

Gatsby Africa

BAUHAUS EARTH

Beyond Green Buildings

How finance, policy and certification could help build Africa's market for lower-carbon construction materials.

This discussion paper was developed through Gatsby Africa's East Africa Bio-Based Construction programme, **co-funded by Gatsby Africa and the Judith Neilson Foundation.**

What Africa builds next will shape its carbon future

Africa's housing challenge is both a climate and industrial opportunity. The World Green Building Council estimates that 80% of the buildings Africa will have in 2050 are yet to be built, while buildings and construction already account for around 37% of global CO2 emissions.[1] Decisions taken now will therefore shape both future emissions and where construction value, manufacturing and jobs are created.

Operational efficiency remains essential, and certifications such as EDGE have helped accelerate its adoption by giving developers and financiers a practical, verifiable standard. But in markets where electricity is already relatively low-carbon, each additional unit of energy saved avoids less carbon than it would on a fossil-heavy grid. Kenya generated 91% of its electricity from renewables in 2024, while Uganda's generation mix is overwhelmingly renewable and hydro-led.[2] As grids get cleaner, **the materials chosen before a building is occupied become an increasingly important carbon lever.**

Bio-based construction uses renewable materials such as timber and bamboo, reducing emissions by replacing more carbon-intensive materials while also storing biogenic carbon in buildings. But the opportunity is broader: lower-carbon concrete, material-efficient or light-gauge steel, prefabricated components and hybrids can all reduce embodied emissions.

80% of the buildings Africa will have in 2050 are yet to be built

The objective is not to prescribe one material, but to create a market in which developers can choose lower-carbon systems that also meet cost, performance, supply and regulatory requirements.

In mature markets, lower-carbon systems are supported by procurement, standards, incentives and carbon regulation. Comparable signals are only beginning to emerge in Africa. Kenya is moving relatively quickly, with proposed green-building rules and a 2026–2050 buildings decarbonisation roadmap alongside early work on sustainable public procurement. KGBS's Building the Transition initiative, with Gatsby Africa as a strategic partner, is linking building performance with finance, procurement and materials supply chains. Rwanda has required green-building compliance for larger buildings since 2019 and is also developing procurement guidance.[3] **These are important signals, but they remain nascent compared with policy ecosystems that create predictable demand.**

The core question: what has to be true — across policy, public procurement, finance, supply and product performance — for lower-carbon materials to become a mainstream commercial choice?



Mature building markets

Most buildings already exist, making energy efficiency, **cleaner grids and retrofitting** the priority.

Operational carbon
Energy efficiency, cleaner grids and retrofit.



African growth markets

Africa's future buildings are yet to be built, making **today's material choices critical** to embodied carbon emissions.

Operational carbon
Energy efficiency & cleaner grids.

Embodied carbon
Materials and construction choices made now.

Operational emissions can fall over time. **Embodied carbon is locked in at construction.**

EDGE's expanding approach to embodied carbon

EDGE already measures materials performance.

Projects must demonstrate at least 20% improvement in materials alongside energy and water.



EDGE V4 broadens the boundary from A1–A3 to A1–A5.

A1 | A2 | A3 | A4 | A5

The assessment now covers a building's greater carbon emissions: material production, transport and construction.

This strengthens upfront-carbon assessment, but is not the same as whole-life carbon accounting.

Materials are getting harder to pass.

As baselines improve, it becomes challenging to meet the materials requirements.

Local products are still disadvantaged.

Weak and inconsistent product data (such as EPDs and life-cycle assessments) put local materials at a further disadvantage to be recognised.

Like-for-like comparison needs better local data.

More locally specific evidence, such as life-cycle assessments (LCAs), is needed to fairly compare materials and give greater recognition to local products.

Measurement is improving. The next question is incentives.

IFC's EDGE provides a useful starting point. EDGE Certified requires at least 20% improvement in energy, water and embodied energy in materials; EDGE Advanced raises the energy requirement to 40% while retaining the minimums for water and materials.[4] That accessibility is a strength. As building codes and typical practice improve, EDGE baselines can also rise, making some of the easier material savings disappear. **As baselines become more demanding, EDGE's existing 20% materials requirement could itself become a stronger source of demand for lower-carbon materials, without any new standard.**

The technical foundation is also strengthening. Market Accelerator for Green Construction (MAGC) supported work has expanded embodied-carbon data for timber, bamboo, lower-carbon concrete and other assemblies, while EDGE V4 is expected to broaden its assessment boundary beyond product manufacture (life-cycle stages A1–A3) to include transport to site and construction (A4–A5), which could make differences in transport and construction-stage impacts more visible, including potential advantages from local supply and efficient prefabrication.[5] Yet many local products still lack EPDs or sufficiently local life-cycle data. Shared EPDs and regional datasets could be valuable market infrastructure rather than requiring every small manufacturer to build the evidence independently.

The market problem is cost, risk and readiness.

Developers choose materials for many commercial and practical reasons, from cost, speed and supply to approvals, insurance, valuation and buyer acceptance; carbon is rarely the deciding one. A competitively priced product can still fail if approvals take longer, insurers or valuers are uncomfortable with it, supply cannot be guaranteed, or buyers perceive it as inferior. Fire, moisture, durability and responsible sourcing also matter. And timing is critical: materials are usually chosen during design, often before financing is finalised. An incentive that arrives later is unlikely to change the specification.

Certification can make performance visible and credible. But commercial value only emerges when that performance changes something decision-makers care about — buyer demand, procurement eligibility, investor requirements, risk, asset value or cost. For lenders in particular, lower embodied carbon is unlikely to justify better terms on its own unless it can be linked to cash flow, credit risk, collateral value or another bankable outcome.

For that demand to translate into scale, supply also has to respond. Manufacturers need enough confidence to invest in testing, treatment, grading, and production capacity, while developers need reliable quality and volume.

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[1] *World Green Building Council, Africa Manifesto / Africa Regional Network (80% of Africa's 2050 building stock yet to be built); UNEP and GlobalABC, Global Status Report for Buildings and Construction 2025–2026 (37% of global emissions).*

[2] *IEA, National Climate Resilience Assessment for Kenya, 2026 (91% renewable electricity generation in 2024); Uganda Electricity Regulatory Authority, 2025 statistics (renewables 95.2% of installed capacity at end-2025, led by hydro).*

[3] *Kenya State Department for Public Works, proposed Climate Change (Green & Resilient Buildings) Regulations and National Buildings and Construction Decarbonization Roadmap 2026–2050; UNIDO, Preliminary Roadmap for Industrial Decarbonization – Kenya (green public procurement for cement and steel); Rwanda Green Building Minimum Compliance System, 2019; GGGI/RHA/RPPA, Rwanda green-building materials market-readiness and procurement work, 2026.*

[4] *IFC EDGE, Certification Process and 2025 Material Measures User Guide: EDGE Certified requires at least 20% savings in energy, water and materials; EDGE Advanced raises the energy requirement while retaining the water/material minimums. EDGE baselines reflect prevailing practice and applicable codes and evolve with the market.*

[5] *IFC, Market Accelerator for Green Construction (MAGC); Arup, MAGC Research – Study of Embodied Carbon in New Building Materials, 2026; discussions with IFC and Arup, 27 October 2026.*

Four market levers worth testing

These levers are complementary, not competing. Markets may combine them or sequence them as evidence, demand and supply chains mature.

1. Test where verified performance changes decisions

The opportunity is to identify which actors respond to verified material performance, and why. For developers, that may be certification or procurement eligibility; for investors, a sustainability mandate; for governments, policy compliance. Environmental eligibility is not the same as bankability. For financiers, the case should be tested rather than assumed: can better material performance demonstrably affect risk, asset value, marketability or another factor relevant to lending and investment decisions?

2. Use government demand and regulation to move the market

Public procurement, affordable-housing programmes and building standards can create demand at a scale individual projects cannot. Performance requirements can reward lower-carbon materials without prescribing a technology, while a predictable public pipeline can give manufacturers confidence to invest.

3. Use catalytic capital where it can change the decision

Grants, guarantees, first-loss structures or technical assistance could temporarily absorb early costs and risks, particularly if deployed at or before design stage, when material choices are made. But catalytic support should be designed to taper: helping early projects build evidence, demand and supply-chain capability until scale, competition and market confidence make the proposition commercially sustainable without subsidy. MAGC is a useful precedent for temporary market-building support.[6]

4. Test carbon revenue where aggregation makes it viable

Bio-based materials can store atmospheric carbon, creating a potential additional revenue stream.[7] For individual buildings, verification and transaction costs may be too high; aggregation across a manufacturer, developer portfolio or housing programme may be more practical. Carbon revenue should strengthen a viable commercial proposition, not substitute for one.

Build the evidence the market needs

The immediate task is not to choose a winning material or mechanism, but to identify which constraints are genuinely binding and demonstrate what makes market actors willing to act. East African frontrunners can build evidence around:

- Proven buildings: occupied projects with evidence on total delivered cost, financing, build time and maintenance, alongside real-world performance, normal insurance and valuation, and whether any support translates into greater affordability for end users.
- Product and supply readiness: shared EPDs and local LCAs; verified fire, moisture and durability performance; responsible sourcing; and reliable supply at volume.
- Market and industrial response: repeat developer demand, buyer acceptance, greater comfort from insurers and valuers, and investment in local processing and manufacturing.
- Incentive design: what actually changes material choices at design stage, who benefits, and when temporary support can taper.



[6] Ipsos, 'What works to build green? Three lessons from our evaluation of the Market Accelerator for Green Construction (MAGC),' EDGE Buildings, 2026.

[7] Rainbow Standard, Bio-based Construction Materials Methodology. Applicability to East African projects would require separate eligibility, verification and commercial assessment.