



GREEN BUILDINGS MARKET INTELLIGENCE

SENEGAL COUNTRY PROFILE



Creating Markets, Creating Opportunities

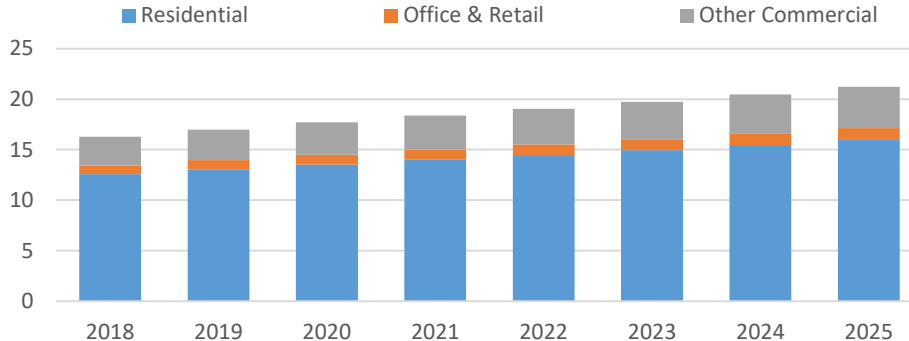


SENEGAL: COUNTRY SUMMARY



MARKET GROWTH

Building Stock (million m2)



Market through 2025

Commercial

Residential

Residential units

Total market

USD 2.1 B

USD 3.8 B

70,000

Green market

nascent

Nascent

nascent



CLIMATE POLICIES (NDCS)

- Agreed to reduction of GHGs by 3%-7% by 2020.
- Launched PAGE to assist the implementation of green policies.
- Senegalese Strategic Investments Fund (FONSIS), a SIF with the ability to invest in sustainable real estate.



MARKET STATUS

- A \$120 million new smart city, ~40km from Dakar, is set to start construction in June expected to build 40,000 houses.
- Demand for housing is estimated at 300,000 units per year while supply is 50,000 creating a deficit of 250,000 units.
- Property registration and procedure costs have dropped from 15.2% of the property value in 2015 to 10.2% in 2016.
- The Land Tenure Act to promote mortgages & land capitalization.



OTHER FACTORS

- 2017 projections show GDP growth to be ~6.5%.
- There are 22 banks providing financial services with mortgage rates at 6% over 20-years and 0% upfront.
- With a 3.8% urbanization rate, demand for affordable housing will remain strong, especially with 43% living in urban areas.
- Cement prices are lower than the continental average, \$5.12 per 50-kilos.
- Emerging Senegal Plan, supported by the IMF, adopted in 2014.



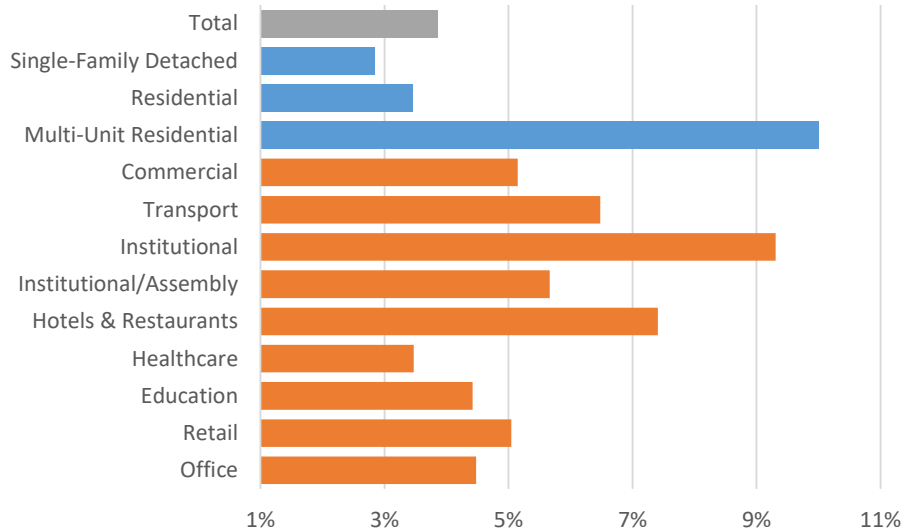
GREEN BUILDING PROGRAMS

- 22 projects tracked in greater Dakar.
- No local green building council.
- IFC program is supported by regional coordinator.
- IFC invested \$21.8 million in green hotels.



HIGH GROWTH IN RESIDENTIAL & HOTELS

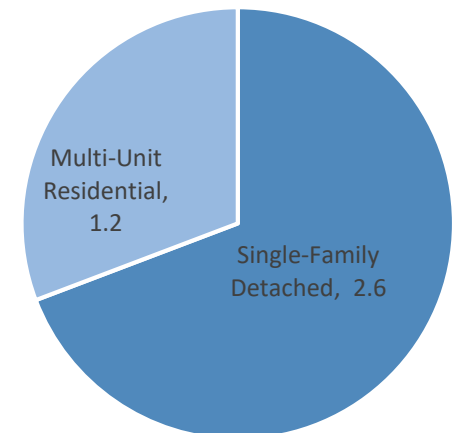
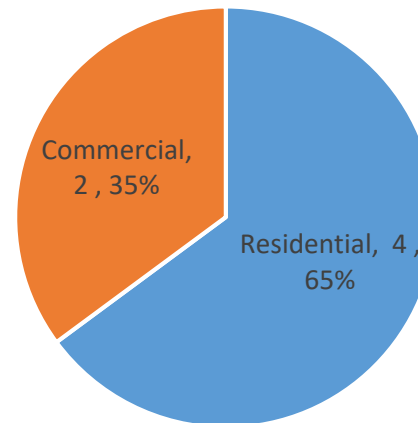
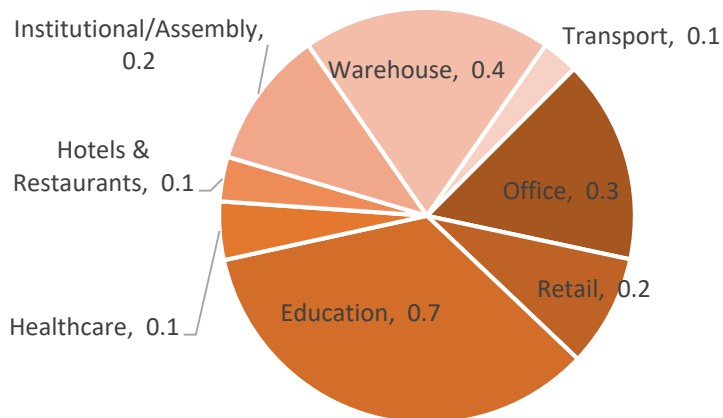
MARKET GROWTH BY SUB-SECTOR (CAGR)



- Senegal's overall CAGR since 2018 is 3.9%.
- Retail & Office growth is expected to be ~5%.
- Residential will be driven by multi-unit residential, growing at ~10.0%.

Cost to construct m ² of space	Senegal Dakar		
	2017	2016	%Δ
<i>USD</i>			
Single-Family Detached	\$912	\$869	5%
Multi-Unit Residential	\$1,240	\$1,181	5%
Office	\$1,265	\$1,206	5%
Retail	\$1,660	\$1,580	5%
Warehouse	\$1,135	\$1,078	5%
Hotels & Restaurants	\$1,750	na	-

TOTAL MARKET SIZE 2018-25 (USD BILLIONS)





SENEGAL HAS **ONE** GREEN CERTIFIED PROJECT

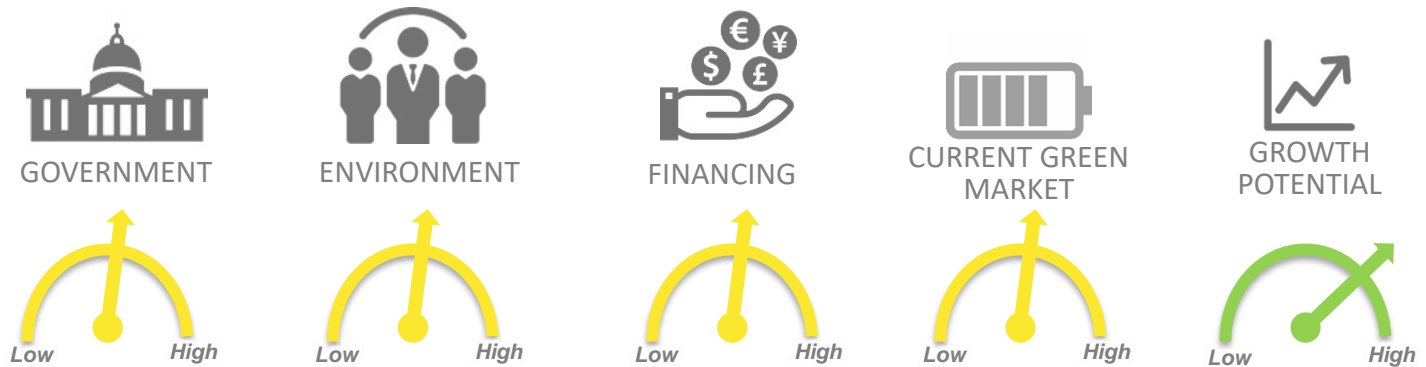


NEC Dakar - New Embassy Compound is a 16,000 m²
US Embassy compound in Dakar



HOSPITALITY WILL LEAD THE GREEN MARKET

GREEN MARKET SUPPORT RATING



- Given the nascent green market and lack of formalized green building programs, green penetration into the overall market can be difficult to forecast.
- IFC expects the tourism industry to lead the green market, as the business case is well documented and international travelers will be looking for green options.



GOVERNMENT, NGOS AND TRADE ASSOCIATIONS ARE COMMITTED TO GREEN BUILDINGS

GOVERNMENT & POLICY SUPPORT

- Ministry for Urban Renewal, Habitat and Quality of Life
- Ministry of the Environment and Sustainable Development
- Ministry of Urban Development and Housing



NGO & TRADE ASSOCIATION SUPPORT



NOTABLE EVENTS



Sovereign Wealth Fund Infrastructure Investment Initiative of the Year

1. FONSIS (Senegalese SWF)

“Green Building Councils in Africa are working to scale building solutions that celebrate the rich geographic, cultural and historic traditions of Africa”

Orascom Housing Communities implements \$500m social housing project in Senegal

Orascom Housing Communities (OHC), a subsidiary of Orascom Development Holding, has implemented a social housing project in Senegal with investments of \$500m, according to businessman and chair of the board of directors Samih Sawiris. This project in Senegal will be constructed according to the same model as Al-Haram City for social housing in Egypt with 63-sqm units, Sawiris said ...

Senegal holds first Green Economy Academy

Over 70 representatives of policy, research and analysis institutions rallied on the first edition of the Green Economy Academy in Dakar, Senegal, on 3-5 May 2016.

News | 10 May 2016

Convened under the Partnership for Action on Green Economy (PAGE) and supported by UNEP, ILO, UNIDO, UNITAR and UNDP, the national Green Economy Academy offered a space for representatives of government, the private sector and leading think-tanks and academic institutions to review the state of knowledge, research and analytical gaps and ways to improve training and human capacity for a successful transition to a green economy.



2ND SENEGAL INTERNATIONAL HOUSING, BUILDING & CONSTRUCTION EXHIBITION & CONFERENCE

10-12 OCTOBER 2017 | HOTEL KING FAHD PALACE, DAKAR, SENEGAL



LEARN ABOUT EDGE CERTIFIED PROJECTS IN AFRICA



RADISSON BLU HOTEL – THE EXCHANGE

Location:	Accra, Ghana
Client:	Mabani Holdings, CDC, Actis, Radisson Blu
Architects:	HOK
Sector:	Mixed use
Size:	98,000m ²
No. of Units:	200 rooms

Predicted Savings of EDGE Certification:



22% Energy Savings



24% Water Savings



22% Less Embodied Energy in Materials



RAVENSWOOD RESIDENTIAL DEVELOPMENT

Location:	Johannesburg, South Africa
Client:	RPP Developments
Owners:	International Housing Solutions
Sector:	Residential
Size :	10,180m ²
No. of Units:	188 two-bedroom homes

Predicted Savings of EDGE Certification:



32% Energy Savings



27% Water Savings



48% Less Embodied Energy in Materials

Case studies from other countries: <https://www.edgebuildings.com/projects/>



PROJECTS CAN CHOOSE BETWEEN TWO EDGE CERTIFIERS FOR FAST, EASY, AND AFFORDABLE CERTIFICATION



CERTIFICATION	PRICE (PER M ² , EXCLUDING PARKING)	MINIMUM
0-25,000 FLOOR AREA (SQM)	\$0.27	\$2,250
25,000-50,000 FLOOR AREA (SQM)	\$0.22	\$6,750
50,000-75,000 FLOOR AREA (SQM)	\$0.17	\$11,000

*Price per m²; Project appoints an auditor



thinkstep

PROJECT TYPE	CERTIFICATION	DESIGN AUDIT	FINAL AUDIT	TOTAL
Residential (one unit type)	\$1,500	\$3,650	\$4,320	\$9,470
<i>Residential (per additional unit type)</i>	<i>\$490</i>	<i>\$890</i>	<i>\$460</i>	
Commercial (single end use)	\$1,550	\$4,005	\$4,710	\$10,265
<i>Mixed-Use Buildings (per additional end use)</i>	<i>\$990</i>	<i>\$2,670</i>	<i>\$1,560</i>	

*Price per type of project; Auditor fee is included

Details and registration forms can be found on the EDGE program website:
<https://www.edgebuildings.com/certify/other-countries/>



RESEARCH METHODOLOGY

COUNTRY LIST

- IFC chose countries that correspond to the [Climate Investment Opportunity Report](#) (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 [Global Building Stock Database](#) 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 [Green Building Information Gateway](#), 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 [Green Building Information Gateway](#).
- 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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