

I-SHARE

By Delhi Chapter of ISHRAE

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ESG

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Dear ISHRAE Members,

Greetings from the Delhi Chapter of ISHRAE!

First, I am grateful to all the ISHRAE members for awarding me the position of President of the Delhi Chapter of ISHRAE for the S.Y. 2024-25. I am committed to working with my CWC team members to elevate the DCI banner.

I would like to express my appreciation for all the past presidents who have helped DCI reach its current level. A big thank you to each one of you for your continued support of DCI activities, programs, and events.

I am proud to announce that DCI has a clear leadership vision defined for the next five to seven years, with a strong possibility of having a woman president in the near future.

In the first quarter, DCI has organized Refrigeration program, workshops, programs, K12 activities, and student activities. For example, we began the year with the India Cold Chain Conclave 2.0 in Kullu, Himachal Pradesh, with support from NCCD and the Himachal government and attended by around 150 delegates. This event was appreciated by all ISHRAE members. We also successfully executed a two-day workshop/program in collaboration with the Indian Building Congress, with delegates from across North India.

On the student front, we conducted an internship program at the DCI Office in Saket. In the advocacy front, we held a program on "Decarbonization & the Common Man" at the GMR office premises. The World Environment Day program was commendable, with the presence of National President Anoop Ballaney, Past President Mr. Richie Mittal, and GMR officials at T2. The following day, we conducted a K12 Activity at T2, attended by a special guest.

Additionally, we successfully hosted the first RCC at IBIS, Delhi, with support from HQ. The World Refrigeration Day program at Hotel Pride Plaza on June 26th was also a success and appreciated by seniors and members of the society.

We have an attractive program lineup for the society year 2024-25, including Shakti 2024 on August 31st, Youth Conclave on September 28th, Acreconf in October, DCI Cup on November 9th, 10th, and 23rd, and Pharma Connect in January 2025.

I would like to thank all our annual sponsors for their year-round support: Gold partners ALP Aeroflex, Zeco Aircon, Agilon Cables, Phonix Contact; Silver partners Advance Valves, The Refrigeration House, Lubi Pumps; and Bronze partners K-Flex, Belimo, and Mechmaarch for their commitment to the entire HVACR industry and our goal of sustainability.

At DCI, As president this year, I am committed to ensuring disseminating the knowledge and growing the membership to help DCI achieve greater heights. DCI currently has an excellent CWC, this year our commitment to bringing in young and brilliant talents as well.

Let us together keep the DCI banner flying high.

With Best Regards,

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ESG norms:

Challenge India facing while implementation

India, like many other countries, faces significant challenges in adopting Environmental, Social, and Governance (ESG) principles. These challenges stem from a mix of regulatory, economic, cultural, and infrastructural factors. Here's a detailed look at these challenges and possible solutions:

Key Challenges in ESG Adoption in India

Lack of Awareness and Education Limited Knowledge: Many businesses, particularly SMEs and family-owned enterprises, are unaware of the importance of ESG or how to implement its practices. This knowledge gap extends to board-level awareness and implementation skills.

Shortage of Qualified Professionals: The demand for ESG professionals is increasing, but the supply remains low. India's education system is still developing programs focused on sustainability and ESG.

Integration with Business Strategy

Misalignment with Core Strategy: Companies often find it challenging to align ESG principles with their core business strategies, resulting in efforts that do not yield significant value.

Short-Term Focus: Many businesses prioritize short-term financial gains over long-term sustainability, a mindset particularly common in mid-sized and family-owned businesses.

Data Quality and Availability

Challenges in Data Collection: Reliable, consistent, and comparable ESG data is often difficult to collect due to a lack of standardized systems and processes.

Materiality Assessment: Companies need to identify the material issues most relevant to their stakeholders and industry context, which requires thorough understanding and engagement.

Regulatory Fragmentation

Inconsistent Regulations: While SEBI mandates ESG disclosures for the top 1000 listed companies, other companies lack clear guidelines, creating confusion and inconsistency in ESG reporting.

Absorbing ESG-Related Costs

High Initial Investment: ESG adoption requires significant upfront investments in areas such as data collection, reporting, certification, infrastructure development, technology adoption, training, and compliance. These costs can be a burden for small and mid-sized businesses already struggling with various economic challenges.

Delayed Benefits: The benefits of ESG adoption may not be immediately visible or quantifiable, which can affect the perceived business case for ESG initiatives.

Cultural and Social Factors

Traditional Practices: Traditional business practices and cultural norms can sometimes hinder ESG adoption. Issues such as gender diversity, labor rights, wellness, transparency, and disclosures may face resistance in specific industries.

Complex and Underprepared Supply Chains

Ensuring Compliance: For businesses with extensive supply chains, ensuring ESG compliance and sustainability standards across the entire chain can be very challenging, especially when dealing with multiple suppliers at various levels of maturity in responsible business practices.

Inclination towards Greenwashing

Risk of Exaggeration: Companies may engage in "greenwashing," exaggerating their ESG efforts without substantial action. False or misleading claims about their ESG performance can lead to a loss of brand image and trust among investors and consumers.

Opportunities and Solutions

Despite these challenges, there are significant opportunities for businesses to embrace ESG as a strategic priority:

Aligning with National and Global Goals: Adoption of ESG practices aligns with national and global frameworks on sustainable development, such as the Sustainable Development Goals (SDGs) and the Paris Agreement on climate change.

Access to Green Finance: Businesses that perform well on ESG criteria can attract and retain investors, customers, and employees who are increasingly conscious and demanding of ESG performance and disclosure.

Enhancing Innovation and Resilience: Adopting best practices and technologies that reduce environmental and social impacts and improve governance standards can enhance innovation, efficiency, and resilience.

Creating Positive Value: Addressing the pressing issues and needs of communities and stakeholders can

improve brand value and create positive societal and environmental impacts.

Strategies to Overcome ESG Adoption Challenges

Set Clear ESG Goals: Businesses should start by setting clear ESG goals aligned with their business strategy. These goals should be specific, measurable, achievable, relevant, and time-bound.

Develop an ESG Strategy: Once goals are set, businesses need to develop a strategy that outlines how to achieve them. This strategy should include plans for data collection, reporting, and measurement.

Get Buy-In from Stakeholders: It is crucial to secure buy-in from all stakeholders, including employees, customers, investors, and suppliers, to ensure everyone is committed to the ESG transformation journey.

Invest in ESG Training: Businesses should invest in training employees on ESG practices to ensure everyone understands the importance of ESG and how to implement these practices.

Partner with ESG Experts: Businesses can collaborate with ESG consulting firms to get guidance and support on best practices.

By addressing these challenges and leveraging the opportunities, businesses in India can position themselves for long-term success through sustainable practices.

Author



Chandranshu

Territory Head HSEF,
Reliance Retail North Zone

Chandranshu is at the forefront of driving sustainability and safety initiatives within the Reliance Retail North Zone geography as Territory Head HSEF. With

a dedicated focus on Health, Safety, Environment, Fire, and Sustainability (HSEF), he brings over a decade of diverse experience in this dynamic sector.

Professional Background:

Chandranshu's journey in the HSE & sustainability sector has spanned 11 years, during which he has embraced various key roles, each contributing to his profound expertise. His career has included stints in regulatory and policy development, process engineering, operations, strategy advisory, business development, and business strategy.



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The Evolving Landscape of ESG Implementation

If you want to go quickly, go alone. If you want to go far, go together...African Proverb

by CA Puneeta Puri

One of the fundamental principles underlying sustainability is a shift in approach towards the environment, community, and the broader impact of businesses. This article explores the approach an organization takes while embarking on its sustainability journey.

1. Background

Today, **Climate** change discussions are a central focus for governments, environmentalists, regulatory bodies, scientists across the globe as climate change is a global emergency that goes beyond national borders. The need for action on climate change has never been greater, and there is a growing recognition that addressing climate change requires a collective effort from all sectors of the society.

The Paris Agreement was a landmark in the multilateral climate change process for the first time it brought all nations together into a binding agreement to combat climate change and adapt to its effects. It played a crucial role in addressing climate change by setting ambitious goals, encouraging participation promoting transparency, mobilizing finance and fostering cooperation.

The agreement was adopted by 196 parties at the UN Climate Change Conference (COP21) in Paris, France on 12 December 2015. India ratified the agreement on 2nd October 2016, and its commitments are called the National Determined Contributions (NDCs).

This was followed by another key UN Climate Change Conference in Glasgow (COP26) which brought together 120 world leaders to agree on how to step up global action and solve climate crisis. This was a key moment for India as Prime Minister Shri Narendra Modi made the pledge, to achieve net zero emissions by 2070 for India.

The United Nations General Assembly adopted the 2030 Agenda for Sustainable Development and 17

Sustainable Development Goals (SDGs) as a universal and transformative development strategy. The 2030 Agenda commits to the global community to “achieve sustainable development in its three dimensions — economic, social and environmental — in a balanced and integrated manner”.

Building a sustainable and robust economy requires a shift in corporate business models, a reoriented and mobilized financial system under a regulatory system that promotes transparency and incentivizes action. Recognising the need of the hour, numerous developments have taken place in the Indian Regulatory scenario through significant policy changes to keep in line with global sustainability trends.

2. Key Regulatory Developments in India

As per Gazette notification no. SEBI/LAD-NRO/GN/2021/22 dated May 05, 2021, SEBI has introduced new reporting requirements on ESG parameters called the Business Responsibility and Sustainability Report (BRSR). BRSR has been benchmarked and adopts the United Nations Sustainable Development Goals (UN-SDGs) and other global ESG reporting frameworks to make the reporting more comprehensive and effective for business and investor community.

The Securities and Exchange Board of India (SEBI) approved the Balanced framework for ESG (Environmental, Social and Governance) disclosures, ratings and investing on March 29, 2023.

On ESG Disclosures, the market regulator has mandated introduction of BRSR (Business Responsibility and Sustainability Report) Core to enhance the reliability of ESG disclosures. The BRSR will contain a limited set of Key Performance Indicators (KPIs), for which listed entities will be required to obtain “reasonable assurance”, a SEBI release said. *(The Reporting under BRSR comprises of three section explained on the next page)*

“A glide path is prescribed for applicability of BRSR Core, beginning with the top 150 listed entities (by market capitalization) from FY 2023.

Overall, the evolution of the ESG landscape in India is a positive development, and it is heartening to see the efforts being made by various stakeholders towards promoting sustainable and responsible business practices in the country.

3. Approach towards ESG

While the primary focus of ESG currently revolves around compliance and reporting for investors, stakeholders, and regulators, the true essence of ESG lies in driving a transformation in the fundamental structure, governance, and management practices of businesses. ESG implementation will indeed require a change in mindset



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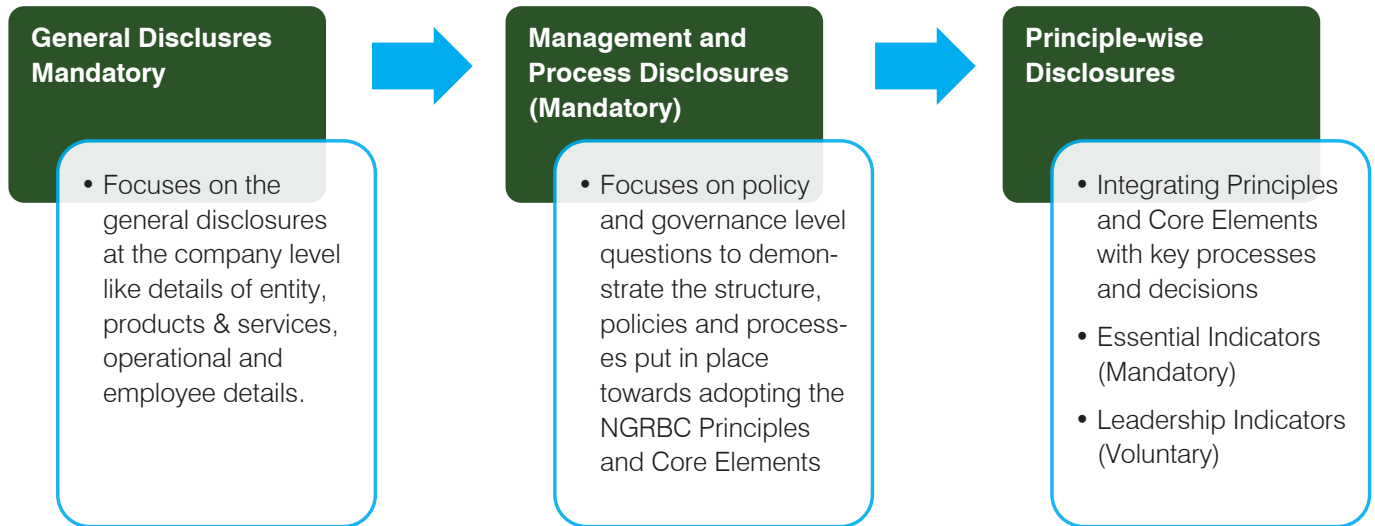


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The Reporting under BRSR comprises of three sections:



from leaders and the entire team in the upcoming years.

Organisations and the management have to shift from just “profitability” to “Value creation and Profitability” approaching today’s interconnected world. This approach requires a widening of the scope of responsibility and accountability of an organisation for its actions, **decision** and choices **which** impact the larger eco-system beyond their business needs as well.

The Journey of an organisation towards sustainability involves the following key steps:

- 1. ESG Awareness and Knowledge Enhancement** – Since ESG is a evolving concept with many developments across the globe, it requires capacity building and knowledge enhancement for the ESG team and the organisation at large.
- 2. ESG Mindset and Practises** –

Sustainability first has to be adopted as a mindset amongst the employees, before it translates into meaningful practises. Once, the employees understand and appreciate the diverse perspectives of ESG, it eases the implementation process.

- 3. ESG Strategy, Policies and Community** – the company strategy will be impacted over a period of time with Risk & Materiality Assessment conducted for ESG planning within an organisation. As gradually the ESG strategy gets embedded in the company strategy and decisions, the impact of sustainability will result in long term benefits for an organisation and extended community.
- 4. ESG Governance & reporting** – The governance aspects of ESG are a strong foundation for the sustainability journey of an organisation. The ESG data , reporting and assurance play a key role in the

decision making process for the Board, Management, Investors and various stakeholders.

- 5. Long Term Value Creation** – The enduring effects of various decisions contribute to value creation for the organization, enhancing not only brand reputation but also reinforcing the ethos, values, and principles it upholds in the minds of diverse stakeholders, ultimately leading to long-term benefits..

4. Key Success Factors for ESG Implementation

Some key success factors are listed below while considering successful implementation of ESG practices :

- 1. Gap Analysis and Risk Assessment** – Organizations should commence by conducting a Gap Analysis to delineate their current position as a starting point and to ascertain their desired objectives,





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thereby identifying the gap that necessitates closure for implementation. A comprehensive Risk Assessment and Materiality Analysis will aid organizations in prioritizing their processes and determining their subsequent steps.

2. Considering E, S, and G aspects in financial and investment decisions:

Leaders and management teams should integrate environmental, social, and governance factors into their decision-making processes. This involves evaluating the potential impacts of investments or financial decisions on the environment, society, and corporate governance practices.

3. Partnership and developing value chain partners in the ESG journey:

Collaboration and partnerships with value chain partners are crucial for ESG implementation. Leaders should actively engage and support their suppliers, vendors, and other stakeholders to enhance their understanding and adoption of ESG practices. By helping them develop their ESG capabilities, the entire value chain can contribute to sustainable business practices.

4. Community building and impact management:

ESG implementation involves considering the impacts of business activities on the communities in which they operate. Leaders and teams should prioritize community engagement, social projects, and impact management. By addressing social issues, supporting local development, and managing environmental impacts, businesses can contribute positively to the communities they serve.

5. Encouraging innovative practices in energy, waste management, water, etc.:

Leaders should foster a culture of innovation and encourage their teams to develop and implement sustainable practices in energy management, waste reduction, water conservation, and other relevant areas. By continuously seeking and adopting innovative solutions, businesses can improve their environmental performance while achieving their operational goals.

6. Walk the Talk:

Governance plays a critical role in setting the tone and driving ESG implementation. When leaders lead by example, inspire their teams, and demonstrate a

deep understanding of ESG principles, it encourages employees to develop a similar mindset. By involving employees in building a sustainable business, leaders can harness the collective efforts and contributions of the entire organization.

Overall, the successful implementation of ESG practices requires a holistic approach that encompasses financial decision-making, stakeholder value creation, partnerships, community engagement, innovative practices, and leadership commitment. By embracing these principles, organizations can contribute to a more sustainable and responsible business environment.

Author



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CA Puneeta Puri
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Indian ESG Network

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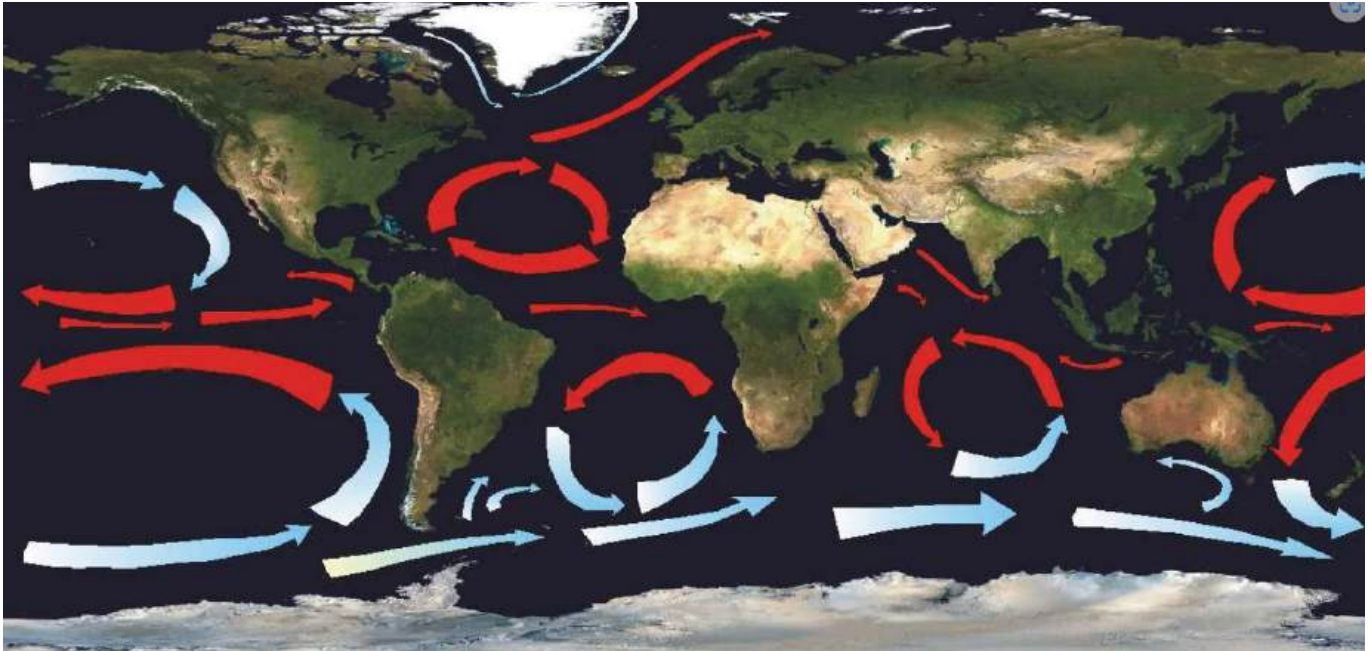
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ESG - THE PATH FORWARD

by Samta Bajaj



PREFACE

Climate change indeed stands as the defining crisis of our era, accelerating at a pace that surpasses our initial fears. Yet, we're not powerless; we stand at a critical juncture where our actions can reshape the trajectory of this global threat. As aptly noted, "the climate emergency is a race we are losing, but it is a race we can win."

The impacts of climate change reverberate across every corner of our planet, leaving no region untouched by its devastating consequences. From escalating temperatures to environmental degradation, natural calamities, and economic upheaval, the toll is evident. Sea levels surge, the Arctic recedes, coral reefs perish, oceans sour, and forests blaze. Clearly, the status quo falls short. As the exorbitant costs of climate change mount towards irreversible heights, the time for decisive collective action is now.

The past four years have solidified this urgency, marking them as the hottest on record. The World Meteorological Organization's September 2019 report painted a grim reality: we stand at least one degree Celsius above pre-industrial levels, teetering close to a precipice of "unacceptable risk." The 2015 Paris Agreement set a clear mandate to cap warming well below two degrees Celsius, striving for 1.5 degrees. However, should global emissions persist unchecked, projections hint at a dire future with temperatures soaring beyond three degrees Celsius by century's end, inflicting further irreversible harm upon our ecosystems.

Fig 1 illustrates the contrasting outcomes of a 1.5 °C vs. 2.0 °C world

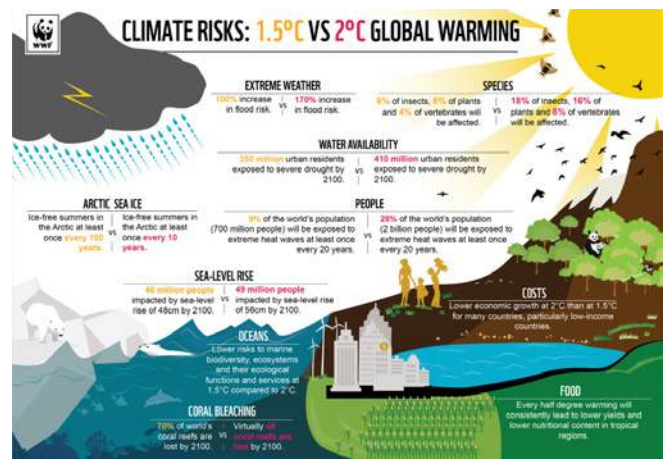


Fig. 1 Climate risks : 1.5 °C vs 2.0 °C Global warming

In the face of such stark data, complacency is not an option. We must embrace bold, coordinated action to alter this trajectory, safeguarding our planet for generations to come. The path forward demands unwavering commitment, innovation, and solidarity on a global scale. Only then can we **aspire** not just to mitigate the impacts of climate **change** but to thrive in harmony with our environment.

How does climate change affect business?

The impacts of climate change ripple through the business world, posing significant risks to operations and profitability. Severe weather events like floods and droughts threaten physical assets such as property and equipment. Changes in temperature and rainfall, coupled with natural disasters such as hurricanes and typhoons, can disrupt agricultural yields, leading to higher food prices and reduced wages for agricultural workers. Addi-



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tionally, the uptick in wildfires can diminish timber supplies, affecting profit margins across industries.

What does this mean for businesses?

For businesses, this reality necessitates a proactive stance. Rather than merely reacting to climate-related challenges, organizations should view climate action as a pathway to future resilience and growth. The fight against climate change demands substantial investments of time, capital, and resources. However, these efforts also present opportunities for innovation and advancement. Businesses can seize the moment by embracing sustainable energy sources, ramping up recycling initiatives, and reducing the environmental footprint of their supply chains.

Incorporating Environmental, Social, and Governance (ESG) considerations into long-term strategies is paramount. By integrating sustainability into business practices, companies not only mitigate climate risks but also position themselves for sustainable growth. ESG investing emerges as a crucial driver in this journey towards sustainability and carbon neutrality, reshaping industries and reshaping the corporate landscape. (Fig.2)



Fig. 2 Climate as a part of ESG

ESG – THE PATH FORWARD

ESG, standing for Environmental, Social, and Governance, comprises the three pivotal components used to gauge the sustainability and ethical impact of an investment in a business or project.

Initially conceptualized by the United Nations in 2004 within the report "Who Cares Wins," ESG has evolved into a fundamental tool for investors. It serves as a framework for evaluating companies' behaviors and predicting their

future financial performance. Investors, particularly those with a focus on social responsibility, utilize ESG criteria to screen potential investments meticulously.

The United Nations further solidified ESG's significance in 2006 with the establishment of the Principles for Responsible Investment. This framework empowers investors to factor in Environmental, Social, and Corporate Governance considerations when making investment decisions, reinforcing the alignment between financial goals and sustainable practices.

The Covid-19 pandemic of 2019 catapulted ESG into the spotlight once again, emphasizing the critical need for climate action and resilience. With nations worldwide grappling with the challenges posed by climate change, ESG becomes an indispensable tool in fostering transformative change.

One notable application of ESG is its role in ensuring accountability and managing a company's carbon footprint. The adoption of ESG criteria in investment decisions has witnessed a significant surge since the beginning of this decade, reflecting growing recognition of its importance in driving sustainable investment practices.

Moreover, numerous domestic and international academic studies have underscored the multifaceted benefits of integrating ESG principles. While ESG implementation may entail initial short-term costs for companies, empirical evidence suggests that it ultimately leads to enhanced medium and long-term performance.

WHAT ARE THE THREE COMPONENTS OF ESG?

In summary, ESG encompasses Environmental, Social, and Governance factors, serving as a guiding framework for responsible investment decisions, aligning financial objectives with sustainable practices, and driving long-term value creation. This article elucidates the impact of ESG investing on climate change and its significance for companies striving towards sustainability and carbon-neutral goals. (Fig.3)



Fig. 3 Environmental , Social and Governance Criteria for a Green future

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1. Environmental issues encompass a spectrum of challenges, including the depletion of biodiversity due to activities such as deforestation and illegal hunting, as well as the disruption of weather patterns leading to phenomena like flooding and droughts caused by natural disasters such as hurricanes and typhoons. These issues also encompass the loss of human and wildlife populations and the degradation of our atmosphere, including concerns regarding the Ozone layer.
2. Social issues highlight the human dimension of sustainability, including the prevalence of child labor, the existence of unsafe working conditions endured by employees in factories worldwide, instances of underpayment or non-payment of wages, and violations of human rights directed at peaceful protestors or whistleblowers. Additionally, social issues extend to the poor working conditions pervasive in various industries.
3. Governance issues delve into the realm of corporate ethics and regulatory compliance, touching on matters such as bribery and corruption within governments, particularly concerning environmental concerns related to corporate activities. Information asymmetry, where one party possesses more knowledge than another in transactions, is another governance issue, as well as price fixing among competitors, leading to artificially inflated prices. Furthermore, governance issues encompass the lack of corporate transparency and instances where governments restrict citizens' rights to vote.

ESG DRIVE IN INDIA

In India, a significant shift is underway within the corporate sector towards embracing ESG principles. Companies operating in the country are increasingly acknowledging the imperative of aligning their strategies and operations with ESG frameworks. This marks a substantial transformation within the Indian business landscape, reflecting a growing recognition of the importance of sustainability and ethical governance.

The Indian business landscape is witnessing a notable impetus towards Environmental, Social, and Governance (ESG) initiatives, driven by key regulatory bodies.

SEBI (The Securities and Exchange Board of India) stands as the primary regulatory authority spearheading efforts to foster ESG reporting and compliance among publicly listed companies. Notable initiatives include mandating the top 1000 listed companies, based on market capitalization, to file Business Responsibility and Sustainability Reports (BRSR). Additionally, SEBI encourages companies to conduct material assessments to identify ESG factors most relevant to their operations. Furthermore, SEBI recognizes select ESG rating agencies tasked with verifying and ensuring the reliability, transparency, and comparability of ESG disclosures.



Fig. 4 ESG Regulatory bodies in India

The Ministry of Corporate Affairs (MCA) has also played a pivotal role in promoting ESG practices. Under the Companies Act of 2013, companies meeting specific financial thresholds are mandated to allocate a portion of their profits to Corporate Social Responsibility (CSR) activities. Moreover, the MCA has issued guidelines on responsible business conduct, urging companies to take their social and governance responsibilities more seriously.

In response to these regulatory frameworks, Indian companies are increasingly embracing ESG initiatives, demonstrating their commitment to sustainability and responsiveness to stakeholder demands. Notable industry leaders such as Tata Motors, Wipro, Mahindra & Mahindra, ITC Limited, Hindustan Unilever (HUL), and Larsen & Toubro (L&T) have embarked on various initiatives aimed at addressing sustainable issues. These efforts include:

Environmental Sustainability:

- Reduction of carbon emissions
- Adoption of renewable energy sources, transitioning from traditional fossil fuels
- Implementation of waste management strategies, aiming for zero waste to landfills
- Conservation of resources, maximizing resource utilization
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Fig. 5 Indian companies taking initiatives in ESG practices

- Encouragement of carbon offsetting activities such as tree planting initiatives

Fig. 5 highlights the initiatives undertaken by these companies

A multitude of Indian companies are spearheading social initiatives, recognizing the critical importance of addressing societal challenges. Leaders such as ITC Ltd, Tata Group, Reliance Industries, Hindustan Unilever (HUL), among others, are championing a diverse array of initiatives aimed at fostering positive social impact. Some notable examples include:

- Emphasis on rural development, aimed at uplifting rural communities and enhancing their quality of life.
- Creation of livelihood opportunities, providing individuals with sustainable means of income generation.
- Support for agricultural practices, aiding farmers in improving productivity and sustainability.
- Provision of healthcare and sanitation facilities in rural areas, addressing critical health needs and improving sanitation infrastructure.
- Provision of support and scholarships to underprivileged students, enabling access to quality education and empowering the next generation.
- Promotion of girls' education, advocating for gender equality and empowering girls through education.

These initiatives reflect a comprehensive approach to corporate social responsibility that transcends mere commercial interests. By prioritizing societal well-being and fostering inclusivity, these companies aspire to contribute to the creation of a more equitable and prosperous society.

GOVERNANCE INITIATIVES

Corporate governance in India has undergone substantial reforms in recent years, propelled by the Companies Act of 2013 aimed at enhancing transparency and accountability. Key measures include the mandatory appointment of independent directors, the reinforcement of audit committees, and stringent disclosure requirements (Fig. 6).

SEBI has played a pivotal role in this transformation by instituting regulations that impose rigorous disclosure norms on listed companies. Moreover, institutional investors and proxy advisor firms have assumed a more

proactive stance in engaging with companies on Environmental, Social, and Governance (ESG) matters. Companies are now mandated to provide comprehensive ESG-related information in their annual reports, offering stakeholders a clear view of their sustainability initiatives.



Fig. 6 Social and Governance Initiatives

Assessment of corporate governance practices encompasses various aspects, including:

- Tax strategy and fiscal transparency
- Corporate risk management practices
- Executive compensation structures
- Disclosure of donations and engagement in political lobbying
- Measures to combat corruption and bribery
- Board structure and independence
- Safeguarding shareholder interests

These initiatives underscore a commitment to fostering transparency, accountability, and ethical practices within the corporate sector, thereby enhancing investor confidence and promoting long-term sustainability.

SIX KEY FACTORS FOR ESG PROGRAM DEVELOPMENT

Six critical components must be carefully considered as companies develop their ESG (Environmental, Social, and Governance) programs (Fig. 7). These elements encompass:

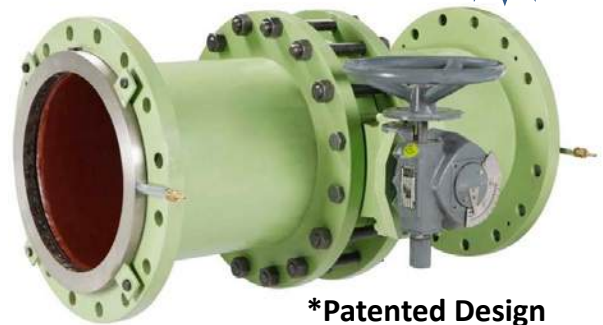
1. **Monitoring:** Implementing robust monitoring mechanisms to track ESG performance, identify areas for improvement, and ensure ongoing compliance with established standards and goals.
2. **Material ESG Issues:** Prioritizing material ESG issues that are most relevant to the company's operations, stakeholders, and long-term sustainability objectives.

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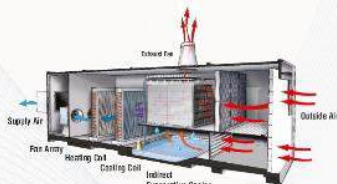
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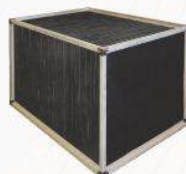
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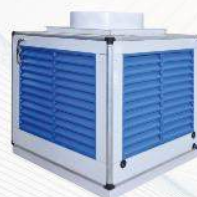
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Fig. 7 Six factors for ESG program

3. Strategic Alignment: Aligning ESG initiatives with the company's overall strategic goals and business objectives to ensure coherence and maximize impact.
4. Board Oversight: Providing effective oversight and governance of ESG matters at the board level, with active engagement and accountability from board members.
5. Policies and Initiatives: Developing clear policies, procedures, and initiatives to address identified ESG challenges and opportunities, promoting responsible business practices throughout the organization.
6. Metrics and Goals: Establishing measurable ESG metrics and setting ambitious yet achievable goals to track progress, benchmark performance, and drive continuous improvement.

By addressing these key elements comprehensively, companies can establish a robust ESG framework that integrates environmental, social, and governance considerations into their core business strategies, fostering resilience, innovation, and long-term value creation.

THE 7 SINS OF ESG MANAGEMENT

The 7 Sins of ESG Management, as identified by Harvard Law School on Corporate Governance, highlight common misconceptions and problematic practices among companies in managing ESG issues (Fig. 8). While each company's ESG strategy must be purpose-driven and aligned with its specific material issues and business objectives, there are key pitfalls to avoid:

1. Excessive Focus on Ratings: Some companies overly prioritize improving their ratings from third-party ESG rating agencies, neglecting to tailor their strategies to their unique outlook and business objectives.



Fig. 8 The 7 Sins of ESG Management

2. Treating ESG Solely as a Communication Effort: Focusing solely on communication and public relations strategies can lead to a lack of substantive action, undermining credibility with investors and stakeholders.
3. Lack of Board and Management Oversight: Delegating ESG responsibility to individuals or departments within the company without active involvement from the board and senior management can result in ineffective ESG strategies.
4. Disconnect from Business Strategy: ESG strategies must be integrated with the company's overall business strategy to effectively serve its purpose and drive long-term value creation.
5. Compliance-Oriented Approach: Merely demonstrating compliance with rules and regulations without demonstrating proactive commitment to ESG principles may not resonate with stakeholders.
6. Inconsistencies Across Firm: Consistency in ESG approaches across different geographies or business segments is essential to avoid gaps and inconsistencies.
7. Lack of Assessment and Monitoring: Inadequate data collection, assessment, and monitoring of key ESG issues pose significant challenges in implementing effective ESG programs. Standardized ESG reporting frameworks are crucial for promoting transparency and addressing ESG challenges.

Conclusion:

India's adoption of ESG principles represents a positive step towards competing on the global stage with sustainable and responsible business practices. However, challenges remain, including the need for regulations mandating ESG-related data disclosure, clear reporting guidelines, investment in training programs, and the development of data infrastructure systems. Addressing these challenges will enable Indian businesses to meaningfully contribute to addressing social and environmental challenges while succeeding in the global marketplace.

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UNDERSTANDING AND EMBRACING ESG FOR A SUSTAINABLE FUTURE IN BUILDING CONSTRUCTION - THE WAY FORWARD

by **Dr. Bandana Jha**, Professor School of Planning and Architecture New Delhi

1. Introduction

The global construction industry is at a pivotal juncture, where the imperative for sustainable practices has never been more urgent. With buildings accounting for over 40% of global energy use and one-third of anthropogenic greenhouse gas (GHG) emissions, the sector holds immense potential for mitigating climate change and advancing Environmental, Social, and Governance (ESG) principles. This article explores the critical need for sustainability in buildings, the role of ESG in driving this transformation, and the way forward for creating a sustainable future.

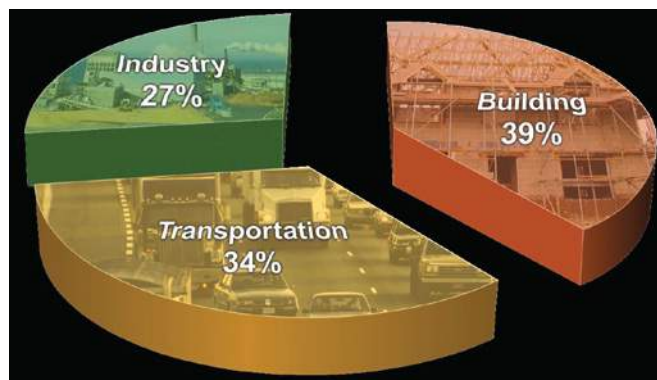


Figure 1: Energy Use Industry Wise. Source: US Department of Energy

2. The Need for Sustainability in Buildings

Sustainable buildings provide healthier living environments for users improving their life and productivity. The need for **sustainability** in buildings can be enumerated under the following:

2.1 Environmental Impact

The construction sector's environmental footprint is staggering. It contributes significantly to air, water, and land pollution. Specifically, it is responsible for 23% of air pollution, 40% of water pollution, and 50% of landfill waste. Moreover, the manufacturing of key construction materials like cement and steel accounts for about 5% of global carbon emissions. Given that India alone is projected to build between 700 million to 900 million square meters of residential and commercial space by 2050, the urgency for adopting sustainable building practices is evident.

2.3 Climate Change and Extreme Weather Events

According to the UNEP Emission Gap Report 2023, the

world is on track for a temperature rise of 2.5 to 2.9 degrees Celsius by the end of this century. This trajectory is inconsistent with the net-zero targets set by G20 countries and exacerbates the frequency and intensity of extreme weather events. The summer of 2022 saw unprecedented climate extremes, including record-breaking heatwaves in India and Pakistan and catastrophic monsoon flooding in Pakistan, which submerged a third of the country and claimed 1,500 lives.

3. Advantages of Sustainability and ESG in Buildings

Enhanced building efficiency through the use Environmental Social Governance (ESG) Principles can lead to reduction in carbon footprint, provide long-term financial benefits, improve wellness and preserve resources for the future generation. The specific advantages are:

3.1 Environmental Benefits

- **Reduced Greenhouse Gas Emissions:** Sustainable buildings significantly lower GHG emissions through energy-efficient designs and renewable energy sources.
- **Lower Carbon Footprint:** By utilizing low-embodied energy materials and efficient construction processes, buildings can achieve a reduced carbon footprint.
- **Reduced Pollution and Waste:** Sustainable practices minimize air pollution, water contamination, and waste generation.

3.2 Economic Benefits

- **Energy and Material Efficiency:** Sustainable buildings consume less energy and materials, leading to lower operating costs.
- **Enhanced Property Value:** Buildings adhering to ESG standards tend to have higher rental and capital values.
- **Job Creation:** The shift towards sustainable construction generates new job opportunities in green technologies and practices.

3.3 Regulatory and Social Benefits

- **Compliance and Reputation:** Meeting sustainability and energy performance norms enhances corporate image and regulatory compliance.

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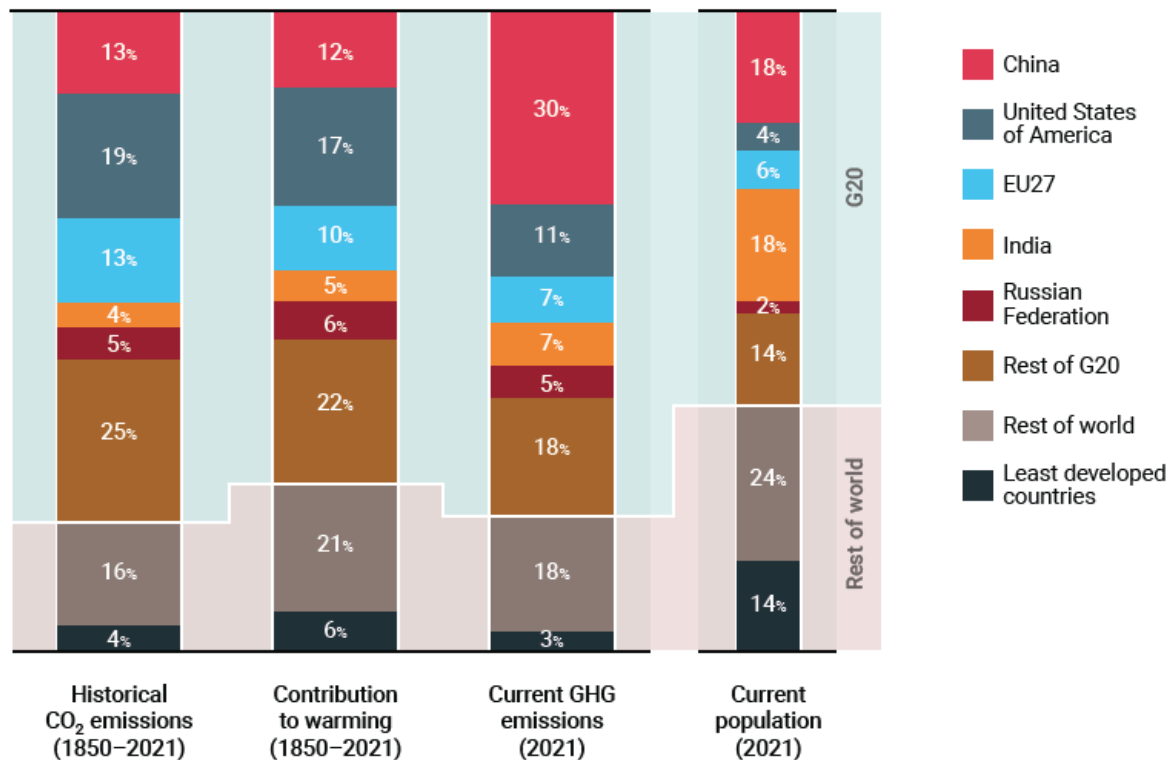


Figure 2: GHG Emissions by the World. Source: UNEP Emission Gap Report 2023

- **Community Well-being:** Sustainable buildings contribute to healthier living environments and communities.

3.4 High-Performance Built Environment

A high-performance built environment integrates and optimizes various attributes over the building's lifecycle, including environmental protection, sustainability, safety, durability, productivity, and cost-efficiency. This holistic approach ensures that buildings not only meet current needs but are also resilient to future challenges.

4. Measuring Sustainability Performance

Measuring the KPIs of building sustainability performance like Carbon emission, Energy Consumption, Water Usage, Waste Reduction, Material embodied energy and efficiency are essential for evidence based sustainable construction. World over green rating systems are working in this direction, however more research is required towards ESG and Carbon Credit Rating.

4.1 Green Rating Systems

Several green rating systems are used worldwide to measure and certify the sustainability performance of buildings. Some leading ones are: BREEAM (UK), LEED

(USGBC, USA), Passivhaus (Germany), CASBEE (Japan), GBAS (China), DGNB (Germany), Green Globes (USA), WELL Building Standards (IWBI). In India, the prevalent systems include BEE Star Rating, GRIHA, IGBC, CII Godrej GBC, and LEED.

4.2 ESG and Carbon Credit Rating Agencies

The need for a universally accepted ESG and carbon rating agency is critical for standardizing and verifying sustainability claims. Agencies like EDGE, BEZERO, CALYX, RENOSTER, SYLVERA, MSCI, and Sustainalytics play pivotal roles in this domain presently. However, there is dire need for more global universally accepted ESG and Carbon measurement and rating agencies.

5. Principles of Sustainable Construction

Sustainable construction is founded on several core principles. Primary ones are:

- **Sustainable Design:** This includes the correct orientation of buildings, efficient design of building envelopes, and the use of low-embodied energy materials.
- **Energy Efficiency:** Implementing energy-efficient systems and minimizing energy use over the building's lifecycle.

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- **Durability and Waste Reduction:** Ensuring buildings are durable and produce minimal waste.
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5.1 Core Sustainability Strategies in Construction

- Reduce, Reuse, Recycle
- **Reduce:** Minimize energy, waste, water, and pollution.
- **Reuse and Recycle:** Utilize recycled and renewable materials to reduce environmental impact.
- **Use Sustainable Processes:** Adopt processes that promote energy efficiency and sustainability.

5.2 Lean and Green Construction

Lean and green construction focuses on optimizing space and materials, using low-embodied energy materials, and integrating technologies like Building Information Modelling (BIM) and artificial intelligence (AI).

5.3 Environmental Impact Assessment (EIA)

The EIA is a crucial tool defined by UNEP to assess the environmental, social, and economic impacts of construction projects before statutory approvals are granted. In India, the EIA process includes the construction and operational phases and aims to mitigate adverse impacts through rigorous evaluation and monitoring.

Core Objectives of EIA in India:

- **Impact Identification:** Assess the project's probable impacts on the surrounding area.
- **Environmental Compatibility:** Determine the project's compatibility with environmental standards.
- **Alternative Evaluation:** Select the best alternatives that create less environmental impact.
- **Environmental Cost-Benefit Analysis:** Weigh the environmental costs and benefits to the community.

6. Low Carbon Buildings: The Way Forward

Low Carbon buildings are specially designed and engineered with low GHG emission output. Design and construction of low carbon buildings is a primary step towards net zero buildings. Following are some of the methodologies proposed to achieve low carbon buildings are:

6.1 Strategies for Low Carbon Buildings

- **Reduce Energy Load by Design:** Optimize building designs to reduce energy consumption.

- **Use Low-Embodied Energy and Recycled Materials:** Incorporate materials with low embodied energy and high recycled content.
- **Energy Efficient Systems:** Implement energy-efficient HVAC, lighting, and other systems.
- **Renewable Energy:** Replace grid energy with renewable sources.
- **AI and BIM Integration:** Use advanced technologies to optimize building performance.

6.2 Sensitization and Regulatory Norms

To achieve low carbon buildings, regulatory norms must focus on least-cost carbon neutrality paths, carbon mitigation through sinks, and carbon credit generation through waste management. Key strategies include:

- **Passive Design Strategies:** Enhance building envelope designs and material choices.
- **Mandatory Standards:** Enforce standards for energy-efficient equipment and materials.
- **Green Cover and Water Bodies:** Mandate green spaces and water bodies in large projects.
- **Local Materials and Labor:** Promote the use of local materials and labor to reduce carbon footprints.

6.3 Stakeholders Participation in Low Carbon Buildings

The transition to low carbon buildings involves various stakeholders, including architects, engineers, professional bodies, government ministries, municipal corporations, private sector entities, and industry associations. Knowledge dissemination and collaboration among these stakeholders is essential for achieving sustainable building goals.

7. Conclusion

Embracing ESG principles in building construction is not just an environmental imperative but also an economic and social necessity. The construction sector has the potential to lead the way in mitigating climate change by adopting sustainable practices, enhancing energy efficiency, and reducing its overall environmental impact. Through comprehensive strategies, rigorous environmental assessments, and collaborative efforts among stakeholders, the path to a sustainable future can be forged.

As the world confronts the challenges of climate change, the construction industry must rise to the occasion, building not just structures, but a legacy of sustainability for generations to come. By integrating these themes and insights, the construction industry can significantly contribute to global sustainability goals, ensuring a resilient and thriving future.

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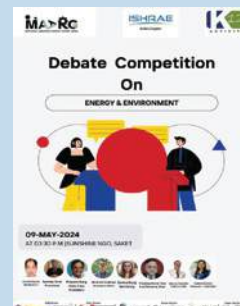
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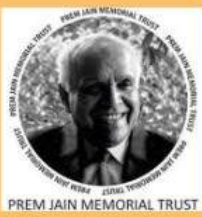


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