



GREEN BUILDING MARKET STAKEHOLDER ASSESSMENT

KENYA
2023



Creating Markets, Creating Opportunities

ACKNOWLEDGEMENT

This report was prepared as part of the UK-IFC Market Accelerator for Green Construction (MAGC) Research Program. The preparation of this assessment was based on 139 surveys of Kenyan private sector companies including developers, real estate practitioners (i.e., brokers, real estate agents, and/or property managers), real estate investors (i.e., funds, REITs, and/or corporate landlords), building experts (i.e., architects, engineers, contractors, and Green Building experts), policy makers, commercial occupiers, and residential occupiers (i.e., tenants and homeowners). Substantive contributions were received from Dennis Papa Odenyi Quansah of IFC's Kenya EDGE team. A special thank you is extended to Corinne Figueredo, IFC EDGE Operations Manager, who provided guidance for the study.

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GREEN BUILDING MARKET STAKEHOLDER ASSESSMENT: KENYA

Buildings account for one-third of global final energy use and one-fifth of energy-related greenhouse gas (GHG) emissions. Green Buildings can be a solution to reduce energy use and GHG emissions of buildings and contribute to low carbon economic growth. However, market failures and barriers (e.g., lack of supportive policies, information asymmetry between builders and buyers regarding the efficiency of a building, and lack of information about, experience with, and awareness of Green Buildings) result in the continuation of conventional approaches to constructing buildings.

The UK-IFC Market Accelerator for Green Construction (MAGC) aims to boost the uptake of greener construction practices and technologies in developing countries. As part of this initiative, the MAGC Research program gathers, analyzes, and disseminates new evidence to develop, improve, and promote approaches to green construction and market transformation.

The scope of MAGC Research includes a series of stakeholder assessments intended to understand the perceived motivations and obstacles to the growth of Green Buildings in selected emerging markets.

This report was conducted as part of the MAGC Research Program in 2022-2023. The stakeholder assessment is intended to be representative, but not exhaustive. It aims to provide actionable insights and contribute to the understanding of the Green Building market in Kenya, shedding light on awareness, motivating factors, perceived obstacles, construction cost and performance estimates, and decision-making paradigms of each stakeholder group.

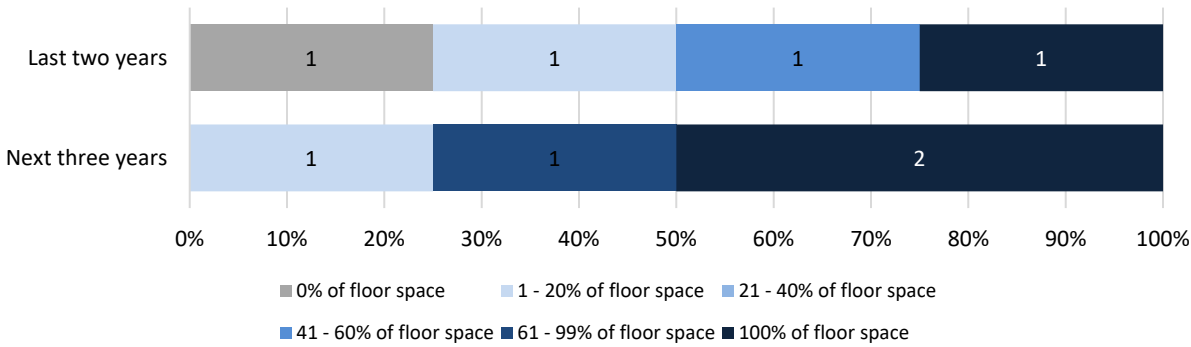
The Kenya stakeholder assessment was conducted through the SurveyMonkey online survey platform. 139 stakeholders responded to the survey, representing eight stakeholder groups: developers, real estate practitioners (i.e., brokers, real estate agents, and/or property managers), real estate investors (i.e., funds, REITs, and/or corporate landlords), building experts (i.e., architects, engineers, contractors, and Green Building experts), policy makers, commercial occupiers, and residential occupiers (i.e., tenants and homeowners).

GREEN BUILDING MARKET STAKEHOLDER ASSESSMENT: KENYA

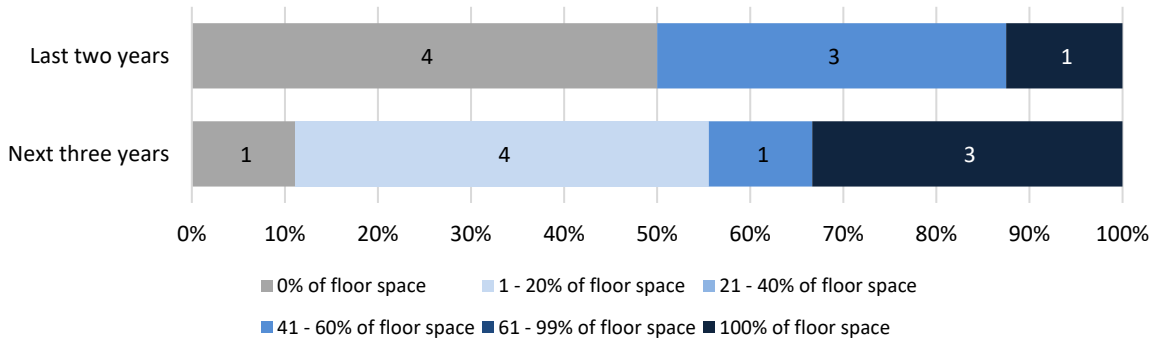
Portfolio: This assessment finds that Kenya has a growing Green Building market, as all stakeholder report planning to increase their certified Green Building portfolios, despite half of institutional investors and real estate practitioners reporting no Green Building portfolios during the past two years.

These findings are aligned with the IFC’s Green Building Market Maturity Snapshot for Kenya,* which indicates that the Green Building penetration rate and the share of certified buildings among new builds have increased over the last few years.

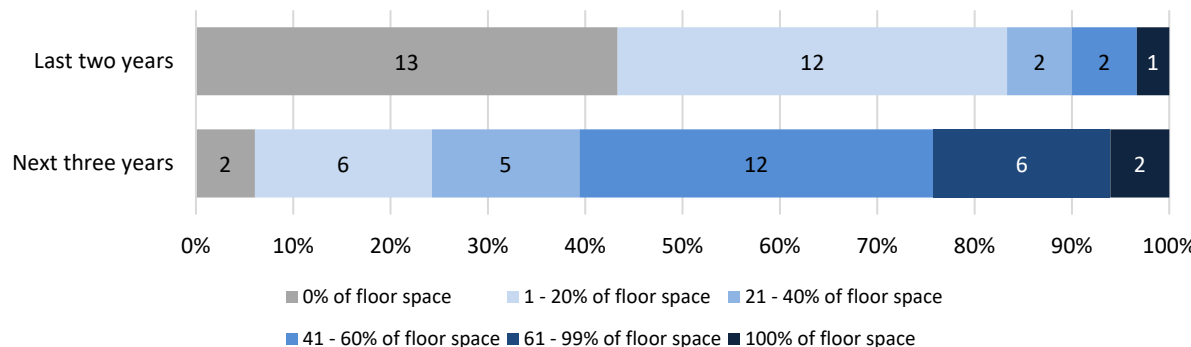
Developers’ Certified Green Building Portfolio and Expectations



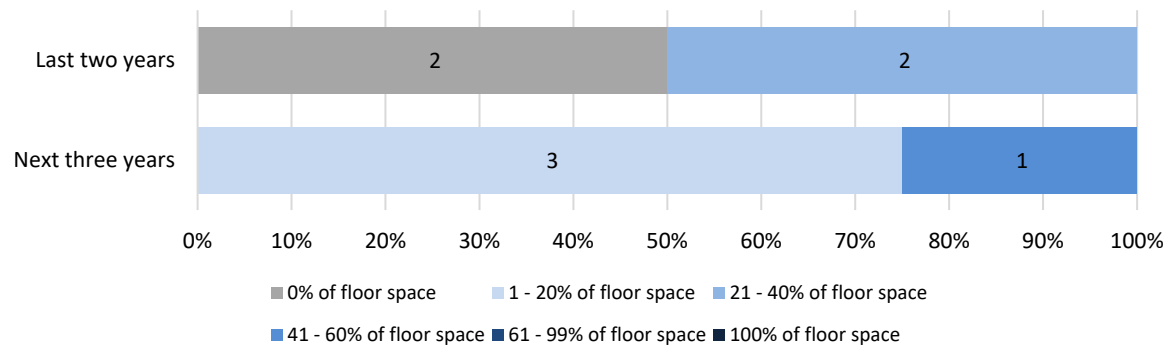
Real Estate Investors' Certified Green Building Portfolio and Expectations



Building Experts’ Certified Green Building Portfolio and Expectations



Real Estate Practitioners' Certified Green Building Portfolio and Expectations

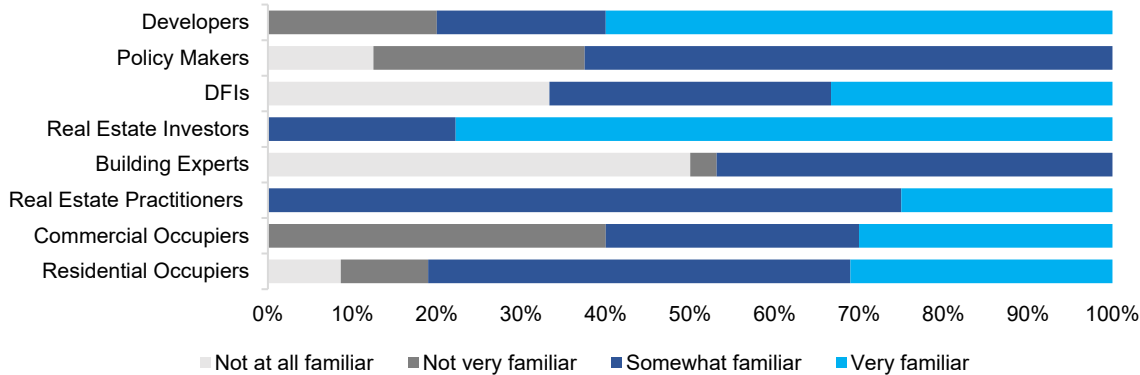


4 *IFC. 2021. Kenya Green Building Market Maturity Snapshot 2020.

GREEN BUILDING MARKET STAKEHOLDER ASSESSMENT: KENYA

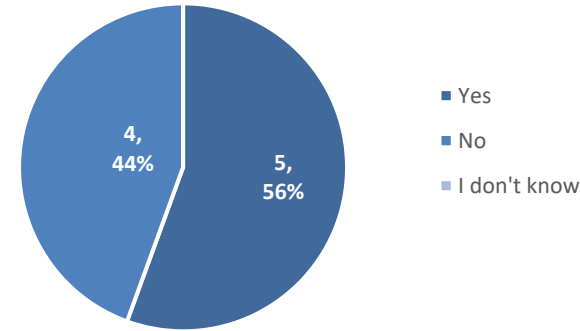
Familiarity: Overall, 71% total of respondents indicated that they are somewhat familiar or very familiar with Green Buildings, indicating broad awareness among stakeholders in Kenya. Real estate investors (100%) and real estate practitioners (100%) were identified as groups most familiar with certified Green Buildings, followed by residential occupiers (81%) and developers (80%). Conversely, building experts (47%) and commercial occupiers (60%) reported the least familiarity with Green Buildings.

Kenya - Familiarity with Certified Green Building

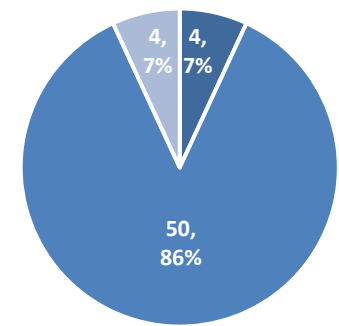


Demand: 56% of commercial occupiers and 7% of residential occupiers reported to be working or living in a Green Building. However, 24% of residential occupiers indicated that they would be willing to pay at least an additional 3% to live in a resource and energy efficient Green Building, while 53% indicated that they would be willing to pay up to an additional 2%.

Commercial Occupiers:
Does Your Company Occupy a Certified Green Building?



Residential Occupiers :
Do You Live in a Certified Green Building?

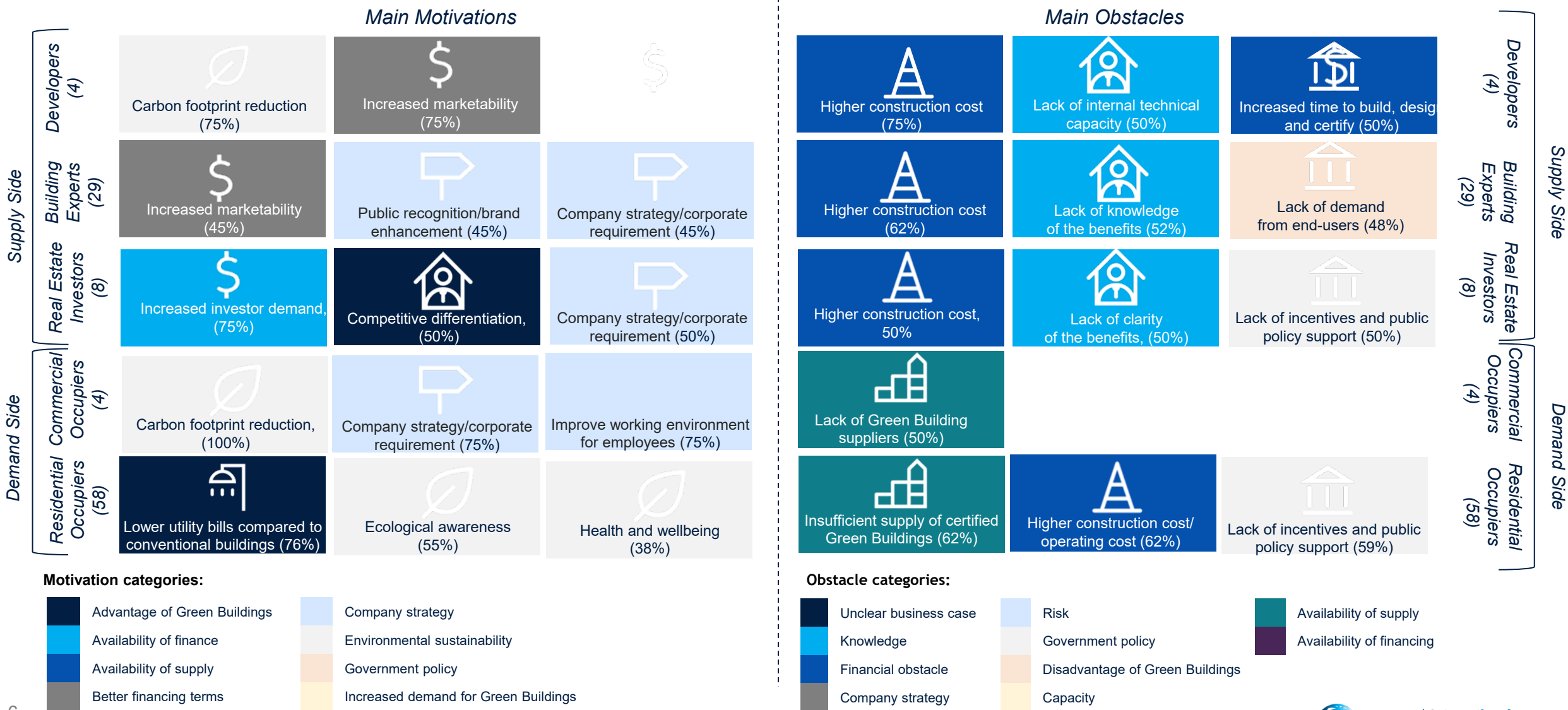


Motivations: All stakeholders appear to agree that certified Green Buildings perform better than conventional buildings in terms of environmental benefits, lower cost of utilities, and increased financial benefits.

On the supply side, according to the survey the main motivating factors for Green Buildings are their increased marketability (75% of developers and 45% of building experts), increased investor demand (75% of real estate investors) and enhanced ecological sustainability (75% of developers).

On the demand side, occupiers indicated that the main motivating factors for buying or leasing a Green Building are ecological awareness (100% of commercial occupiers) and lower utility bills (76% of residential occupiers).

GREEN BUILDING MARKET STAKEHOLDER ASSESSMENT: KENYA



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Obstacles: On the supply side, survey results indicate that the perceived cost of construction is considered the major obstacle to the expansion of certified Green Buildings in Kenya (75% of developers, 62% of Green Building experts, and 50% of real estate investors), followed by the lack of knowledge/clarity of the benefits (52% of Building Experts, 50% of Real Estate Investors).

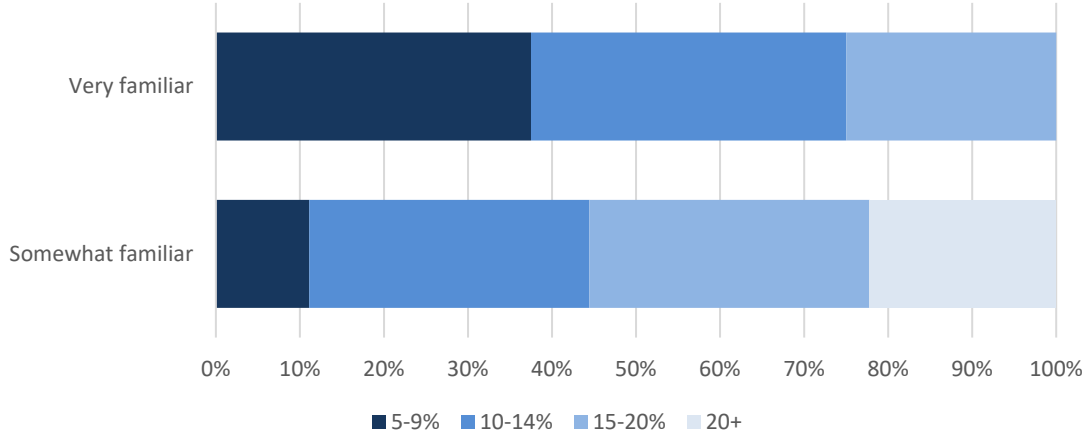
On the demand side, the main reported obstacle is the lack of Green Building supply (62% of residential occupiers and 50% of commercial occupiers), together with the perceived higher construction/operating cost (62% of residential occupiers) and lack of incentives and public policy support (59% of residential occupiers).

100% of the Building Experts in the survey estimated that the cost of construction is an additional 5% or more for Certified Green Buildings, which is much higher than the typical actual estimated additional cost of 1-2%.

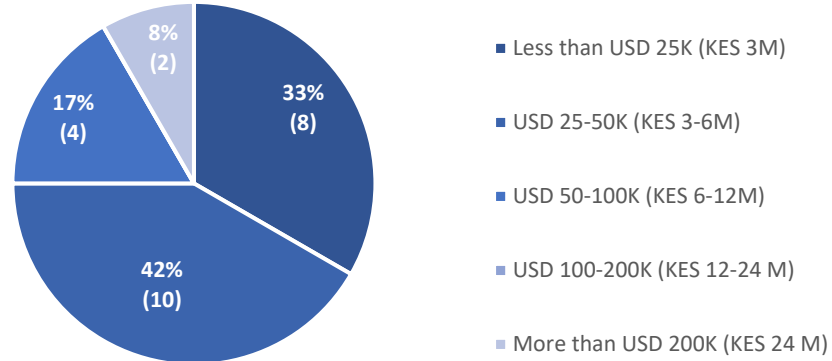
However, estimations of the additional cost of construction appear to decrease with the level of familiarity with Green Buildings. While this could mean that better knowledge may allow companies to find more cost-effective solutions, it could also signal that in the absence of information, developers that are less familiar with certified Green Buildings could further overestimate the additional cost of green construction.

Regarding the cost of certification, the estimation of the professional fees required to certify a 5,000 sqm project varied significantly across Building Experts respondents, again suggesting a large knowledge gap.

Building Experts' Estimation for the Additional Cost of Construction of a Certified Green Building by Level of Familiarity with Certified Green Buildings



Building Experts' Estimation of Professional Fees to Certify 5,000 sqm Project



GREEN BUILDING MARKET STAKEHOLDER ASSESSMENT: KENYA

Conclusion:

- The importance of Green Buildings in Kenya is expected to grow for all stakeholders.
- 24% of residential occupier respondents in Kenya indicated that they would be willing to pay at least an additional 3% to live in a resource and energy efficient Green Building, while 53% indicated that they would be willing to pay up to an additional 2%. This would cover the typical actual estimated additional cost of Green Building construction of 1-2%, so if they can be generalized these results would indicate a strong business case for Green Buildings in Kenya. Supporting this, building experts in Kenya reported increased marketability as one of the main motivating factors for Green Building construction.
- 62% of residential occupier respondents in Kenya cited the lack of certified Green Buildings as the main obstacle for the development of the market, while 60% of surveyed building experts in Kenya consider the additional perceived cost of Green Building construction as the main barrier. However, the findings suggest that this cost is substantially overestimated, particularly by stakeholders less familiar with Green Buildings. Similarly, 67% of surveyed building experts also overestimate the cost of certification, and 52% cited the lack of knowledge about the benefits of Green Buildings as another obstacle to the development of the market. All this suggests that the information gap regarding the cost of Green Building construction in Kenya is still very large, and that further knowledge dissemination efforts are needed to reduce it.

ANNEX

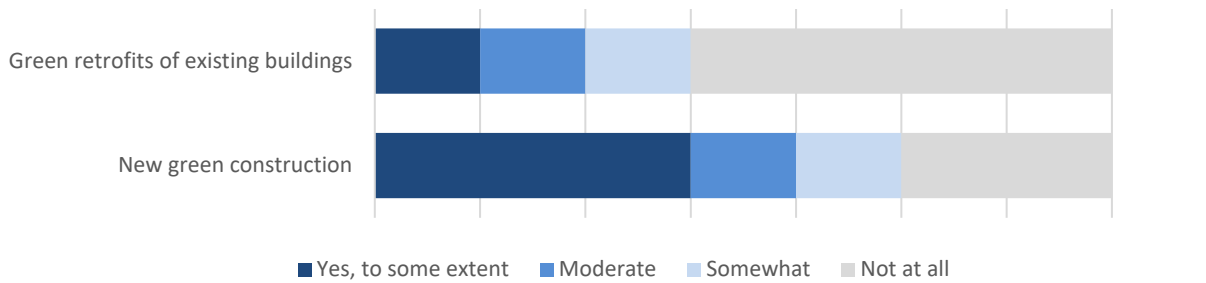


Policy Makers

Responses: 9

All policy makers surveyed think that Green Building development is an important part of Colombia's response to climate change, with 89% indicating it is very important, and the remaining 11% saying it is important. The survey gathered mixed views on whether current public policies (e.g., regulations, incentives) encourage the development of Colombia's certified Green Building market.

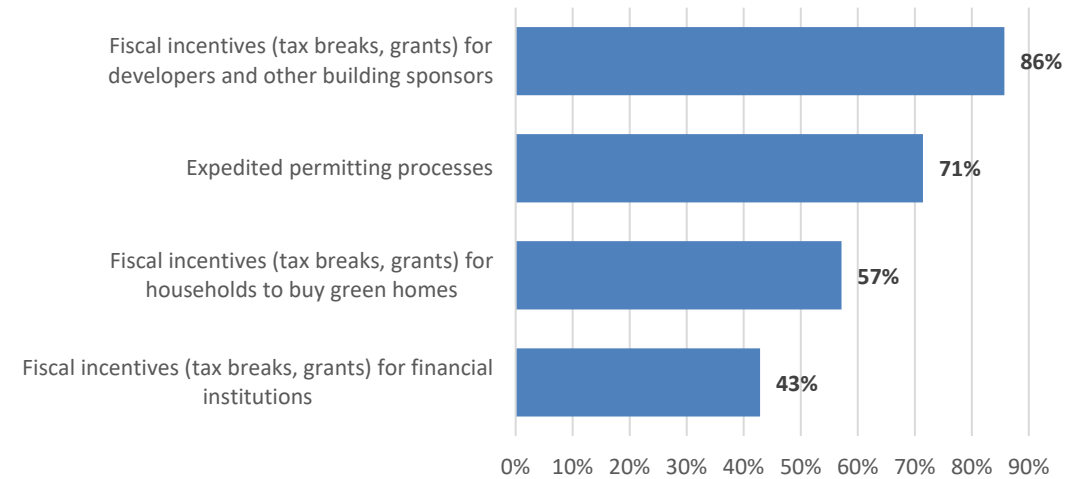
Do current policies encourage development of the GB market?



All respondents consider voluntary Green Building certification to play a factor. Almost half (43% for each incentive) of policy makers believe that National green building code, fiscal incentives for GBs, requirements for public buildings, policy to develop greater GB expertise in the workforce and financial policy and GB regulations are the top accelerants in the certified Green Building market.

The majority of policy makers estimated that fiscal incentives for developers and other building sponsors were useful public policy incentives (86%). Primary incentives that policy makers believe would accelerate the certified Green Building market are presented below.

Primary incentives for Green Building market acceleration

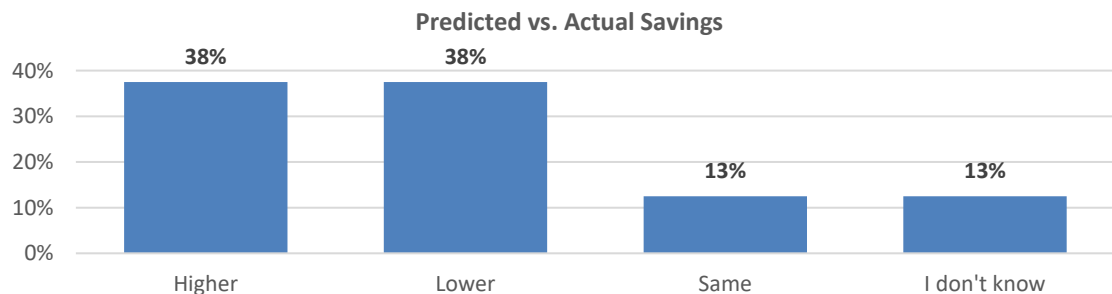




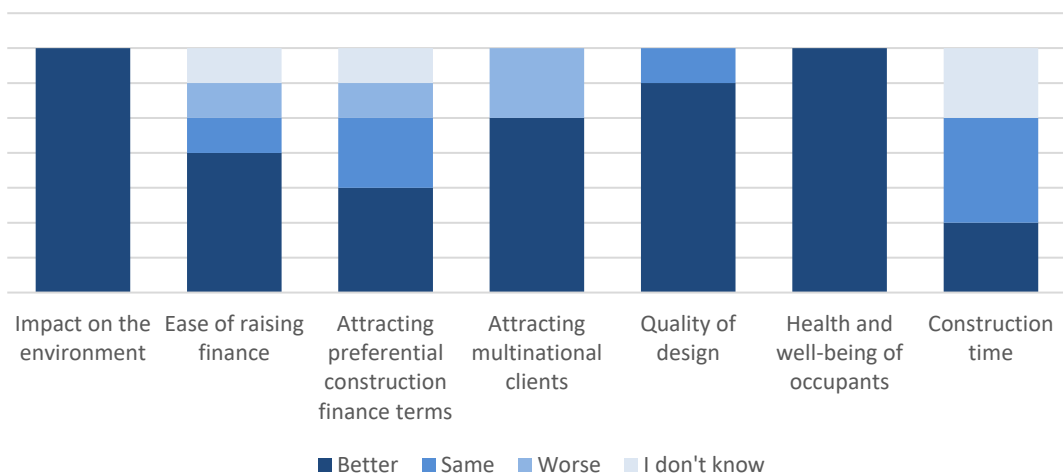
Policy Makers

Responses: 9

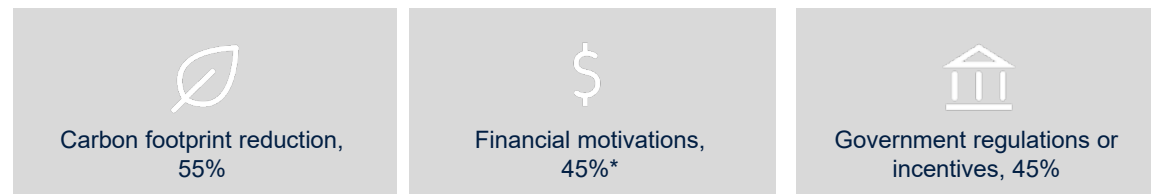
Policy makers were asked to compare the predicted savings to actual savings (accrued or realized) of certified Green Buildings. 75% predicted the savings to be higher, 8% indicated that savings will be lower, while 17% answered they do not know.



Performance Indicators of Certified Green Buildings vs Conventional Buildings



Main motivators in developing the certified Green Building market



Main obstacles in developing the certified Green Building market



*Financial Motivations include better construction/mortgage terms and increased access to financing/profitability.



Development Finance Institutions

Responses: 3

Development finance institutions (DFIs) were comprised of multilateral, bilateral, or national development institutions or subsidiaries set up to support development in Kenya. All of the DFIs surveyed indicated that their institution supports the development of the Green Building market in Kenya by providing financing to developers, financing to FIs, Policy Support, and Capacity Building to Government Officials. Only one of the institutions require any Green Building certification as a prerequisite to obtaining financing.

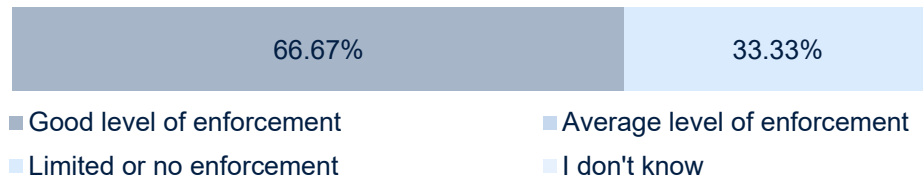
All DFIs surveyed indicated that the construction of Green Buildings was very important or important in addressing climate change. Regarding Green Building familiarity, two DFIs indicated that they were not at all familiar, while the other two indicated that they were not very familiar with certified Green Buildings. From an enforcement perspective, two DFI seemed positive that Kenya has a good level of enforcing Green Building regulations while another stated that there was limited to no enforcement.

DFIs highlighted key actions they believed could increase the uptake of certified Green Buildings in Kenya which included, inter alia, the following:

- Training;
- Laws and Regulation;
- Collaborating with international partners.



Perceived Enforcement of Green Buildings in Kenya





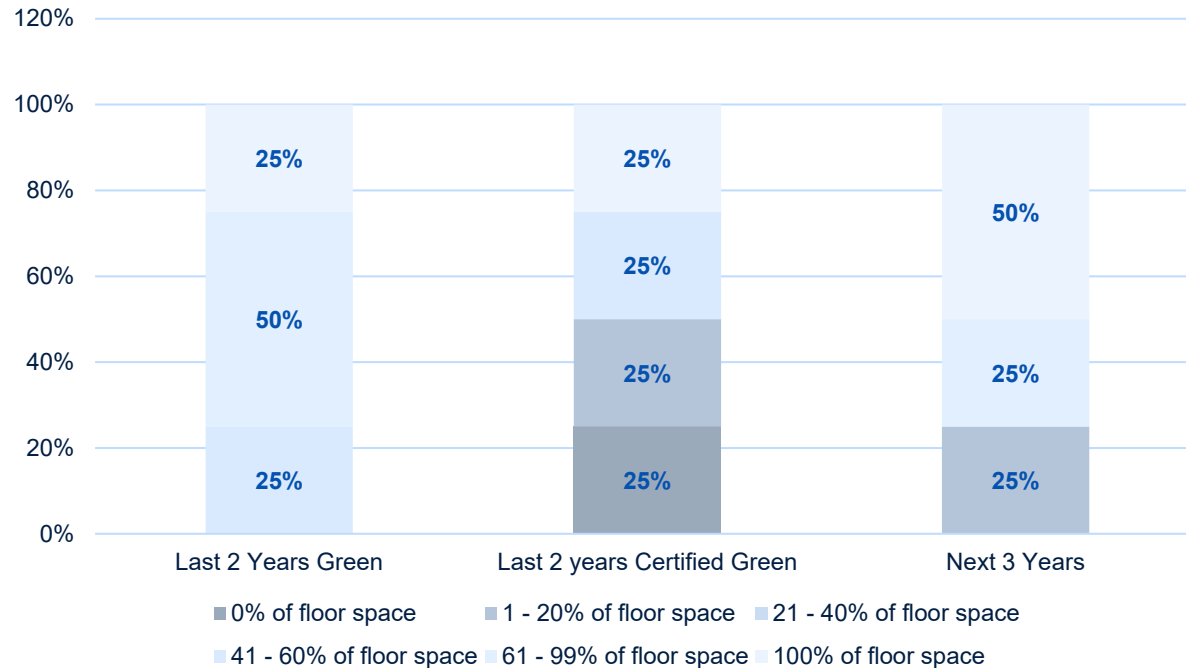
Developers

Responses: 4

Based on the 4 full and 1 partial survey responses the study collected, 80% of developers consider themselves to be either very familiar (60%) or somewhat familiar (20%) with Green Buildings. 75% of developers stated that they currently have certified Green Buildings in their portfolios.

Based on the developers' answers, an increasing trend emerges with all developers intending to increase their share of certified Green Buildings in their portfolios. A breakdown of the developers' portfolio existing and future expectations are provided below.

Green and Certified Green Share of Developers' Portfolio



Existing and future trends indicate that offices (53%), middle-income residential (42%), high-income residential (37%), social and low-income residential (32%), and hotels (32%) are the most popular in terms of certified Green Building developments. The anticipated increase in green certified floor space is predominantly driven by the increased marketability, better construction finance terms, carbon footprint reduction, and company strategies/corporate requirements linked to certified Green Buildings.

Main motivations to certify green



Most developers feel that the high(er) construction cost (75%), increased time to design/build and certify (50%) and lack of internal technical capacity (50%) are the main obstacles to increasing the share of certified Green Buildings in their development portfolios. Financial obstacles stand in contrast to the financial motivations mentioned above. Informal feedback indicates that currently, financial costs outweigh financial incentives in terms of developing and certifying Green Buildings.

Main obstacles to certifying green





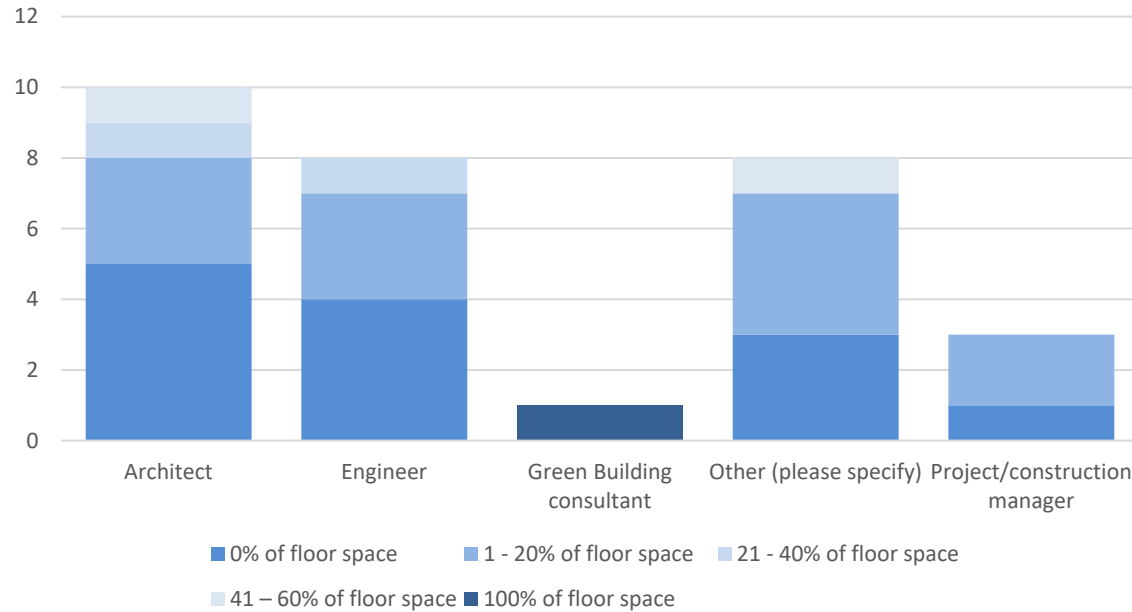
Building Experts

Responses: 33

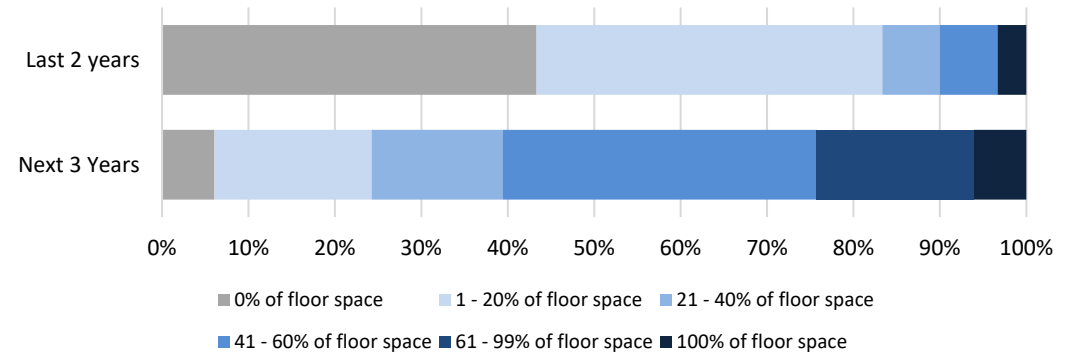
Green Building familiarity among designers and Green Building consultants is strong. A vast majority of building experts (97%) are either very familiar (52%) or somewhat familiar (45%) with green buildings.

The graph below illustrates the proportion of self-declared Green Building projects in each stakeholder group portfolio over the last two years.

Share of Green Building Projects in Stakeholders Groups' Portfolios

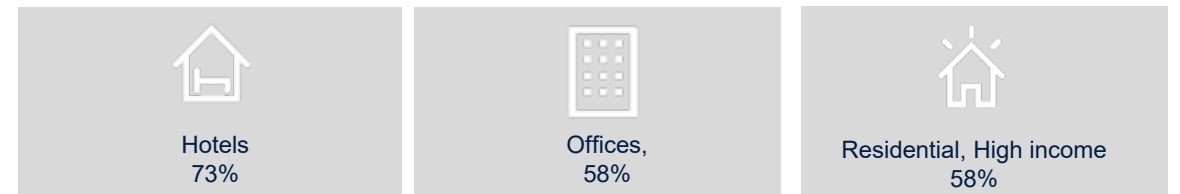


Building Experts' Certified Green Building Portfolio and Expectations



Respondents indicated that they use EDGE certification most widely (88%), followed by LEED (12%), and Greenstar (12%). Stakeholders indicated that their decision regarding which certification system to use was largely guided by the reputation of the rating system (33%) followed by the availability of trained experts in the market (30%). The three most popular property segments to develop and certify green for designers and Green Building consultants include hotels, offices, and high-income residential.

Main real estate sectors for certified Green Building development





Building Experts

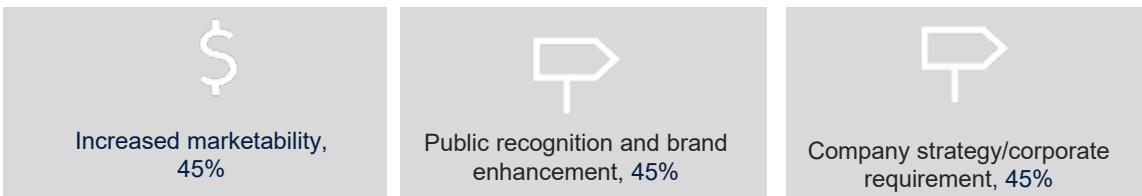
Responses: 33

Feedback from designers and consultants indicates that the main obstacles to greater growth in the certified Green Building market included the high cost of construction (60%), a lack of knowledge of the benefits of certified Green Buildings (52%), and lack of demand from end-users (48%). Conversely, the primary motivations for developing certified Green Buildings included increased marketability (45%), public recognition and brand enhancement (45%) and sales speed (45%).

Main obstacles in developing the certified Green Building market



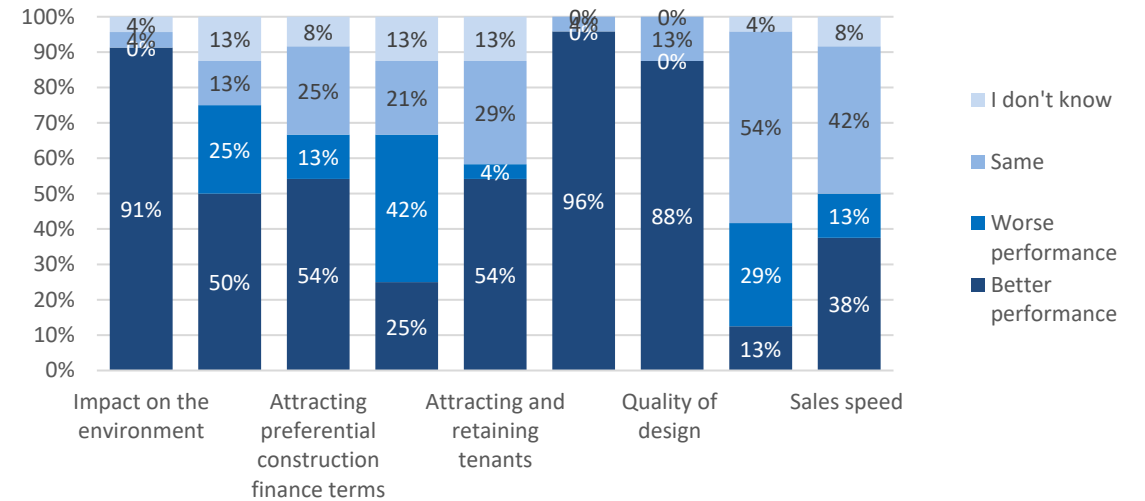
Main motivators in developing the certified Green Building market



Certified Green Buildings are expected to perform better than conventional buildings in terms of impact on the environment and attracting multinational clients. Furthermore, the surveyed stakeholders estimated that certified Green Buildings perform better in all other categories except for construction time and sales speed.

Regarding the cost of construction, 24% of stakeholders familiar with certified Green Buildings estimated that the construction cost of a certified Green Building ranges between 5-9% more, while 65% estimated that the construction cost to be additional 10-20%. Furthermore, 12% of the stakeholders familiar with certified Green Buildings estimated the construction cost to be more than 20%. Regarding utility cost, 22% of stakeholders familiar with certified Green Buildings estimated the cost of utility bills to be between 3-9% less, while 37% of the stakeholders the cost of utility bills to be between 10-20% less.

Certified Green Buildings vs Conventional Buildings



The view of building experts differed as to whether estimated predicted savings of certified Green Buildings being higher or lower than actual savings. Half of building experts estimated predicted savings to be higher and the other half estimated savings to be lower.

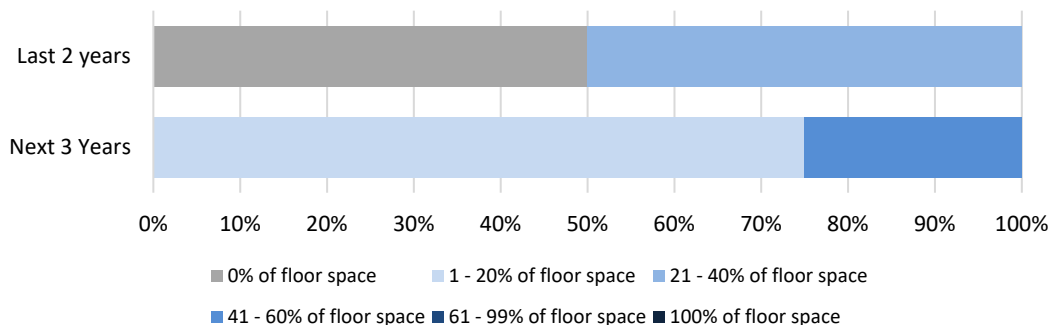


Real Estate Practitioners

Responses: 4

Brokers and property managers were the key participants in this survey. All four respondents stated that they were somewhat familiar (75%) and very familiar (25%) with certified Green Buildings.

Real Estate Practitioners' Certified Green Building Portfolio and Expectations



Most brokers and property managers considered that current regulations are only somewhat (50%) or moderately (25%) facilitative to Green Buildings development in Kenya. Similarly, 75% stated that the enforcement of these Green Buildings regulations is limited or non-existent.

Given several performance indicators, all brokers agree that certified Green Buildings perform better in terms of health and wellbeing of occupants, attracting and retaining tenants and impact on the environment.

Certified Green Buildings vs Conventional Buildings



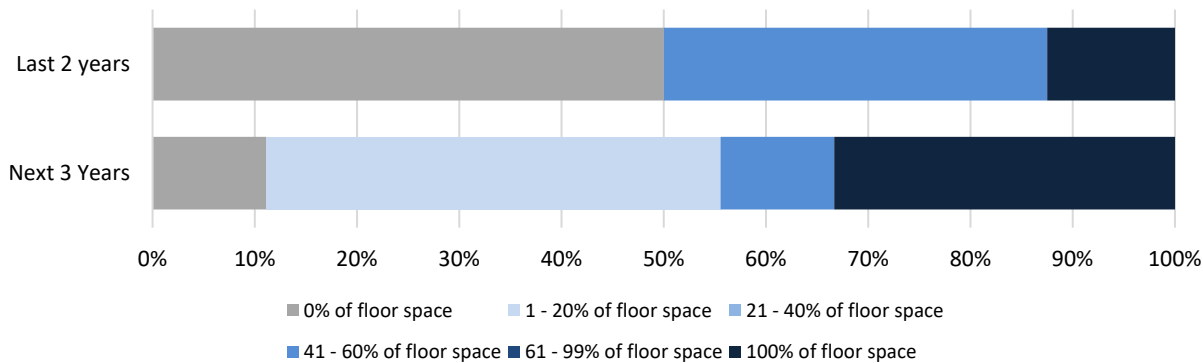


Real Estate Investors

Responses: 9

The real estate investors surveyed consisted of real estate investment companies, pension funds, and insurance companies. Institutional investors seemed to be either very familiar (78%) or somewhat familiar (22%) with certified Green Buildings. This was corroborated by the presence of certified Green Buildings in their portfolios – 38% of institutional investors claim that more than 40% of their portfolios consist of certified Green Buildings. Furthermore, 89% of institutional investors anticipate growth in the share of certified Green Building floor space in their portfolio in the next three years.

Institutional Investors' Certified Green Building Portfolio and Expectations



Current and future trends indicate that offices (50%), residential medium-income (38%), residential low-income (38%), retail (38%) and student accommodation (38%) are the most popular certified Green Building types that institutional investors tend to invest in. The main motivation for this type of investment is increased investor demand (75%), competitive differentiation (50%), and public recognition and brand enhancement (50%).

Institutional investors indicated that the higher construction cost of Green Buildings (58%), lack of incentives and public policy support (50%), and lack of clarity of green buildings (50%) are the main deterrents to increasing their share of certified Green Buildings in their portfolios. The most popular certification rating system used to certify assets is EDGE, with 57% of respondents having used it at least once. The certification tool was primarily chosen because of the speed/simplicity (57%) and the reputation of the rating system (43%).

50% of institutional investors estimated that certified Green Buildings could cost up to 9% more in terms of construction cost compared to conventional buildings, whereas 13% estimated that the cost of construction is the same. 100% of institutional investors also estimated property value/sales price was higher (25% of respondents estimate the property value to be 3-4% more; another 13% estimated it between 5-9% more, another 38% estimated the value to be between 10-14% more, and 25% estimated the cost 15-20%). 25% of respondents indicated that the Internal Rate of Return (IRR) was likely to be the same, 67% indicated that it could be between 5-9% more.

All respondents believe that certified Green Buildings fare better than conventional buildings in impact on the environment and ease of raising finance. 86% of institutional investors were of the view that building and financial market regulations only moderately or somewhat facilitate Green Building developments in Kenya. Similarly, Green Building regulations were perceived as being hardly enforced – 86% selected limited or no enforcement. Institutional investors viewed fiscal incentives and mandatory Green Building certifications for new buildings as primary potential accelerants to growing the Green Building market in Kenya.



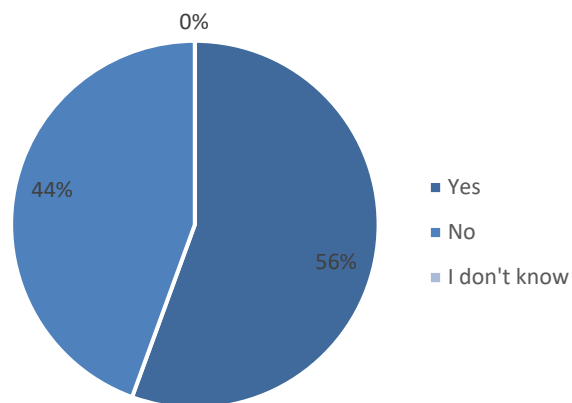
Commercial Occupiers

Responses: 11

The commercial occupiers stakeholder group consisted of businesses or companies active in the following sectors: offices, retail, warehouses, and light industry that either rent or own a building/space in Colombia. The survey results revealed that the majority (64%) rent the floor space they use while 36% of businesses own the floor space they use. Of the stakeholders surveyed, 42% of commercial occupiers own or rent floor space <1,000 sqm. One of the key questions in the survey asked stakeholders to rate their company's sustainability agenda - 70% of stakeholders indicated that their company has a medium or advanced sustainability agenda, and that sustainability was a significant focus of their firm. More than half (60%) of the respondents indicated that they were either somewhat familiar or very familiar with certified Green Buildings.

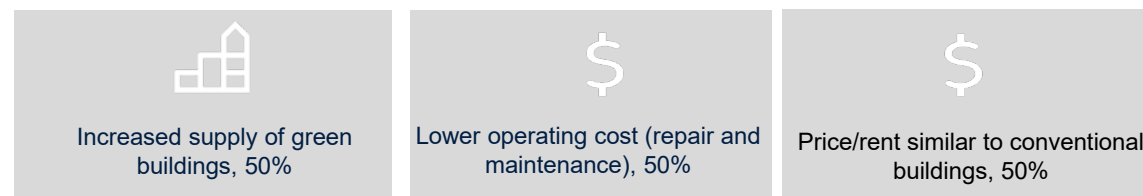
56% of commercial occupiers stated that they occupied a certified green building, while 44% of commercial occupiers surveyed indicated that they did not occupy a certified Green Building.

**Commercial Occupiers:
Does Your Company Occupy a Certified Green Building?**



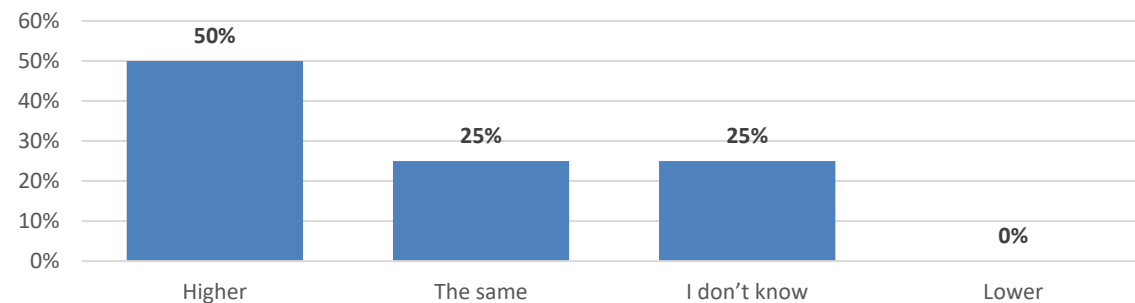
Lack of Green Building material suppliers was listed as the main reason to not occupy certified Green Buildings. The three main factors mentioned as most motivating for companies to occupy certified Green Buildings include increase in supply of green buildings (50%), lower operating cost (repair and maintenance) (50%), and price/rent similar to conventional buildings (50%).

Main motivators for occupying a certified Green Building



A commercial occupier indicated that they would pay an additional premium up to 10% to make the building they occupy more energy- and resource-efficient. The graph below summarizes commercial occupiers' performance perceptions of the achieved vs predicted savings of certified Green Buildings. Commercial occupiers indicated that the actual savings of certified Green Buildings were higher (50%) or the same (25%) as the predicted savings.

Savings of Certified Green Buildings





Residential Occupiers

Responses: 58

The residential occupiers stakeholder group consisted of a combination of homeowners (24%) and rental tenants (76%). When asked if they lived in a green home, 7% of respondents were unsure. This could be attributed to the lack of knowledge of certified Green Buildings within this stakeholder group, with 70% of respondents being only somewhat familiar (50%), or not at all or not very familiar (20%) with certified Green Buildings. Only 5 of the 58 survey respondents lived in a certified Green Building. As for the rest, when asked what would be the main motivators for respondents to live in a certified Green Building, the response was primarily financial. Residential occupiers would be more motivated to pursue living in a certified Green Building if there was a proven financial benefit, either in lower utility and/or operational cost.

Main motivation to buy/rent a certified Green Building

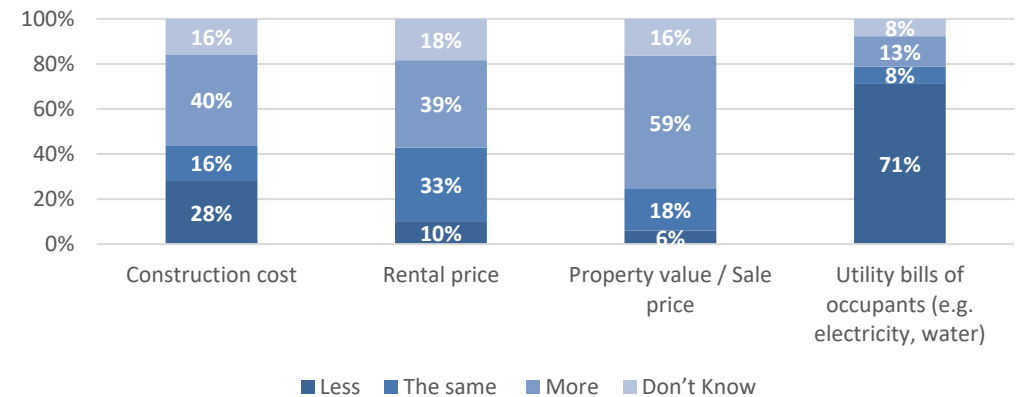


Main obstacle to buy/rent a certified Green Building



Given performance indicators, comparing certified Green Buildings against conventional buildings, the majority of stakeholders estimated that the construction cost, rental price, and sales price are between 5% and 20%+ more for a certified Green Building of the same type. Residential occupiers seem to have a high awareness of green buildings since only a few respondents used the “don’t know” response.

Residential Occupiers' Perception of the Cost of Certified Green Buildings vs Conventional Buildings





METHODOLOGY

The stakeholder assessment surveys were conducted through the online survey platform SurveyMonkey. The anticipated time to complete each survey was 10 – 15 min. The Kenya survey was open for responses from September 2022 to April 2023.

Related but separate surveys were designed for each stakeholder group, each of which considers sector-specific questions related to the Green Building market. The surveys focused predominantly on Green Building familiarity, motivations and obstacles, performance, regulations, and incentives, finance, and source of information.

The number of target survey responses intends to provide a representative, but not exhaustive, assessment of each stakeholder group in each selected Green Building market. However, in some cases obtaining contact information and/or eliciting responses from stakeholders proved challenging, and the target number of responses could not be achieved. In addition, in some cases stakeholders only provided answers to some survey questions. Therefore, the number of responses on which each analysis featured in this report is based can vary.

The target and actual number of surveys for each stakeholder group is presented in the table to the right. Additional information regarding the number of responses on which an analysis is based on is provided throughout the report.

Stakeholder Group/Subgroup2		# Target Surveys	# Actual Surveys
Developers	Developers	20	7
	Municipal	10	9
Policy Makers	Regional		
	National		
Development Finance Institutions	Multilateral DFIs	5	3
	National DFIs	15	9
	Funds		
Real Estate Investors	REITs		
	Other RE funds		
	Corporate landlords		
Building Experts	Architects	50	38
	Engineers		
	EDGE experts +Other GB consultants		
	Contractors		
Real Estate Practitioners	Brokers	15	4
	Real estate agents		
	Property managers		
Commercial Occupiers	Corporate Occupiers	40	16
	Retailers & Other		
Residential Occupiers	Homeowners	40	58
	Tenants		
Grand total		200	139

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