



GREEN BUILDINGS MARKET INTELLIGENCE MALDIVES COUNTRY PROFILE



Creating Markets, Creating Opportunities

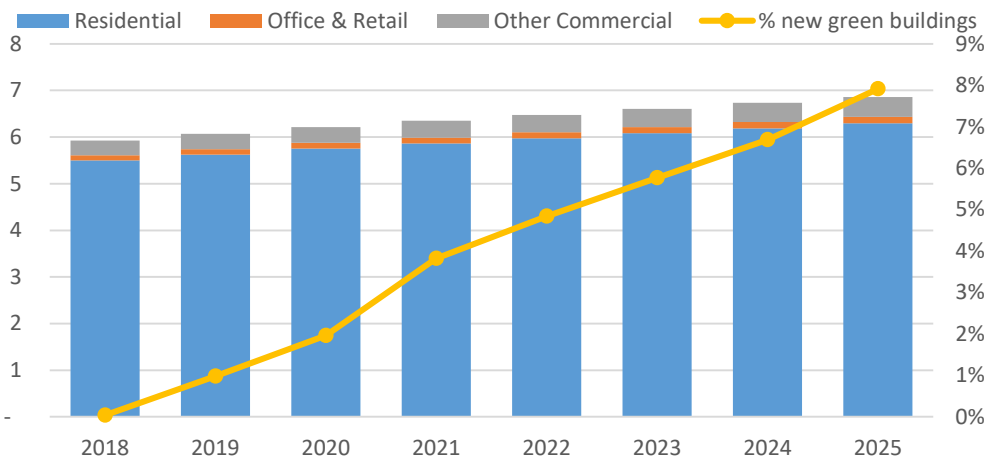


MALDIVES: COUNTRY SUMMARY

MARKET GROWTH



Building Stock (million m2)



CLIMATE POLICIES (NDCS)

- Green buildings are one of focus areas for the government.
- The country's NDC outlines the government's intention to create a new building code that integrates climate and efficiency considerations into the building design, with a focus on resilience.



MARKET STATUS

- The government's key concern is a shortage of housing.
- The Maldives government is creating the City of Hope on an artificial island, which will accommodate 130,000 people.



OTHER FACTORS

- Economy is expected to grow by 4.9% in 2018 primarily due to construction and tourism sector.
- Tourism sector makes up a third of GDP.
- Extremely vulnerable to climate change. Resilience across sectors is a priority.
- The move to relocate the population more centrally around the capital will create significant housing demand, with opportunity for green construction.
- Tourist resort islands largely responsible for managing their own energy, waste, water, and transport needs, so government may focus programs on locally populated islands.
- Maldives cannot use a national grid.



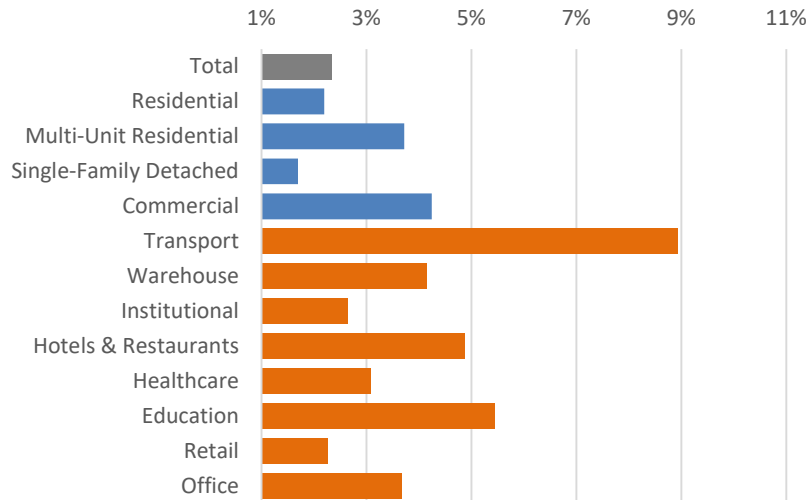
GREEN BUILDING PROGRAMS

- The green market is nascent, but small investments in green building will make substantial impacts given the overall small size of the market.



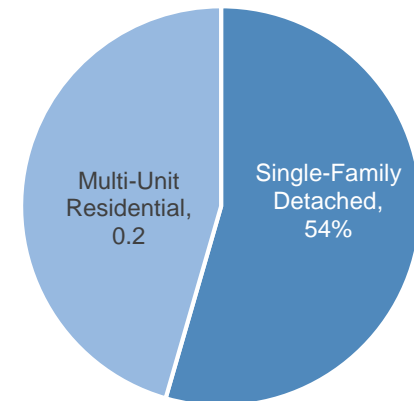
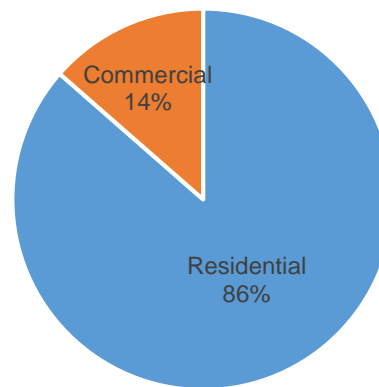
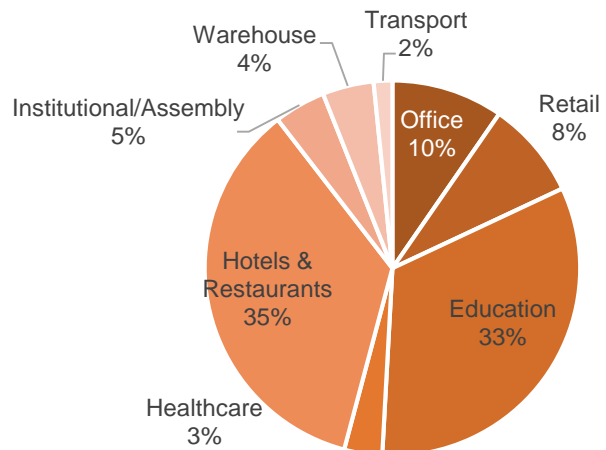
TOURISM IS THE KEY GROWTH DRIVER

MARKET GROWTH BY SUB-SECTOR (CAGR)



- Small market size makes forecasting difficult as one large building can have a big impact on the whole market.
- Transport and Tourism, along with Education are driving growth.
- Tourism growth is being helped by government initiatives and international programs.
- Construction demand will increase as a result of Maldives' project to build the City of Hope.

TOTAL MARKET SIZE – INDICATIVE BREAKDOWN





NASCENT GREEN MARKET



Ibrahim Nasir International Airport

The market follows tourism, but housing will contribute significantly to the green market due to high demand:

- The government is pushing local populations to move more centrally around the greater Male region;
- Construction increased by 4.5% in 2015;
- Opportunities exist in the planned city of Hulhumale as well.

Certification Activity

2

Total Activities

(including certifications and registrations)

Thus far the Maldives have two LEED projects:

- Ibrahim Nasir International Airport
- Aarah Project (lodging)



GOVERNMENT IS ASSISTING GREEN BUILDING BUT **MORE NEEDS TO BE DONE**

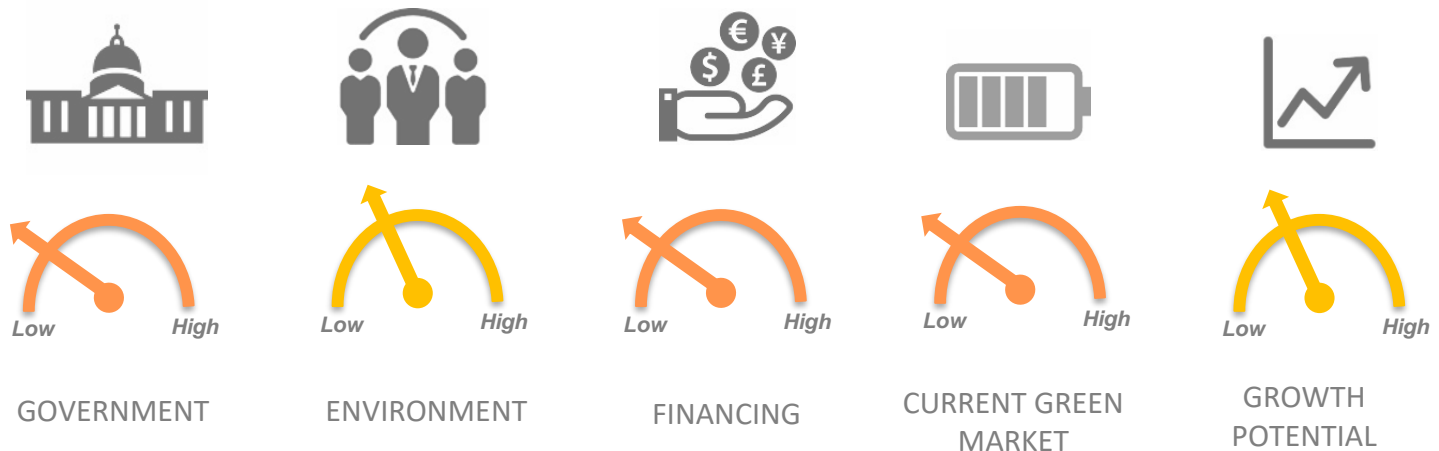
WHAT'S BEING DONE NOW

- The government is currently working on creating a building code that incorporates green principles.
- Helped fund the revamp of an undergraduate program and creation of a graduate program on green building concepts.
- Conducted energy audits of public buildings.

SUGGESTIONS FOR NEXT STEPS

- Make incentives for private tourist resorts to conduct independent energy audits, utilize renewable energy and incorporate green measures for building.
- Subsidize loans and guarantee roof-lease agreements for rooftop solar.
- Create building codes for construction taking place on the artificial island, Hulhumale.

GREEN MARKET SUPPORT RATING





MALDIVES GOVERNMENT IS FUNDING DEVELOPMENT OF EDUCATIONAL PROGRAM AND IS WORKING ON A GREEN BUILDING CODE

EDUCATIONAL INITIATIVES:

The Maldives National University issued a contract to a private company to:

- Review the current undergraduate Architecture program;
- Create a new graduate program that focuses on **green building practices**.

The purpose of the project is to create awareness via a “**badge**” that provides information on:

- Energy efficiency
- Electricity safety
- Energy auditing
- Greenhouse gas reductions.



OTHER GOVERNMENT INITIATIVES:

- The country’s NDC indicates its intention to create a new building code that incorporates green principles.
- Several public buildings have undergone energy audits.



LEARN ABOUT EDGE CERTIFIED PROJECTS IN SOUTH ASIA



SAMHI – FAIRFIELD BY MARRIOTT

Location: **Bangalore, Karnataka**
Developer: **SAMHI**
Sector: **Commercial - Hotel**
Size: **Two story 92m² apartments**

Predicted Savings of EDGE Certification:



21% Energy Savings



23% Water Savings



30% Less Embodied Energy in Materials



VBHC – VAIBHAVA BANGALORE

Location: **Bangalore South, Karnataka**
Developer: **Value Budget Housing Corporation**
Sector: **Residential – Multi-family**
Size: **6,552 m²**

Predicted Savings of EDGE Certification:



33% Energy Savings



39% Water Savings



23% 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



PROJECT TYPE	CERTIFICATION	DESIGN AUDIT	FINAL AUDIT	TOTAL
Residential (one unit type)	\$2,100	\$3,600	\$3,650	\$9,350
Commercial (single end use)	\$2,100	\$3,600	\$3,650	\$9,350

*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 [IFC's Climate Investment Opportunities Report – South Asia](#).
- 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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COLLABORATION ACKNOWLEDGEMENT

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