

GREEN BUILDINGS MARKET INTELLIGENCE GHANA COUNTRY PROFILE



Creating Markets, Creating Opportunities







MARKET GROWTH



Market through 2020	Total market Green market		
Commercial	USD 2.91 B	USD .29 B	
Residential	USD 7.96 B	USD .41 B	
Residential units	100,000	20,000	



CLIMATE POLICIES (NDCS)

 Under unconditional emission reduction goal - emissions expected to decrease by 12% and 15% relative to BAU emission levels in 2025 and 2030 respectively.



MARKET STATUS

- Ghana is estimated to have a deficit of over 1.7 million housing units.
- The GHGBC with the assistance of the South African GBC has customized the Greenstar rating tool for use nationally as GREENSTAR GH. EDGE was launched in 2017.
- Policy directive of using 60% local materials in all public infrastructure.
- GDP from construction is 3,037 GHS Million. (8th largest in Africa)



OTHER FACTORS

- Considered West Africa's "haven of stability."
- Peaceful transition of power in last election.
- Growth rate surpassed IMF targets and inflation is dropping.



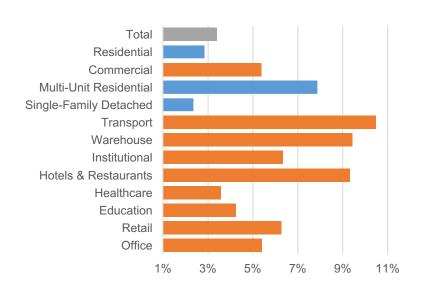
GREEN BUILDING PROGRAMS

- Advocacy and awareness by Ghana Green Building Council (GHGBC).
- EDGE program launched in May 2017, supported by core person from IFC as well as from SGS, the global certifying firm serving as a local partner.
- EDGE Experts are being trained.
- MOUs in progress with: EPA (for permitting compliance), GREDA (Ghana Real Estate Developers association), Ghana Home Loans, and Appolonia City (large development on outskirts of Ghana).
- IFC is actively promoting green options at industry conferences.



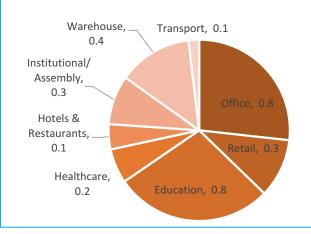
STEADY MARKET GROWTH EXPECTED

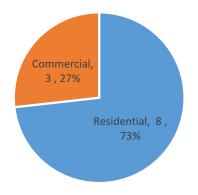
MARKET GROWTH BY SUB-SECTOR (CAGR)

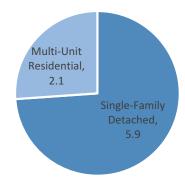


- Ghana is facing economic issues due to lower oil prices, but political stability and smart economic planning of the new administration will result in increased construction.
- Residential is experiencing high growth: housing needs, the availability of new financial instruments and the expansion of Ghana's electrical grid will support residential growth.
- Retail market remains stable but will be tied to the exchange rate and inflation.
- Office market remains relatively flat and performance will depend on desirable locations.

TOTAL MARKET SIZE 2018-25 (USD BILLIONS)





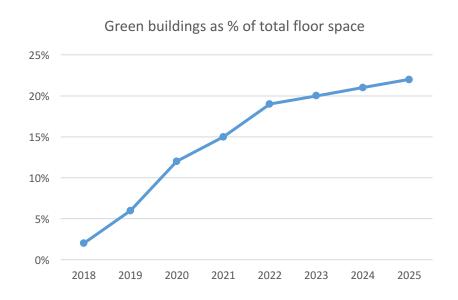




GREAT **EXPECTATIONS** FOR THE GREEN MARKET

IFC's EDGE program is working across all subsectors for green penetration throughout the construction industry.

Sub-Sector	Green penetration projected in 2025		
Office	22%		
Retail	20%		
Healthcare	2%		
Hotels & Restaurants	22%		
Institutional and Assembly	20%		
Warehouse	22%		
Residential Apartments/Flats	22%		
Residential Single-Family	2%		
Residential Social Housing	20%		



Respected global business will serve as strong local implementation partner: the consortium of SGS-thinkstep will serve as the sole provider of certification services for EDGF in Ghana.

IFC is building partnerships with key players:

- GREDA (Ghana Real Estate Developers Association)
- Ghana Home Loans
- Appolonia City (large development on outskirts of Ghana)
- Permitting process through EPA

Source: IFC projections



CONSTRUCTION MARKET IS EXPECTED TO CONTINUE GROWING

GROWTH EXPECTATIONS:

- GDP from construction is 683.23 USD Million (8th in Africa).
- Ghana is dedicated to sustainable development and improving the country's housing and infrastructure.
- Ghana's City-wide resilient infrastructure planning includes investment of \$3,558 million to develop building standards for housing and strategic infrastructure.



GREEN FUNDS SUPPORT:

- Ghana's Venture Capital Trust Fund offers support to real estate developers who build socially and environmentally responsible homes.
- "The total Fund size is almost \$20 million; they can apply and start simple real estate for lowcost housing", Chief Executive Officer, Daniel Duku, encouraged investors to source the fund.



GHANA GREEN BUILDING COUNCIL IS COORDINATING ADVOCACY

GHANA GREEN BUILDING COUNCIL (GHGBC):

- Ghana Green Building Council (GHGBC) is a nongovernmental organization and private-public partnership that is committed to help create sustainable buildings/communities in Ghana using energy savings, water conservation, resource management and cost-efficient techniques.
- The GHGBC provides green building resources, education and leadership opportunities to all stakeholders in the construction industry to help in the transformation process towards sustainability.



CONTACT AT HTTP://WWW.GHGBC.ORG/



THE EXCHANGE IS THE FIRST EDGE CERTIFIED PROJECT IN GHANA



Hotel Case Study

Residence Case Study

Predicted Savings of EDGE Certification

Predicted Savings of EDGE Certification













The Exchange is a partnership of a number of stakeholders who are utilizing IFC's EDGE green building software and program in their operations:

FINANCING:





DESIGN:

CONSTRUCTION:



OPERATION:





EDGE CERTIFICATION IS FAST, EASY, AND AFFORDABLE

REGISTRATION

Per Project Site: \$360



PROJECT TYPE	CERTIFICATION	DESIGN AUDIT	FINAL AUDIT	TOTAL
Residential (one unit type)	\$1,480	\$3,600	\$3,650	\$8,730
Residential (per additional unit type, up to three types)	\$490	\$390	\$390	
Commercial (single end use)	\$1,480	\$3,600	\$3,650	\$8,730
Mixed-Use Buildings (per additional end use)	\$990	\$2,670	\$1,560	

Details are registration forms can be found on the EDGE program website: https://www.edgebuildings.com/certify/ghana

^{*}Discounts are available for projects where the client has hired an <u>EDGE Expert</u> as well as for consecutive project registrations. For multi-use buildings, residential buildings with more than three unit types, or complex projects with multiple buildings, contact <u>SGS</u> for custom pricing.



RESEARCH METHODOLOGY

COUNTRY LIST

- IFC chose countries that correspond to the <u>Climate</u> <u>Investment Opportunity Report</u> (CIO Report) as well as countries of strategic interest for IFC.
- IFC plans to release additional country analysis, pending resources.

TOTAL MARKET OVERVIEW

- Building stock was sourced from the <u>Global Building</u> <u>Stock Database</u> and confirmed by country experts, if possible.
- The research team found local prices for capital construction expenses, or used global proxies otherwise.
- Market sizing was executed for new construction and did not focus on retrofits.

SNAPSHOT OF THE CURRENT GREEN MARKET

- Main source of information was the <u>Green Building</u> <u>Information Gateway</u>, confirmed by local green building council reports, if such existed.
- The research team focused on properties certified as green.

GOVERNMENT POLICIES

- Main information was sourced from the World Bank NDC Database.
- Additional information was found using various searches as well as government websites.

PROJECTIONS FOR GREEN PENETRATION

- Based on the total market growth, snapshot of the current green market, and the enabling environment of government policies, the research team projected green penetration per each of the sub-sectors.
- Weighted average of combined sector data produced the final penetration number.
- The analysis focused only on new construction, and focused only on certified properties.
- As tools for retrofits take off in the market (including IFC's EDGE product), analysis may be amended to include the retrofit market.
- Market potential may be different from numbers reported in the CIO Report, as a more conservative estimate was used for business planning purposes.

OTHER

- Information for green building councils was sourced from World GBC website.
- Case studies were presented only for IFC's EDGE green building software and certification system.
- However, lists of all green certified projects in a given country can be found through the <u>Green Building</u> <u>Information Gateway</u>.
- Finally, pricing for EDGE certification was included to illustrate that green certification is affordable and achievable in emerging markets.



ACKNOWLEDGEMENTS

DONOR ACKNOWLEDGEMENT

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