*

Integration: PBSA becomes embedded within wider urban and economic systems. Assets are connected to transport, utilities, digital infrastructure, and formal service networks, while proven delivery models, standards, and operating practices are replicated across locations and market segments, increasing sector coordination and reach.
Question addressed: *Did the intervention support the replication and wider adoption of successful social infrastructure models, standards and operating practices across the sector?*

Table 12: Market maturity criteria for social infrastructure (real markets - PBSA) across PIDG market transformation dimensions

	Highly underdeveloped	Underdeveloped	Moderately developed	Highly developed
Efficiency	PBSA is delivered through fragmented, project-by-project approaches. Facilities are poorly utilised,	Some private operators emerge, but service delivery remains inconsistent and largely bespoke.	Professional operators are active across parts of the sector. Standardised delivery and	Competitive and professional operators deliver infrastructure at scale. Standardised

	operating standards vary widely, and delivery costs are high relative to service quality.	Asset utilisation improves but occupancy, maintenance, and operating efficiency remain below potential.	management models improve service quality, utilisation rates, and operating performance.	operating models, technology, and asset management practices maximise utilisation, service quality, and affordability across the sector.
Resilience	Assets are vulnerable to economic, environmental, and operational shocks. Maintenance is inadequate, service interruptions are common, and climate resilience is largely absent.	Some projects incorporate better standards and maintenance practices, but resilience remains uneven. Service quality deteriorates during shocks and recovery is often slow.	Most assets are professionally managed and designed to withstand moderate shocks. Climate-resilient design, preventative maintenance, and operational risk management are increasingly adopted.	The sector consistently delivers reliable services through shocks. Climate-resilient design, strong operational practices, and adaptive asset management are embedded as industry norms, supporting long-term asset performance.
Integration	PBSA is delivered in isolation from wider urban and service systems. Successful models remain localised and are rarely replicated.	Individual projects demonstrate successful delivery models, but replication is limited. Connections to transport, utilities, education, health, or urban systems remain inconsistent.	Proven delivery models, standards, and operating practices are replicated across multiple locations and providers. Social infrastructure assets are increasingly connected to transport, utilities, education and other urban systems, although coverage and coordination remain uneven.	PBSA functions as an integrated part of broader urban and economic systems. Proven models, standards, and operating practices are widely replicated, enabling coordinated sector development and large-scale service provision.

Based on our assessment, Kenya's PBSA market has moved from a highly underdeveloped to a more underdeveloped market. While Acorn demonstrated the commercial viability of PBSA and established higher delivery standards, these changes remain concentrated around a small number of market participants and have not yet translated into broader market adoption or replication.

Table 13: Market maturity assessment for the social infrastructure sector (real markets – PBSA)

	Highly underdeveloped	Underdeveloped	Moderately developed	Highly developed
Efficiency	Baseline	2025		
Resilience	Baseline-2025			
Integration	Baseline	2025		

Hypotheses

The hypotheses assess PIDG's intended market transformation outcomes for the Acorn intervention in Kenya's PBSA market. They examine whether Acorn contributed to demonstrating the commercial viability of PBSA and improving delivery standards in the sector.

Table 14: Market transformation hypotheses for PIDG social infrastructure (real markets) interventions

	Transaction	PIDG intervention	Real market transformation outcome
H1	Acorn 1 / Acorn 2	Partial credit guarantee + anchor investment + TA support	Demonstrate the viability of the PBSA model and encourage entry of additional PBSA providers.
H2	Acorn 1 / Acorn 2	Partial credit guarantee + anchor investment + TA support	Improve delivery standards for student accommodation through purpose-built, professionally managed housing.

H1: Demonstrate the viability of social infrastructure and replicate the model

	Highly underdeveloped	Underdeveloped	Moderately developed	Highly developed
Efficiency	Current →	Target		

How it can move the market

Demonstrating the viability of the PBSA model would contribute to greater market efficiency by showing that PBSA can be delivered as a commercially viable asset class rather than as an ancillary university service. If successful, PBSA developments could attract additional developers, encourage professionalisation of the sector and improve utilisation of land, buildings and management capacity. Replication by other providers would support movement from highly underdeveloped market conditions towards underdeveloped or moderately developed market conditions characterised by professional operators and scalable delivery models

What we expect to observe

- Entry of additional social infrastructure developers and operators
- Additional social infrastructure developments reaching construction or operation
- Growth in bed capacity
- Adoption of social infrastructure business models by developers beyond Acorn

Did it move the market

Evidence suggests that Acorn demonstrated the commercial viability of PBSA and established PBSA as a credible investment proposition. Acorn successfully developed, financed and operated a portfolio of PBSA assets, providing proof that the model can be commercially sustainable in the Kenyan context. However, replication remains limited and Acorn continues to dominate the sector. While at least three small, specialised developers have entered the market, there is limited evidence that the model has been adopted at scale across the wider housing sector.

Contributing factors

- Rising university enrolment
- Government initiatives, may have attracted developers regardless of Acorn's involvement and made it a viable sector

H1 is partially accepted. The findings suggest that Acorn demonstrated the commercial viability of PBSA and helped establish the asset class as a credible investment opportunity. Evidence of replication is visible through the emergence of additional market participants and PBSA developments beyond Acorn itself. However, these developments remain at an early stage and have not yet reached the scale required to demonstrate broader market transformation.

H2: Improve delivery standards for social infrastructure, through purpose-built, professionally managed housing



How it can move the market

The evidence strongly demonstrates that Acorn improved delivery standards within its own portfolio through purpose-built accommodation, professional management systems, higher safety standards and formal operating procedures. However, evidence that these standards have been widely adopted across the broader PBSA market remains limited. Unlike the H&S case study, which identifies measurable diffusion through contractors and professional bodies, the available evidence for PBSA standards largely relates to Acorn's own operations. While Acorn may have established a benchmark for quality student accommodation, there is insufficient evidence that this has resulted in widespread changes in operating standards across the sector. The hypothesis is therefore evidenced at the organisational level but not yet at the market level.

What we expect to observe

- Adoption of professional property and facilities management practices
- Improved accommodation quality and student amenities
- Higher occupancy rates and improved operational performance
- Standardised service delivery and maintenance practices
- Adoption of higher safety, environmental and operational standards
- Similar operating standards adopted by competing PBSA providers

Did it move the market

Evidence demonstrates that Acorn improved delivery standards within its own portfolio through purpose-built accommodation, professional management systems, safety standards and formal operating procedures. However, evidence does not demonstrate widespread adoption of these delivery standards across the broader PBSA market. The transformation is therefore evident at the organisational level but not yet at the market level. While Acorn may have established a benchmark for quality student accommodation, there is insufficient evidence that this benchmark has resulted in sector-wide changes in delivery standards

H2 is not accepted. The findings reject the hypothesis that Acorn improved delivery standards across the social infrastructure sector. While Acorn developed and operated PBSA assets to a high standard and introduced practices related to design, management and sustainability, there is limited evidence that these standards diffused across the wider market.

PPPs & CEF

Sector-level transformation

This assessment examines the conditions required for market transformation in Kenya's infrastructure financing ecosystem. The focus is on the institutions, capabilities and financing mechanisms that enable infrastructure projects to move from concept to financed investment. Similar to the previous sections, this assessment defines what market transformation would look like in this market, establishes criteria for assessing progress, and evaluates the current state of market development. However, unlike the power and social infrastructure sectors, the interventions assessed in this market are primarily focused on addressing the constraints that currently limit transformation. As a result, this market remains at an enabling stage, where the emphasis is on whether the foundations for future transformation are being established rather than whether transformation itself has already occurred.

We define market transformation in the enabling markets as follows:

Efficiency: Market-enabling institutions efficiently originate, structure and mobilise capital for investment opportunities, while progressively reducing reliance on dedicated market-enabling support as market participants develop the capabilities to perform these functions independently. Public and private actors possess the skills, tools and expertise to identify, prepare and assess bankable projects, while standardised transaction processes, credit-enhancement mechanisms and advisory services reduce the time, cost and complexity of moving projects from concept to financial close. Capital is allocated based on project quality and risk rather than institutional bottlenecks or information gaps.
***Question addressed**: Did the intervention improve the market's ability to originate, prepare, structure and finance investment opportunities more efficiently?*

Resilience: The market-enabling ecosystem continues to facilitate investment throughout economic, political and climate-related shocks. Regulatory frameworks remain predictable, market institutions operate effectively, and financing structures manage risks such as currency volatility, interest-rate movements and credit deterioration. A diverse set of intermediaries, investors and risk-mitigation mechanisms support continued capital deployment, reducing dependence on individual actors, donors or public balance sheets.
***Question addressed**: Did the intervention strengthen the market's ability to continue mobilising and deploying capital despite economic, institutional or external shocks?*

Integration: Domestic and international capital, market participants and financing channels are connected through well-functioning financial and institutional networks. Infrastructure projects and businesses can access funding from banks, institutional investors, capital markets and specialised intermediaries through common standards and financing structures. Information, expertise and financial products flow more effectively between public institutions, investors and project developers, allowing domestic savings to be channelled into productive investment opportunities at scale.
***Question addressed**: Did the intervention strengthen connections between investors, financial institutions, project developers and public authorities, enabling capital to flow more effectively into productive investment opportunities?*

Table 15: Market maturity criteria for enabling markets across PIDG market transformation dimensions

	Highly underdeveloped	Underdeveloped	Moderately developed	Highly developed
Efficiency	Project origination, preparation and financing are fragmented. Public institutions and project developers have limited skills to structure bankable transactions, and domestic capital does not respond to real-sector demand. Projects depend on public budgets, donors or isolated champions rather than functioning market processes.	Some advisory, project-preparation and credit-enhancement support exists, but it remains transaction-specific. Feasibility work, procurement and investor engagement are costly and lengthy, while banks and institutional investors have limited familiarity with project finance and guarantees. Many projects improve on paper but struggle to move from concept to investable transactions.	Transaction advisors, PPP processes, feasibility studies and credit-enhancement mechanisms begin to reduce bottlenecks. Public-sector capability improves, guarantees and longer-tenor structures become better understood, and more projects can be brought to market. However, deal conversion remains uneven and often still depends on DFI, donor or catalytic support.	Market-enabling institutions efficiently originate, structure and mobilise capital, while reducing reliance on dedicated support over time. Public and private actors can prepare and assess bankable projects using standardised processes and risk tools. Capital is allocated based on project quality and risk, not institutional bottlenecks or information gaps.
Resilience	The enabling ecosystem is fragile. Pipelines stop when donor support, political attention or individual champions fall away, and financing dries up under macro-financial pressure. Weak governance and thin institutional capacity lead to delays, cancellations and loss of investor interest.	Formal institutions and regulations exist, but confidence and continuity remain weak. Interest-rate, currency and fiscal pressures push investors toward government securities, while leadership changes, slow approvals or unclear risk allocation can derail transactions.	PPP governance, project-preparation systems and credit-enhancement platforms improve risk management. Roles are clearer and risk-sharing instruments help manage credit, tenor and currency concerns, but the market remains vulnerable to shocks and capacity constraints.	The enabling ecosystem continues to prepare and finance projects through economic, political and climate-related shocks. Predictable regulation, credible PPP governance, diversified intermediaries and established risk-mitigation instruments sustain capital deployment despite rate, currency, credit or fiscal pressure.
Integration	Capital markets and the real economy operate separately. Institutional savings circulate mainly in liquid government paper, while infrastructure and productive-sector	Early bridges between project pipelines and capital providers exist through PPP advisory, transaction preparation and credit-enhancement initiatives. However,	Common standards, advisory capacity, PPP pipelines and guarantee products begin to connect public institutions, project developers, commercial lenders and institutional	Public institutions, developers, banks and institutional investors are connected through functioning financial and institutional networks. Projects access finance

	projects cannot access suitable tenor, pricing or risk-sharing structures. Public institutions, developers, banks and institutional investors operate in silos with limited information flow or shared standards.	links remain transaction specific. Investors still lack confidence in unfamiliar assets, project developers lack access to appropriate financing, and public-sector processes are not consistently linked to capital-market requirements.	investors. Domestic capital starts to engage with infrastructure opportunities through selected bonds, guarantees or PPP structures, but flows remain concentrated in a few transactions and depend on DFI or catalytic support.	through standardised PPP, project-finance, bond and guarantee structures, allowing domestic savings to flow into long-term productive investment at scale.

Based on our assessment, Kenya's market-enabling ecosystem remains underdeveloped. While project preparation, PPP processes and institutional capabilities have improved, these changes have not yet translated into sustained mobilisation of private capital or a significant increase in financed infrastructure investments.

Table 16: Market maturity assessment for enabling markets

	Highly underdeveloped	Underdeveloped	Moderately developed	Highly developed
Efficiency		Baseline-2025		
Resilience		Baseline-2025		
Integration		Baseline-2025		

Hypotheses

The hypotheses assess PIDG's intended market transformation outcomes for the PPP interventions. They examine whether PIDG contributed to strengthening the enabling environment for PPPs.

Table 17: Market transformation hypotheses for PIDG enabling market interventions

	Transaction	Project example	PIDG intervention	Supporting intervention	Market transformation outcome
H1	Dhamana	Safaricom	InfraCo equity + GuarantCo + TA	Guarantee expertise; workforce upskilling; establishment of local credit-enhancement capacity; market engagement with issuers, lenders and investors	Unlock domestic institutional capital for infrastructure and productive sector investments through local currency guarantees

H2	Kenya PPPD/ PIDG-PPIAF Programme	University of Nairobi PBSA PPP; Nairobi Smart Street Lighting PPP; Naivasha Bulk Water PPP, Counties Programme; Sabaki Water Carrier Project	InfraCo + PIDG TA + PIDG-PPIAF partnership	Feasibility studies; project preparation; transaction advisors; PPP structuring; procurement support; VGF assessment; financing structuring; tariff and affordability analysis; county and sector engagement	Increase the supply of well-prepared, financially viable and bankable PPP opportunities that can progress from concept stage towards investment readiness and attract private investment
H3	PIDG-PPIAF Programme	Naivasha Bulk Water PPP, Sabaki Water Carrier Project	InfraCo + PIDG TA + PIDG-PPIAF partnership	Financing structuring; tariff and affordability analysis; VGF support; utility-efficiency assessments; revenue diversification strategies	Demonstrate viability of hard-to-finance infrastructure sectors through commercially viable PPP models.

H1: Unlock domestic institutional capital for infrastructure through local currency guarantees (Dhamana)

	Highly underdeveloped	Underdeveloped	Moderately developed	Highly developed
Integration		Current →	Target	

How it can move the market

Unlocking domestic institutional capital through local currency guarantees would contribute to greater market integration by connecting domestic investors, infrastructure developers and financial institutions. By reducing perceived credit risk and improving the risk-return profile of infrastructure investments, guarantees can enable pension funds, insurers and other institutional investors to participate in asset classes that previously lacked suitable risk-sharing mechanisms. If replicated, this could support movement from underdeveloped market conditions, where institutional savings remain concentrated in government securities, towards moderately developed market conditions where domestic capital increasingly flows into productive infrastructure investment.

What we expect to observe

- Reduced reliance on foreign-currency financing.
- Longer-tenor financing becoming available for infrastructure projects.
- Institutional investors participating in guaranteed infrastructure transactions.

- Domestic savings allocated to infrastructure and productive-sector investments.
- Increased use of guarantee-backed financing structures.
- Additional guarantee transactions beyond Dhamana's initial portfolio.

Did it move the market

It is too early to assess whether market transformation has occurred. The strongest evidence to date relates to the strengthening of enabling conditions that may support future market transformation.

H2: Increase the supply of well-prepared, financially viable and bankable PPP opportunities (Kenya PPPD & PIDG-PPIAF Programme)



How it can move the market

Increasing the supply of well-prepared, financially viable and bankable PPP opportunities would contribute to greater market efficiency by reducing bottlenecks in project origination, preparation and structuring. In an underdeveloped enabling market, project-preparation and advisory support remains transaction-specific, feasibility work is costly and lengthy, and many projects improve on paper but struggle to move from concept to investable transactions. Moving towards moderately developed market conditions would require PPP processes, feasibility studies, transaction advisory support and credit-enhancement mechanisms to reduce these bottlenecks, improve public-sector capability and bring more projects to market.

What we expect to observe

- Increased number of bankable opportunities entering PPP and financing pipelines.
- More projects progressing from concept to investment-ready stage.
- Greater focus on financially viable infrastructure opportunities.
- More feasibility studies completed.
- Better alignment between public-sector priorities and investor requirements.
- Project pipelines increasingly linked to financing requirements.
- Stronger project preparation capability within public institutions.
- Greater use of standardised PPP preparation processes.
- Reduced bottlenecks in project development

Did it move the market

It is too early to assess whether market transformation has occurred. The strongest evidence to date relates to the strengthening of enabling conditions that may support future market transformation.

H3: Demonstrate financially viable and replicable PPP models for the hard to finance sectors, such as the water sector (Naivasha / Sabaki)

	Highly underdeveloped	Underdeveloped	Moderately developed	Highly developed
Integration	Current →	Target		

How it can move the market

Demonstrating commercially viable PPP models in hard-to-finance infrastructure sectors would contribute to greater integration by showing that private capital can participate in sectors that have traditionally relied on public funding, donor support or sovereign borrowing. Sectors such as water infrastructure often face challenges related to affordability, tariff structures, long payback periods and weak utility finances, limiting investor participation. Successful demonstration projects can establish credible financing structures, risk-allocation approaches and institutional arrangements that reduce these barriers and provide models that can be replicated in similar sectors. If replicated, infrastructure financing would become less dependent on public budgets and more resilient to fiscal and funding constraints, moving the market from highly underdeveloped to underdeveloped.

What we expect to observe

- PPP projects in traditionally underserved sectors progressing towards commercial or financial close
- Private sector participation in underserved sectors such as the water sector
- Replication of financing structures, risk-allocation approaches or PPP models in subsequent projects
- Increased pipeline of PPP opportunities in sectors where private participation has historically been limited
- Evidence that projects become less dependent on direct public funding or donor support

Did it move the market

It is too early to assess whether market transformation has occurred. The strongest evidence to date relates to the strengthening of enabling conditions that may support future market transformation.

Counterfactual

Without PIDG, Kenya's PPP agenda would likely have continued, but bottlenecks would have persisted at earlier stages of the PPP pipeline, particularly for the two pilot projects supported by PIDG. Broader PPP reforms and institutional changes would likely have continued through the government commitment and wider donor support. However, progress in translating the reforms into project preparation and structuring capabilities would have likely been slower.

In a counterfactual scenario, without PIDG intervention, the University of Nairobi Student Accommodation PPP and Nairobi Smart Street Lighting PPP would likely have progressed more slowly, if at all, while the PPPD and other public institutions would have less access to project and capacity building support.

The more significant effect of this counterfactual scenario lies beyond the progression of individual projects and is more significant in the capabilities developed through the process. Interviews indicate that project preparation, transaction advisory support, embedded expertise and the PIDG-PPIAF partnership helped

strengthen the skills, systems and institutional capacity required to develop future PPP opportunities. Since the programme remains ongoing and few projects have yet reached financial close, the strongest evidence of additionality is found in building project-preparation capabilities and strengthening enabling conditions for future market transformation.

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