

DESIGNING OUT WASTE

Building a Circular Construction Economy for Kenya

Industry Briefing



An **Industry Briefing** prepared
by the African Circular Business
Alliance (ACBA) for Big 5
Construct Kenya.

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THE PROBLEM

Kenya's construction growth is creating a material opportunity

Kenya's construction sector is entering another period of expansion. According to the Kenya National Bureau of Statistics, construction activities rebounded strongly in 2025, growing by 6.8% after contracting by 0.7% in 2024. As housing, commercial buildings, infrastructure and industrial facilities continue to develop, the volume of materials entering Kenya's built environment will continue to grow.

Behind that growth sits an enormous flow of material: cement, aggregate, steel, timber, glass, aluminium, fixtures and other components that are extracted, manufactured, transported and incorporated into buildings and infrastructure.

Much of that material ultimately follows a linear path:

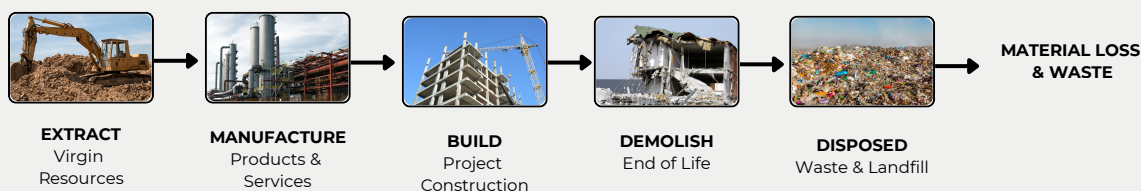
Extract → Manufacture → Build → Demolish → Dispose

The problem is not simply what happens at the end of a building's life. Many of the decisions that determine whether materials become waste are made years earlier, during design, specification, procurement, construction and renovation.

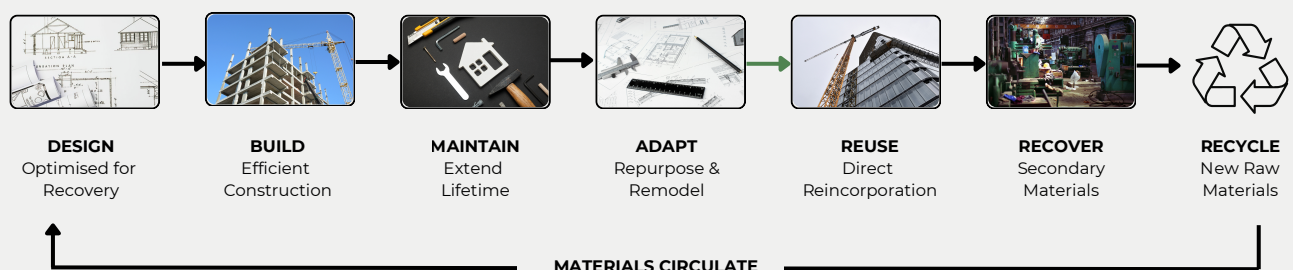
A building can therefore be designed not only for how it will be constructed, but also for how its materials and components can be maintained, adapted, removed, reused and recovered.

Figure 1. LINEAR vs. CIRCULAR CONSTRUCTION MODEL PROCESS

LINEAR MODEL (Traditional "Take-Make-Waste" Approach)



CIRCULAR MODEL (Resource-Efficient "Closed-Loop" Approach)



The shift Kenya's construction sector needs to make

Kenya's Sustainable Waste Management Act already provides a foundation for this shift. The Act defines sustainable waste management around efficient use of material resources, the waste hierarchy, circular economy and clean production. Its waste hierarchy places avoidance and reduction ahead of reuse, repair, refurbishment, recycling, recovery and, finally, treatment for safe disposal.

The implication is important: recycling should not be the starting point of circular construction.

By the time a material is classified as waste, many opportunities to preserve its value have already been lost. The more useful question is:

Where in the life of a building does a material stop being an asset and start being treated as waste, and can that point be moved?

That question shifts the conversation from waste management to design, procurement, material markets and business models.

WHERE THE OPPORTUNITY IS

Four circular construction opportunities

1. Concrete and Aggregates

Concrete and mineral aggregates represent major material flows in construction. At the end of a building's life, demolished concrete can be processed into recycled aggregate for appropriate applications, reducing demand for virgin aggregate where technical requirements allow.

The opportunity is therefore not simply to collect more demolition waste. It is to develop reliable systems for selective demolition, crushing, processing, testing and certification so that recovered mineral materials can become trusted inputs into construction.

The key barrier is confidence. Engineers, contractors and developers need assurance that secondary materials meet appropriate performance and safety requirements.

2. Steel

Steel already has significant recovery value because it can be collected, traded and reprocessed. The opportunity is to connect existing recovery activity more effectively with formal construction supply chains.

This means improving systems for identification, recovery, quality assurance, storage and redistribution so that recovered steel can participate more efficiently in the construction economy.

The objective is not to create a recovery market from nothing. It is to strengthen the connection between material recovery and formal construction demand.

3. Timber

Timber components can often retain considerable value when removed carefully rather than destroyed during demolition.

Reclaimed timber can potentially be reused directly, remanufactured into other products, or processed into new material streams. This creates opportunities for businesses specialising in deconstruction, grading, treatment, refurbishment and resale.

Designing buildings with future disassembly in mind can make this recovery significantly easier.

4. Fixtures and Components

Doors, windows, sanitary fittings, lighting systems, ceiling components and other building products are often removed during renovation or demolition.

Where technically and economically feasible, direct reuse can retain more of a product's original value than recycling it into raw material.

This creates opportunities for component recovery companies, refurbishment businesses, secondary-material marketplaces and reverse-logistics providers.

Figure 2. Integrated Material Opportunities



Note: Demonstration of how recovered concrete, structural steel, reclaimed timber, and secondary fixtures converge into a single commercial asset.

Six barriers to scale

1. Design Practice

Buildings are generally designed primarily for construction and occupancy, rather than future adaptation and disassembly.

2. Economics

Virgin materials can be easier to source, price and specify than recovered materials, even where recovery could create economic value.

3. Standards and Quality Assurance

Engineers, contractors, developers, insurers and clients need reliable specifications, testing and certification for secondary materials.

4. Fragmented Supply Chains

Materials leaving demolition and renovation sites are rarely connected efficiently to businesses that could use them.

5. Procurement

Without clear demand from major developers and public projects, suppliers have limited incentive to invest in recovery, processing and resale capacity.

6. Data and Material Traceability

Scaling reuse requires better information about what materials exist, where they are located, their quantity and condition, their specifications, and when they may become available.

Kenya's regulatory direction increasingly supports addressing these barriers. The Sustainable Waste Management Act calls for measures that expand markets for recycled products, strengthen quality and certification standards, and facilitate construction-waste management

WHAT KENYA SHOULD DO

From waste management to circular construction

1. Design buildings for their next life

Circularity should become a consideration at the design stage. Architects and engineers can consider:

- Adaptability
- Durability
- Repairability
- Modular construction
- Standardised components
- Reversible connections
- Design for disassembly
- Material documentation

The objective is simple: make buildings easier to maintain, adapt and eventually take apart without destroying the value of their components.

2. Build markets for secondary construction materials

Kenya needs stronger connections between demolition, renovation, sorting, processing, storage and construction demand.

This could support specialised enterprises that recover, test, refurbish, catalogue and sell materials and components for reuse.

The opportunity extends beyond waste companies to construction suppliers, logistics companies, marketplaces, contractors, SMEs and technology businesses.

3. Establish standards and quality assurance

Circular construction will not scale on environmental ambition alone.

Recovered materials need credible specifications, testing and quality assurance. Engineers and contractors must be able to determine whether a material is suitable for a particular application.

Kenya already has an established standards infrastructure through the Kenya Bureau of Standards (KEBS), providing an important institutional foundation for developing and applying standards for construction products and materials.

The priority should be to reduce uncertainty around secondary materials, so that performance, safety and compliance, rather than simply being "new," determine whether a material can be specified.

4. Use procurement to create demand

Major developers, contractors and public-sector procurers can help create the market.

Appropriate projects could incorporate:

- Construction-waste diversion requirements
- Material-reuse targets
- Recycled-content requirements where technically appropriate
- Requirements for waste-segregation plans
- Preference for reusable or recycled construction products
- Documentation of recovered materials
- Circularity criteria within project procurement

Government procurement can be particularly influential because it can create predictable demand against which suppliers can invest. Kenya's Sustainable Waste Management Act specifically provides for policies that can expand markets for recycled products through incentives and government procurement preferences.

5. Build the circular construction enterprise ecosystem

Policy alone will not create a circular construction economy. Kenya needs businesses capable of delivering the infrastructure of circularity across the full material lifecycle:

Recover → Test → Process → Store → Match → Transport → Reuse

This spans a defined set of enterprise types, including:

- Deconstruction and selective-demolition services
- Recycled aggregate and construction-material recovery operators
- Reclaimed timber and component refurbishment businesses
- Secondary construction-material marketplaces and reverse logistics
- Material inventory, traceability platforms and digital material passports
- Circular design and engineering consultancy

These businesses can help transform construction materials from costs at the end of a building's life into assets within a functioning secondary market, creating an opening for entrepreneurs, SMEs, developers, contractors, material suppliers, technology companies and investors alike.

The 2024 Sustainable Waste Management Regulations place greater emphasis on cleaner production, product life-cycle considerations, recovery and reuse. Kenya's 2024 EPR regulations further require covered producers to consider design, reuse, recycling, recovery, secondary raw materials and circular-economy initiatives.

CONCLUSION

Kenya's construction sector does not need to choose between growth and resource efficiency. The opportunity is to change how buildings are designed, built, maintained, renovated and eventually taken apart so that materials retain their value for longer.

That shift will require more than better recycling. It will require changes to design practice, procurement, standards, material markets, data systems and the businesses that connect them.

For Kenya, circular construction is therefore not simply a waste-management agenda. It is an opportunity to build new enterprises, improve resource efficiency, strengthen construction supply chains and create a more resilient built environment.

Kenya's next construction phase should not only be measured by how much is built, but by how much value is retained in what is built.

SOURCES

Kenya National Bureau of Statistics (KNBS)

2026 Economic Survey, official national economic and sector data. The 2026 survey reports that construction activities grew by 6.8% in 2025 after a 0.7% contraction in 2024.

[KNBS: 2026 Economic Survey](#)

Republic of Kenya / Kenya Law

Sustainable Waste Management Act, 2022, establishes Kenya's legal framework for sustainable waste management and defines the waste hierarchy, circular economy, reuse, recovery and recycling.

[Kenya Law: Sustainable Waste Management Act](#)

Republic of Kenya / Kenya Law

Environmental Management and Co-ordination (Waste Management) Regulations, 2024, includes provisions concerning waste generators, cleaner production, recovery, reuse and recycling.

[Kenya Law: Waste Management Regulations, 2024](#)

Republic of Kenya / Kenya Law

Sustainable Waste Management (Extended Producer Responsibility) Regulations, 2024, establishes obligations relating to product life cycles, eco-design, reuse, recycling, recovery, secondary raw materials and circular-economy initiatives for covered products.

[Kenya Law: EPR Regulations, 2024](#)

Kenya Bureau of Standards (KEBS)

Gazetted Standards, the official source for Kenya's gazetted standards and standards infrastructure.

[KEBS: Gazetted Standards](#)

UN Environment Programme (UNEP) / GlobalABC

Global Status Report for Buildings and Construction 2024–2025: Not Just Another Brick in the Wall, global evidence on the environmental footprint of buildings and construction and the need for greater circularity, resource efficiency and low-carbon materials.

[UNEP: Global Status Report for Buildings and Construction 2024-2025](#)



Prepared by the **African Circular Business Alliance (ACBA)** as Knowledge Partner for Big 5 Construct Kenya, organised by **dmg events**.



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