



# GREEN BUILDING MARKET STAKEHOLDER ASSESSMENT

COLOMBIA  
2022



*Creating Markets, Creating Opportunities*

# ACKNOWLEDGEMENT

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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 299 surveys of Colombian 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), financial institutions, 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 Silvia Solano and Ana Milena Avendaño Paez of IFC's Colombia 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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IFC - a member of the World Bank Group - is the largest global development institution focused on the private sector in emerging markets. We work in more than 100 countries, using our capital, expertise, and influence to create markets and opportunities in developing countries. In fiscal year 2021, IFC committed a record \$31.5 billion to private companies and financial institutions in developing countries, leveraging the power of the private sector to end extreme poverty and boost shared prosperity as economies grapple with the impacts of the COVID-19 pandemic. For more information, visit [www.ifc.org](http://www.ifc.org).

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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 2021-2022. 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 Colombia, shedding light on awareness, motivating factors, perceived obstacles, construction cost and performance estimates, and decision-making paradigms of each stakeholder group.

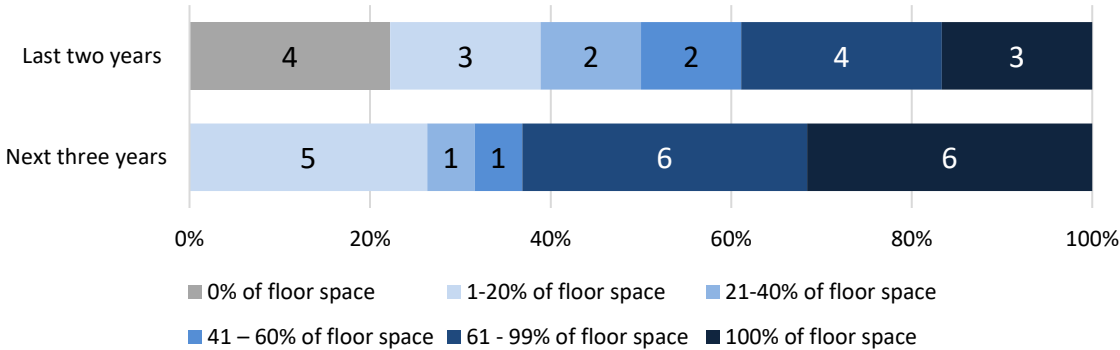
The Colombia stakeholder assessment was conducted through the SurveyMonkey online survey platform. 299 stakeholders responded to the survey, representing nine stakeholder groups: developers, real estate practitioners (i.e., brokers, real estate agents, and/or property managers), real estate investors (i.e., funds, REITs, and/or corporate landlords), financial institutions, 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: COLOMBIA

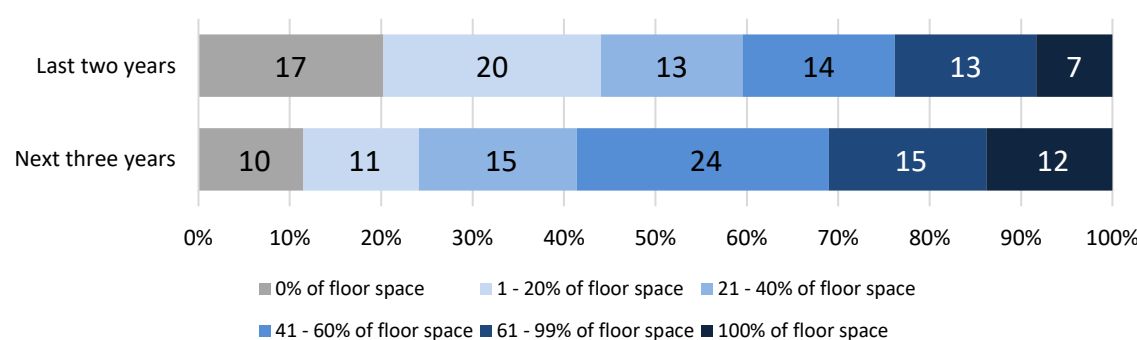
**Portfolio:** This assessment finds that Colombia has an active Green Building market, with the majority of institutional investors (92%), Green Building experts (80%), developers (78%), and real estate practitioners (77%) stating having Green Building portfolios during the past two years. The report also suggests that Colombia’s Green Building market has momentum, and that this growth trend will likely continue in the coming years, with all stakeholders reporting planning to increase their certified Green Building portfolios.

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

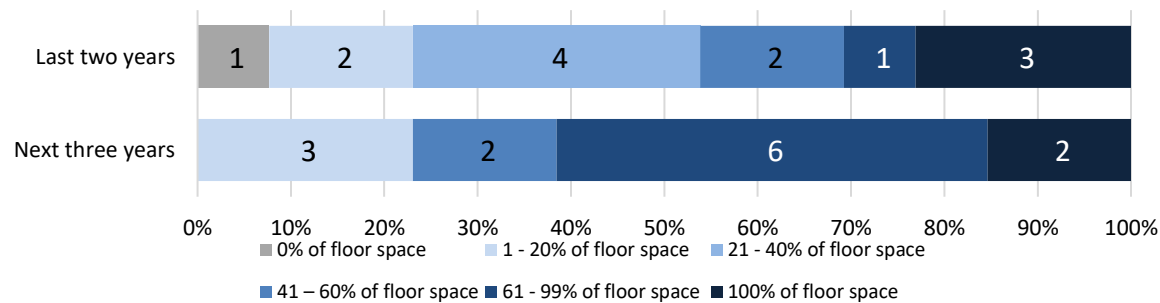
**Developers’ Certified Green Building Portfolio and Expectations**



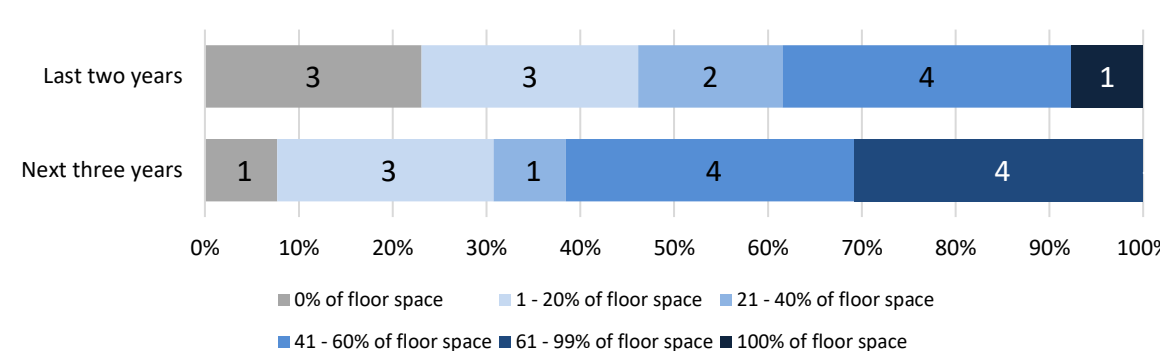
**Building Experts’ Certified Green Building Portfolio and Expectations**



**Real Estate Investors’ Certified Green Building Portfolio and Expectations**



**Real Estate Practitioners’ Certified Green Building Portfolio and Expectations**

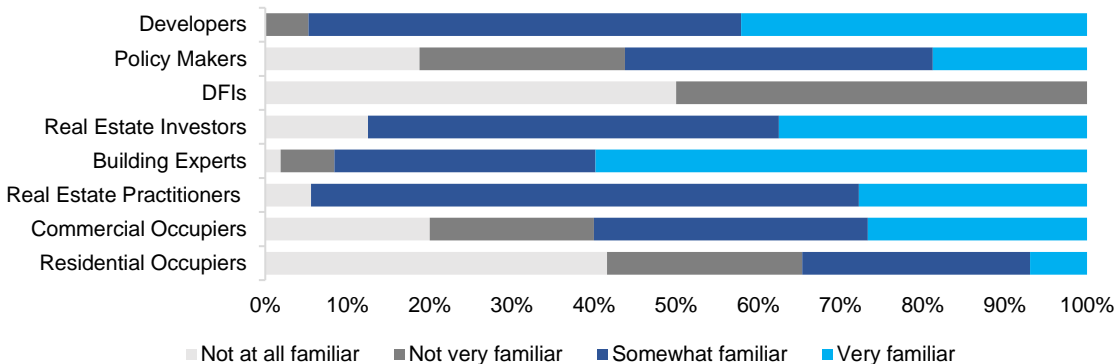


\*IFC.2021.Colombia Green Building Market Maturity Snapshot 2020

# GREEN BUILDING MARKET STAKEHOLDER ASSESSMENT: COLOMBIA

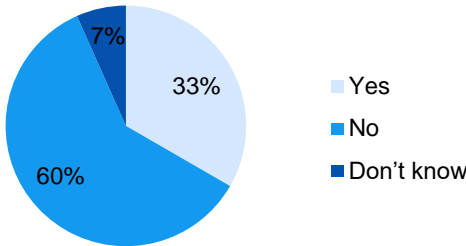
**Familiarity:** Overall, 68% total of respondents indicated that they are somewhat familiar or very familiar with Green Buildings, indicating broad awareness among stakeholders in Colombia. Developers (95%) was identified as the group most familiar with certified Green Buildings, followed by real estate practitioners (94%), and Green Building experts (92%). Conversely, DFIs (0%) and residential occupiers (35%) reported the least familiarity with Green Buildings.

**Familiarity with Certified Green Building**

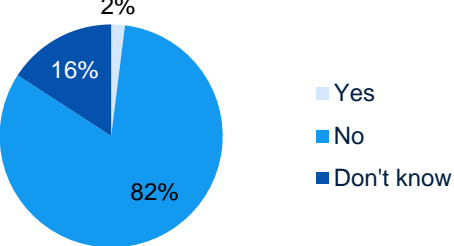


**Demand:** Only 33% of the commercial occupiers and 2% of residential occupiers reported to be working or living in a Green Building. However, 78% of residential occupiers indicated that they would be willing to pay an additional 2% to live in a resource and energy efficient building, indicating strong demand for Green Buildings.

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



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

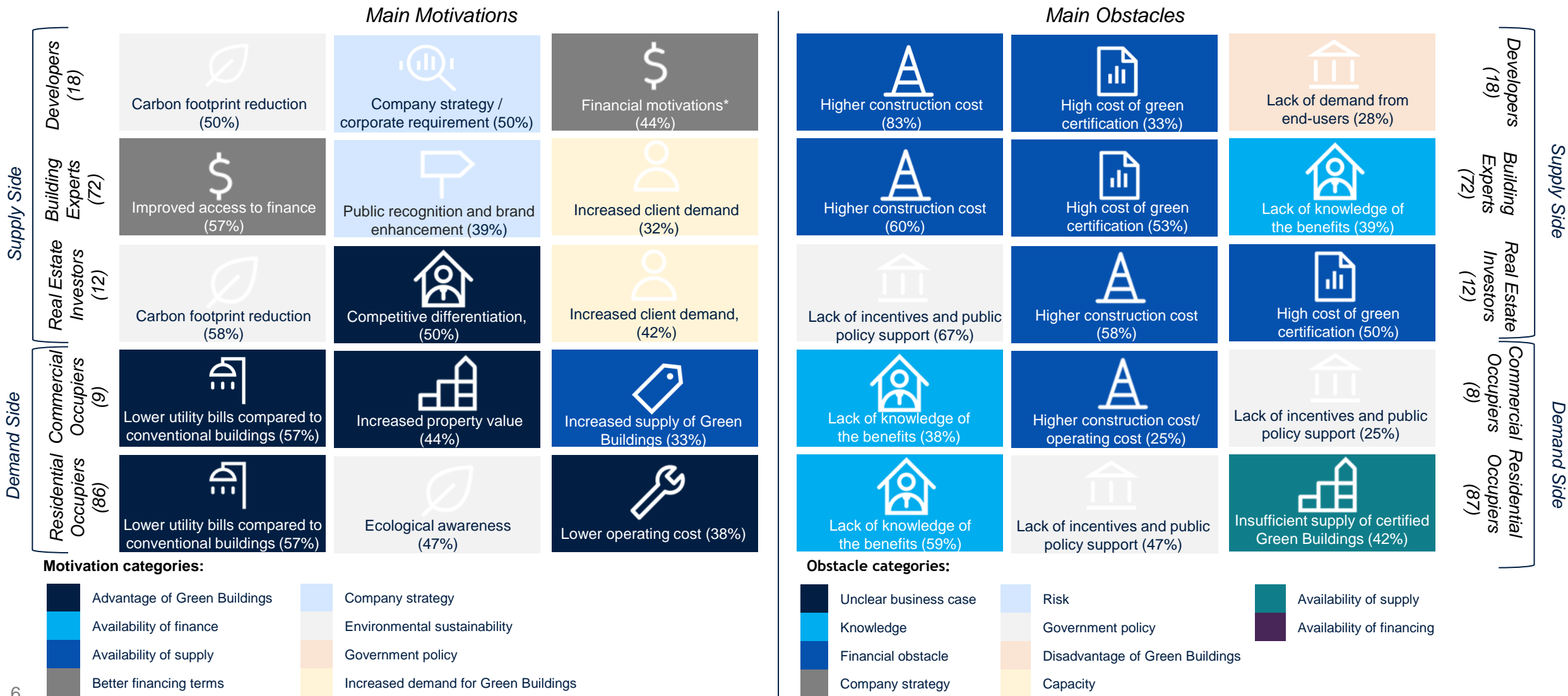


**Motivations:** Common motivations identified by respondents are environmental benefits, lower cost of utilities, and increased financial benefits of Green Buildings.

On the supply side, according to the survey the main motivating factors for Green Buildings are their reduced carbon footprint (58% of real estate investors and 50% of developers), together with better financing terms or improved access to finance (57% of building experts and 44% of developers), and increased demand from clients (42% of real estate investors and 32% of building experts).

On the demand side, occupiers indicated that the main motivating factors for buying or leasing a Green Building are lower utility bills (57% of commercial and residential Occupiers), followed by ecological awareness (47% of residential occupiers), and increased property value (44% of commercial occupiers).

# GREEN BUILDING MARKET STAKEHOLDER ASSESSMENT: COLOMBIA





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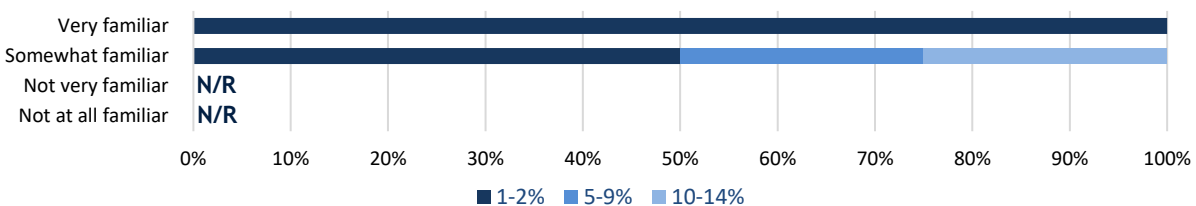
**Obstacles:** On the supply side, survey results indicate that the perceived higher cost of construction is considered the major obstacle to the expansion of certified Green Buildings (83% of developers, 60% of Green Building experts, and 58% of institutional investors and corporate landlords), followed by the cost of certification (53% of Green Building experts, 50% of institutional investors and corporate landlords, and 30% of developers).

On the demand side, the main reported obstacle is the lack of knowledge about the benefits of certified Green Buildings (59% of residential occupiers and 38% of commercial occupiers), followed by the lack of incentives and public policy support (47% of residential occupiers and 25% of commercial occupiers). In addition, 42% residential occupiers also consider that there is an insufficient supply of certified Green Buildings.

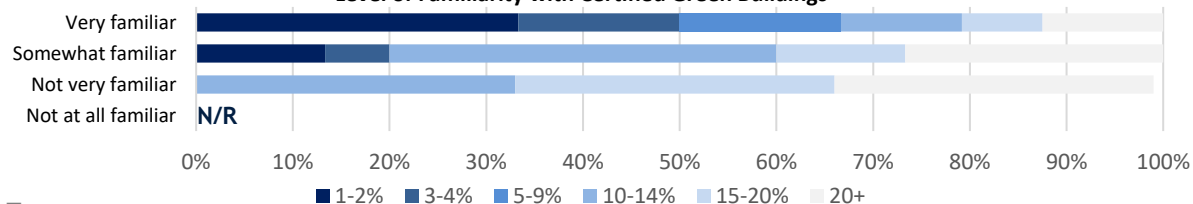
It is worth noting that although the increased cost of construction was identified as the number one supply-side obstacle, 75% of developers in the Colombia survey estimated that the cost of construction is only 1%-2% more for certified Green Buildings, in line with EDGE estimates. Also, respondent estimates of the additional cost of construction appear to decrease with the level of familiarity with Green Buildings, both for developers and building experts. While this could indicate that better knowledge may allow companies to find more cost-effective solutions, it could also mean that in the absence of information, stakeholders tend to 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 considerably across respondents, again suggesting a potential knowledge gap.

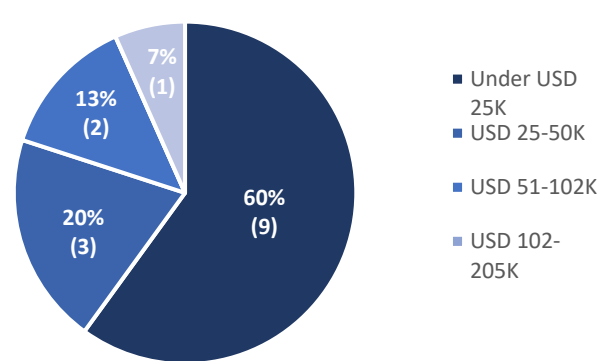
**Developers' Estimation for the Additional Cost of Construction of a Certified Green Building by Level of Familiarity with Certified Green Buildings**



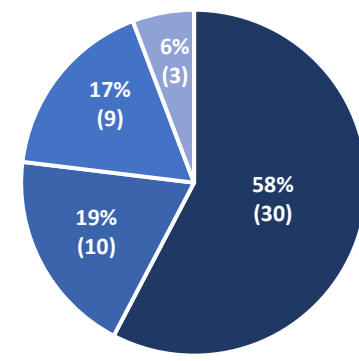
**Building Experts' Estimation for the Additional Cost of Construction of a Certified Green Building by Level of Familiarity with Certified Green Buildings**



**Developers' estimation of professional fees for Green Building Certification**



**Building experts' estimation of professional fees for Green Building Certification**



# GREEN BUILDING MARKET STAKEHOLDER ASSESSMENT: COLOMBIA

**Standards:** Stakeholders identified the following public policy actions as key drivers for developing the Green Building market: fiscal incentives for certified Green Buildings (e.g., tax breaks, grants); government advocacy and mandatory Green Building certifications for new buildings; non-fiscal incentives for certified Green Buildings (e.g., density bonus, expedited permitting); and the development of a national strategy for green finance, including Green Building finance.

**Certification:** Certification systems bring quality and ensure certain standards for Green Buildings. According to survey respondents, CEO/COOs and project managers are deemed responsible for choosing the type of certification used, often with guidance/advice from the Green Building Council or Green Building experts. Stakeholders indicated that choosing the type of certification is based on the cost of certification, the type of building to be certified, and the reputation of the rating system.

**Influencers:** Professional associations (e.g., associations of architects and chambers of construction) are considered the most influential stakeholders in the development of the certified Green Building market in Colombia, followed by Green Building experts (e.g., architects, engineers) and developers.

## Conclusion:

- There is strong momentum and growth potential for the Green Building market in Colombia.
- The majority of surveyed residential and commercial occupiers in Colombia were unfamiliar with certified Green Buildings in general, and with their benefits in particular. However, 78% of residential occupiers indicated that they would be willing to pay an additional 2% to live in a Green Building, which would cover the typical actual estimated additional cost of Green Building construction of 1-2%. This suggests that the business case for increased Green Building construction in Colombia is strong.
- Surveyed supply-side stakeholders in Colombia consider that the cost of Green Building construction as the main obstacle for the development of the market, including 60% of building expert respondents. However, the findings suggest that this cost is likely overestimated, particularly by stakeholders less familiar with Green Buildings. Similarly, 39% of building experts cited the lack of knowledge about the benefits of Green Buildings as another obstacle to the development of the market, and estimates of the cost of Green Building certification varied considerable across survey respondents. All this suggests that there is still an information gap regarding the cost of Green Building construction and certification in Colombia, and that further knowledge dissemination efforts are needed to reduce it.



# GREEN BUILDING MARKET STAKEHOLDER ASSESSMENT: COLOMBIA

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## ANNEX

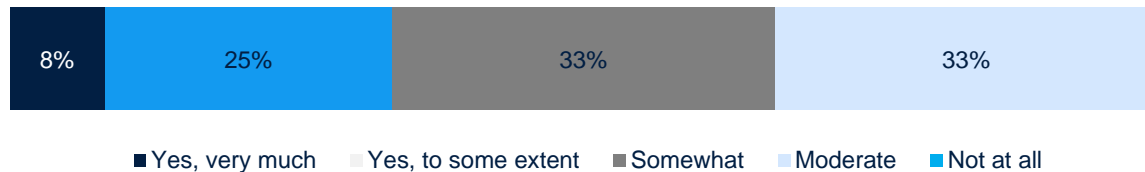


# Policy Makers

Responses: 17

All policy makers surveyed consider that Green Building development is an important part of Colombia's response to climate change, with 75% indicating it is very important, 13% saying it is important, and the remaining 13% saying that it is somewhat 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.

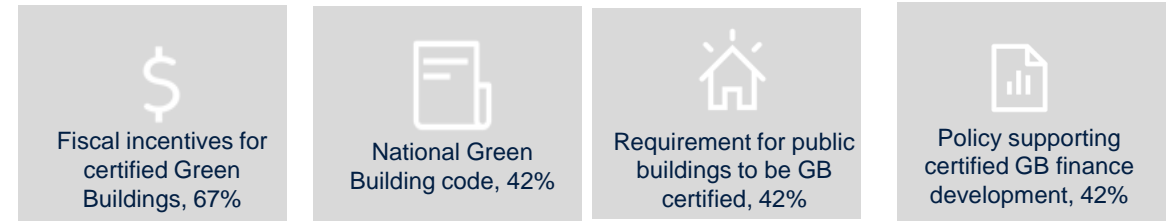
Do current policies encourage development of the GB market?



Despite the consensus that public policies encourage the development of the Green Building market (67% of respondents consider that public policies are at least moderately encouraging), the enforcement of these policies appears to be limited (half of the respondents estimate that there is limited or no enforcement of Green Building regulations in Colombia). None of the policy makers respondents estimated that a good level of policy enforcement prevails.

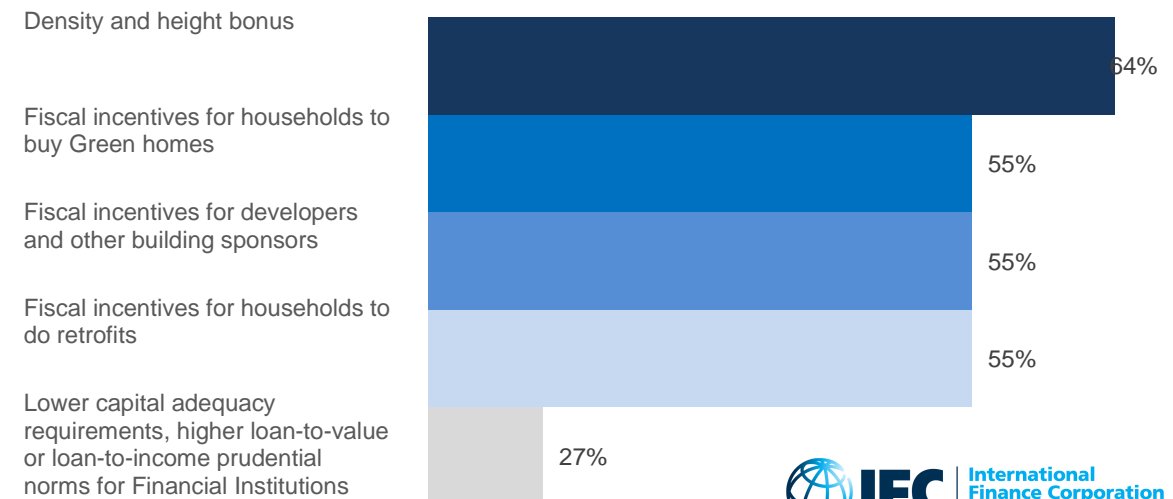
Of the total policy maker respondents, 63% consider voluntary Green Building certification important or very important. 67% of policy makers believe that fiscal incentives for certified Green Buildings would be the greatest accelerant to the certified Green Building market, followed by the enforcement of a National Green Building Code (42%); the requirements for public buildings and/or social housing to be certified Green (42%), and the financial policy and regulations supporting certified Green Buildings finance development (42%).

## Public policy actions as accelerants in the certified Green Building market



The majority of policy maker respondents estimated that fiscal incentives for developers and other building sponsors were useful public policy incentives (60%). However, the most relevant incentive selected (64% of respondents) was density and height bonuses for certified Green Buildings. Some examples of incentives and policies to be considered include rebates on municipal rates and taxes for certified Green Buildings (lower operating cost) or tax breaks on the importation of green materials (lower construction cost). Other primary incentives that policy makers believe would accelerate the certified Green Building market are presented below.

Top five incentives that could accelerate the market



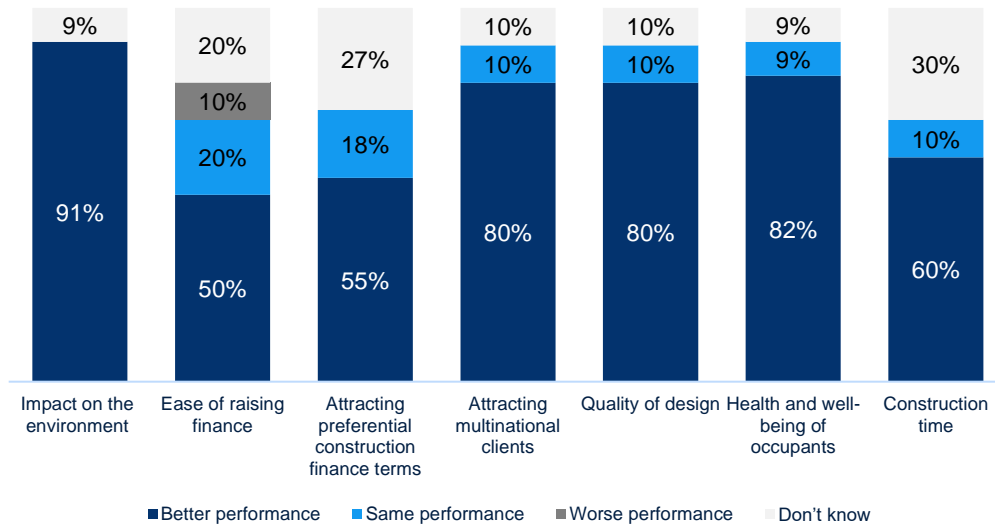


# Policy Makers

Responses: 17

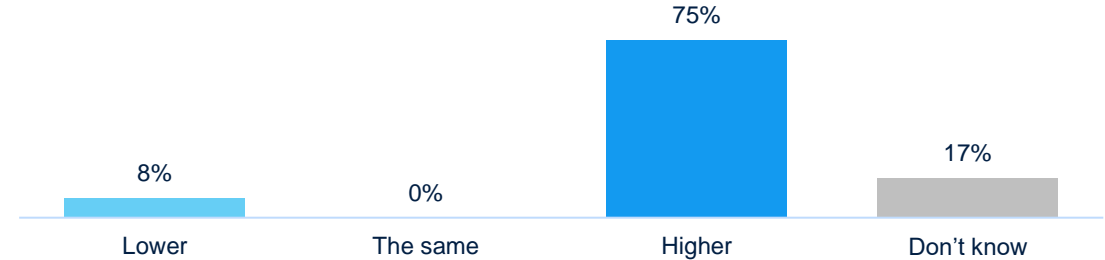
Almost all policy makers (91%) surveyed believe that certified Green Buildings always perform better than conventional buildings in terms of impact on the environment and that certified Green Buildings have a better impact on the health and well-being of occupants (82%). Policy makers' views on other performance indicators are shown in the graph below. Up to 30% of the policy makers reported not knowing how conventional buildings perform compare to certified Green Buildings.

**Performance Indicators of Certified Green Buildings vs Conventional Buildings**



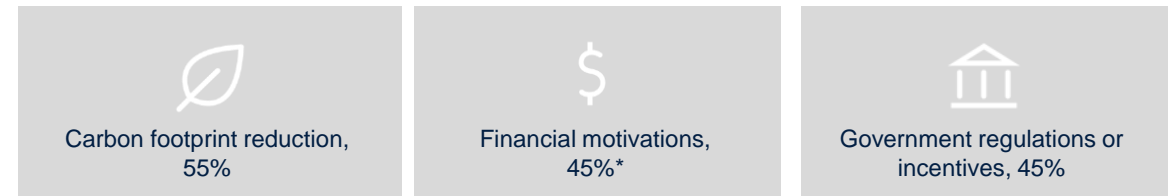
Policy makers were also asked to compare the predicted savings to actual savings (accrued or realized) of certified Green Buildings. 75% predicted the savings to be higher, 8% indicated that savings will be lower, while 17% answered they do not know.

**Predicted Saving vs Actual Savings**



When asked, what do policy makers believe were motivators and obstacles for the development or investment of certified Green Buildings, 55% of policy makers indicated that a reduced carbon footprint was the main motivator; while 55% indicated that a lack of incentives and public policy support, as well as the high cost of green certification, were the main obstacles to developing Colombia's certified Green Building market.

### 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, increased access to financing and increased profitability



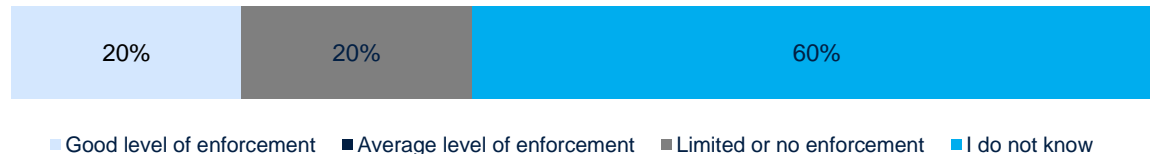
# Development Finance Institutions

Responses: 4

Development finance institutions (DFIs) are multilateral, bilateral, or national development institutions or subsidiaries set up to support development in developing countries. Only one of the four DFIs surveyed indicated that their institution supports the development of the Green Building market in Colombia by providing financing to developers. Furthermore, this institution does not require any Green Building certification as a prerequisite to obtaining financing. Only one of the DFIs not supporting the development of the Green Building market at present time plans to provide support in the future.

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, one DFI seemed positive that Colombia has a good level of enforcing Green Building regulations. Another stated that there was limited to no enforcement. While the rest of the DFI respondents did not know whether regulatory enforcement is taking place.

Enforcement of Green Building Regulations in Colombia



According to one of the DFI stakeholder group respondents, increased investor demand, an increased supply of Green Buildings, and the implementation of government regulations are major factors currently supporting the development of the certified Green Building market.

The main obstacles highlighted by the respondents included the lack of technical capacity within the construction and/or finance sectors, the fact that the benefits of certified Green Buildings are not clear and the lack of adequate construction materials. DFI stakeholders believe that real estate developers, institutional investors, and financial institutions are the most influential stakeholders when it comes to developing the Green Building market in Colombia.

### Most Influential Stakeholders

Real estate developers



Investors



Financial institutions



DFIs highlighted key actions they believed could increase the uptake of certified Green Buildings in Colombia which included, among others, the following:

- Allow the use of certain recyclable materials;
- Offer preferential financing conditions to attract greater interest from investors and buyers; and,
- Update legislation to provide tax incentives.

Three DFIs were willing to compare certified Green Buildings to conventional buildings of the same type. Two DFIs estimated the cost of construction to be between 5-20% more for certified Green Buildings; two DFIs estimated the cost of operations to be between 3-9% less than conventional buildings; however, one DFI estimated the cost for operations to be between 15-20% more for certified Green Buildings; all three DFIs believe that certified Green Buildings perform better in terms of reduced utility bills. On average, DFIs estimated that certified Green Buildings reduce utility bills by 5-9% compared to conventional buildings.



# Financial Institutions

Responses: 3

FIs survey targeted a relatively small group of stakeholders that provide mortgage and construction loans in Colombia. The three FIs that were surveyed raised a high level of concern given the potential climate risk in their real estate portfolios. One FI indicated that transition risk (e.g., public policy, market preferences, norms, and technology) was a major risk, while the other FI indicated that they were more concerned about the physical risk (drought, flood, or other changes in climate). Only one FI indicated that both transaction and physical risks were considered major risks to their institution. Currently, two out of three banks responded that they provide financing for Green Building projects. Both banks require green certification to approve a Green Building loan. The third FI is planning to finance certified Green Buildings soon. Their offering will include preferential interest rates and longer loan terms compared to conventional buildings.

## Green Building Project Portfolio \*



One of the FIs predicts that the highest Green Building finance growth potential is likely to take place within Green Building construction finance (residential and commercial) and not within the repurposing and retrofits of existing buildings into Green Buildings.

Two of the three FI respondents indicated that their loan portfolios for certified Green Buildings are expected to increase between 6-20% in the next three years. FIs have implemented, *inter alia*, the creation of a definition for Green Building projects, a Green Building Finance and Asset Policy. One of the FIs has a dedicated marketing and outreach strategy for developers and property buyers and has formed partnerships with an internationally recognized Green Building Certification system.

## Actions Implemented to Offer Certified Green Building Finance \*

A definition for Green Building projects



A green finance policy/asset policy for the company



Partnership with an internationally recognized Green Building system



A dedicated marketing and outreach strategy for developers and property buyers



To date, the most important factors in the increase of certified Green Buildings include financial and tax incentives and providing credits with special conditions. According to two of the three FIs, real estate developers and Green Building material manufacturers are the most influential stakeholders in the development of the Green Building market in Colombia.

\* One icon represents one FI



# Financial Institutions

Responses: 3

The three main motivations to currently finance Green Building projects or that encourage FIs to finance Green Building projects in the future are as follows:

## Main Motivations to Increasing the Share of Certified Green Building Projects\*



Two out of three FIs indicated that the lack of incentives and public policy support is the biggest obstacle. Other obstacles also include the lack of internal technical capacity, lack of demand from end-users and investors, and a lack of a certification system adapted to our needs.

## Main Obstacles to Increasing the Share of Certified Green Building Projects



\* One icon represents one FI



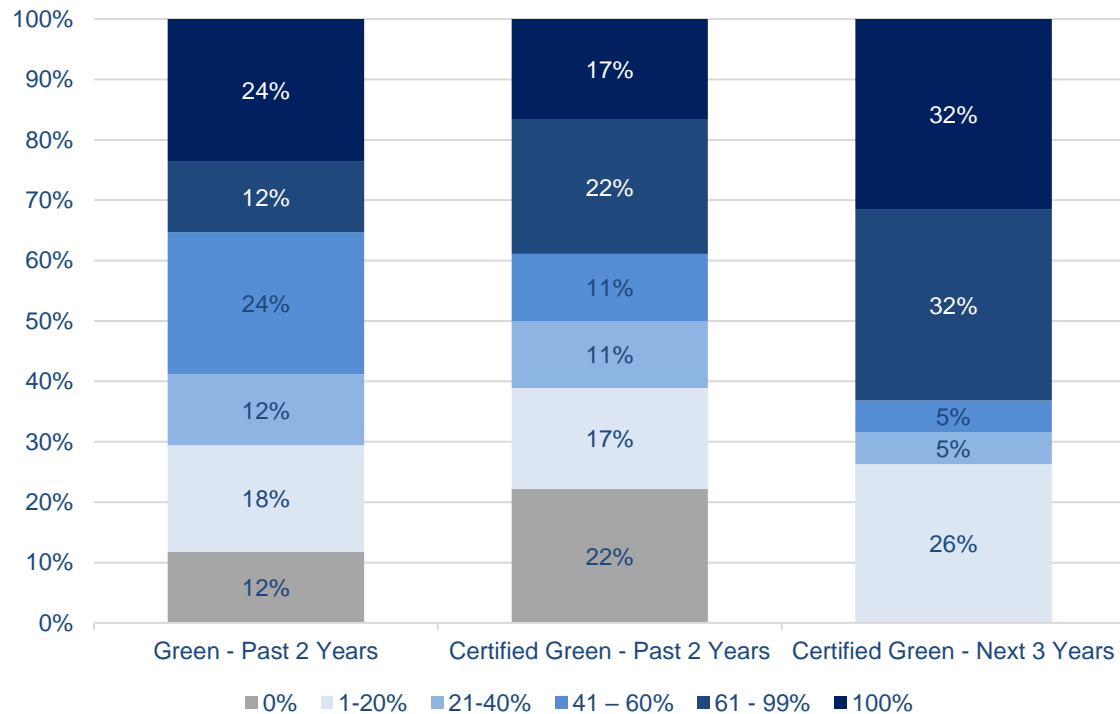


# Developers

Responses: 19

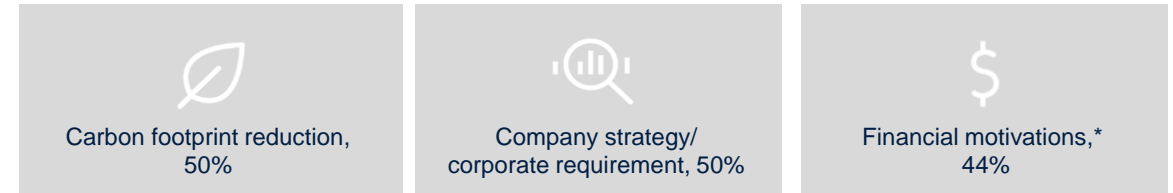
Based on the 19 survey responses the study collected, 95% of developers consider themselves to be either very familiar (42%) or somewhat familiar (53%) with Green Buildings. 78% of developers profess to develop certified Green Buildings. All developers expect to increase the share of certified Green Buildings in their portfolios (see detailed breakdown of developers' expectations below).

Share of Developers' Portfolio Certified Green (% of floor space)



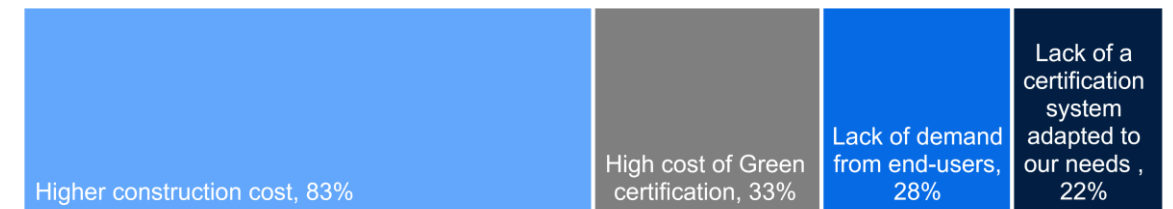
Offices (53%), middle-income residential (42%), high-income residential (37%), social and low-income residential (32%), and hotels (32%) are the most popular in terms of certified Green Building developments. The anticipated increase in green certified floor space is predominantly driven by the increased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

### Main factors supporting the decision to certify green



Most developers report that the perceived higher construction cost (83%) and high cost of green certification (33%) as the main obstacles to increasing the share of certified Green Buildings in their development portfolios. These financial obstacles stand in contrast to the financial motivations mentioned above.

Main Obstacles to Increased Portfolio Share of Certified Green Buildings



\*Financial Motivations include better construction finance terms and increased marketability

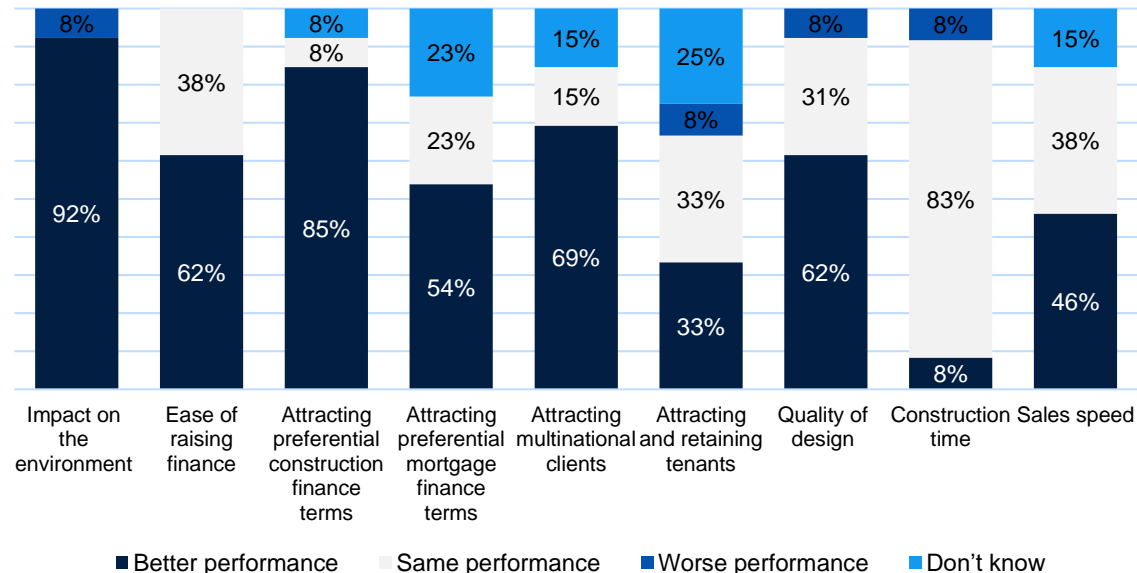


# Developers

Responses: 19

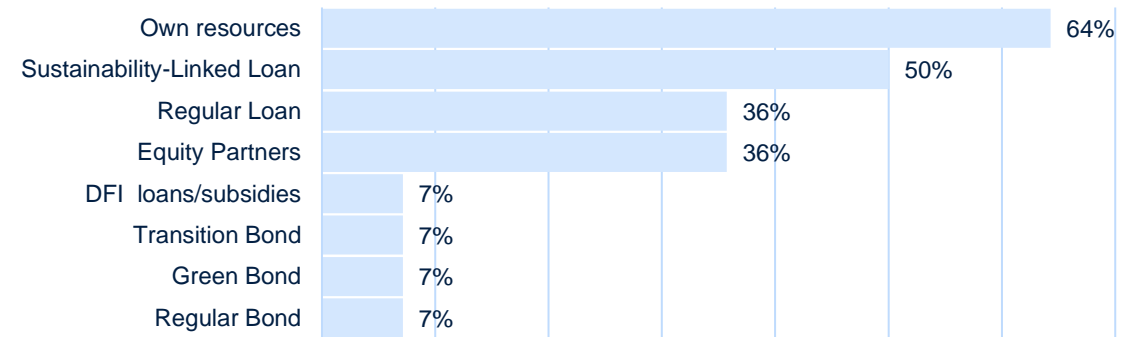
Regarding construction cost, 46% of developers (regardless of Green Building familiarity status) estimate that it will cost between 1-2% more, while 16% estimate that it will cost between 5-14% more to develop a certified Green Building vs. a conventional building. In general, developers tend to perceive that certified Green Buildings are equal to conventional buildings with regards to property value (75%), utility bills (67%), and rental price (55%). Apart from a perceived higher construction cost, 67% of developers also perceive certified Green Buildings to have lower occupancy rates than conventional buildings. Developers are, however, of the opinion that certified Green Buildings do perform better in terms of the buildings' impact on the environment (92%), attracting preferential construction finance terms (85%) and multinational clients (69%), attracting preferential construction finance terms (85%) and multinational clients (69%).

Performance Indicators of Certified Green Buildings vs Conventional Buildings



Most developers use their own resources (64%) followed by sustainability-linked loans (50%), regular loans (36%), and equity partners (36%) to finance their developments. Only 7% of developers have applied for a green bond.

Sources of Financing



69% of developers consider that current regulations at least moderately facilitate the development of the Green Building market. The majority (77%) of developers indicated that the enforcement of Green Building regulations in Colombia is average, the rest estimated that there is limited to no enforcement.

Regarding actions to further develop the Green Building market in Colombia, developers report that fiscal incentives (e.g., tax breaks, grants) (62%), non-fiscal incentives (e.g. density bonus, expedited permitting) (38%), government advocacy for Green Building certification (38%), mandatory Green Building certification for new buildings (31%), implementation of a carbon tax strategy on conventional buildings (31%), and the development and implementation of a national strategy for Green Finance including Green Building finance (31%) are needed to support the development of the certified Green Building market in Colombia.



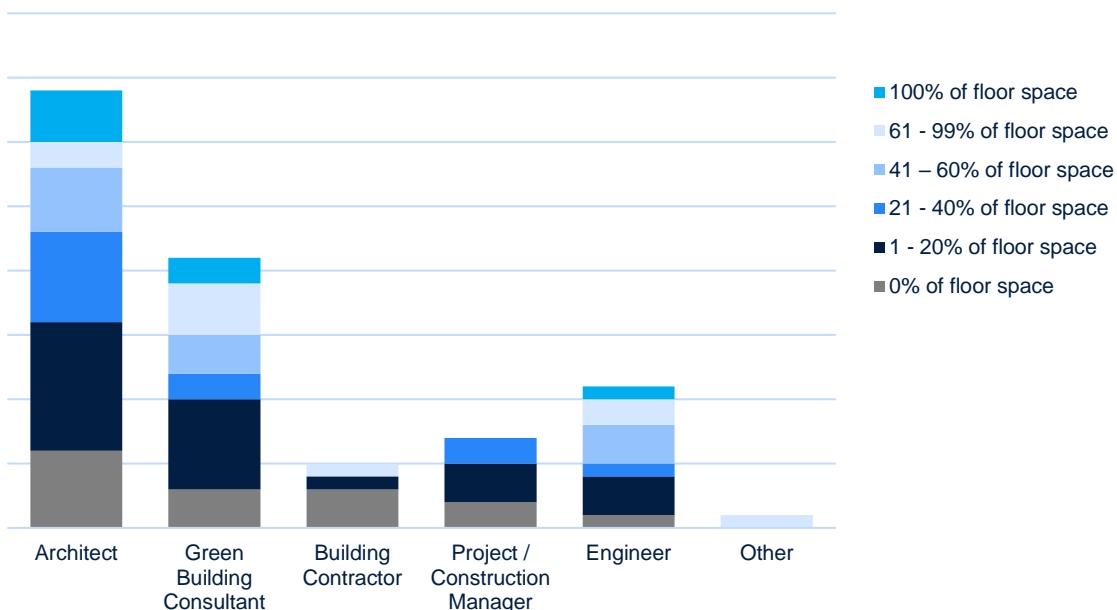
# Building Experts

Responses: 108

Green Building familiarity among designers and Green Building consultants is strong. Of the various survey respondents, all energy modelers and 88% of Green Building consultants believe that they are very familiar with certified Green Buildings. 84% of architects indicated that they are either very familiar (49%) or only somewhat familiar (35%) with certified Green Buildings.

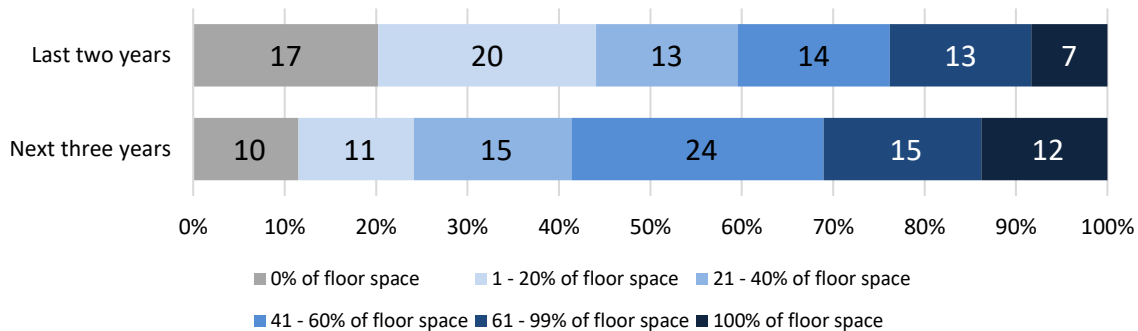
The graph below illustrates the proportion of self-declared Green Building projects in each stakeholder group portfolio over the last two years. 12% of architects claim that 100% of their portfolios consist of Green Buildings. Most architects indicated that Green Buildings take up between 1-20% of their project's floor space.

### Share of Green Building Projects in Portfolio by Stakeholder Groups



The below graph summarizes the certified Green Building floor space in the current portfolios of designers and Green Building consultants, and their projected increase in in the next three years.

### Building Experts' Certified Green Building Portfolio and Expectations



Respondents indicated that they use LEED certification most widely (68%), followed by EDGE (65%), CASA (25%), and BREEAM (4%). Stakeholders indicated that their decision regarding which certification system to use was largely guided by the cost of certification (60%) followed by the building type to be certified (50%). The three most popular property segments to develop and certify green for designers and Green Building consultants include offices, hotels, and high-income residential.

### Main real estate sectors for certified Green Building development





# Building Experts

Responses: 108

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 (61%), the high cost of green certification (53%), and a lack of knowledge of the benefits of certified Green Buildings (39%). Conversely, the primary motivations for developing certified Green Buildings included improved access to finance (e.g., lower interest rates, and longer loan period) (57%), public recognition and brand enhancement (39%), and increased client demand (32%).

### Main obstacles for developing the certified Green Building market



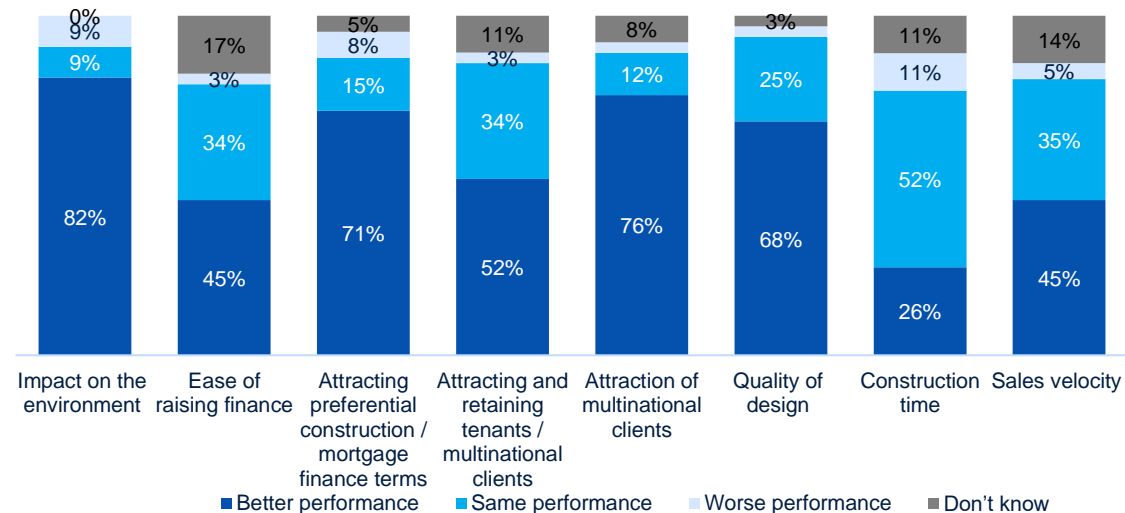
### Main motivators in developing the certified Green Building market



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, 14% of stakeholders familiar with certified Green Buildings estimated that the construction cost of a certified Green Building ranges between 1-9% more, while 13% estimated that the construction cost to be between 10-20% more. Furthermore, 7% of the stakeholders familiar with certified Green Buildings estimated the construction cost to be more than 20%. Regarding utility cost, 17% of stakeholders familiar with certified Green Buildings estimated the cost of utility bills to be between 3-9% less, while 21% of the stakeholders the cost of utility bills to be between 10-20% less.

Certified Green Buildings vs Conventional Buildings



According to designers and Green Building consultants, the predicted savings of certified Green Buildings were generally higher than the actual savings, especially when considered long term. Designers and Green Building consultants indicated that the accuracy of the savings could be improved by collecting proper data and conducting more research.

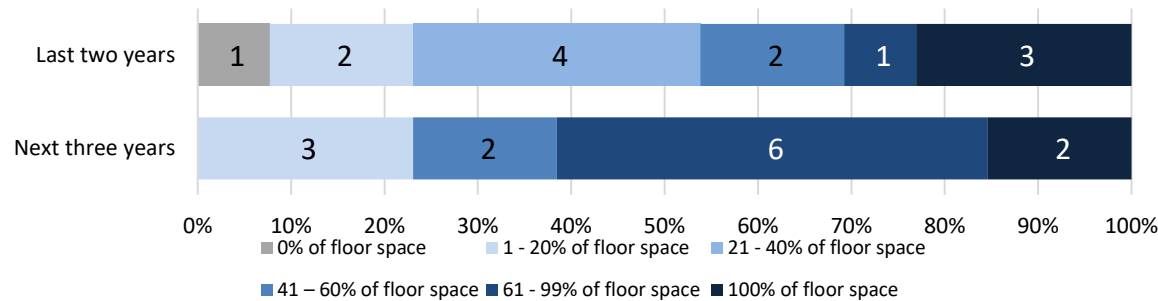


# Real Estate Investors

Responses: 17

The real estate investors surveyed consisted of real estate investment companies, pension funds, and insurance companies. Institutional investors seemed to be either very familiar (38%) or somewhat familiar (50%) with certified Green Buildings. Only 13% of stakeholder group respondents indicated that they are not at all familiar with certified Green Buildings. This was corroborated by the presence of certified Green Buildings in their portfolios – 46% of institutional investors claim that more than 40% of their portfolios consist of certified Green Buildings. Furthermore, 77% of institutional investors anticipate growth in the share of certified Green Building floor space in their portfolio in the next three years.

Real Estate Investors' Certified Green Building Portfolio and Expectations



Offices (92%), warehouses and industrial (67%), and retail (25%) are the most popular certified Green Building types that institutional investors tend to invest in. The main motivations for this type of investment are the carbon footprint reduction (58%), competitive differentiation (50%), increased end-user demand (42%), better construction finance terms (42%), and public recognition and brand enhancement (42%).

Institutional investors indicated that the lack of incentives and public policy support (67%), the higher construction cost of Green Buildings (58%), and the high cost of certification (50%) are the main deterrents to increasing their share of certified Green Buildings in their portfolios. The primary certification rating system used to certify assets is LEED, with 92% of respondents having used it at least once. The certification tool was primarily chosen because of the perceived reputation of the rating tool (64%) and the specific building typology to be certified (64%).

43% of institutional investors estimated that certified Green Buildings could cost up to 9% more in terms of construction cost compared to conventional buildings, whereas 57% estimated that the cost of construction is the same. However, 50% of institutional investors also estimated property value/sales price was higher (17% of respondents estimate the property value to be 1-2% more; another 17% estimated it between 5-9% more, and another 17% estimated the value to be between 10-14% more). The majority (43%) of respondents indicated that the Internal Rate of Return (IRR) was likely to be the same, 14% indicated that it could be between 5-9% more.

An area in which certified Green Buildings perform better than conventional buildings, and that is of considerable importance to institutional investors, is in attracting and retaining tenants. All respondents believe that certified Green Buildings fare better than conventional buildings in this regard. This could be attributed to the increased ESG requirements imposed on large corporates and multinationals as well as the maturation of their sustainability agendas which generate demand for certified Green Buildings. 43% of institutional investors were of the view that building and financial market regulations only somewhat facilitate Green Building developments in Colombia. Similarly, Green Building regulations were perceived as being hardly enforced – 43% selected limited or no enforcement. institutional investors viewed fiscal incentives as the primary potential accelerant to growing the Green Building market in Colombia.



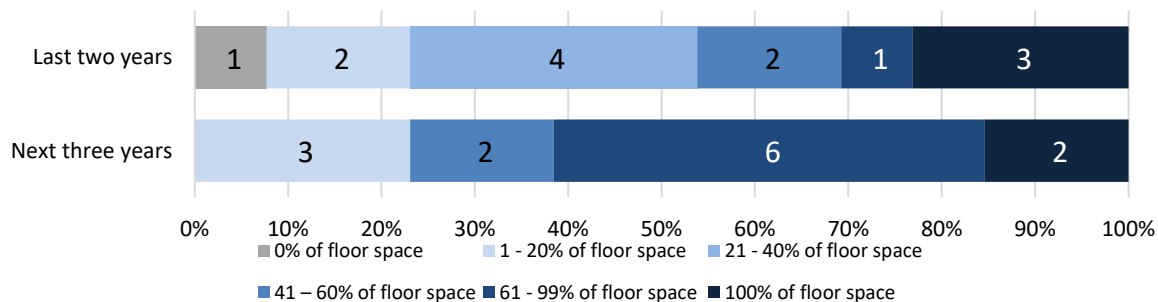
# Real Estate Practitioners

Responses: 14

Brokers and property managers were the key participants in this survey. 67% of the survey participants felt that they are somewhat familiar with certified Green Buildings while 28% indicated that they are very familiar with certified Green Buildings. According to the Colombian brokers and property managers surveyed, developers, institutional investors, and commercial occupiers are most familiar with certified Green Buildings. Public institutions, retailers, and residential tenants were perceived to be the least knowledgeable about certified Green Buildings.

The graph below summarizes the certified Green Building floor space in the current portfolios of brokers and property managers and their projected increase in in the next three years. More than a third (38%) of brokers and property managers surveyed have certified Green Building portfolios of more than 40% of their total floor space. Additionally, during the next three years, 62% of brokers and property managers expect to see an increase (given the total floor space) of certified Green Buildings in their portfolios.

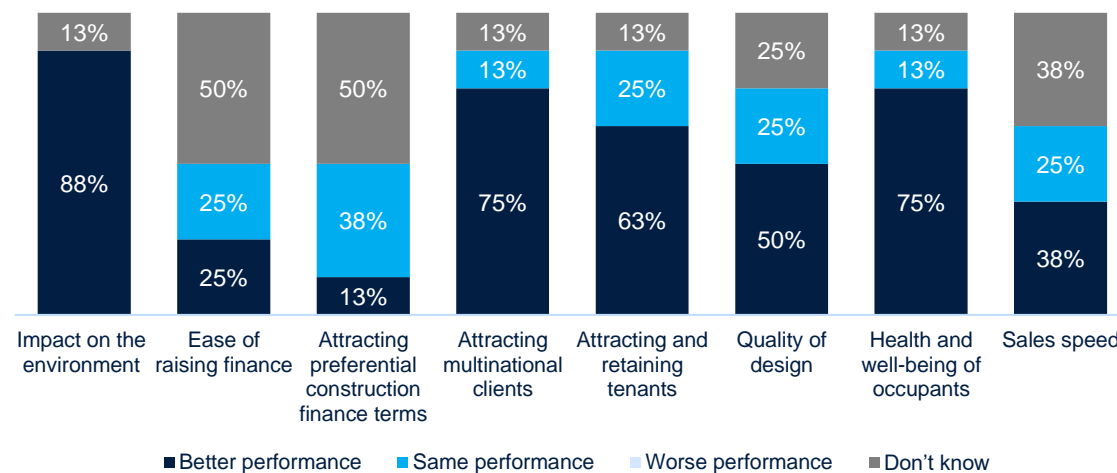
Real Estate Investors' Certified Green Building Portfolio and Expectations



According to real estate practitioners, utility cost savings and company strategies were the primary attractors for tenants. The primary detractor in choosing to occupy a certified Green Building is perceived to be the higher purchase/rental price (73%) followed by the lack of knowledge of the benefits of certified Green Buildings (55%).

Given several performance indicators, 88% of brokers and property managers estimated that certified Green Buildings perform better than conventional buildings in terms of impact on the environment, 75% identified attracting multinational clients and 75% identified the health and well-being of occupants.

Certified Green Buildings vs Conventional Buildings



Most brokers and property managers considered that current regulations are only somewhat (40%) or moderately (30%), facilitative to Green Buildings development in Colombia. Similarly, 40% stated that the enforcement of these Green Buildings regulations is limited or non-existent.



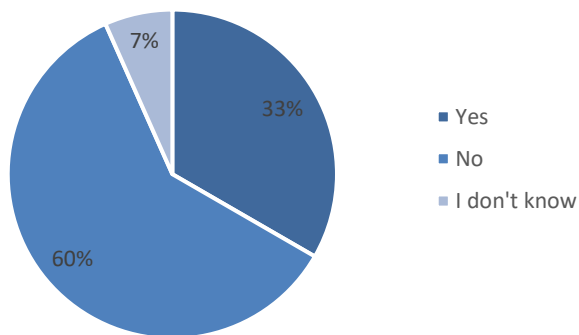


# Commercial Occupiers

Responses: 16

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 (56%) own the floor space they use while 44% of businesses rent the floor space they use. Of the stakeholders surveyed, 38% 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 - 33% of stakeholders indicated that their company has an advanced sustainability agenda, and that sustainability was a major 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.

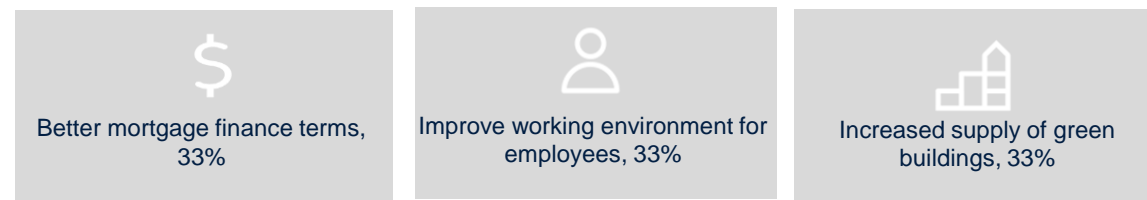
**Commercial Occupiers:**  
Does your Company Occupy a Certified Green Building?



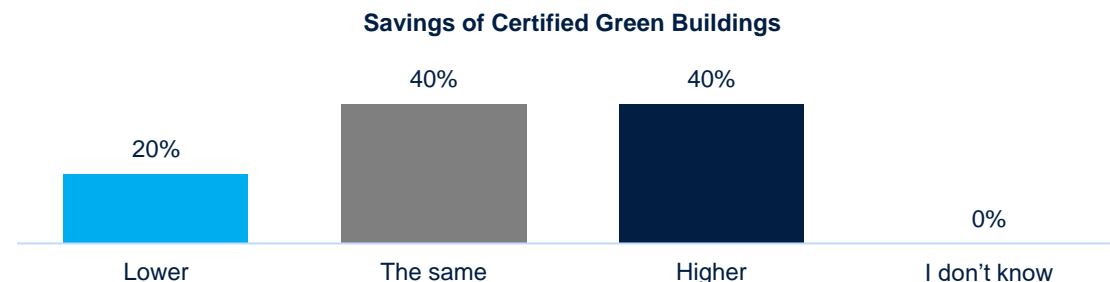
60% of commercial occupiers surveyed indicated that they did not occupy a certified Green Building, and 7% did not know whether they occupy a certified Green Building or not.

38% of survey respondents indicated that the main reason for them not occupying certified Green Buildings was due to a lack of knowledge of the benefits of certified Green Buildings. The two main factors mentioned as most motivating for companies to occupy certified Green Buildings include lower utility bills (44%) (i.e., energy, water) compared to conventional buildings and increased property value (44%). Other motivating factors are listed below.

### Main motivators for occupying a certified Green Building



The below graph 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 (40%) or the same (40%) as the predicted savings.





# Residential Occupiers

Responses: 101

The residential occupiers stakeholder group consisted of a combination of homeowners (72%) and rental tenants (28%). When asked if they lived in a green home, 16% of respondents were unsure. This could be attributed to the lack of knowledge of certified Green Buildings within this stakeholder group, with nearly half (42%) of respondents not at all familiar, or not being very familiar (28%) with certified Green Buildings. Only two of the 101 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 and cost-related. 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



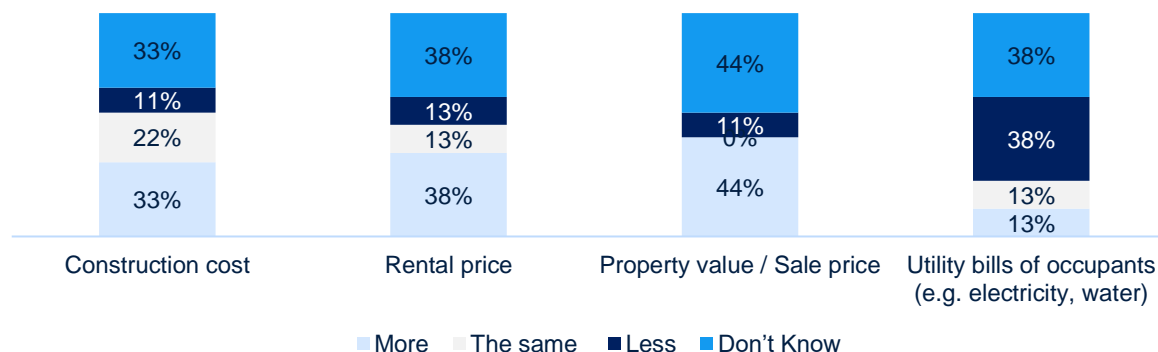
78% of residential occupiers indicated that they would be willing to pay up to 2% more to live in a resource and energy-efficient building, indicating strong demand for Green Buildings.

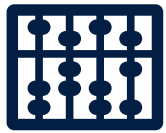
## Additional premium to make home energy and resource efficient



Given performance indicators, comparing certified Green Buildings against conventional buildings, the majority of residential occupier respondents 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. Almost the same number of respondents indicated that they “do not know,” which corresponds to the low certified Green Building familiarity results.

## 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 Colombia survey was open for responses from September 17<sup>th</sup>, 2021, to April 19<sup>th</sup>, 2022.

Nine different surveys were designed, 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/Subgroup		# Target Surveys	# Actual Surveys
<b>Developers</b>	Developers	30	19
	Municipal	10	17
<b>Policy Makers</b>	Regional		
	National		
<b>Development Finance Institutions</b>	Multilateral DFIs	5	4
	National DFIs	5	3
<b>Financial Institutions</b>	FIs (Banks)		
	Funds		
<b>Real Estate Investors</b>	REITs	15	17
	Other RE funds		
	Corporate landlords		
	Architects		
<b>Building Experts</b>	Engineers	105	108
	EDGE experts +Other GB consultants		
	Contractors		
	Brokers		
<b>Real Estate Practitioners</b>	Real estate agents	15	14
	Property managers		
<b>Commercial Occupiers</b>	Corporate Occupiers	45	16
	Retailers & Other		
<b>Residential Occupiers</b>	Homeowners	90	101
	Tenants		
<b>Grand total</b>		<b>320</b>	<b>299</b>

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