Report on Readiness of Indian Industries towards Climate Change Guidelines of COP26

April 2022

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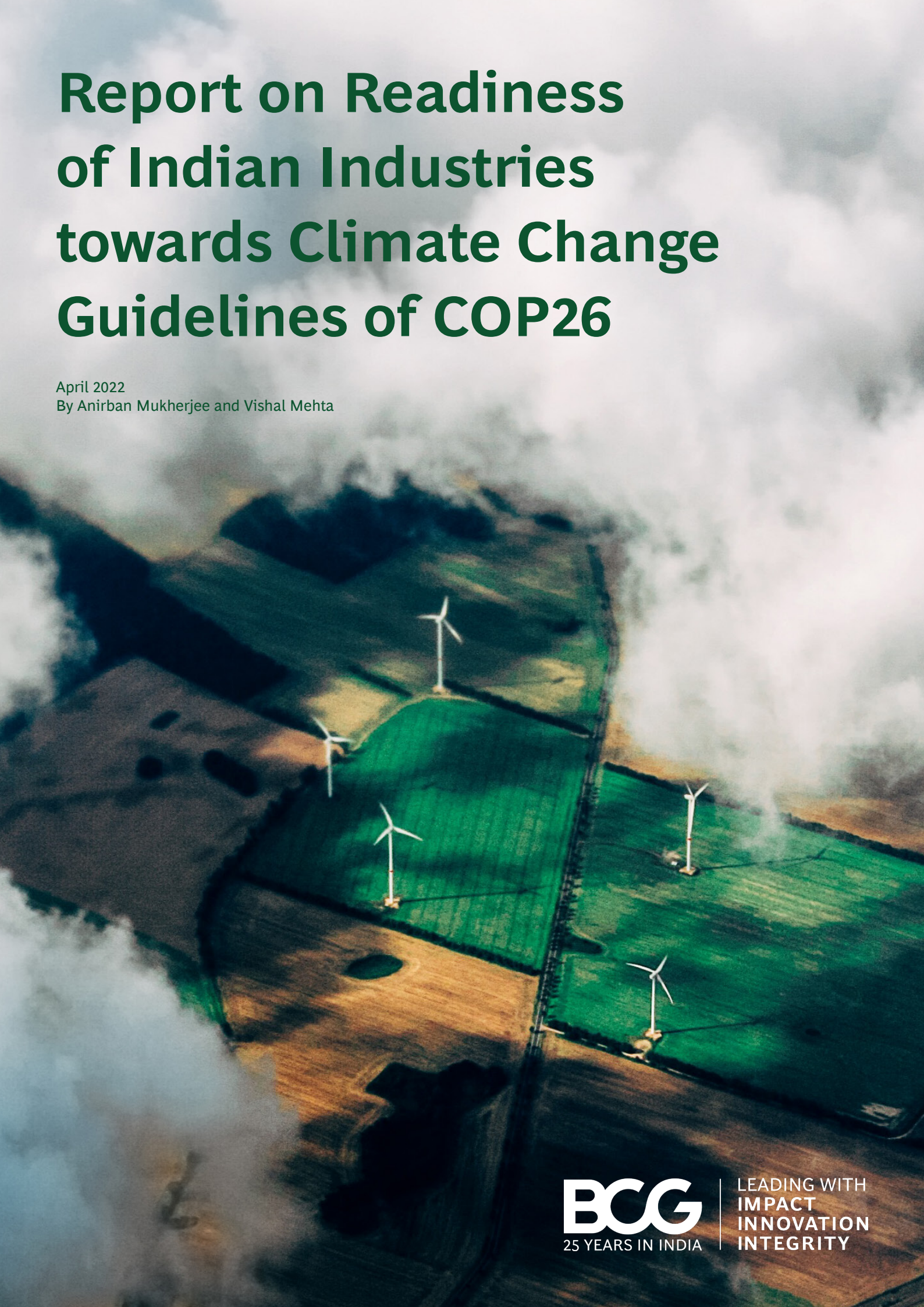

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Contents

Foreword

The 26th United Nations Climate Change Conference, or COP26, was held in Glasgow, Scotland, the United Kingdom between October 31, and November 12, 2021. All parties to the conference adopted the Glasgow Climate Pact, which is a pledge to turn the 2020s into a decade of climate action and support, with the key mission to limit the rise in global average temperature to 1.5° C.

The Glasgow Climate Pact underscores the need for even more urgent global action to build resilience to climate change, reduce greenhouse gas emissions, and provide the necessary financing for both. By the end of COP26, 151 countries had submitted new climate plans (referred to as Nationally Determined Contributions or NDCs) to reduce their emissions by 2030. India has bolstered its contribution to the global fight with ambitious climate commitments including net-zero emissions by 2070 and increasing non-fossil fuel capacity to 500 GW by 2030.

It was in this context, that the Boston Consulting Group (BCG) conducted a survey with CXOs and sustainability leaders across industries to evaluate the readiness of Indian organizations to embrace and implement the climate change guidelines of COP26.

The survey seeks a deeper understanding of the actions and initiatives undertaken so far by companies in India to fight climate change and improve sustainability. The survey's data and insights are presented in this report and are complemented by an impact assessment by respondents of the COP26 announcements on their organizations as well as and on industry.

Finally, through this report, we have tried to present the sentiments of Indian CXOs on the very important question of readiness of their organizations to achieve these milestones, which reveal India Inc's broader position on this critical challenge of our times.

The report revolves around the following three major themes:

- Potential drivers pushing ESG activities across industries.
- Initiatives taken by firms to achieve sustainability goals.
- Underlying challenges faced by industries in achieving their sustainability goals.

Executive Summary

At the United Nation's 26th Conference of the Parties (COP26), India set ambitious targets and committed itself to further boosting its transition towards sustainability. In turn, it has also pushed organizations to begin lowering their emissions. Encouragingly, Indian organizations feel that although India's climate goals are challenging, they can be met with the right regulatory framework and government support. In this, there is a significant potential to generate new green business opportunities and increase their competitiveness in the global market.

Over the past decade, sustainability has emerged as an important issue for organizations. Companies are facing pressure from national and international agencies and acknowledging climate risks & setting sustainability goals. Companies are also recognizing that embracing sustainability helps them attract investments, create new investment opportunities, attract better talent, and reduce regulatory interventions. The renewable energy value chain has especially emerged as an attractive investment opportunity for companies across industries. Companies are also increasingly driven by consumer demand for more sustainable products. As consumer awareness increases about climate change, they're more likely to demand and be willing to pay a premium for sustainable alternatives.

However, there is a wide variance among companies when it comes to their climate ambitions. While most organizations aim to comply with regulations and have plans to mirror India's commitments, there is a sizeable share of companies that seek to become sustainability leaders in India and across the globe. When it comes to setting climate goals, half the companies surveyed have already started measuring their emissions with clear targets for abatement. Apart from emissions reduction goals, organizations also remain keen on investing in sustainable community development and social inclusion.

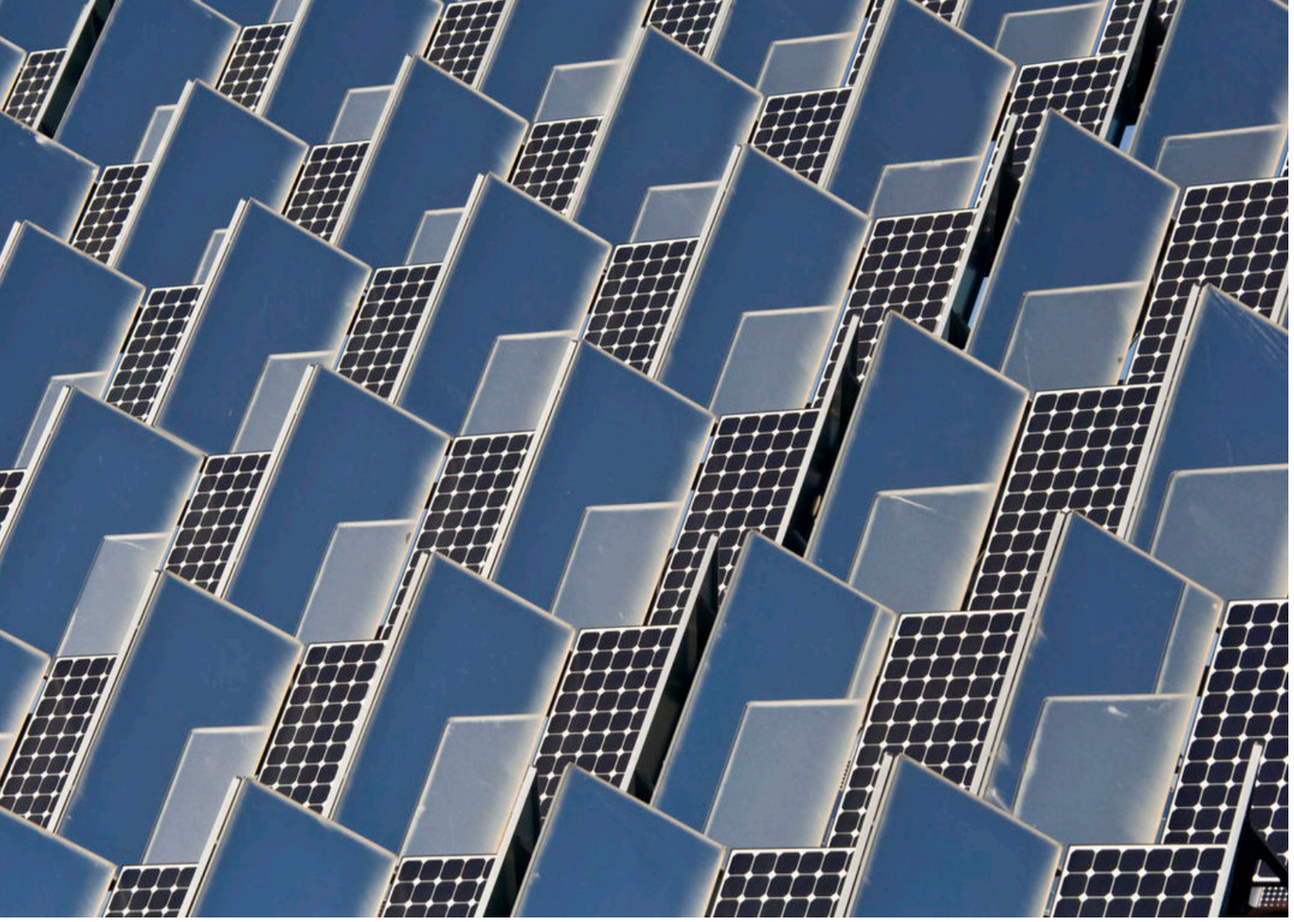
The key challenges faced by the organizations in their climate ambitions are multifaceted. Most companies find it difficult to measure, monitor and, impact emissions from their upstream supply chain, especially from lower-tier suppliers. As a result, most organizations haven't yet begun measuring or setting targets for scope 3 emissions. There is also a lack of standard regulations and accounting standards for emissions as well as financial challenges in funding their climate goals.

Feel that India's COP26 goals can be achieved with the right regulatory framework

Aspire to not only comply with regulations and meet India's goals, but also to be a leader in sustainability

Ranked pressure from investors/stakeholders as their top reason to invest in ESG

Ranked technological barriers as their top challenge in achieving their sustainability goals



COP26: Announcements and Targets

India has been committed to the global fight against climate change since the Rio Earth Summit in 1992 and has been one of the leaders since COP21 through significant commitments and real action by being one of the only few countries compatible with 2^0 C warming. Going ahead, India will play a critical "dual role" as it will add the largest share of emissions by 2050 in its pursuit of economic growth and has one of the highest vulnerabilities to climate with more than 0.5 Bn people at climate risk (primarily due to agricultural disruptions). It was in this context that India announced its ambitious climate ambitions at the COP26 summit. While it is a steep road to this goal with the commercial and technological path still not clear, it also provides India the opportunity to be a global climate leader as it embarks on this journey.

Exhibit 1 represents a roadmap of milestones for sustainable development, from the Rio Summit in 1992 to COP26 in 2021. It also represents the commitments made by India at COP26.

Exhibit 1: Roadmap towards Sustainable Development

Rio Earth Summit 1992
Adoption of UNFCCC: Developed Country Parties should lead in combating climate change, equity and CBDR-RC

Kyoto Protocol 1997
More responsibilities on the developed nations under "common but differentiated responsibilities." Establishment of CDM leading to the world's first carbon market – EU ETS

COP-13 2007
Long-term cooperative action in both mitigation & adaptation with adequate, predictable, and sustainable financial resources

COP-15 2009
First quantification of climate finance, flow of USD100 billion per year by 2020 by the developed countries to developing nations

COP-16 2010
Commitment to mobilize scaled-up funds to enable developing countries to take greater action. Formalized the setting up of the GCF

COP-17 2011
Agreed to protocol, another legal instrument or an agreed outcome with legal force

COP-21 2015
A new 'Paris Agreement' was adopted in the shape of treaty. It required all Parties to put forward their best efforts through NDCs. Finance mechanism was agreed under Article 9 whereas Article 6 simplifies carbon markets

COP-24 2018
New rules of accounting and framework for climate finance was agreed upon under the Paris Agreement Work Programme

COP-26 2021
Signing of the Glasgow Climate Pact and agreeing to the Paris Rulebook. Agreed to phase down unabated coal power and inefficient subsidies for fossil fuels

India's Announcements & Targets

Made commitments towards five nectar elements (Panchamrit) to deal with climate change.

By 2030, India aims to:
- Increase non-fossil energy capacity to 500 GW
- Meet 50% energy requirement from renewables
- Reduce carbon emissions by 1 Bn tons
- Reduce carbon intensity by 45%

By 2070, India aims to achieve the target of net zero emissions

Source: UNFCCC, India Economic Survey 2021, Press Information Bureau of India (PIB)

Factors Driving Corporate Action on Sustainability

Implications of the recent COP26 commitments

While India's pledges at COP26 do not represent any dramatic shift in policy that will have an immediate impact on Indian businesses, global developments cannot be ignored. For example, on the third day of the COP26, the International Financial Reporting Standards (IFRS) Foundation announced the formation of a new International Sustainability Standards Board (ISSB). Consequently, businesses will be subjected to rigorous scrutiny for more comprehensive sustainability disclosure, with stakeholders all over the world (including investors, customers, regulators, and employees) holding them accountable.

The European Union (EU) has also proposed a Climate Border Adjustment Mechanism (CBAM), which will tax imported goods produced by emissions-intensive processes and aim to reduce cross-border "carbon leakage". It is expected that other advanced economies will follow the EU, making goods and services in developing countries less competitive. In such a scenario, India will face high compliance costs, which will impact its ambitions to become the world's manufacturing hub.

Even though the net-zero target year announced at COP26 appears to be a long way off, businesses in India are also recognizing climate change as a real risk with the financial benefits of mitigation becoming more and more visible than ever before.

More than 50% of organizations across industries such as automotive, oil & gas, power & utilities, and metals anticipate a substantial growth curve for 'new green' business ventures, especially with recent commitments around renewables. Other implications include outcomes such as reduction in competitiveness in global markets against imports as western nations tighten their regulatory framework and greater compliance mandates as depicted in Exhibit 2, which also reflects the industries with scores higher than the average score.

Exhibit 2: Implications of the Recent COP26 Commitments

Higher than average score

Lower than average score

	Avg. Score	Automotive	Cement	Consumer Goods	Financial Services	Manufacturing	Oil & Gas	Power & Utilities	Professional Services	Technology	Metals
Give rise to new 'green' business opportunities	4.11	4.71	4.33	4.04	3.69	4.14	4.25	4.09	3.65	3.42	4.45
Reduce competitiveness in global markets/ against imports	3.99	4.50	3.87	4.13	4.25	3.43	3.25	4.27	4.50	4.67	3.45
Greater compliance requirements/reporting pressure	3.98	4.00	3.67	4.43	3.56	4.52	3.08	3.27	3.25	3.25	4.00
Drive increased pressure from customer (esp. in B2B context)	3.80	3.43	3.93	3.70	4.00	4.00	3.92	3.82	3.80	3.92	3.45
Drive increase in input/ logistics costs	3.66	3.00	3.80	3.22	4.19	3.43	3.67	3.64	4.00	4.08	4.36

Note: The average score is calculated based on the ranks given by respondents. The scores vary from 1-6, where 1 is the lowest and 6 is the highest.

*Technology has been created as a subset from Professional Services.

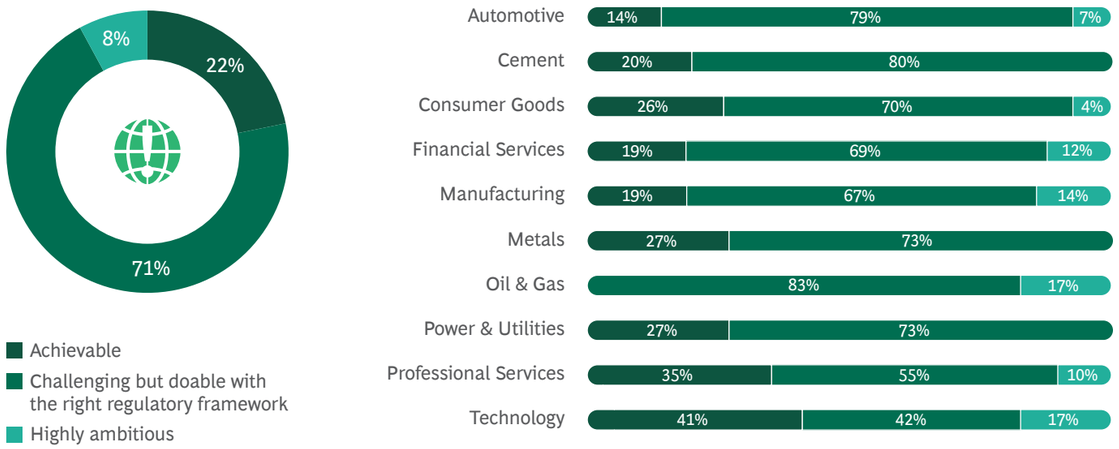
Organizations' view on achieving COP26 commitments

As pledges become policies, companies will need to take urgent action to embrace ESG. As businesses begin to recover from the severe socioeconomic and health consequences of the pandemic, they must incorporate sustainability into how they operate, especially to firmly establish stakeholder trust. They must also align their goals with the recent commitments at COP26, while recognizing the varying drivers that influence organizations pursuing their sustainability goals. The scope of such a process depends much on the broader sentiment among industries about their COP26 goals.

This survey, which highlights the sentiments of these organizations regarding their ability to achieve the COP26 goals, suggests that more than 50% of respondents across all industries, except technology, perceived COP26 goals as challenging but possible to achieve with the correct regulatory framework.

Organizations across industries, except oil & gas, felt that the recent COP26 commitments were achievable, while respondents from industries such as cement, metals, and power & utilities maintained an optimistic approach and did not find these goals too ambitious as depicted in Exhibit 3.

Exhibit 3: Sentiments on Achieving COP26 Goals



Note: The respondents were asked to select the most relevant answer on behalf of their organization.

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When it comes to achieving the COP26 goals, most respondents said there is a need for better policies, including:

- A more aggressive policy framework with incentives for low-carbon technologies.
- A framework for aspects like explicit carbon price or market-based mechanisms like cap/trade.

Organizations also feel that internal alignments towards these goals still need better focus on increasing investments around technology skilling, research & development (R&D), and innovation. The average score stood at 4.54, 4.29, and 3.86 respectively for the top three actions, as shown in Exhibit 4, which also reflects the industries with scores that were higher than the average score.

Exhibit 4: Actions Required to Achieve COP26 Goals

Higher than average score

Lower than average score

Maturity	Avg. Score	Automotive	Cement	Consumer Goods	Financial Services	Manufacturing	Oil & Gas	Power & Utilities	Professional Services	Technology	Metals
More aggressive framework and incentives for low carbon technology	4.54	4.21	5.00	4.70	4.28	4.51	4.85	4.30	4.25	4.13	4.86
Investments in R&D, innovation around low carbon technologies skilling	4.29	4.57	3.92	4.42	4.05	4.15	4.33	4.18	4.25	4.44	4.86
Regulatory measures like carbon pricing	3.86	3.59	3.83	3.77	4.36	3.80	4.13	3.61	4.06	3.81	3.39
Transformation of financial services and investor community	3.10	2.88	3.17	3.12	3.34	3.68	2.38	2.59	2.94	3.08	2.70

Note: The average score is calculated based on the ranks given by respondents. The scores vary from 1-6, where 1 is the lowest and 6 is the highest.

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Top reasons for companies' push on ESG activities

ESG concerns are important for businesses for several reasons. These businesses may want to please their customers, who are increasingly choosing brands with strong ESG credentials even if it means paying a higher price. Alternatively, they may be attempting to stay ahead of even more stringent regulations that are likely in the future. Many businesses are responding to pressure from banks and investors, a desire to improve employee engagement, or a desire to attract and retain talent better. For most businesses, however, the answer is a combination of all these factors, which means there is a great need to understand and manage the environmental impact across entire businesses in real-time.

Leading players are already reaping tangible rewards for their efforts. There is plenty of emerging evidence that investing in ESG not only leads to rapid growth and high valuations but also helps reduce costs by focusing on operational efficiency and waste reduction. Investing in ESG provides greater access to capital markets at a lower cost of capital as banks and financial institutions are increasingly viewing investments through the ESG lens.

Furthermore, ESG excellence reduces transition risk by assisting companies to stay ahead of changes in regulations and stakeholder sentiment.

Across industries, there are nuances in terms of the interplay of factors that affect climate action. While stakeholders or investors would be critical in one, customer awareness and demands may drive change in others. Thus, to gain deeper insight across sectors, we analyzed certain prominent pull factors, and their relative importance across sectors.

An analysis of the drivers pushing sustainability goals across industries in Exhibit 5 reveals that pressure from investors and shareholders is a prominent driver among all industries barring manufacturing, oil & gas, and power & utilities. For example, more than 50% of the respondents from the oil & gas industry ranked pressure from national and international agencies as the most important driver, while factors such as investment in new opportunities were ranked as a prominent booster by respondents from industries such as financial services, and power & utilities. Actions and goals arising out of pressure from customers and employees were significant drivers for industries such as automotive, manufacturing, consumer goods, and professional services.

Exhibit 5: Top Reasons for Companies' Push on ESG Activities

Higher than average score
Lower than average score

Drivers	Avg. Score	Automotive	Cement	Consumer Goods	Financial Services	Manufacturing	Oil & Gas	Power & Utilities	Professional Services	Technology	Metals
Pressure of investors/ shareholders	3.45	4.00	3.93	3.52	3.81	2.95	2.25	3.27	3.65	4.17	3.55
Pressure from national and international agencies (e.g., UNFCCC, CPCB, etc.)	3.43	3.50	3.33	2.74	3.13	3.90	5.00	3.27	3.45	3.58	2.82
Staying ahead/pressure from rating agencies	3.39	2.57	4.00	3.30	3.50	2.90	3.42	3.36	3.75	3.83	3.91
Investments in new opportunities created from climate and sustainability megatrend	2.95	2.43	2.67	2.70	3.69	2.76	3.33	3.91	2.70	2.58	2.91
Pressure due to adoption by competitor firms/industries	2.51	2.57	2.27	2.43	2.19	2.95	2.67	2.64	2.35	3.08	2.55
Pressure from customers	2.50	3.00	2.13	2.87	2.06	3.00	2.25	1.73	2.70	2.58	2.00
Driven by regulatory pressure in industry	2.41	1.86	2.53	2.48	2.25	2.57	2.67	3.36	1.95	1.67	2.36
Pressure from employees	1.98	2.36	2.13	2.48	1.75	1.52	1.33	1.45	2.10	1.50	2.45

Note: The average score is calculated based on the ranks given by respondents. The scores vary from 1-6, where 1 is the lowest and 6 is the highest.

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Prominent reasons for investing in ESG/Sustainability

ESG investing in India has steadily gained traction over the last five years even though these efforts are still in their early stages. Inflows into ESG mutual fund schemes in India increased by 76% in 2021, rising from INR 2,094 crore in 2019–20 to INR 3,686 crore in 2021. Notably, in 2020 India's large asset management companies (AMCs) launched schemes with a clear focus on ESG. In stock indices, the NIFTY ESG 100 sustainability index outperformed the broader NIFTY 100 between 2020 and 2021. Pension funds have also begun to incorporate ESG factors to achieve stable, long-term, and risk-adjusted returns.

There are several reasons behind the better performance of companies with ESG portfolios. With their transparent accountability of ESG risks standing out as a notable factor, such companies of course also emphasize risk-adjusted returns. Companies are aiming for value creation through these initiatives with an impact on: (i) cost savings from efficient resource utilization; (ii) long-term investment decisions; (iii) an increase in social credibility and reputation; (iv) strong community relations; and (v) improved governance.

For long-term value creation, businesses are investing significantly in sustainability strategies. These are then communicated to investors through effective disclosures. In this case, also, the organization's ESG accountability expands to include both internal and external stakeholders. The survey reveals that the importance of sustainability is becoming more apparent as it begins to demonstrate tangible benefits such as increased revenue opportunities, reduced risk, improved public image, and reduced regulatory issues.

Most respondents ranked ease in the regulatory process and legal interventions as the most important reason for investing in ESG activities, with an average score of 4.31 (as depicted in Exhibit 6). The other two most prominent reasons for such investments include achieving top-line growth and attracting better investments; institutional and millennial investors see this as a pressing need. The average score for these two aspects stood at 4.28, and 4.22 respectively. Some respondents from industries such as financial services, professional services, and metals acknowledged that a strong ESG proposition supports employee retention and raises productivity as well.

Exhibit 6: Reasons for Investing in ESG

Higher than average score
Lower than average score

Maturity	Avg. Score	Automotive	Cement	Consumer Goods	Financial Services	Manufacturing	Oil & Gas	Power & Utilities	Professional Services	Technology	Metals
Reduced regulatory and legal interventions	4.31	4.50	3.93	4.43	4.38	3.76	4.92	4.27	4.30	4.42	4.73
Top-line growth	4.28	4.36	4.00	4.57	3.81	4.86	4.33	4.27	4.20	4.33	3.64
Attracting better investment	4.22	3.64	4.47	3.78	4.50	4.14	4.42	4.27	4.55	4.92	4.36
Cost reductions	4.12	4.79	4.20	4.17	3.44	4.38	3.67	4.45	3.80	3.25	4.27
Employee productivity uplift	2.99	2.71	3.40	2.78	3.88	2.81	2.67	2.73	2.95	2.83	3.00

Note: The average score is calculated based on the ranks given by respondents. The scores vary from 1-6, where 1 is the lowest and 6 is the highest.

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Ambitions and Sustainability Goals of Companies

Organizations across industries are increasingly incorporating ESG considerations into their business decisions. Given the above-mentioned sentiments of organizations about the possibility and implications of India achieving its COP26 goals, it may be interpreted that organizations now have a strong understanding of the climate challenge and its impact on their operations. However, a detailed assessment of all key sustainability initiatives will provide a clearer picture of the maturity level of different industries on the sustainability curve (as depicted in Exhibit 7). For example:

- Close to 50% of organizations revealed that they are currently shifting or planning to pursue new 'green' business opportunities proactively. This is more than 80% in the power & utility industry.
- 45% of organizations are clear about their emissions reduction targets and have begun measuring scope 1 & 2 emissions.
- More than one-third of the organizations plan to achieve net-zero targets.
- More than 20% of organizations are purchasing offsets to reduce their carbon footprint.
- The majority of organizations from industries such as cement, metals, power & utilities, manufacturing, consumer goods, and automotive are measuring their scope 1 & 2 emissions
- 60% of the organizations in the cement industry acknowledged that they had clear emission reduction targets, including net-zero targets and regularly report their data

This implies that organizations are now embracing voluntary reporting along with establishing robust internal controls around ESG-related data collection and monitoring.

Exhibit 7: Level of Current Maturity in Sustainability

Higher than average score
Lower than average score

Maturity	Overall	Automotive	Cement	Consumer Goods	Financial Services	Manufacturing	Oil & Gas	Power & Utilities	Professional Services	Technology	Metals
Yet to start measuring emissions	17%	7%	20%	0%	31%	29%	0%	9%	25%	25%	27%
Measure scope 1 & 2 emissions	45%	43%	73%	48%	25%	52%	33%	55%	20%	17%	55%
Measure scope 3 emissions	24%	7%	53%	35%	0%	38%	25%	18%	10%	8%	9%
Report emissions data	42%	79%	60%	30%	25%	48%	25%	55%	25%	25%	36%
Have clear targets for emissions reduction/ abatement emissions	45%	50%	60%	43%	19%	43%	50%	36%	50%	67%	55%
Have a net zero target	34%	36%	60%	39%	19%	38%	25%	36%	30%	33%	9%
Proactively scout for and pursue new 'green' business opportunities	46%	43%	53%	35%	25%	57%	58%	82%	40%	42%	27%
Purchase offsets to reduce carbon footprint	24%	43%	13%	26%	13%	24%	17%	9%	25%	25%	45%

Note: The respondents were asked to select all possible relevant answers on behalf of their organization.

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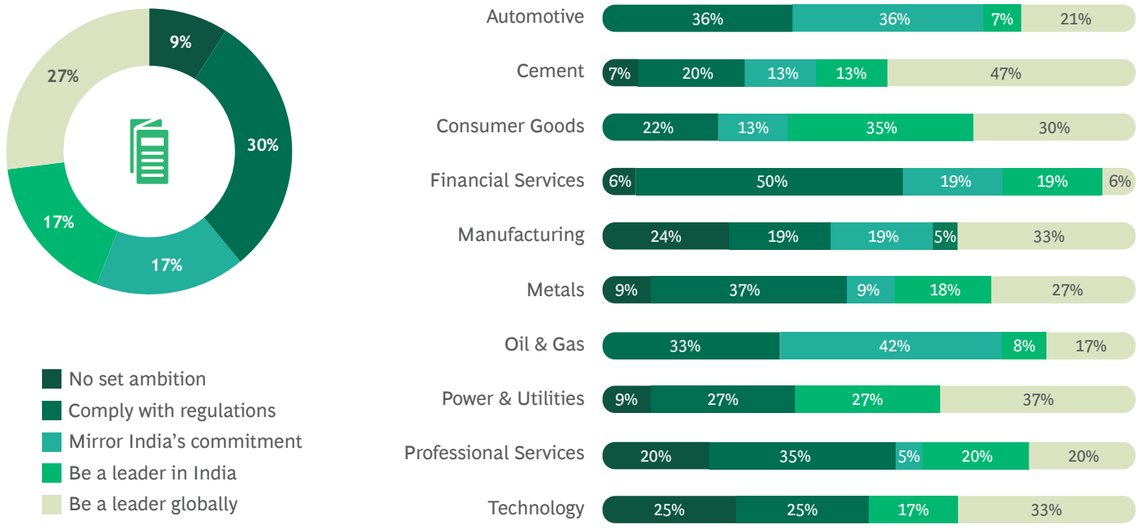
As far as immediate goals are concerned (Exhibit 8), 30% of organizations acknowledge complying with regulations as their overall ambition in the context of ESG and sustainability. Notably, 50% of respondents from industries such as financial services have opted for it. Another 17% of the respondents have set their sustainability ambitions to mirror India's commitments.

More than 15% of organizations aim to become a leader in India even as they seek to incorporate India's commitment to climate change set in its national policies and initiatives. Around 25% of organizations surveyed aspire to become global leaders, which includes more than 30% of respondents from industries such as cement, power & utilities, manufacturing, and technology.

Interestingly, around 10% of firms, especially from industries such as technology, manufacturing, professional services, metals, and power & utilities have no set ambitions so far as depicted in Exhibit 8.

Exhibit 8: Current Sustainability Ambitions



Note: The respondents were asked to select the most relevant answer on behalf of their organization.

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Apart from emissions and environment-related goals, organizations have also set targets to facilitate their ESG transformation journey along with the societal and governance aspects. They plan to achieve these through increased community development initiatives and increased diversity inclusion. The average score for these aspects stood at 4.24 and 4.15 respectively. As depicted in Exhibit 9, they are also likely to strengthen their human capital development efforts, aiming to improve their profitability with improved efficiency, innovation, and revenue growth.

About 50% of respondents from all industries, including financial services, ranked community development as their top goal. On the other hand, industries such as consumer goods, manufacturing, oil & gas, power & utilities, professional services, and technology were found to be working on improving their customer engagement processes more compared with other goals.

Exhibit 9: Sustainability Goals apart from Emissions and Environment

Higher than average score

Lower than average score

Goals	Avg. Score	Automotive	Cement	Consumer Goods	Financial Services	Manufacturing	Oil & Gas	Power & Utilities	Professional Services	Technology	Metals
Community Development	4.24	4.21	4.13	4.43	5.06	4.24	3.58	3.91	3.85	2.75	4.64
Diversity	4.15	4.07	4.40	4.09	4.44	4.48	3.75	3.91	4.30	4.42	3.45
Human Capital	3.92	4.36	4.53	4.00	3.31	3.52	4.17	3.45	3.75	3.58	4.55
Profitability	3.91	3.93	3.73	3.65	3.56	4.05	4.42	4.64	3.80	4.00	3.82
Customer Engagement	3.58	3.43	3.20	3.61	3.19	3.62	4.08	3.64	3.95	4.17	3.45

Note: The average score is calculated based on the ranks given by respondents. The scores vary from 1-6, where 1 is the lowest and 6 is the highest.

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Shift Towards New Sustainable and Low-Carbon Businesses

Most attractive green ventures & practices

There has been significant progress in the adoption of sustainability practices, particularly in renewable energy procurement, achieving energy efficiency goals, and effective waste management. This is evident from the efforts to boost energy efficiency and power transmission investments across different stakeholders — right from the government through its central and state budgetary allocations, public sector undertaking (PSUs), to the private sector.

Government initiatives such as Faster Adoption and Manufacturing of Hybrid and Electric vehicle (FAME)-1 promoted the use of electric vehicles (EVs) and are likely to contribute more to the low-carbon mobility sector in India. This space has picked up with the entry of various private players in the e-mobility sector such as Ola Electric, Ather

Energy, Yulu, and so on. Sector-dedicated PSUs such as the Energy Efficiency Services Limited (EESL), National Thermal Power Corporation Limited (NTPC), and Bureau of Energy Efficiency (BEE) have also made significant progress and have been a gamechanger in increasing public investments in energy efficiency sub-sectors through large government schemes and programs.

The integration of technology such as artificial intelligence (AI) and other digital disruptors has impacted every sector of the economy today. They are being leveraged to improve the efficient use of resources, support the circular economy, enable zero-carbon energy systems, help monitor and protect ecosystems, and assume other critical roles in support of UN SDGs (United Nations Sustainable Development Goals). This has opened a new window of opportunities for companies across industries to seek, find and integrate with alternate sustainable business ventures.

The survey indicates renewable energy value chain is the most attractive investment opportunity with 64% of respondents expressing interest. Around 45% of organizations surveyed expressed their intent to invest in the e-mobility value chain. On the other hand, an increase in domestic gasoline costs, along with relatively low ethanol purchasing prices, are boosting ethanol use and it is reflected in the survey as well with more than 40% of the respondents showing interest in investing in biofuels. Above-average sugarcane harvests have played no small part to boost output as well. During 2016–21, the annual ethanol consumption of India grew by 12%, on average, over the five years, and similarly, nearly 42% of the industries were practicing biofuel generation and consumption. Most investments in biofuels were concentrated in the automotive, technology, consumer goods, and cement industries as depicted in Exhibit 10.

Exhibit 10: Most Attractive Green Ventures/Practices

Higher than overall % of selection
Lower than overall % of selection

Green Ventures/ Practices	Overall	Automotive	Cement	Consumer Goods	Financial Services	Manufacturing	Oil & Gas	Power & Utilities	Professional Services	Technology	Metals
Renewable energy value chain	64%	86%	53%	61%	69%	43%	67%	83%	82%	58%	50%
E-mobility value chain	44%	86%	47%	26%	56%	57%	0%	42%	36%	58%	33%
Biofuels	42%	57%	47%	48%	38%	38%	42%	33%	27%	58%	17%
Nature-based solutions	38%	36%	60%	48%	31%	38%	8%	42%	36%	25%	33%
Carbon capture and storage	37%	50%	53%	35%	25%	14%	50%	25%	27%	42%	42%
Green hydrogen	36%	43%	47%	26%	31%	29%	58%	50%	45%	25%	33%
Forestation	28%	29%	33%	35%	19%	29%	33%	17%	18%	17%	33%
Conserving existing carbon sinks	27%	36%	53%	30%	0%	19%	25%	8%	9%	25%	25%
Others	6%	7%	7%	0%	13%	5%	17%	8%	9%	0%	8%

Note: The respondents were asked to select all possible relevant answers on behalf of their organization.

*Technology has been created as a subset from Professional Services.

Consumer outlook on sustainability and willingness to adopt sustainable alternatives

Consumers are modifying their purchasing habits based on social responsibility and the impact on the environment and more so in the wake of the Covid-19 pandemic, which is driving customers to seek more knowledge and purchase sustainably.

For industries such as consumer goods, customers from the Gen Z and Millennials groups have been shifting to less known companies with better sustainability credentials. Sensing both challenge and opportunity, the giants, the bigger brands, have meanwhile also joined the race to engage their customers with sustainability-related pledges. Brands in India are integrating insights from these behavioral shifts into their operational strategies. For example, Marico, Hindustan Unilever, Nestle India, Future Consumer, Coca-Cola, PepsiCo, and Parle Agro have committed to switching to 100% recyclable packaging by 2025.

Exhibit 11: Consumer Outlook on Sustainability

Higher than average score
Lower than average score

Actions	Avg. Score	Automotive	Cement	Consumer Goods	Financial Services	Manufacturing	Oil & Gas	Power & Utilities	Professional Services	Technology	Metals
Demand products and services rated with green certifications	4.54	4.84	5.25	4.26	4.67	4.39	4.44	3.95	4.38	4.02	4.86
Investing their time towards environmental-friendly goods	3.80	4.04	3.25	3.50	3.97	3.92	3.60	3.73	4.19	4.02	3.95
Choosing expensive but sustainable/environmental-friendly alternatives over cheaper non-environmental-friendly goods	3.76	3.59	3.58	4.37	4.28	3.62	3.71	4.07	3.13	3.08	3.39
Supporting brands that have a social and environmental purpose	3.68	3.50	3.92	3.45	3.27	3.32	4.23	3.50	4.06	4.54	4.30
Others	1.72	1.54	1.50	1.92	1.31	2.25	1.52	2.25	1.75	1.83	1.00

Note: The average score is calculated based on the ranks given by respondents. The scores vary from 1-6, where 1 is the lowest and 6 is the highest.

*Technology has been created as a subset from Professional Services.

In continuation, our survey suggests that consumers are playing a significant role in determining sustainable business strategies as Exhibit 11 depicts. The growing trend of shifting towards a sustainable lifestyle is narrowing the opportunity window for all businesses, irrespective of their scale. Consumers who are already aware of sustainable products are increasingly demanding products and services with green certifications.

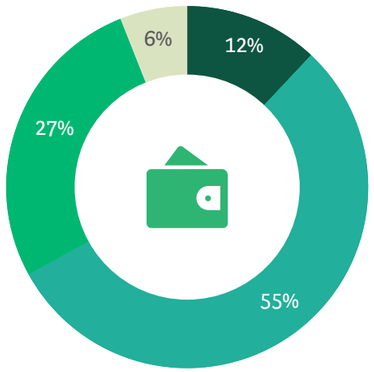
In general, consumer behavior has always been more inclined towards cost minimization, which is another challenge for organizations across all industries. However, the survey also indicates customers are increasingly favoring a slightly expensive but sustainable product over one that is cost-effective but not environmentally friendly.

Numerous studies suggest how growing awareness about climate change is increasing at a positive rate, making consumers more and more willing to pay a premium for sustainable alternatives than ever before. Our analysis as depicted in Exhibit 12 also shows how this growing awareness is spurring consumers to adopt sustainability as a lifestyle, even at a premium. Almost 20% of respondents from industries such as automotive, financial services, and professional services have acknowledged that their customers are willing to pay a premium for sustainable alternatives.

This point is bolstered by the survey with more than 2/3rd of the organizations feeling their customers are willing to pay a premium for sustainable alternatives in India. This is especially true in industries such as automotive, consumer goods, financial services, and cement.

However, there is still some hesitation among consumers with nearly 27% not willing or very unwilling to pay a premium for sustainable products, especially in industries such as metals, manufacturing, oil & gas, technology, and power & utilities.

Exhibit 12: Consumer Willingness to Pay a Premium for "Sustainable" Alternatives



- Willing to a great extent
- Somewhat Willing
- Very less willing
- Not at all willing

Why willing to pay for sustainable alternatives?

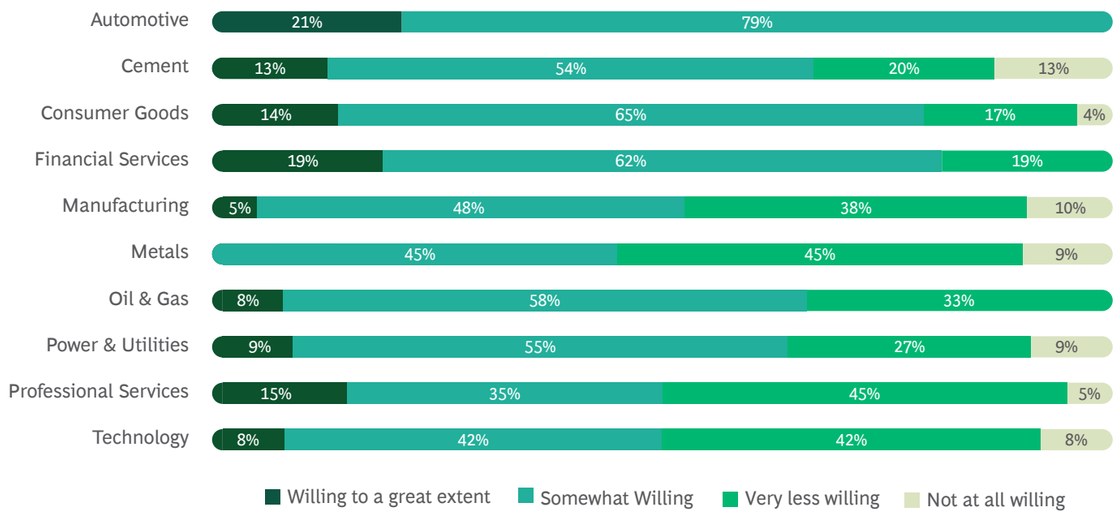
73% of the respondents feel that **monetary benefits** such as tax rebates, subsidies, etc. is pushing demand

51% of the respondents feel that **customers are becoming more concerned** about sustainability and climate change

Why not willing to pay for sustainable alternatives?

64% of the respondents feel that there is a **lack of standardization** with respect to quality and performance

60% of the respondents feel that there **is no mandate/regulation** to push sustainable alternatives



Note: The respondents was asked to select the most relevant answer on behalf of their organization.

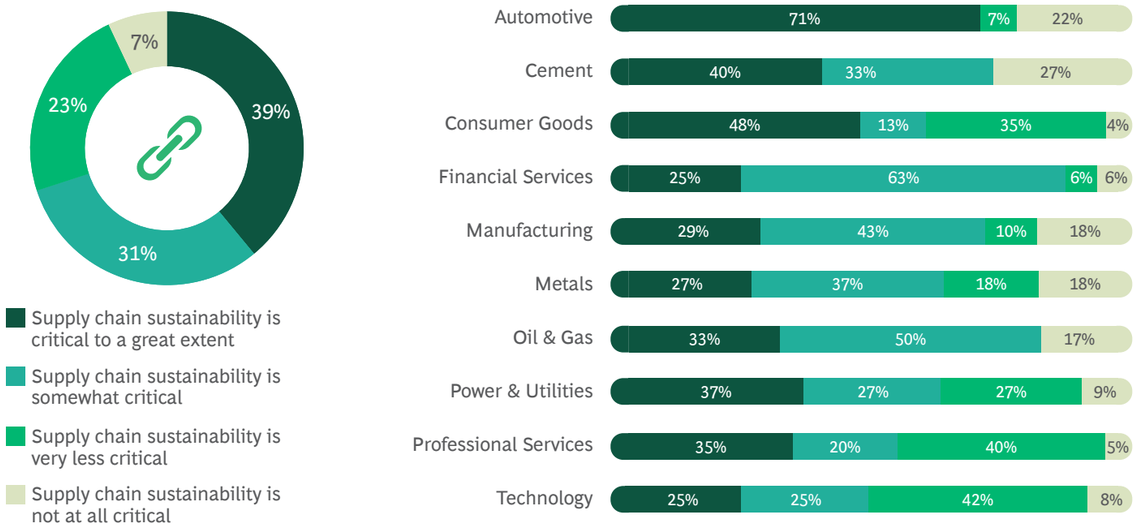
*Technology has been created as a subset from Professional Services.

Role of Supply Chain and Sourcing in Achieving Sustainability Goals

Criticality of supply chain and sourcing processes

While ESG leadership should begin at home, it cannot remain there indefinitely. That is where the supply chain comes into play. Our survey results show that a large share of respondents (70%) feel that the supply chain plays a significant role in meeting their sustainability goals as depicted in Exhibit 13. Indeed, much of the GHG emissions for many organizations lie outside their operations. To tackle this challenge, many organizations are already running highly successful initiatives with their suppliers to optimize resource consumption and reduce emissions within their operations.

Exhibit 13: Importance of Supply Chain in Achieving Sustainability Goals



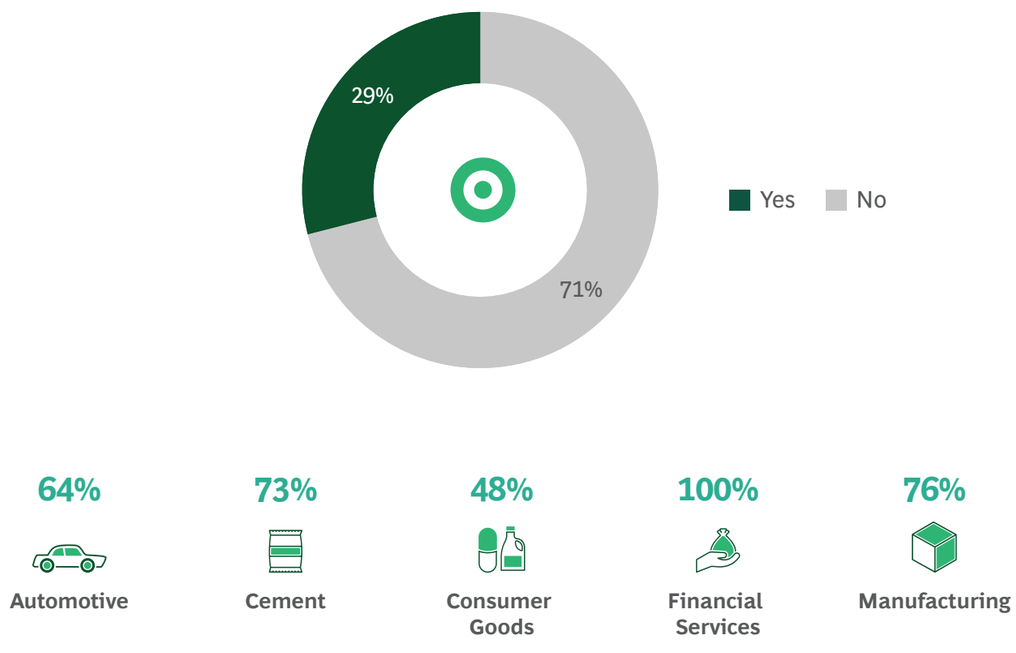
Note: The respondents were asked to select the most relevant answer on behalf of their organization.

*Technology has been created as a subset from Professional Services.

While organizations have a clear understanding of the supply chain's significance in sustainability today yet are finding it difficult to translate that understanding into a clear vision or a long-term strategy. Notably, suppliers account for a significant portion of an organization's upstream scope 3 emissions. It is challenging for organizations to monitor their suppliers, especially the lower-tier suppliers. This in turn raises the possibility that their poor environmental or labor practices could go unnoticed. This is reflected in the survey response as well with only 29% having set targets to reduce their upstream scope 3 emissions so far as Exhibit 14 depicts. This suggests organizations find it difficult to identify exact sources of upstream scope 3 emissions and, thus, be able to effectively control them. Therefore, organizations prioritize reducing emissions from direct sources, i.e., scope 1 and scope 2 emissions.

An industry-wise comparison also reveals that the majority chunk of organizations across industries have not set any targets yet. It can also be observed that people-centric industries like financial and professional services (including technology) are the ones not setting any targets at all, as these organizations have the maximum number of emissions coming from their operations, leased assets, employees, etc., thus making it more difficult for them to identify the exact sources and control them.

Exhibit 14: Targets to Reduce Upstream Scope 3 Emissions



Note: The respondents was asked to select the most relevant answer on behalf of their organization.

*Technology has been created as a subset from Professional Services.

Initiatives to engage supply chain and sourcing partners

Organizations must put in significant work to create the sustainable supply chain they need. Many organizations are conducting a thorough analysis of their supply chain and procurement processes to enable transparent reporting.

Exhibit 15: Initiatives Adopted to Engage Supply Chain and Sourcing Partners

Higher than overall % of selection

Lower than overall % of selection

Initiatives	Overall	Automotive	Cement	Consumer Goods	Financial Services	Manufacturing	Oil & Gas	Power & Utilities	Professional Services	Technology	Metals
Top-down evaluation of the existing supplier base	51%	43%	67%	65%	31%	57%	8%	55%	55%	58%	55%
Asking existing suppliers to provide detailed information on their own ESG impact, both overall and by category	44%	43%	47%	52%	50%	33%	42%	45%	45%	50%	27%
Strengthening the process by introducing documentation of their ESG practices as part of its standard RFx (request for x) process	41%	50%	53%	35%	56%	24%	25%	55%	50%	42%	18%
Assessment of both monetary cost and carbon footprint throughout the process	34%	57%	33%	35%	25%	24%	42%	18%	35%	42%	36%
Assessing supplier's basis their contribution to company's scope 3 emissions and carbon intensity	29%	21%	27%	52%	25%	24%	42%	36%	15%	17%	9%
Others	4%	0%	13%	13%	6%	5%	8%	0%	5%	8%	0%

Note: The respondents were asked to select all possible relevant answers on behalf of their organization.

*Technology has been created as a subset from Professional Services.

An analysis of the initiatives taken by organizations shows that more than 50% of them are conducting a top-down evaluation of the existing supplier base. This helps companies not only to identify the most significant risks but also to identify improvement opportunities in their upstream value chain as depicted in Exhibit 15. This was close to 70% for industries such as cement.

Alongside the top-down analysis, organizations are also taking a deep dive into the ESG performance of their largest suppliers to encourage sustainable procurement. More than 50% of the respondents from industries such as cement, financial services, and power & utilities are asking new and potential suppliers to provide assessments & documentation on their ESG impact as a part of their RfX process.

A few respondents also revealed that their organization is not taking any specific strategic measures to build a sustainable supply chain.

Monitoring Green/ Sustainability Initiatives

The centrality of sustainability and green transition is actively associated with effective monitoring and evaluation. India is working diligently to shape its SDGs and has prioritized implementation as a necessity to achieve the goals by 2030. Therefore, the adoption of effective monitoring systems and keeping track of related technological advances will play an important role in assessing and fixing the implementation gap.

However, the reporting and compliance of sustainability and other equivalent parameters are highly complex. Therefore, the impact assessment of ESG practices at an industry level (at regular intervals) and the localization of sustainability goals are critically important for setting and achieving industry-level targets. Our queries about an organization's assessment of sustainability KPIs revealed that the method to monitor and evaluate sustainable initiatives via digital tools and technology upgrades is effective in practice among a large share of survey respondents across industries.

Exhibit 16: Monitoring Green/Sustainability Initiatives

Higher than overall % of selection

Lower than overall % of selection

	Overall	Automotive	Cement	Consumer Goods	Financial Services	Manufacturing	Oil & Gas	Power & Utilities	Professional Services	Technology	Metals
Developed in-house tools to monitor KPIs	62%	79%	53%	57%	50%	57%	55%	67%	82%	60%	50%
Deployed third-party tools to monitor KPIs	41%	29%	47%	43%	50%	43%	36%	42%	27%	40%	42%
Outsourced monitoring of key KPIs to other agencies	32%	21%	33%	30%	25%	24%	27%	33%	45%	45%	58%
Not monitoring KPIs	6%	0%	13%	13%	6%	5%	9%	8%	0%	5%	8%

Note: The respondents were asked to select all possible relevant answers on behalf of their organization.

*Technology has been created as a subset from Professional Services.

The findings of the survey reveal further that around 62% of responding companies have in-house tools to monitor KPIs. Similarly, 41% of selected companies also have third-party tools to monitor KPIs, while around 32% of these outsource monitoring services to other agencies. Only a small 6% acknowledged that they were not using any standard tool or had not identified standard KPIs to monitor their ESG initiatives as depicted in Exhibit 16, which also reflects the industries where the percentage of selection has been higher than the overall.

Challenges in Achieving Sustainability Goals

Increased awareness about climate change has pushed global organizations and stakeholders to consider bringing ESG parameters to the forefront of all major decisions. The horizon for inclusive and sustainable industrialization is likely to require retrofitting organizations to make them sustainable. However, the challenge surrounding sustainability is also multifaceted, often obstructing the true potential of organizations to achieve sustainable business goals.

In addition, some of the pitfalls or barriers to ensuring the success of sustainability mandates or actions are: (i) aligning an organization's actions to sustainability goals; (ii) ambiguity of setting targets in the context of internal ambitions; (iii) assessment of potential downslides; (iv) consistency of reporting methods and indicators; (v) comprehensive assessment of quantification of impact and target setting; and (vi) absence of universal ESG standards.

Exhibit 17: Challenges in Achieving Sustainability Goals

Higher than average score
Lower than average score

Challenges	Avg. Score	Automotive	Cement	Consumer Goods	Financial Services	Manufacturing	Oil & Gas	Power & Utilities	Professional Services	Technology	Metals
Technological Challenges	4.46	3.93	4.40	4.35	4.19	4.86	5.25	3.64	4.95	4.83	4.18
Regulatory Challenges	4.11	3.79	4.73	3.96	4.81	3.29	4.33	4.27	3.80	3.83	4.73
Financial Challenges	4.06	4.00	3.73	4.39	4.25	4.71	2.92	3.73	3.70	3.83	4.64
Market-related Challenges	3.67	4.43	3.80	3.65	2.88	3.76	3.67	3.73	3.75	3.58	3.36
Target-setting Challenges	2.57	3.07	1.93	2.43	3.25	2.05	3.00	2.55	2.80	2.50	2.27
Human Resource Challenges	1.99	1.79	2.13	1.96	1.63	2.10	1.83	3.09	1.80	2.08	1.82

Note: The average score is calculated based on the ranks given by respondents. The scores vary from 1-6, where 1 is the lowest and 6 is the highest.

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This was also revealed from our survey results as shown in Exhibit 17, where the top three challenges faced by organizations were technological, regulatory, and financial. Approximately 50% of respondents have ranked these three challenges as either rank 1 or rank 2. Yet, skill development and training remain crucial hurdles faced by organizations.

Respondents from industries such as manufacturing, oil & gas, and professional services (including technology) industries prioritize dealing with a technological challenge compared with other industries. Respondents, for example, from industries such as cement, financial services, and power & utilities prioritize dealing with regulatory challenges over others. Overall, most industries acknowledge human resources as an important challenge, although respondents did not prioritize it compared to others.

At present, there are numerous challenges to the quality and consistency of ESG data, which is driven by maturing corporate reporting standards, a variety of taxonomies, and methodologies used by several ESG data providers. Investors are seeking to look at ESG metrics as standardized as any financial metrics (as depicted in Exhibit 18).

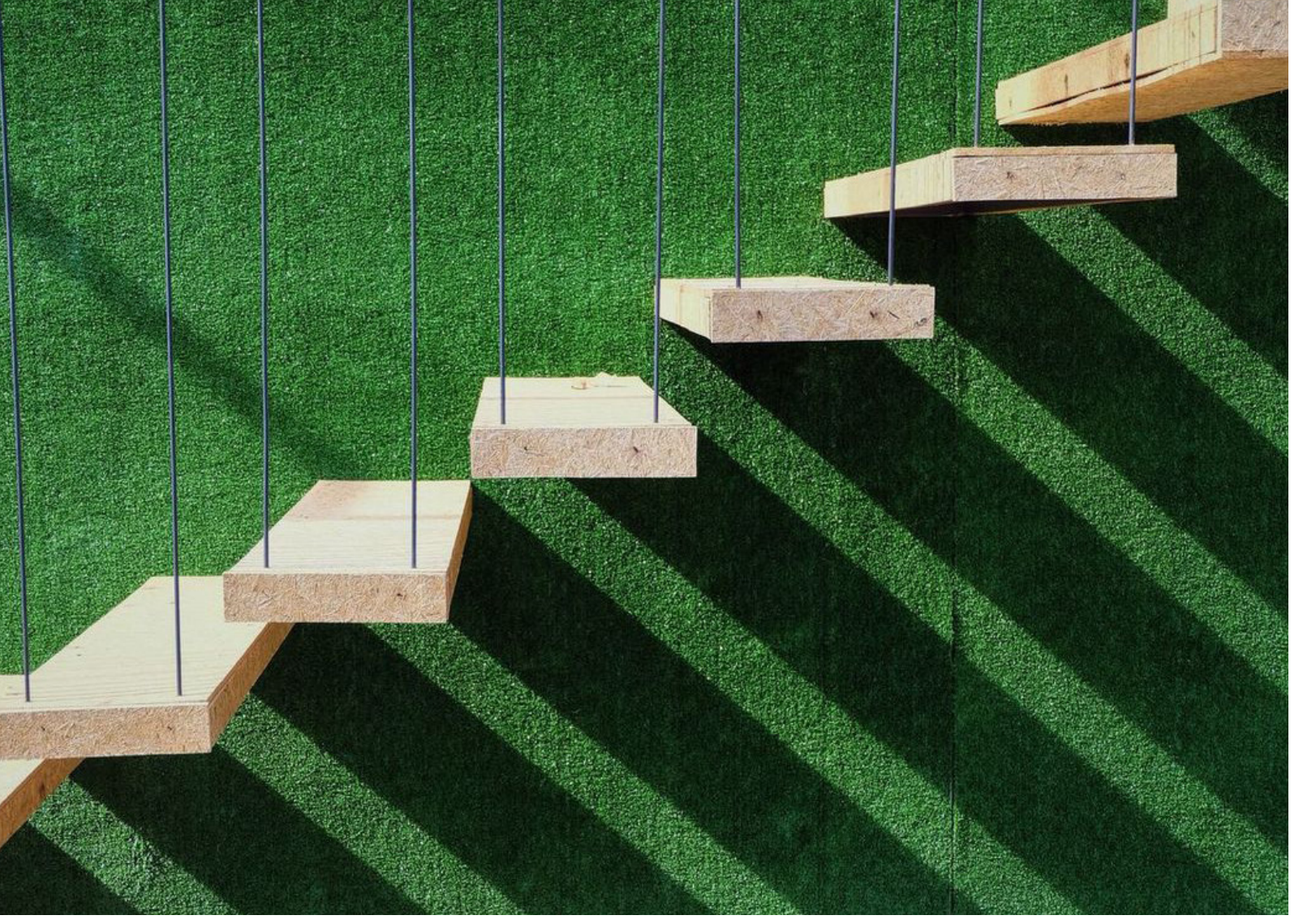
Organizations around the world, including India, are facing a dearth of ESG talent. This can be attributed to aspects such as a lack of standardization of what people in ESG work on and how recruiters assess candidates against the standard criteria. The fight for ESG talent is taking place right from entry-level positions to higher-order task jobs. However, as a new field, ESG roles have limited experience for practitioners to learn from. Exhibit 19 reflects the challenges related to talent acquisition.

Exhibit 18: Challenges related to ESG Data Transparency

1. Integration of ongoing real-time data
2. Lack of single standardized set of frameworks or reporting requirements
3. Ongoing maintenance of ESG data
4. Keeping up with stakeholder expectation and attitude around ESG
5. Effectively managing and mitigating third-party ESG risks
6. Lack of reporting and publishing tools at entity and regulatory level

Exhibit 19: Challenges related to Talent Acquisition

1. Sourcing, assessing, and developing talent
2. Lack of skills and knowledge needed to drive ESG
3. Talent retention issues
4. Lack of standardization across ESG roles and recruitment process
5. Excessive cost associated with training



Way Forward

Given what we know today about the emerging trends in sustainability and green practices, there is a clear need for businesses in India to align their operations and production processes with standard sustainability norms and practices. At the initial stage, all industries should prioritize setting up their sustainability goals and the identification of unique KPIs to monitor and assess their progress. As the topic is expected to evolve rapidly going ahead, companies must be dynamic in their decision-making process to tide over the uncertainties.

ESG norms and methodologies at the industry level have begun standardized and universalized. For example, in the financial services industry, where the Indian Banks' Association is attempting to develop a uniform framework for credit assessment. The framework considers ESG factors and addresses climate risk in its risk management strategy.

Anticipating real-time problems and implementing sustainable and inclusive policies should be prioritized as part of an organization's goal. The economic viability of sustainable operations and tech-triggered dynamism must be assessed and reported by organizations at regular intervals. The road to net-zero will require a reorientation of the development path of industries. Becoming a net-zero organization is indeed an opportunity for businesses to develop a sustainable edge.

Here are some crucial actions to be prioritized by organizations seeking to become net-zero emitters:

- All industrial segments must try to surpass or at least mirror the country's net-zero targets, which means organizations across all industries should incorporate the net-zero pledge as part of their vision
- Industries need to proactively lay long term, medium-term and short-term objectives for achieving net-zero targets.
- In terms of sustainability, there is no "one-size-fits-all" formula. The government and industry stakeholders should work around building best practices to address climate change.
- The devastating and continual shocks of climate change are a big threat for all industries irrespective of their scale. Therefore, organizations should aim to build a resilience road map to strengthen their survival.
- Opting for renewables and operationalizing green energy transition across all organizations shall be encouraged. The organization should aim to achieve 100% RE-based energy consumption.
- The reporting of scope 3 emissions and adoption of reductions targets should also be incorporated as a common practice among organizations. Additionally, their net-zero targets should also account for scope 3 emissions, particularly upstream scope 3 emissions as they are the most challenging to monitor and contain.

Appendix: Study Methodology

The BCG climate change survey was rolled out to sustainability leaders and ESG decision-makers across nine industries. The survey captures their position on fighting climate change and improving sustainability in the context the commitments made at COP26. Exhibits 20 and 21 represent the share of industries covered in the study and the functional role of the respondents. Technology has been created as a subset of the 'Professional Services' industry.

Exhibit 20: Sample Distribution

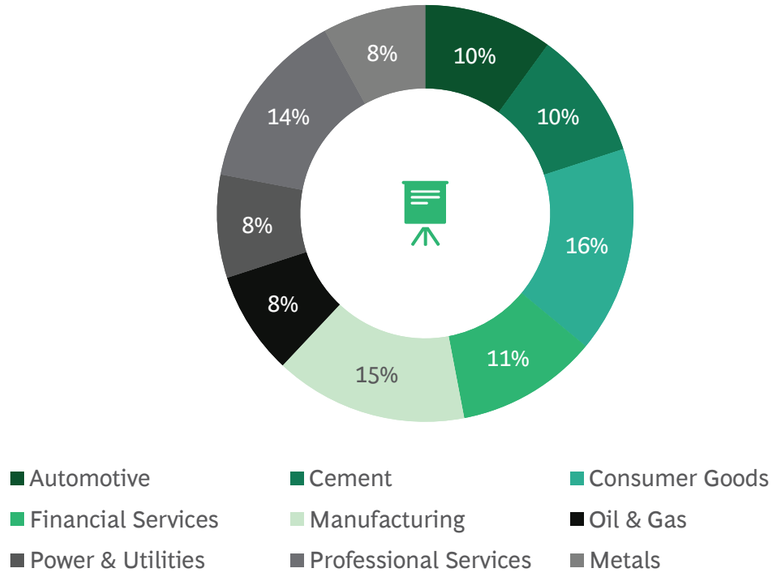
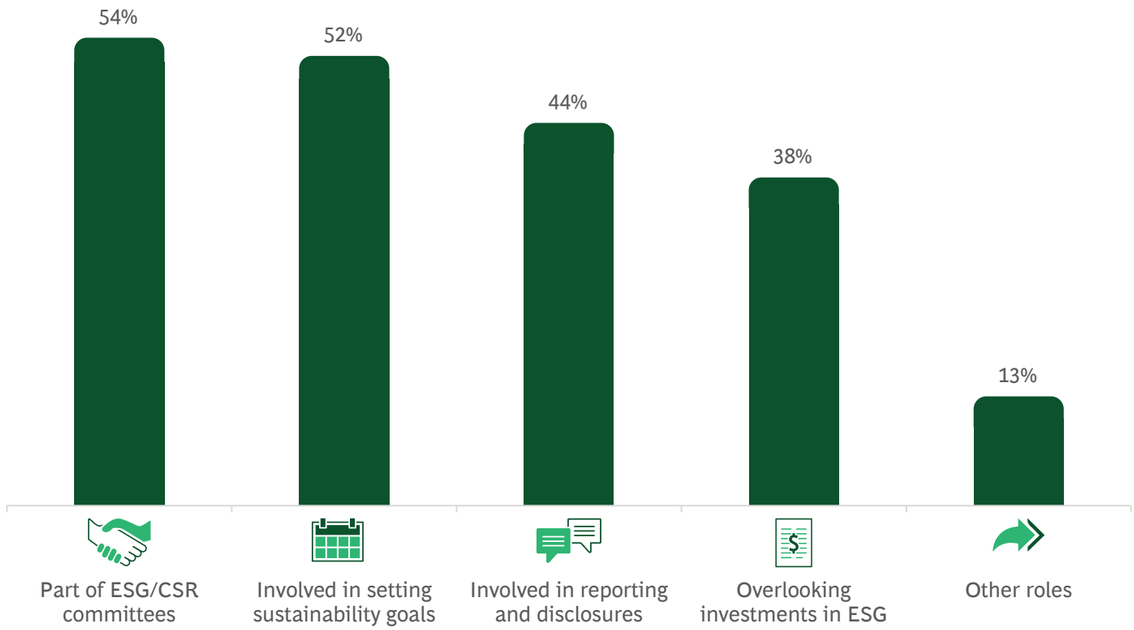


Exhibit 21: Respondent's Function/Profile



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Special Acknowledgement
We are grateful for the contribution of our late colleague, **Rajarshi Bhattacharya**, towards the making of this report.


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