KENYA GREEN
BUILDING SOCIETY

Build Green, Save Kenya

GREEN BUILDINGS POCKET GUIDE

FEBRUARY 2025

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ACKNOWLEDGMENTS

This Pocket Guide is a collective effort.

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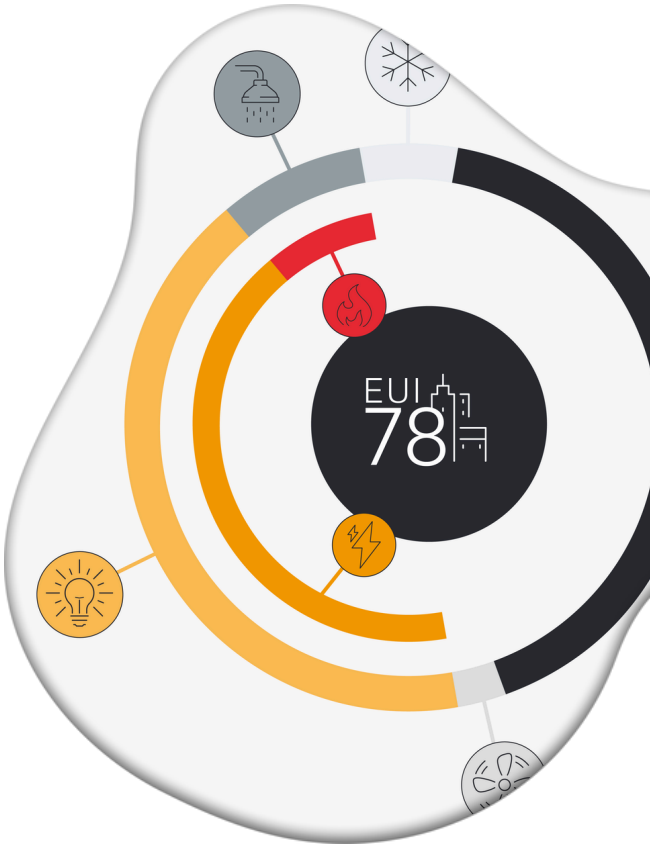
We would also like to appreciate all the partners and individuals who have contributed to the development of the green building market and movement.

Thank you.

1. WHAT IS A GREEN BUILDING?

A green building is a structure designed, constructed, or retrofitted to be environmentally responsible and resource-efficient throughout its life cycle. Green buildings aim to:

- Improve air quality
- Increase energy efficiency
- Conserve water
- Use sustainable materials
- Generate less waste
- Provide healthier spaces
- Reduce carbon footprint



2. OBJECTIVES

We have developed this Green Buildings Pocket Guide, as a compact yet comprehensive resource to provide insights into green building principles, rating tools, and case studies in Kenya.

Our aim, through this Pocket Guide is to:

- Increase awareness and adoption of green building best practices.
- Provide practical guidance on certification standards such as **EDGE, Green Star, LEED**, and the **Safari Green Building Index**.
- Showcase some notable green building projects in Kenya.
- Highlight the role of strategic partnerships in advancing sustainable development.

3. BUT FIRST...WHO WE ARE, & WHAT WE DO

The KGBS is an independent, non-profit, non-political, member-based organization formed to lead the transformation of the built environment in Kenya championing a sustainable, resilient, inclusive, healthy and efficient built environment.

Our mission is advocate, educate and certify green buildings in Kenya to achieve an environmentally, socially and economically progressive built environment.

KGBS is the pioneer green building movement in the Kenyan market that ensures cities are designed and built sustainably, with the recognition that the built environment is an ecosystem of opportunity, that serves as a platform for: dignity for communities, prosperity for businesses and legacy for government.

KGBS, is an established member of the World Green Building Council and our CEO, is the current Chairperson of the Africa Regional Network of the World Green Building Council.

4. OUR SERVICES

The KGBS directly, and in collaboration with its members and partners, offers a range of services to support the design, construction, and operation of sustainable, energy-efficient, resilient buildings. Key offerings in support of green buildings include:

- **Certification:** we support green building certifications for IFC EDGE, Greenstar and LEED.

- **Education and Professional Development :** we offer educational resources such as workshops, awareness and training programs on various aspects of green building, and can arrange bespoke trainings and awareness for your organisation, with the aim of helping industry professionals and key stakeholders stay up-to date on sustainability.

- **Project Implementation support and/or Sustainability focused Consultations:** we provide expert consultations on green building sustainable design, construction, and operations.

- **Resource Provision:** we provide access to resources like the Jenga Green Library, a comprehensive listing for sustainable building materials and services (https://jengagreenlibrary.com/).

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- **Research, Grants and Innovation:** we conduct research and disseminate best practices, case studies, and technical guides, with the aim of supporting innovation towards a greener built environment . Research helps practitioners adopt new technologies and design strategies that enhance environmental performance.

- **Advocacy, and policy engagement:** we actively promote policies and incentives at the local, sub-national and national levels that encourage sustainability in the built environment, helping to shape regulatory environments and drive market transformation.

- **Networking, Key stakeholder Engagement, Collaboration and Community Building:** we facilitate collaboration through events, online communities, and partnerships. These initiatives bring together diverse stakeholder to share insights and work collectively towards a greener, inclusive and resilient built environment.

- **Big brother and Big sister initiative:** we recognise our role as a facilitator of the market, and in this regard offer opportunities and mentorship by pairing inexperienced green building professionals with both the internal team and experienced green building professionals in order to build capacity and assist market growth.

5. OUR PARTNERS

KGBS actively collaborates with various organizations to advance green building in Kenya. KGBS leverages its strategic partnerships to enhance green building practices with a view of localizing solutions and globalising our reach by tapping into regional and global expertise, setting robust certification standards, and promoting sustainable design. Here's how each collaboration contributes:

State Department of Housing and Urban Planning

KGBS collaborates closely with the State Department of Housing and Urban Planning to integrate green building principles into national housing strategies.

As Kenya advances its affordable housing agenda, KGBS is working to ensure that sustainability remains a core pillar by advocating for green building certifications, climate resilience, and resource efficiency in housing developments. A key achievement of this partnership is KGBS's role in supporting Kenya's commitment to the Buildings Breakthrough Initiative, a global effort to make sustainable buildings the norm by 2030.
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REPUBLIC OF KENYA

STATE DEPARTMENT FOR PUBLIC WORKS
Public Works Makes Kenya Work

State Department of Public Works

KGBS's partnership with the State Department of Public Works is instrumental in shaping Kenya's green building policies and regulatory frameworks. As the lead agency overseeing public infrastructure and building standards, the department is a key partner in implementing sustainable construction guidelines that align with Kenya's NDC commitments and the Buildings Breakthrough Initiative.

KGBS has been actively involved in advocating for the inclusion of sustainability provisions in the revised Building Code 2024, ensuring that green building standards, energy efficiency measures, and circular economy principles become mandatory in public and private sector developments.

Furthermore, KGBS collaborates with the department to promote sustainability in public buildings.

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National Construction Authority

KGBS works in partnership with the National Construction Authority (NCA) to drive the adoption of sustainable construction practices across Kenya's built environment sector.

As the regulatory body for construction standards, NCA is a critical stakeholder in ensuring that sustainability, energy efficiency, and climate resilience are embedded in construction processes, from design to execution.

Through this collaboration, KGBS has supported NCA's efforts to align Kenya's construction industry with global best practices, including Kenya's Buildings Breakthrough commitments and NDC targets for emissions reduction in the building sector.

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Green Building Council of South Africa

KGBS and the **Green Building Council of South Africa (GBCSA)** have partnered to promote **Green Star** Certification as a key sustainability benchmark for Kenya's built environment.

In addition, GBCSA, is a supporter of KGBS in its mission to build capacity of Greenstar APs specifically, and green building professionals generally in the market in order to transform built environment into a sustainable built environment.

This partnership enables KGBS to implement and administer Green Star rating tools, providing a locally relevant yet internationally recognized framework for evaluating the environmental performance of buildings.

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Green Business Certification Institute (GBCI)

GBCI and the KGBS have partnered to advance green building awareness, education, and certification in respect of **LEED** certifications in Kenya.

Both organizations are committed to expanding the green building marketplace, promoting sustainable urban development, and fostering knowledge exchange.

Currently, in Kenya, below are the LEED project stats:

- LEED Certification - 34
- LEED Registration - 42
- LEED Pre-certification - 4

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IFC EDGE

KGBS in partnership with the I**nternational Finance Corporation's (IFC) EDGE** program, is driving market transformation towards sustainable, resource-efficient buildings through capacity building, research, and stakeholder engagement.

This collaboration strengthens KGBS's role as a market facilitator and technical partner, ensuring that green design, energy efficiency, and climate resilience become standard practices in Kenya's built environment.

KGBS has been instrumental in facilitating EDGE Expert Training, equipping over 200 professionals with the skills to assess and certify buildings using the EDGE rating system.

Additionally, through research and policy engagement, KGBS has provided insights into green finance, climate adaptation strategies, and sustainable construction materials, positioning EDGE as a viable tool for affordable green housing and commercial developments.

Stakeholder engagement remains a cornerstone of this partnership, with KGBS convening key players —including government agencies, private sector developers, and financial institutions—to accelerate the adoption of EDGE-certified projects.

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AAK | PROMOTING EXCELLENCE IN THE BUILT ENVIRONMENT

The Architectural Association of Kenya (AAK)

The AAK brings together experts dedicated to sustainable building design as a strategy to reduce carbon emissions in the construction sector.

the AAK collaborates with the Kenya Green Building Society (KGBS) to promote sustainable building designs, practices, and technologies.

A key outcome of this partnership is the development of the Safari Green Building Index (SGBI)—a local green building rating tool that assesses and certifies building sustainability.

Beyond green building certification, the AAK and KGBS drive market transformation by: organizing training programs; Continuous Professional Development (CPD) courses; conferences and workshops on green building design; advocate for policies supporting sustainable construction; contribute to research and policy development; and promote the endorsement and adoption of green building rating systems and standards.

By leveraging AAK's expertise in architecture and urban planning alongside KGBS's leadership in green building advocacy, this partnership is shaping a resilient and low-carbon built environment by equipping stakeholders with the knowledge and tools needed to drive the transition toward sustainable cities and communities in Kenya.

Global Alliance for Buildings and Construction

Global Alliance for Buildings and Construction (ABC)

The collaboration between KGBS and the **GlobalABC** is a vital partnership for advancing sustainable building practices in Kenya.

As a member of GlobalABC, KGBS has actively participated in various initiatives, including submitting joint proposals and engaging in high-level events such as COP29.

In September 2024, UNEP/GlobalABC participated in panel discussions at the Annual KGBS Conference, highlighting Kenya's commitment to promoting energy efficiency and circularity in the buildings and construction sector.

Additionally, GlobalABC's technical input has contributed to the development of the Nairobi City County Green Building Guidelines, supporting KGBS's efforts to promote sustainable construction throughout the region.

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World Green Building Council

Kenya Green Building Society is an **Established** member of the World Green Building Council, and the Chair of the **Africa Regional Network**.

As part of the **Africa Regional Network**, KGBS is a leading Green Building Council in accelerating climate action towards net zero carbon, healthy, resilient and equitable built environments in urban, peri-urban and rural areas across Africa.

KGBS is supporting the development of strong regulatory and voluntary frameworks, ecosystem solutions;and advocating for stronger Nationally Determined Contributions (NDCs); training green building professionals and unlocking the opportunity in the sustainable built environment.

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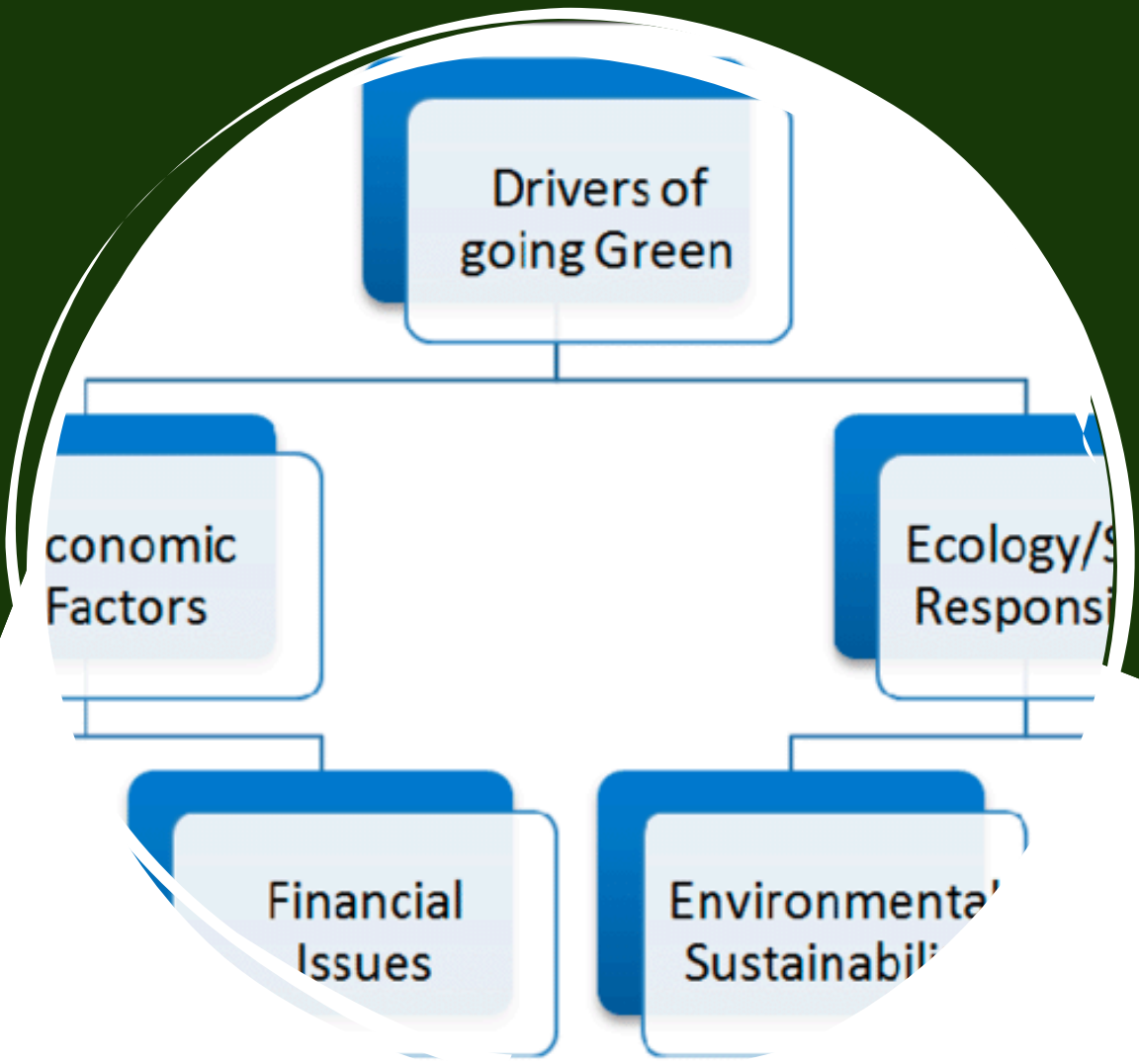
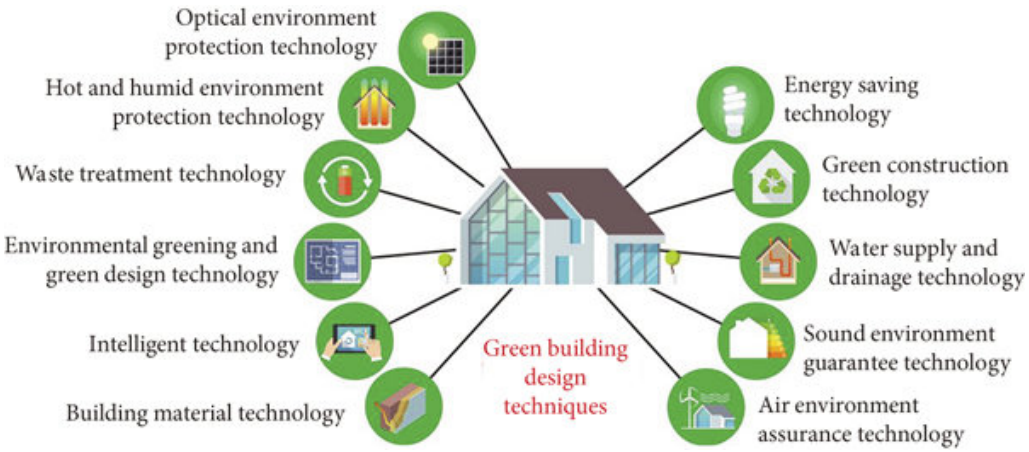


6. DRIVERS FOR GREEN BUILDINGS

Green building certification systems require new and existing buildings to exceed local baseline resource efficiency.

When planning green measures for your projects, focus on the key targets by resource type mentioned in the following pages.



1. Energy-Efficient Design & Technologies

- **Lighting:** Use high-efficiency LEDs (or qualifying T8/T5/CFL lamps) so that at least 90% of your lighting meets high efficiency standards (e.g., a luminous efficacy of 90 lumens per watt or more).
- **Ventilation & Daylighting:** Optimize natural ventilation and daylight by designing the building with an ideal window-to-wall ratio and proper orientation to minimize solar heat gain.
- **Renewable Energy:** Install onsite renewable sources like solar PV, wind, or biomass systems directly on the building or property.
- **Smart Technologies:** Incorporate smart meters and lighting control systems to monitor and reduce energy usage.
- **Insulation:** Choose insulation materials with the lowest possible embodied energy.

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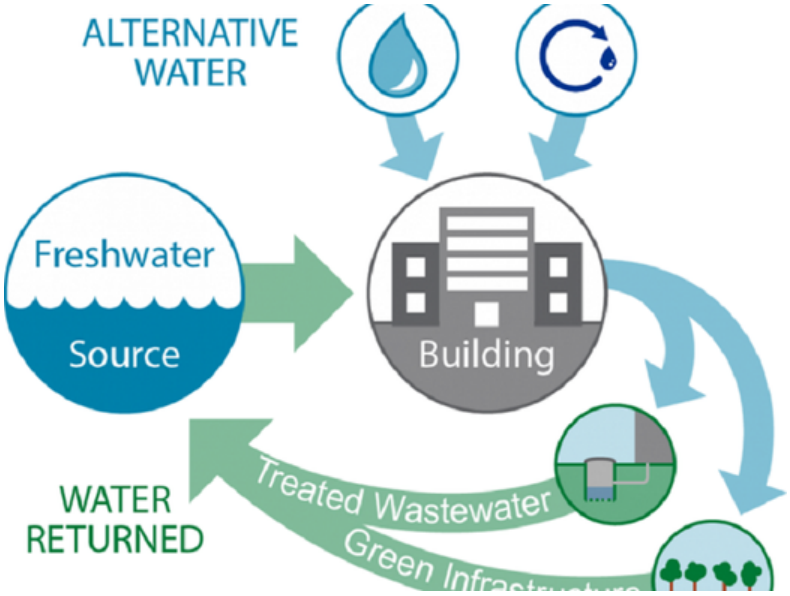

2. Water Efficiency

- **Fixtures & Fittings:** Install water-saving devices like aerators, efficient faucets, and water closets, as well as smart irrigation systems.
- **Harvesting & Reuse:** Implement rainwater harvesting systems and recycle and reuse greywater for non-potable purposes, eg. flushing toilets and irrigation.
- **Monitoring:** Use smart water meters and leak detectors to manage and optimize water consumption on-site.
- **Green Roofs:** Use low-maintenance green roofs that filter rainwater, help reduce flood risks and mitigate the heat island effect.
- **Fire Suppression:** Explore alternative fire systems (e.g., carbon dioxide or foam) instead of traditional water-based sprinklers.

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3. Green Building Materials

- **Local & Sustainable:** Choose locally sourced, sustainable materials that reduce environmental impact, lower costs, and boost local economies.

- **Passive Design Opportunities:** Leverage regional climate advantages with materials suited for passive design strategies.

- **Reference Resource:** For guidance, the Kenya Green Building Society's Materials and Services Directory (the **Jenga Green Library**) offers detailed information on sustainable building materials and services. Visit Jenga Green Library

4. Indoor Environmental Quality

- **Lighting & Ventilation:** Maximize natural light, use energy-efficient electrical lighting, and ensure effective ventilation for fresh air.
- **Thermal Comfort:** Optimize heating and cooling systems for consistent indoor comfort. Select energy efficient heating and cooling equipment and appliances.
- **Health & Safety:** Minimize pollutants such as VOCs, asbestos, and formaldehyde in selection of materials and finishes and prevent mold to improve air quality.
- **Additional Comfort:** Enhance spaces with views, individual climate controls, and noise reduction.
- **Active Design:** Encourage stair use to promote physical health and reduce reliance on elevators.

5. Management Initiatives

- **Expert Guidance:** Engage professionals specializing in green building principles to guide your project.
- **Waste & Pollution:** Implement robust waste recycling and pollution management practices during construction.
- **System Commissioning:** Ensure building systems are properly commissioned and tuned for optimal performance.

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7. GREEN BUILDING RATING TOOLS AND STANDARDS AT A GLANCE

EDGE (Excellence in Design for Greater Efficiencies)

What is EDGE?
EDGE is a global green building certification developed by the International Finance Corporation (IFC), part of the World Bank Group. Its goal is to promote resource-efficient buildings by focusing on energy, water, and the embodied carbon in materials.

How It Works
To meet EDGE standards, a building must achieve at least 20% savings in three areas compared to typical local constructions:

- Energy Usage
- Water Usage
- Embodied Carbon in Materials

Why EDGE?
Widely adopted in Kenya and across the globe, EDGE offers an affordable, straightforward framework for integrating sustainability into a variety of projects.

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It’s a flexible system that can be applied to many types of buildings, such as:

·Homes: Single-family houses and apartments
·Hospitality: Hotels, resorts, and serviced apartments
·Retail, Light Industry & Warehouses: Commercial and industrial spaces
·Hospitals and Clinics
·Offices
·Education: Schools and universities
·Data Centres

Professional Support

EDGE certification is guided by trained professionals who ensure projects meet the standards:
·EDGE Expert: Offers guidance to project teams on achieving certification.
·EDGE Auditor: Assesses projects for compliance with EDGE requirements.
·EDGE Reviewer/Certifier: Conducts final reviews and grants certification.

Certification Levels

EDGE recognizes projects at three levels:

- **EDGE Certified:** At least 20% savings in energy, water, and embodied energy.
- **EDGE Advanced:** Achieves 40% or more savings in energy along with the 20% minimum in water and embodied energy.
- **EDGE Zero Carbon:** Achieves 100% energy savings through renewable energy sources, signifying zero carbon emissions.

For more details, visit edgebuildings.com.

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LEED (Leadership in Energy and Environmental Design)

What is LEED?
LEED is a globally recognized certification developed by the **U.S. Green Building Council (USGBC)**. It sets the standard for sustainable building by evaluating projects on energy efficiency, water conservation, indoor air quality, and responsible material use. In short, LEED helps create healthy, efficient, and cost-effective green buildings that benefit the environment and communities alike.

Why Choose LEED?

- **Environmental Impact:** Helps reduce carbon emissions and combats climate change.
- **Health & Well-Being:** Enhances indoor air quality and promotes healthier spaces.
- **Resource Protection:** Conserves water, preserves biodiversity, and supports sustainable material cycles.
- **Community Benefits:** Improves overall quality of life by promoting resilient, equitable, and vibrant communities.

Core Goals of LEED:

- Reduce Global Climate Impacts
- Enhance Human Health and Well-Being
- Protect and Restore Water Resources
- Preserve Biodiversity and Ecosystem Services
- Promote Sustainable and Regenerative Material Cycles
- Improve Community Quality of Life

Professional Credentials:

- **LEED Green Associate (GA):**

A great starting point for anyone interested in green building, offering a solid foundation in LEED principles.

- **LEED Accredited Professional (AP):**

An advanced certification that demonstrates deep expertise in sustainable building practices for professionals actively involved in LEED projects.

LEED Project Types:

LEED is versatile and applies to all stages of building projects:

- **Building Design and Construction (BD+C):**For new construction and major renovations, covering sectors like schools, retail, hospitality, data centers, warehouses, and healthcare.
- **Interior Design and Construction (ID+C):**Focused on interior fit-outs in commercial, retail, and hospitality spaces.
- **Building Operations and Maintenance (O+M):**For existing buildings undergoing improvements or minimal construction.
- **Neighborhood Development (ND):**For large-scale projects that involve new or redeveloped land with residential, nonresidential, or mixed uses.
- **Homes:**Covering single-family homes, low-rise or mid-rise multifamily projects. Larger residential buildings may also use LEED BD+C.
- **Cities:**Designed for entire cities or urban areas, addressing metrics like water use, energy consumption, waste management, and transportation.

How Certification Works:
Projects earn points by meeting prerequisites in key areas such as carbon reduction, energy use, water conservation, waste reduction, transportation, material selection, and indoor environmental quality.

Certification levels include:

- Certified: 40–49 points
- Silver: 50–59 points
- Gold: 60–79 points
- Platinum: 80+ points

For more details, contact us, and/or visit the USGBC LEED website: USGBC LEED

What is Green Star Africa?

Green Star Africa is a sustainable building rating system developed by the Green Building Council of South Africa (GBCSA) and tailored for Africa's unique environmental challenges. Used in South Africa, Kenya, Ghana, Namibia, Botswana, and Tanzania, it recognizes projects that lead in environmental performance and community benefits.

How It Works

Green Star uses a set of "target credits" to evaluate a project's sustainability across key categories:

- Energy
- Water
- Materials
- Innovation
- Emissions
- Socio-Economic
- Transport
- Indoor Environment Quality (IEQ)
- Management
- Land Use & Ecology

These criteria help design professionals and developers create buildings that are not only eco-friendly but also improve quality of life.

For the Professionals

Green Star Accredited Professionals (APs) are experts who guide projects through the certification process.

They:

- Collaborate with owners to define project goals.
- Work with project teams to maximize green potential.
- Serve as the key contact with GBCSA.
- Prepare certification submissions.
- Advise on strategies to meet sustainability targets.

These professionals complete rigorous training, pass a competency exam, and work independently with fees negotiated directly with developers.

Tailored Tools for Different Projects

Green Star offers specialized rating tools for various building types and project stages:

- Interior Fit-Out: For complete interior renovations.
- New Buildings & Major Refurbishments: For new constructions and large-scale renovations.
- Existing Building Performance (EBP): For improving the sustainability of current buildings.
- Sustainable Precincts (SUP): For large-scale neighborhood or precinct developments, covering planning to construction.

Certification Pathways

There are two main certification routes:

- Green Star Certification: Awarded to projects meeting established sustainability benchmarks.
- Net Zero/Net Positive Certification: Recognizes projects that achieve complete environmental neutrality or a positive impact in areas like water, carbon, waste, and ecology.

For further information, visit the Green Star Africa website.

What is it

The Safari Green Building Index is a rating system created specifically for Kenya and the East African region. Developed by the Architectural Association of Kenya (AAK) in collaboration with the University of Nairobi and UN-Habitat, this tool reflects the unique environmental, climatic, and social conditions of the area, making it highly relevant for local developers and investors.

Key Focus Areas

- Sustainable Construction: Encourages the creation of eco-friendly buildings.
- Energy Efficiency: Aims to reduce energy loads in buildings.
- Environmental Impact: Focuses on minimizing ecological footprints and cutting carbon emissions.

How It Works

Buildings are evaluated using a points-based system across seven performance categories:

- Prerequisite Requirements
- Building Landscape
- Passive Design Strategies
- Energy Efficiency
- Resource Efficiency
- Noise Control
- Acoustics and Innovation

For more information, visit Safari Green Building Index**.**

8. SOME NOTABLE GREEN BUILDING PROJECTS IN KENYA

Numerous green building projects have been developed in Kenya, highlighting the process and benefits of sustainable construction practices.

These projects, spanning commercial, residential, industrial and educational sectors, are designed to meet high green building certification standards, setting a benchmark for environmentally responsible development in the country.

PROJECT	SECTOR	RATING TOOL
1. Nairobi City County Governor's office	Office	EDGE
2. Profica	Commercial	Greenstar
3. Raddison Blu – Upperhill	Hospitality (Hotel)	EDGE
4. Microsoft Office Nairobi	Commercial	LEED
5. Forestscapes	Residential	EDGE
6. Capital – M Apartments	Residential	LEED
7. Executive Residency by Best Western Nairobi	Hospitality	EDGE
8. SABIS International School	Educational	Greenstar
9. Vienna Court	Commercial	LEED
10. Garden City Retail	Commercial (Retail)	EDGE
11. Ascot – Block F	Residential	EDGE
12. Eaton Place	Commercial/Office	LEED

13. Qwetu Parklands & Wilson View	Residential	EDGE
14. Citibank Gigiri Branch and COB	Commercial (Banking/Office)	LEED
15. World Bank Group – Delta Centre	Institutional/Commercial	LEED
16. JKIA Greenfield Terminal	Transportation/Public	LEED
17. Aashiana	Residential	EDGE
18.. The Promenade	Mixed-use (Residential/Commercial)	EDGE
19. Mvule Gardens by 14 Trees	Residential	EDGE
20. The Cube	Commercial/Office	EDGE
21.Campus Diplomatique Français Nairobi	Institutional/Office	LEED
22.Al Jamea Tus Saifiyah, Nairobi	Educational/Institutional (or religious)	LEED
23.New Market – Aintree Block D–E	Commercial (Retail/Market)	EDGE

24. Strathmore University Business School	Educational	LEED
25. Executive Residency by Best Western Nairobi	Hospitality	EDGE
26. ALP North & West	Commercial/Industrial	EDGE
27. Trade and Development Bank Tower	Commercial/Office	EDGE
28. Caxton House	Commercial/Office	EDGE
29. Dunhill Towers	Residential	Greenstar
30. Absa Bank Kenya – Bishops Gate	Commercial (Bank Branch)	EDGE
31. The Aga Khan University Centre	Educational/Institutional	EDGE
32. Britam Tower	Commercial/Office	EDGE
33. Eneo at Tatu Central	Commercial (Retail/Mixed-use)	EDGE
34. Mivida Homes	Residential	EDGE

KENYA GREEN BUILDING SOCIETY

Build Green, Save Kenya

9. CONTACT INFORMATION

We are always keen to support you on your journey. Should you have any questions please reach out to us on:

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