



GREEN BUILDING MARKET STAKEHOLDER ASSESSMENT

SYNTHESIS REPORT
2022-2023



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 surveys of private sector companies in Colombia, Indonesia, Kenya, Mexico, Philippines, South Africa, and Vietnam. Surveyed stakeholder groups varied by country, but they included 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, DFIs, building experts (i.e., architects, engineers, contractors, and Green Building experts), policy makers, commercial occupiers, and residential occupiers. Substantive contributions were received from the EDGE local teams in the study countries. 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 ASSESSMENTS SYNTHESIS REPORT

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.

The stakeholder assessments summarized in this synthesis report were conducted as part of the MAGC Research Program in 2021-2023. Stakeholder assessments are intended to be representative, but not exhaustive. They aim to provide actionable insights and contribute to the understanding of the Green Building market in each country, shedding light on awareness, motivating factors, perceived obstacles, construction cost and performance estimates, and decision-making paradigms of each stakeholder group.

Stakeholder assessment were conducted through the SurveyMonkey online survey platform. Surveyed stakeholder groups varied by country, but they included 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, DFIs, building experts (i.e., architects, engineers, contractors, and Green Building experts), policy makers, commercial occupiers, and residential occupiers. The number of stakeholders which responded to each survey can be found at the end of the synthesis report. Additional data and analyses are available in individual country reports.

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I. Familiarity with Certified Green Buildings

Except in the Philippines (34%), the majority of respondents indicated that they are somewhat or very familiar with certified Green Buildings, ranging from the 60% overall familiarity reported in Indonesia to the 71% reported in Kenya.

Typically, demand-side stakeholders (i.e., Commercial and Residential Occupiers) and Policy Makers reported the least familiarity with Green Buildings, while supply-side stakeholders (e.g., Developers, Building Experts, Real Estate Practitioners and Investors) reported the most familiarity with Green Buildings.

However, there is substantial variation across and within countries. For example, in Indonesia 89% of Building Experts, 75% of Developers and 80% of Commercial Occupiers reported to be somewhat or very familiar with certified Green Buildings, while the percentage was 34% for Real Estate Practitioners and 20% for Policy Makers. In Kenya, 100% of Real Estate Investors and Practitioners reported to be somewhat or very familiar with Green Buildings, followed by 81% of Residential Occupiers, 80% of Developers, 62% of Policy Makers, 60% of Commercial Occupiers, and 47% of Building Experts.

In view of the above, it is recommended to refer to individual reports to assess the familiarity with certified Green Buildings by stakeholder group in each country.

II. Expectations for the Green Building Market

Typically, the majority of supply-side stakeholders (e.g., Developers, Building Experts, Real Estate Practitioners and Investors) in all seven countries report having Green Building portfolios during the past two years. However, this ranges from 78% of Developers and 80% of Building Experts in Colombia or 70% of Developers and 67% of Building Experts in South Africa (including some reporting portfolios consisting only of Green Buildings), to 50% of Real Estate Investors and Practitioners in Kenya.

Similarly, supply-side stakeholders typically expect the Green Building market to grow. This observation appears to be very consistent, with all supply-side stakeholder groups surveyed in all countries reporting, on average, that they expect the percentage of Green Buildings in their portfolio will increase over the next three years.

Additional data and analyses on Green Building market expectations are available in individual country reports.

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III. Motivations to Build Green

The typical motivation for supply-side stakeholders (e.g., Developers, Building Experts, Real Estate Practitioners and Investors) to participate in the Green Building market is the perceived increased marketability/demand from clients (reported in all countries). In addition, supply-side stakeholders also often report to be motivated by the reduced carbon footprint of Green Buildings (Colombia, Kenya, Mexico, Philippines, South Africa) and/or the improved access to finance (Colombia, Kenya, Mexico, Vietnam).

For demand-side stakeholders (i.e., Commercial and Residential Occupiers), the typical motivation to buy/lease a Green Building is the lower utility bills/operating cost (reported in all countries). In addition, demand-side stakeholders often report to be motivated by the perceived environmental and health benefits (Colombia, Indonesia, Kenya, Philippines, Vietnam), and in some cases by the increased property value (Colombia, Vietnam).

More detailed data and analyses on Green Building market stakeholder motivations are available in individual country reports.

IV. Obstacles to Build Green

The typical main obstacle reported by supply-side stakeholders (e.g., Developers, Building Experts, Real Estate Practitioners and Investors) to participate in the Green Building market is the perceived higher cost of certification/construction (reported in all countries). In addition, supply-side stakeholders also often report a perceived lack of incentives/public policy support (Indonesia, Mexico, Philippines, South Africa).

For demand-side stakeholders (i.e., Commercial and Residential Occupiers), the typical obstacles to buy/lease a Green Building are the perceived higher cost (reported in all countries except Colombia and Mexico), the insufficient supply of Green Buildings (Colombia, Kenya, South Africa, Vietnam), the lack of knowledge about the benefits of Green Buildings (Colombia, Indonesia, Philippines), and the lack of incentives/public policy support (Colombia, Kenya, South Africa).

More detailed data and analyses on obstacles perceived by Green Building market stakeholders are available in individual country reports.

IV. Cost Perception of Green Buildings

As already noted, the perceived increased cost of construction/certification is typically reported as the main obstacle to participate in the Green Building market by supply-side stakeholders (e.g., Developers, Building Experts, Real Estate Practitioners and Investors) in all countries.

However, many stakeholders report a perceived additional cost of construction for Green Buildings in excess of the typical 1%-2% to 1%-5% estimated by EDGE and local Green Building Councils. The percentage of stakeholders that appear to overestimate the cost of construction ranges from 25% of Developer respondents in Colombia to the majority of Building Expert respondents in Kenya, Indonesia, Philippines, and South Africa.

Interestingly, in many cases respondent estimates of the additional cost of construction appear to decrease with the level of familiarity with Green Buildings. While this could indicate that more knowledge of Green Buildings 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 Building construction.

VI. Willingness to Pay for Green Buildings

Residential Occupier respondents typically report substantial willingness to pay to live in a resource and energy efficient building,

For example, 78% of residential occupier respondents in Colombia indicated that they would be willing to pay an additional 2%, while 60% would be willing to pay an additional 3%. These percentages are strikingly similar to South Africa, where 79% and 59% of residential occupier respondents indicated that they would be willing to pay an additional 2% and 3%, respectively, and the Philippines (71% and 60%).

While these figures are lower for Indonesia (58% and 46%), Kenya (53% and 24%), and Vietnam (44% and 29%), if these findings can be generalized they would suggest strong demand and a robust business case for Green Buildings across the board.



METHODOLOGY: COLOMBIA

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 17th, 2021, to April 19th, 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
Developers	Developers	30	19
	Municipal	10	17
Policy Makers	Regional		
	National		
Development Finance Institutions	Multilateral DFIs	5	4
	National DFIs	5	3
Financial Institutions	FIs (Banks)		
	Funds		
	REITs		
Real Estate Investors	Other RE funds	15	17
	Corporate landlords	105	108
	Building Experts		
Engineers			
Real Estate Practitioners	EDGE experts +Other GB consultants		
	Contractors		
Real Estate Practitioners	Brokers	15	14
	Real estate agents	45	16
Property managers			
Commercial Occupiers	Corporate Occupiers		
	Retailers & Other		
Residential Occupiers	Homeowners	90	101
	Tenants	320	299
Grand total			



METHODOLOGY: INDONESIA

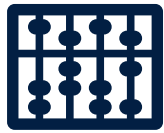
The stakeholder assessment surveys were conducted through the online survey platform SurveyMonkey. The anticipated time to complete each survey was 10 – 15 min. The Indonesia survey was open for responses from December 2022 to April 2023.

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/Subgroup		# Target Surveys	# Actual Surveys
Developers	Developers	20	20
	Municipal		
Policy Makers	Regional	10	5
	National		
Development Finance Institutions	Multilateral DFIs	5	5
	National DFIs		
Financial Institutions	FIs (Banks)	5	7
	Architects		
Building Experts	Engineers	50	54
	EDGE experts +Other GB consultants		
	Contractors		
Real Estate Practitioners	Brokers		
	Real estate agents	15	6
Commercial Occupiers	Property managers		
	Corporate Occupiers	40	16
Residential Occupiers	Retailers & Other		
	Homeowners	40	74
	Tenants		
Grand total		200	187



METHODOLOGY: KENYA

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.

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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	50	38
	Other RE funds		
	Corporate landlords		
Building Experts	Architects	15	4
	Engineers		
	EDGE experts +Other GB consultants		
	Contractors		
Real Estate Practitioners	Brokers	40	16
	Real estate agents		
	Property managers		
Commercial Occupiers	Corporate Occupiers	40	58
	Retailers & Other		
Residential Occupiers	Homeowners	40	58
	Tenants	200	139
Grand total			



METHODOLOGY: MEXICO

The stakeholder assessment surveys were conducted through the online survey platform SurveyMonkey. The anticipated time to complete each survey was 10 – 15 min. The Mexico survey was open for responses from December 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/Subgroup		# Target Surveys	# Actual Surveys
Developers	Developers	20	14
	Municipal		
Policy Makers	Regional	10	8
	National		
Development Finance Institutions	Multilateral DFIs	5	4
	National DFIs		
Financial Institutions	FIs (Banks)	5	3
	Funds		
Real Estate Investors	REITs	15	7
	Other RE funds		
	Corporate landlords		
Building Experts	Architects	50	33
	Engineers		
	EDGE experts +Other GB consultants		
	Contractors		
Grand total		200	69



METHODOLOGY: PHILIPPINES

The stakeholder assessment surveys were conducted through the online survey platform SurveyMonkey. The anticipated time to complete each survey was 10 – 15 min. The Philippines survey was open for responses from October 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/Subgroup		# Target Surveys	# Actual Surveys
Developers	Developers	20	14
	Municipal		
Policy Makers	Regional	10	4
	National		
Development Finance Institutions	Multilateral DFIs	5	5
	National DFIs		
Real Estate Investors	Funds		
	REITs	15	12
	Other RE funds		
Building Experts	Corporate landlords		
	Architects		
	Engineers	50	21
	EDGE experts +Other GB consultants		
Residential Occupiers	Contractors		
	Homeowners	40	135
	Tenants		
Grand total		200	190



METHODOLOGY: SOUTH AFRICA

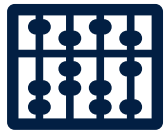
The stakeholder assessment surveys were conducted through the online survey platform SurveyMonkey. The anticipated time to complete each survey was 10 – 15 min. The South Africa survey was open for responses from August 23rd to November 11th, 2021.

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.

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Stakeholder Group/Subgroup		# Target Surveys	# Actual Surveys
Developers	Developers	20	21
	Municipal		
Policy Makers	Regional	10	10
	National		
Development Finance Institutions	Multilateral DFIs	5	6
	National DFIs		
Financial Institutions	FIs (Banks)	5	8
	Funds		
Real Estate Investors	REITs	15	20
	Other RE funds		
	Corporate landlords		
Building Experts	Architects		
	Engineers		
	EDGE experts +Other GB consultants	50	107
	Contractors		
Real Estate Practitioners	Brokers		
	Real estate agents	15	29
	Property managers		
Commercial Occupiers	Corporate Occupiers	40	88
	Retailers & Other		
Residential Occupiers	Homeowners	40	113
	Tenants		
Grand total		200	402



METHODOLOGY: VIETNAM

The stakeholder assessment surveys were conducted through the online survey platform SurveyMonkey. The anticipated time to complete each survey was 10 – 15 min. The Vietnam survey received responses from December 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/Subgroup		# Target Surveys	# Actual Surveys
Developers	Developers	20	4
	Architects		
Building Experts	Engineers	50	18
	EDGE Experts and Other GB consultants		
	Contractors		
Real Estate Practitioners	Brokers	15	8
	Real estate agents Property managers		
Commercial Occupiers	Corporate Occupiers	40	5
	Retailers and Other		
Residential Occupiers	Homeowners	40	45
	Tenants		
Grand total		200	80

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