ESG Adoption in the Indian Real Estate Sector: A Study

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Abstract
As an outcome of the Paris Climate Agreement 2016 and the recently concluded Glasgow Climate Change Conference 2021, several nations and governments have committed to curbing global temperature rise to 1.5°C above pre-industrial levels to avoid the catastrophic impacts of climate change. Every sector has a role to play in helping India move towards a zero-carbon economy by 2070. The Real Estate sector here in India must also transform by implementing various Environmental, Social, and Governance (ESG) measures to reduce its carbon emissions at scale as the sector continues its rapid growth. However, in order to ensure the large-scale adoption and implementation of ESG principles, we need to incentivize real estate organizations and provide them with the necessary frameworks and tools to enable them to move towards zero-carbon developments. This research paper highlights the current status of the ESG implementation by the Real Estate companies in India and what incentives would motivate them further to adopt ESG at scale and move towards zero carbon.

Keywords:
ESG; policy; real estate; incentives & stimuli; sustainable investing; zero-carbon

1. Introduction

Environmental, Social, and Governance, also known by the acronym ESG are the three broad categories, that form the framework for assessing the impact of the sustainability and ethical practices of a company (CFI). The 'E' in ESG stands for Environmental and looks at the impact of resources used by any organization and how they affect the environment, such as carbon footprint, energy use, wastewater discharge, waste diversion, and material usage among other environmental impacting activities. The 'S', i.e., Social refers to the ways in which a business interacts with the communities around it. It includes internal policies related to labor, gender, diversity and inclusion, employee training, and satisfaction among others. The 'G', i.e., Governance relates to company practices and policies such as code of ethics, management commitment, and other governance-related parameters that help the organization with efficient decision making.

2. Key Drivers of ESG

The key drivers of ESG, sustainable investing, and regulation, are explained below.

2.1. Sustainable Investing

The focus on sustainable /ESG investing started in early 2004 when the former UN Secretary-General Kofi Annan invited over 50 CEOs of major financial institutions to join the UN Global Compact, the International Finance Corporation (IFC), and the Swiss Government to help find ways to integrate ESG into capital markets. The final report of this joint effort, titled "Who Cares Wins," with Ivo Knoepfel as the author made a strong business case for how incorporating ESG factors in capital markets is good and can lead to more sustainable markets and better outcomes for societies. Since then sustainable investing has become one of the key drivers for ESG globally as highlighted by various global financial firms including J.P. Morgan Chase and Fidelity International. In addition, the CFA Dec 2020 survey highlighted that more than 59% of the surveyed companies indicated that clients/investors are demanding ESG (almost a 15% increase from 2017), and over 64% of the respondents also mentioned that ESG helps them manage investment risks better. Greater reputation also serves as a key incentive now more than earlier (an almost 10% increase since 2017).

Below is a snapshot of the CFA survey and the main results[1]:

Drivers of ESG Investing	2017	2020
To help manage investment risks	65%	64%
Clients/investors demand it	45%	59%

[1] Based on a March 2020 survey of 2,800 CFA institute members who were asked: 'Why do you or your organization take ESG issues into consideration in your investment analysis/decision? (Select all that apply)

It's our fiduciary duty	36%	43%
My firm derives reputational benefits	32%	41%
To improve financial returns	N/A*	35%

**No data available in 2017*

2.2. Regulation

Several countries have put in place various statutory and mandatory regulations requiring organizations to report on the various ESG requirements. For example, in the UK, it is mandatory for companies to provide a report disclosing their annual GHG emissions, diversity metrics, and human rights parameters as per the Companies Act 2006 (Strategic and Director's Report) Regulations, 2013). The US Securities and Exchange Commission (SEC) has recently (March 2022) mandated climate disclosure requirements for all listed companies. China has several regulations that act as instruments of mandatory disclosure on sustainability matters. This includes the 2008 Environmental Information Disclosure Act which mandates corporations to disclose environmental information. Additionally, all large companies listed on the Shanghai Stock Exchange are required to submit environmental disclosure reports. Apart from this, parameters such as annual resource utilization, pollution levels, waste generation, and a few others are disclosed by most organizations to gain more rights to grants and public support. In India, in line with our zero-carbon goals for the first time beginning FY22, The Securities and Exchange Board of India (SEBI) has mandated the top 1000 listed companies to submit their business responsibility and sustainability report in line with SEBI's guidelines.

India & the Need for ESG

An emerging economy, India is developing fast and has a goal of reaching a $1 trillion GDP by 2030 (IBEF). One of the highest priorities as an engine of growth is infrastructure and the real estate sector which primarily comprise the commercial, industrial, residential, retail, and hospitality sub-sectors. The real-estate sector constitutes 7% of India's GDP today with market size of USD 200 billion which is expected to be 13% of GDP by 2025, and 18% of GDP by 2030 (IBEF; Economic Times). According to the Hindustan Times[2], the Indian real estate sector makes up about 22% of emissions in India and this will grow substantially with further development in the coming years. This makes it imperative for the growth to be sustainable from the start, and ESG policies are a critical way to achieve that. This research is mainly meant to assess the implementation of ESG in the Indian Real Estate market and how best to incentivize real estate organizations to implement them. The real estate sector in India is built on a complex grid of micro, small, medium, and large-scale firms. The medium and large-scale firms in this sector contribute to over 80% of the overall development in the country. Apart from the medium and large firms, there are also thousands of micro and small firms that are part of the real estate sector in the country, however, currently, their preparedness for implementing ESG is highly limited. As the sector grows, there is bound to be a huge increase in carbon emissions (over 40% compared to the current 22%). However, if the real estate sector continues to maintain the status quo regarding new developments, this may lead to about a 2.4° C temperature rise as against our target of less than 1.5 ° C (The Print). Unless there is rapid large-scale adoption of ESG principles and practices by the real estate sector in India, it may be difficult to achieve the 1.5° C targets. Implementing ESG protocols can make that growth sustainable, thereby limiting carbon emissions and ensuring a better future for our children.

3. Literature Review

The literature review has aided the understanding of various contours of study on ESG in India, the real estate sector in India, and sustainable development.

ESG has been a phenomenon since 2004 when it was first coined in the "Who Cares Wins" report[3] which was developed from a joint initiative of financial institutions under UNGC[4] (United Nations Global Compact). However, ESG first entered the public domain in 2006 as a way of sustainable reporting under the United Nations Principles for Responsible Investment (PRI) report at the New York Stock Exchange and the launch of the Sustainable Stock Exchange Initiative (SSEI) the following year (carbon-

[2] "Indian Real Estate Sector, Driving Sustainable Growth." *Hindustan Times*, 11 Feb. 2022,

https://www.hindustantimes.com/brand-post/indian-real-estate-sector-driving-sustainable-growth-101644581497012.html.

[3] United Nations Global Compact, 2004, "Who Cares Wins",

https://www.unepfi.org/fileadmin/events/2004/stocks/who_cares_wins_global_compact_2004.pdf

[4] "United Nations Global Compact." What Is the UN Global Compact | UN Global Compact,
https://www.unglobalcompact.org/what-is-gc

view). It acts as a way of reporting a company's activities and goals on the various aspects of ESG and a way to further develop sustainable investments (Forbes). ESG has various advantages such as the following:

- **Increases Organization's Top-line:** A key benefit of ESG as seen by many organizations – both product and service organizations – is the potential top-line growth that can be achieved by embedding ESG requirements into their products and services *(McKinsey research).*

- **Reduces Operating Costs:** ESG also helps organizations to reduce operating costs. Unlike business as usual, by incorporating various ESG requirements such as energy-use reduction, water-use reduction, waste reduction, optimized fuel consumption, etc. businesses have been able to bring down their annual operating costs thereby increasing profitability by as much as 60 percent *(McKinsey research)*.

- **Facilitates Innovation:** Today investor and consumer focus on climate change has resulted in a greater demand for low-carbon products and materials. Many companies are innovating, developing green products and technologies, and/or upgrading their existing products and processes to move towards low/zero carbon. This has led to huge innovations in recent times in the construction industry such as prefabricated buildings, low-carbon cement, fly-ash bricks, low-temperature asphalt, etc.

- **Manages Climate-related Risks:** ESG also helps organizations to be better prepared to manage climate-related risks – both physical risks resulting from extreme weather events or changing weather patterns as well as legal and policy risks such as carbon taxes, regulatory mandates such as the recent SEC's (U.S. Securities and Exchange Commission) climate disclosure requirements or the new SEBI's (Securities and Exchange Board of India) Business Responsibility and Sustainability Reporting (BRSR) requirements.

ESG reporting – the disclosure of environmental, social, and corporate governance data to shed light on a company's ESG activities while improving investor transparency (Wolters Kluwer) – has since grown over the years, though in different ways in different countries, mainly depending on the extent of development of the countries. The UNDP SIPA Capstone Executive Summary Report titled, "ESG Investing: How to increase ESG investing in developing countries", notes: "Developed countries such as Europe, the United States, and Canada have seen a steady rise in ESG investing in recent years. [For example] in 2016, more than 90% of ESG investments ($10.37 trillion) were concentrated in these three regions." In the case of developing countries, a combination of high ESG country risk scores, lack of clarity in means of reporting, and the prioritization of simple growth and expansion of revenues and size over ESG criteria limit the implementation of ESG. For example, in 2016, Asia (which comprises mostly developing countries) had ESG funds of $24.5 billion against the world's $445 billion (UNDP SIPA Capstone).

Overall, ESG is increasing in implementation worldwide (with an even greater focus after the Covid-19 pandemic), reaching the point where it has become an expectation from clients, investors, and shareholders due to the increasing climate-related risks and greater importance to social issues. Thus, a greater number of companies today have no choice but to implement various measures to address ESG in their operations. According to the 2020 annual risk report from the World Economic Forum (WEF), the top five likely risks were environmental, and four out of the top five risks with maximum impact were environmental and social in nature.

Cherkasova and Nenizhenko, the authors of the study "Investment in ESG projects and corporate performance of multinational companies" note, "Studies have analyzed the relationship between ESG initiatives and the financial performance of companies by country. For instance, Lo and Kwan, 2017 analyzed Hong Kong companies and concluded that ESG activities positively affect market reaction; however, this dependence is weak."

According to Ernst & Young, with the huge thrust by the investment community on ESG, it is becoming critical for all organizations to embed ESG into all their activities. However not all agree that investment in ESG is always effective. A recent article/editorial by Sanjai Bhagat, the Provost Professor of Finance at the University of Colorado, in Harvard Business Review notes how researchers at Columbia University and the London School of Economics compared the ESG record of U.S. companies in 147 ESG fund portfolios and that of U.S. companies in 2,428 non-ESG portfolios and how they found that the companies in the ESG portfolios had worse compliance record for both labor and environmental rules. The article goes on to make a viewpoint that while ESG investing is supposed to improve environmental and social sustainability practices, close analysis suggests that it's not making much difference to companies' ESG performance and in many cases looks like they are directing capital into poor business performers.

Yet, ESG investing is becoming increasingly popular, especially among millennials. As of 2018, approximately $12 trillion worth of investment assets were selected using a socially responsible investing strategy. According to the Harris Poll conducted on behalf of "CNBC Make It" in March 2021, about one-third of millennials often or exclusively use investments that take ESG factors into account, compared with 19% of Gen Z, and 16% of Gen X, and 2% of baby boomers. As millennials begin to comprise a larger segment of the total pool of investors and continue to grow one can expect ESG investing to expand right along with them in the future. (CFI)

While there exists a corpus of literature in the form of information and reports, those have mostly been written by entities or organizations that are themselves a stakeholder in the ESG space – such as consultants or advisors. Their purpose is primarily to create more awareness around ESG, highlight ESG's benefits and market their ESG services. The shortcoming lies with the limited literature available on many areas of ESG including its long-term impacts, the challenges in the implementation of ESG, what we can do to motivate more organizations to adopt ESG, etc., particularly within the context of India. Moreover, ESG is a relatively new area for most and more so for the real estate sector, there is limited research and scientific data out there on the interdisciplinary approaches of ESG, and the current policies and stimuli for organizations adopting ESG. This study aims to bridge some of these gaps in the existing literature by analyzing the level of adoption of ESG in the sector in India and identifying opportunities and stimuli for real estate organizations to embed ESG principles into the DNA of their organizations.

4. ESG Frameworks

There are several ESG frameworks available globally. The key thing is to identify the appropriate frameworks and criteria for each industry, each country, and each company and develop a practical and meaningful ESG policy framework that will be effective.

- **Global Reporting Initiative (GRI)**: An international not-for-profit organization, with a network-based structure with the intent of enabling all companies and organizations to report their economic, and ESG performance
- **Global Real Estate Sustainability Benchmark (GRESB)**: An industry-led organization that collects, validates, scores, and benchmarks actionable and transparent environmental, social, and governance (ESG) data to provide business intelligence, engagement tools, and regulatory reporting solutions for investors, asset managers, and the wider industry.
- **United Nations Global Compact (UNGC):** The United Nations Global Compact is an initiative that global corporations can sign on to commit to responsible business practices in the areas of human rights, labor, the environment, and corruption
- **Science-based Target Initiative (SBTi):** A partnership between CDP, UNGC, WRI (World Resources Institute), and the WWF (World Wide Fund for Nature) that drives ambitious climate action in the private sector by enabling an organization to achieve science-based emissions reduction targets
- **Task Force on Climate-Related Financial Disclosures (TCFD)**: An organization that works towards developing a set of voluntary climate-related financial risk disclosures for companies to adopt, which would help inform investors and other members of the public about the risks they face related to climate change
- **Sustainability Accounting Standards Board (SASB):** An independent non-profit organization, with the mission to develop and disseminate sustainability accounting standards that help public corporations disclose decision-useful information to investors

These are a few ESG frameworks that are most relevant and appropriate for the Real Estate sector in India to adopt.

5. Real Estate in India & Sustainability

Since the early 2000s in India, several real estate companies have adopted green building design and construction practices in line with green rating frameworks such as LEED (Leadership in Energy and Environmental Design, a green building certification program developed by the USGBC (U.S. Green Building Council), and other green rating systems such as IGBC (Indian Green Building Council), and GRIHA (Green Rating for Integrated Habitat Assessment). Over the last two decades, several real estate projects have adopted these green practices thereby creating an impactful green building movement in the country. One of the key learnings from the green building movement in India is that most tenants are willing to pay higher premiums and prefer occupying buildings that are certified green. According to CBRE India research Q1 2022, the premium commanded by certified green projects in various cities in the SEZ category (special economic zone) varies from 2.6% in Hyderabad to a maximum of 11.1% in Pune, while the non-SEZ category varies from 5% in Pune to a maximum of 33% in Mumbai. Thus, implementing ESG is surely going to help all real estate companies seek higher rentals, attract potential tenants and even in many cases retain existing tenants.

Another key reason for real estate companies to adopt ESG would be to help them satisfy and navigate various regulatory requirements such as:

- The Ministry of Environment, Forests and Climate Change (MoEFCC), Government of India, offers fast-track environmental clearance for various real estate projects that have implemented various sustainability measures and pursued a formal green building rating.
- The Security and Exchange Board of India (SEBI) has recently mandated India's top 1000 listed entities (by market capitalization) to publish their business responsibility and sustainability reporting (BRSR) documents starting FY2022.

Thus, by aligning their businesses and activities to ESG, real estate companies can not only meet various current statutory requirements but also be better prepared to face future climate-related regulations.

While it is good for the environment, ESG also helps companies to reduce their operating costs and enhance the value of their assets over time. Existing assets that are tracking, reporting, and managing their energy, water, waste, and carbon can improve their performance over time and achieve higher asset valuations compared to buildings that are not aligned with various ESG requirements.

According to the UN Department of Economic and Social Affairs (UN DESA), the largest urban transformation of the 21st century is currently happening in India, and the Indian real estate and infrastructure industry is a key contributor to this growth. As India continues to develop, both residential and commercial buildings are likely to increase severalfold in the coming decades. Their study asserts that nearly 70 percent of the building stock that will be there in 2030 is yet to be built in India.

Moreover, the real estate sector in India is the second-highest employment generator, after the agriculture sector consisting of 82,000 businesses in total, though only 128 of them are listed on the Bombay Stock Exchange (BSE). The real estate sector in India is expected to grow to a total of USD 1 trillion in market size by 2030, up from USD 200 billion in 2021. India's real estate market is estimated to increase at a CAGR of 19.5% from 2017- to 2028. The market is forecast to reach USD 650 billion, representing 13% of India's GDP by 2025 (IBEF).

Most real estate companies in India have been adopting green building practices and pursuing green building certifications under the LEED, IGBC, or GRIHA ratings.

At a building level, many of the organizations have

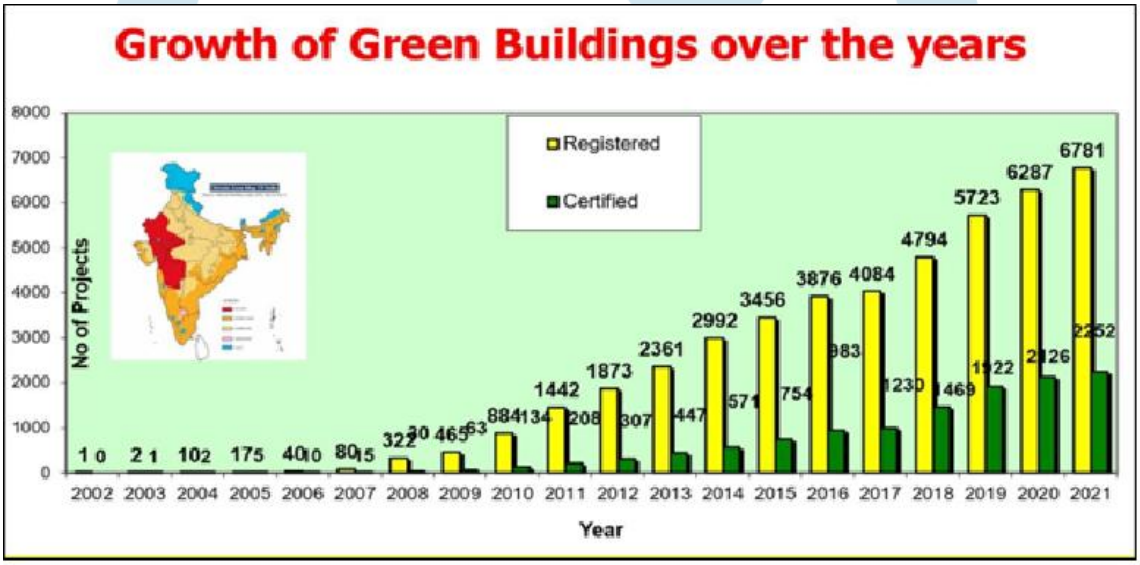

Figure 1: Growth of Green Buildings in India (2002-2021); Source: Indian Green Building Council (IGBC)

embraced green building practices across their portfolios and are pursuing green certifications for most of their new developments.

In fact, this is a reason for the growth of the green building movement in India over the last twenty years as can be seen from the Indian Green Building Council's Data in *Figure:1*.

Some of the real estate companies have also now started pursuing green building certifications for many of their existing buildings after a series of retrofits and upgradations to ensure that all their old, existing assets also reduce their annual energy and water consumption, and minimize waste diverted to landfills and reduce carbon emissions. While there has been a greater focus on green buildings to date, the other aspects of ESG such as carbon emissions tracking and reductions, and all the social and governance parameters lack sufficient progress. Few real estate companies have implemented part of the social requirements such as construction worker health and safety, child labor policies, and waste management during construction. However, there is still a long way to go in terms of a comprehensive ESG approach and that is why it is imperative for real estate companies to adopt appropriate ESG frameworks that will help them address these gaps.

5.1. Current Incentives given to Real Estate firms in India to adopt ESG policies

One of the key incentives provided by many states in India is the provision of additional floor area ratio (FAR) for projects that are pursuing green building certifications. Several states and jurisdictions have worked out different FAR benefits for green projects. The details as carried by *Indian Green Building Council* are summarized below:

State	FAR Incentives provided
by Punjab	The Department of Town Planning offers an additional 5% Floor Area Ratio (FAR) for green projects which are rated Gold or above (in addition to the state incentive) The Department of Housing and Urban Development offers an incentive of an additional 5%, 7.5%, and 10% FAR free of charge with 100 % exemption of building scrutiny fee for green projects which are rated Silver, Gold, and Platinum respectively
Rajasthan	Urban Development Department offers an additional 0.075, 0.10, and 0.15 BAR (Built Area Ratio – equivalent to FAR) free of charge for projects which are rated Silver, Gold, and Platinum respectively
West Bengal	The Department of Municipal Affairs (Kolkata Municipal Corporation) offers a 10% greater FAR for green projects which are Precertified or Provisionally Certified as Gold or above. The New Kolkata Development Authority offers an additional 10% FAR for green projects Pre-certified/ Provisionally Certified as Gold or above
Uttar Pradesh	The Department of Housing and Urban Planning offers an additional 5% FAR free of charge for green projects which are rated as Gold or above An additional 5% FAR free of charge is offered by the Greater Noida Industrial Development Authority (GNIDA) for green projects which are rated as Gold or above
Himachal Pradesh	The Department of Town and Country Planning offers an additional 10% FAR for green projects which are granted a Gold / Platinum rating.
Jharkhand	The Department of Urban Development and Housing offers an additional FAR of 3%, 5%, and 7% for Green Buildings rated as Silver, Gold, and Platinum respectively
Haryana	The Department of Town & Country Planning offers an additional FAR of 3%, 5%, and 7% for Green Buildings rated as Silver, Gold, and Platinum respectively
Maharashtra	The Department of Urban Development offers an additional FAR of 3%, 5%, and 7% for Green Buildings rated as Silver, Gold, and Platinum respectively

Source: Indian Green Building Council (IGBC)

Some states have also provided other incentives, such as subsidies, reimbursements, etc. as indicated below:

State	Other Incentives Provided
Andhra Pradesh	The Industries & Commerce Department offers a 25% subsidy on the total fixed capital investment of the project (excluding the cost of land, land development, preliminary, preoperative expenses, and consultancy fees) for buildings that obtain a green rating. This incentive is applicable to MSMEs and large industries. In addition, the Municipal Administration and Urban Development Department offers the following incentives to projects obtaining the green rating: ● 20% Reduction in Permit Fees

	• If the property is sold within three years, there is a one-time reduction of 20% on Duty on Transfer of Property (Surcharge on Stamp Duty) on the submission of the Occupancy Certificate issued by the Local Authority.
Maharashtra	The Public Works Department (PWD) of Maharashtra has mandated that the renovation of existing buildings and the development of all new government buildings in Maharashtra shall be carried out as per the suitable Green Building Rating system
Gujarat	The Gujrat Tourism Policy (2021-25) offers a reimbursement of 50% of the Certification fee, with a maximum limit of INR 10.0 lakh, to hotel/wellness resorts obtaining a green rating Industries Commissionerate, the Industries, and Mines Department provide an incentive of up to 50% coverage of consulting charges, with a maximum limit of INR 2.50 lakh for Industrial Buildings with a green rating
Tamil Nadu	The Industries Department of Tamil Nadu, as per the TN Industrial Policy 2021, offers a 25% subsidy on the cost of setting up environmental protection infrastructure, subject to a limit of Rs. 1 cr., for industrial projects that obtain green certification. Projects establishing or expanding industrial units, industrial parks, R&D projects, warehousing, and logistics parks shall be eligible for availing of this Green Industry Incentive.

Source: Indian Green Building Council (IGBC)

As can be seen above, most of the current incentives are for green buildings and do not cover all aspects of ESG. This has incentivized a majority of the real estate companies to focus on green building certifications but not on the other aspects of ESG thereby taking a limited approach to addressing climate change concerns. This is why in recent times; investor and regulatory requirements have come into the Indian real estate industry with more thrust on holistic ESG implementation. These requirements

6. Survey Methodology

The study was undertaken through a survey of leading real estate organizations in India to understand their current ESG practices and to ascertain what would motivate them to improve their ESG performance. The survey was developed with the participation of industry and sustainability representatives as well as those with research backgrounds in the areas of sustainable development. The survey aimed to get inputs on current ESG practices and policies adopted by the organizations, measures implemented/planned, the benefits derived from the implementation of these sustainable measures, the impact on the community through the implementation of various ESG policies, education, and awareness amongst their staff and stakeholders, etc.

The surveys were sent to leading real estate organizations of various sizes (less than 1 million square feet of buildings to over 20 million sq ft of buildings), serving commercial, residential, mixed-use, and industrial sectors, and to those with large new and existing building portfolios. In addition to the surveys, a few key stakeholders were interviewed to better understand what key incentives and governmental policies will lead to more large-scale adoption of ESG practices in the Indian real estate industry.

6.1. Sampling

There are a total of 128 listed real estate companies on the Bombay Stock Exchange, along with several thousand unlisted companies which are small, medium, and large-sized real estate organizations. For the purpose of this study, we have limited it to medium and large firms and those listed and/or professionally managed. The target sample size was set at a minimum of 25%. As part of the study the survey was sent out to 40 organizations and 25 of them responded with their feedback and inputs (hit rate of 62.5%). These respondents included large and mid-size companies and represented close to 75% of the commercial real estate sector in India.

6.2. Tools and Methods

The surveys were set up in Google forms and sent as links along with a formal email to the sustainability /real estate managers of these companies and the results were then exported to excel, formatted, graphed, and displayed in this report along with a summary of their feedback and valuable inputs

6.3. Challenges & Limitations

The main challenges faced included getting the contact information of the concerned persons responsible for ESG and sustainability within these organizations. Some of the firms did not have a dedicated ESG manager and we reached out to real estate managers and/or project heads to seek this information. Systematic follow-up helped secure a good response to the survey. Since ESG is new to some of these organizations and they have very limited ESG programs, they replied that they would not be in a position to respond to the survey. Another key challenge was that due to limited research and lack of scientific data available on ESG, there was a lack of secondary data that we could lean on, and it was important that these firms responded to the survey so

that we would have sufficient primary data to ascertain the current status of ESG adoption and what more can be done to encourage these firms to effectively implement ESG requirements.

7. Observations

7.1. Survey summary: Organization Size

The real estate organizations that participated in the survey ranged from large firms with annual revenues of over $ 650 million to those with revenues of less than $ 75 million. A majority of the surveyed firms had revenues in the range of $75 million to $ 350 million per annum demonstrating the overall size and scale of existing and new developments under their portfolio *(Figure 2)*. Additionally, their portfolio sizes ranged from less than 1 million sq ft to over 20 million square feet *(Figure 3)*.

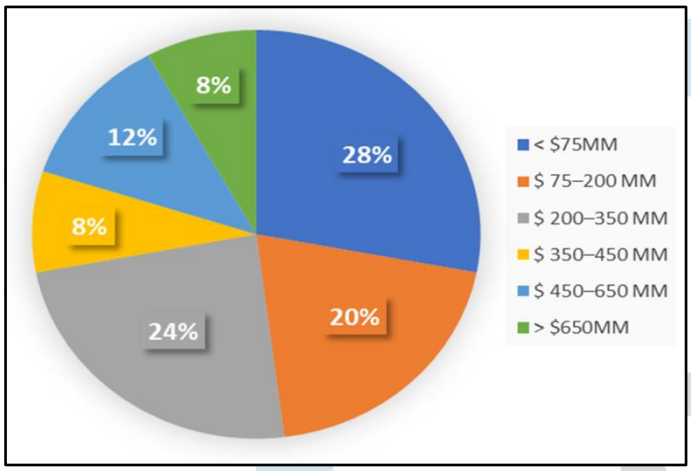

Figure 2: Breakup of Annual Revenues of the Surveyed Firms ($MM)

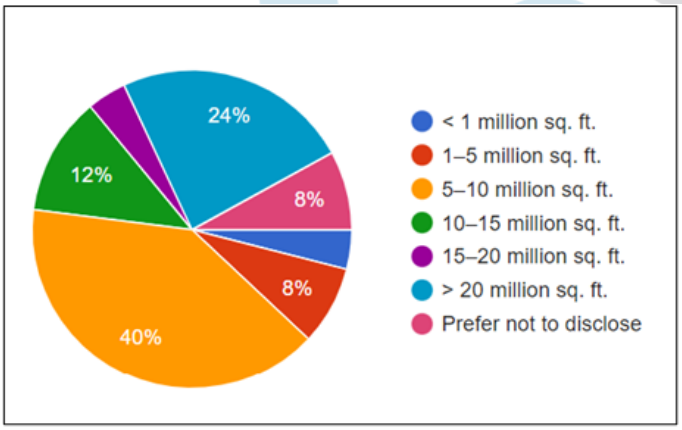

Figure 3: Size of the Current Portfolios of the Surveyed Firms

Majority of the surveyed portfolios comprised commercial office spaces and mixed-use buildings with some retail and hospitality assets. Some of them included large multi-family residential projects. A key point to be noted was that together the group of surveyed firms represented more than 75% of the total commercial real estate portfolio in India.

7.2. Survey summary: Status of ESG Adoption

Due to the green building movement's momentum over the last decade in India, 24 out of the 25 firms surveyed confirmed that they were all implementing green measures both for their new and existing assets. They were also pursuing one of the green building certifications for their buildings. Apart from green building ratings, some of these firms (9 out of the 25) also confirmed that they are pursuing ESG ratings including GRI and GRESB ratings, and 6 out of the 25 firms also indicated that they are in the process of pursuing Net-zero certifications (energy and carbon) for many of their new developments. They are also actively exploring how to convert many of their existing assets to net-zero carbon in the coming years.

Figure 4 below shows the breakup of various certifications that these firms were pursuing ranging from green building certifications to ISO certifications, to ESG ratings and net-zero certifications:

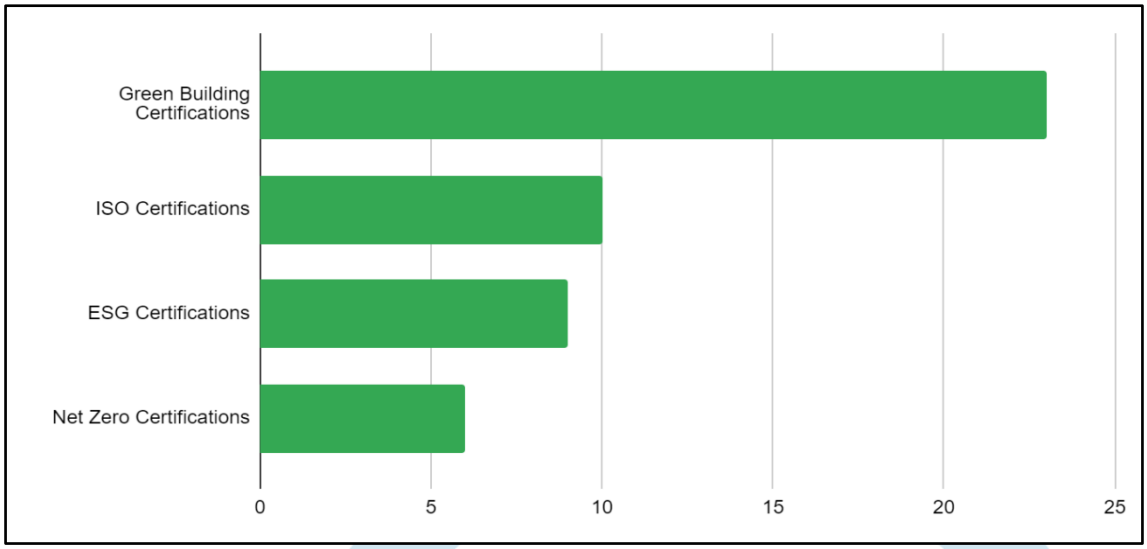

Figure 4: Various Certifications adopted by the Surveyed Firms

Apart from just the certifications, it was interesting to note that 10 companies mentioned that they already had a published ESG commitment and specific ESG objectives in place; while 13 others indicated that they were planning to do so in the near future. Moreover, 18 out of the 25 firms indicated that they have in place a dedicated senior-level manager and/or a team to implement various ESG practices and policies.

Regulatory compliance is one of the biggest drivers of ESG implementation in almost all cases; while senior management/board-level commitment and investor/client demand were also additional drivers for ESG adoption. Figure 5 below shows the main reasons for implementing ESG requirements as per the survey results:

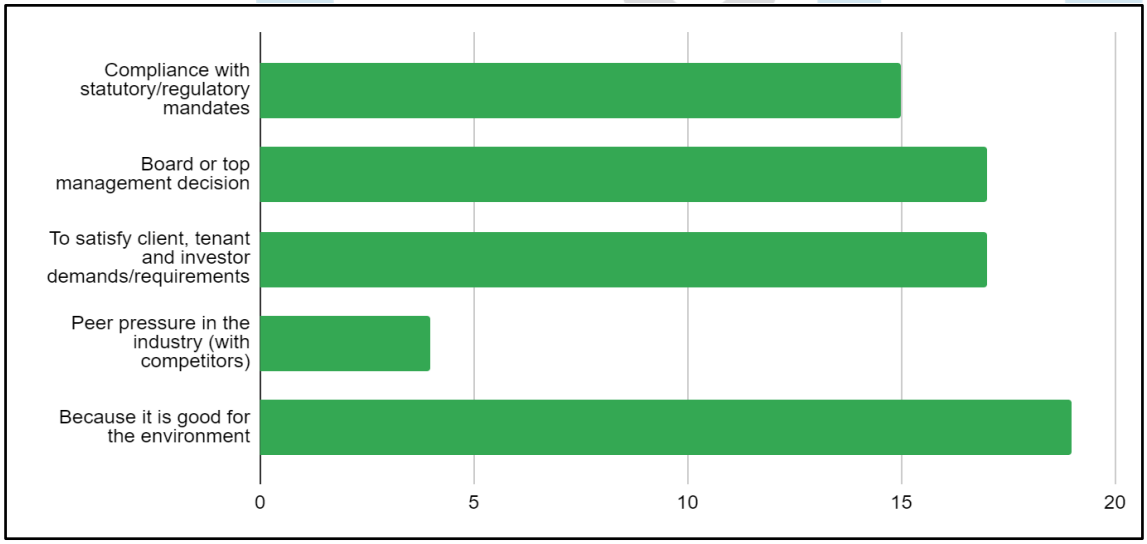

Figure 5: Main reasons for ESG adoption by the Surveyed Firms

Over 40% of the surveyed organizations indicated that close to half of their staff were aware of ESG concepts while around 24% of the firms indicated that more than three-fourths of their staff were aware of ESG requirements. It was interesting to note that 5 of the 25 firms surveyed indicated that less than 25% of their staff were aware of ESG and its importance.

Apart from the awareness within the organization, these firms were also asked about what they were doing to spread ESG awareness with their clients, investors, shareholders, industry peers, and even with local government officials and regulators. The table below provides a detailed summary of the level of ESG awareness programs undertaken with various stakeholders:

Does your organization undertake and/or support ESG awareness programs?	**Percentage of firms that answered "YES"**	**Percentage of firms that answered "NO"**
Within the organization	80%	20%
With clients	76%	24%

With investors/shareholders	52%	48%
Across your industry	48%	52%
With local government officials	36%	64%

The above table demonstrates the clear need to create ESG awareness and training programs to ensure that ESG concepts are embedded into the organizational DNA. One interesting point that also came out of the survey was that 11 firms mentioned that ESG training activities are now part of their annual budgets and we can hope to see all these organizations undertake active ESG initiatives in the future.

While many organizations talked about net-zero commitments in the future, it was surprising to note that the level of investment in renewables by these organizations was below par. Close to 64% of these organizations had invested in onsite renewable energy systems for less than 3% of their annual building energy use which seemed quite minimal *(Figure: 6)*. Even though 8 firms had indicated that they were investing in onsite solar energy for over 10% of their campuses' annual energy use, this was still a small amount in comparison to the KWH of annual energy consumption of their portfolios.

Survey summary - Renewable energy investments

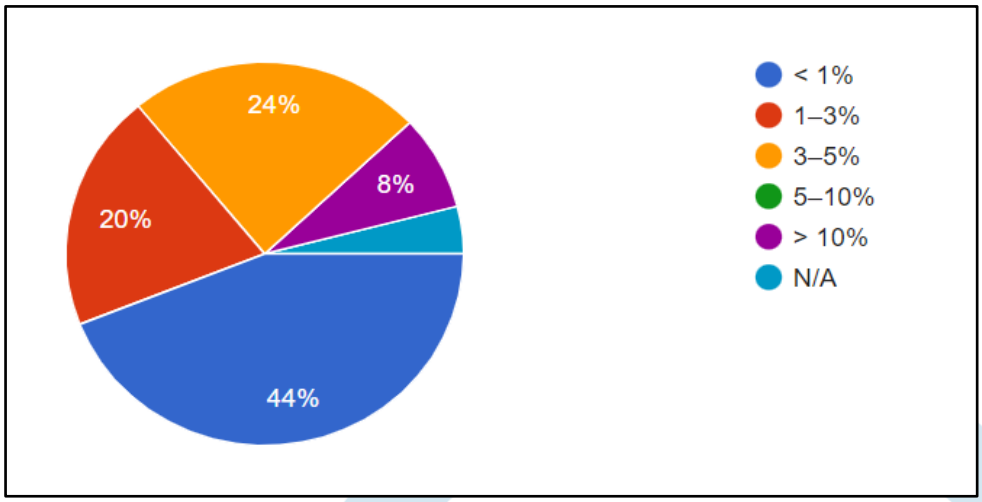

Figure 6: Percentage of energy from on-site renewables, dispersed over the 25 respondents

While onsite renewable energy investments appeared low it was good to note that many of these organizations had invested in off-site renewables including solar, wind, and small hydro projects to offset a good portion of their portfolio's annual energy consumption *(Figure:7)*

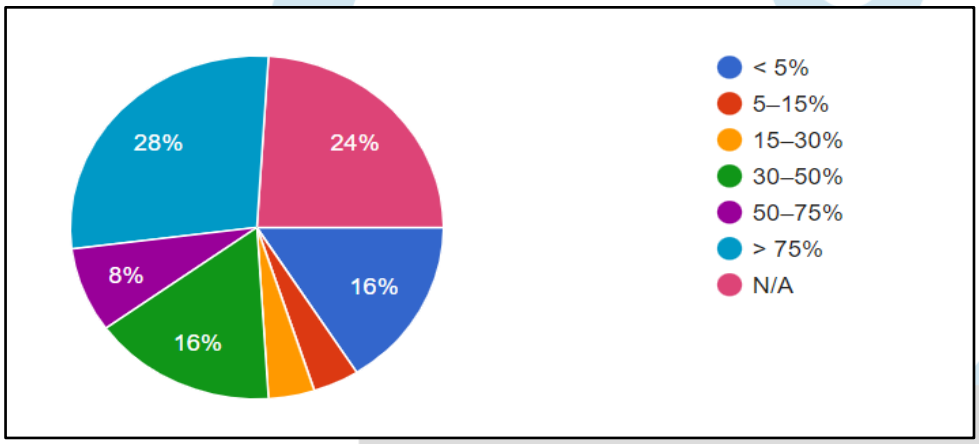

Figure 7: % of energy from off-site renewables, dispersed over the 35 respondents

While the firms were keen to adopt ESG measures they still felt that some of the requirements were challenging to implement especially the environmental aspects such as embodied carbon calculations, material life cycle analysis, greenhouse gases emissions calculations and that they would require a lot more expertise and tools in order implement these measures effectively and efficiently across all their projects. Apart from the environmental measures few of the firms also mentioned that other energy and social measures were difficult to implement *(Figure 8)*

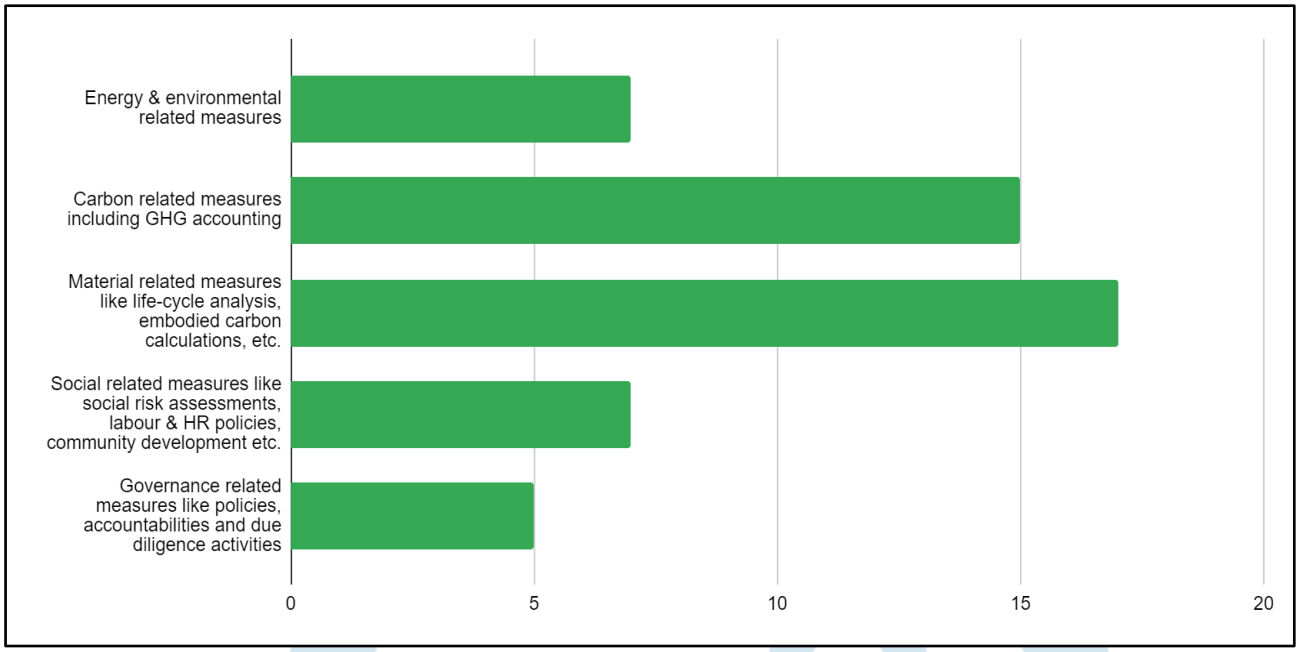

Figure 8: Area(s) of ESG most difficult to implement for the Surveyed Firms

From the survey, it was evident that these firms which were all medium /large sized portfolios and comprised over 75% of India's commercial real estate assets were all quite aware of ESG and had started to and were in various stages of ESG adoption and implementation. However, it was also evident that a lot more work on the ESG front is required to be done and with the right mix of incentives and regulatory push, these firms would implement ESG requirements across 100% of their portfolios.

The motivating factors as identified by the firms *(Figure:9)* themselves primarily included financial incentives. Over 84% of them indicated that incentives such as higher allowable floor space index (FSI), property tax benefits, and discounted approval rates among others would surely help them go all out and invest in various ESG measures without having to justify the return on investments (ROI) for every measure internally to their shareholders and investors. Many also indicated that regulatory benefits such as fast-track approvals (both environmental and local authority approvals), single-window clearances, etc. will also be beneficial for them to expedite project activities and timelines.

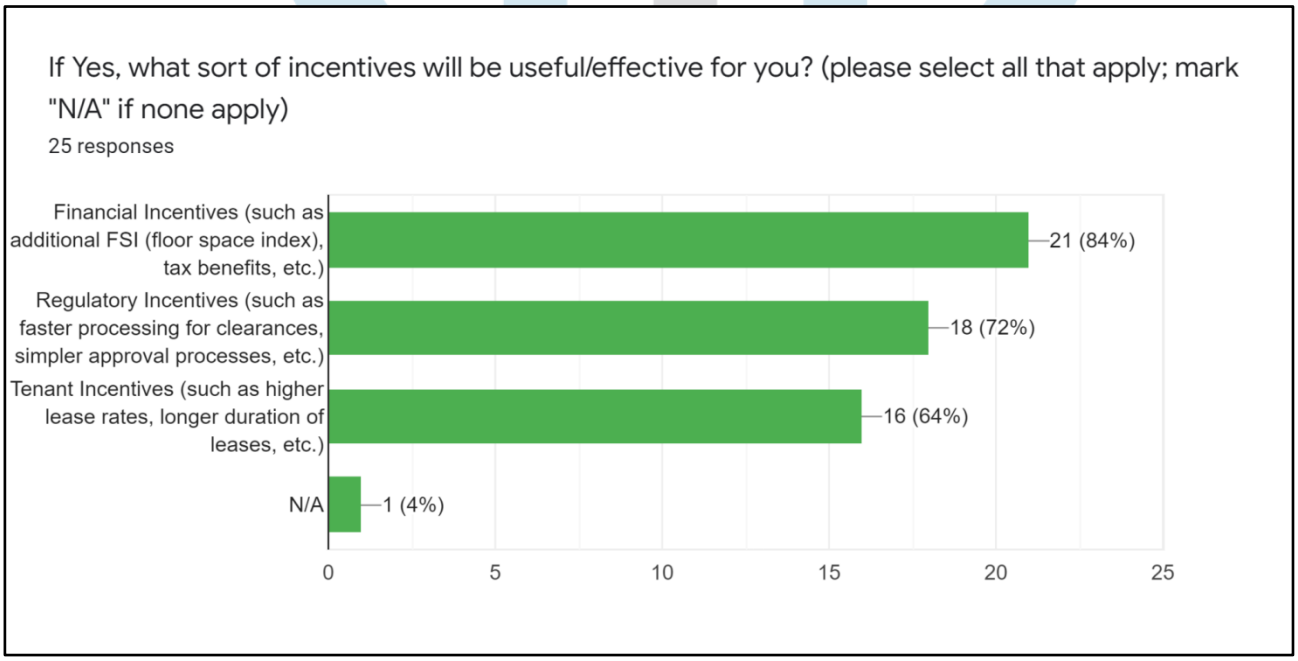

Figure 9: Key incentives that would further motivate ESG adoption

Many firms also felt that ideally if implementing these various ESG efforts is recognized by their tenants and if they are willing to pay even a small premium (5% as indicated by many) to the rental/lease rates, it would be a huge boost for them to adopt and implement ESG requirements to create greener and healthier spaces.

8. Recommendations & Conclusion

Going forward, ESG reporting, implementation, and management are critical if not imperative for real estate companies. Real estate companies will need to actively manage and enhance their existing buildings as well as ensure all their new developments are built to be sustainable, energy-efficient, and low/zero carbon.

It is basic human nature to resist anything that is thrust on us. Mandating ESG for these companies and pushing them to report and adopt ESG may not lead to mainstream adoption and meaningful results. We need a healthy mix of regulations and incentives, a carrot and stick kind of approach, to effectively realize ESG goals. Regulations can set the minimum performance requirements so that no asset is underperforming while incentives can motivate others to go beyond the minimum. From the survey results, it is evident that most of these firms are eager to implement comprehensive ESG measures with fiscal policies, regulations, programs, and other such incentives. A pull from customers and building occupants will also create a healthy market-driven building industry.

The most common incentive sighted is the allowance of additional floor space index (FSI) or floor area ratio (FAR) for projects that adopt ESG. Especially with very high land acquisition costs, this economic incentive will motivate many developers to move towards large-scale ESG adoption. However, along with this incentive, there must be in place adequate checks and balances to ensure that these companies are genuinely implementing ESG practices and that these measures are truly effective and impactful.

Apart from additional FAR, other incentives could include property tax rebates for existing assets that have implemented ESG and incentivizing existing buildings to refurbish /retrofit to reduce carbon emissions. Additionally, incentive schemes to finance energy retrofit and renewable energy projects for existing assets can provide the needed capital for existing buildings to improve their overall performance. For example, the PACE Program (Property Assessed Clean Energy Program) in the U.S. incentivizes property owners that voluntarily choose to participate in the PACE program to repay their improvement costs over a set time period—typically 10 to 20 years—through property assessments, which are secured by the property itself and paid as an addition to the owners' property tax bills (energy.gov, U.S. Department of Energy). Schemes similar to the PACE programs can be thought out to enable asset owners to improve their existing building stock.

Another market trend that can motivate real estate companies is increased lease rentals rate for buildings that have implemented various ESG measures. Ultimately the building occupants are direct beneficiaries of these efforts, and a higher rental will provide the right incentives to do the right thing. Today, in the commercial real estate market in India, buildings with green ratings and/or ESG ratings are preferred by most tenants. However, they are not yet ready to pay a premium, albeit a small one, for leasing those buildings. This puts a lot of pressure on real estate companies who now have to take up the entire first cost investment burden to implement these ESG measures and therefore significantly limits the extent to which they can do the same. If tenants are willing to pay a premium recognizing the additional efforts taken by these companies, then this can go a long way to motivate these firms to do more than the "minimum required" and create truly zero-carbon buildings. According to a study by Knight Frank, green-rated buildings have achieved a sale premium of 8-18% compared to equivalent buildings. Similarly, if in India we can establish strong research and gather performance data on how buildings that have adopted various ESG measures are far more efficient than conventional buildings, it can help build a strong case for large-scale adoption. It will also convince tenants of the benefits of ESG and encourage them to partner with the base buildings to share part of the upfront additional investment for these various ESG measures. They could also support the base buildings by paying a nominal premium over and above the standard rental rates for these buildings. Increased asset value, sale prices, and rental rates will all surely act as powerful incentives that can motivate all real estate companies to implement ESG requirements in all their designs and operations.

As much as regulations and incentives are critical to stimulating organizations, equally important are the tools and technical frameworks that are required to guide these companies, designers, and construction personnel to identify and incorporate effective ESG designs and strategies for maximum impact. Awareness and technical training programs across the industry can accelerate the availability of trained technical experts with the know-how and methodologies to advise and guide buildings to help them move towards zero carbon.

Nothing motivates like competition. The development of an ESG scoring system that benchmarks real estate assets with its peers will incentivize assets to improve over time. An accurate way of benchmarking and assessing how far away a firm is from the expected ESG compliance level can help frame effective policies like additional FAR or tax rebates, with greater benefits given to those that achieve superior ESG performance.

There is an urgent need to create practical tools and provide adequate training to industry professionals so that they may appropriately guide each real estate firm to manage its entire building portfolio effectively and sustainably. This will also be a critical step for India to fulfill its zero-carbon economy vision in the future. Another important takeaway from the study is that there needs to be a central coordination committee/agency comprising all stakeholders that will drive coordinated ESG efforts. The rapidly growing Indian real estate industry is uniquely poised to create the next-generation infrastructure that is healthy and sustainable. Adoption of ESG best practices will preserve the long-term value of India's real estate assets. Further studies on specific regulations and incentives will help shape the future of the built environment in India.

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