India's ESG Revolution — Role of HR, by Shailesh Haribhakti and Suyash Agrawal (Co-Founders @ DialESG)

Hold on for a minute. Close your eyes. Think. For baby boomers (born 1946-1964) and generation X (born 1965-1980), take this minute to reflect on your childhood and adolescence. What was the world, nature and the climate, like when you were growing up. Now think about what happened between now and then. Is this the world you want to leave behind for your children?

For millennials (born 1981-1996) and generation Z (born 1997-2012), what is the climate impact of our fast-internet, fast-fashion, fast-food, fast-travel, fast-gratification, and fast-life? Is this sustainable? Is this the world our parents brought us in? Where are we headed? Are we so lost in our "the dopamine loop" of social media that we have forgotten the sounds of birds chirping, the warm embrace of a tree and the ocean breeze.

Through this piece, we want to elicit a spiritual awakening from our decision makers (baby boomers and generation X) and a call for immediate action from our generation of movers and shakers (millennials and generation Z). We have been presented an unprecedented opportunity to change the course of humanity.

Massive economic growth, profitability and job creation lies at the heart of this evolution. According to the World Business Council for Sustainable Development (WBCSD), the sustainable economy has the potential to unlock USD 12 trillion in economic value and 380 million jobs by 2030. What we need is, collaboration, change in mindsets, technology and innovation.

Setting this as our prologue, let's take a deep dive into the world of sustainability and ESG.

Net Zero. ESG. Climate-technology. 1.5 degrees target of the Paris Agreement. Carbon credits. GHG emissions. Green finance. GRI. SASB. BRSR. Integrated Report.

The aforementioned are a few terms, most people are hearing these days. Before we get into specific actions to be taken by companies to set themselves on the path of sustainability, it is imperative to understand, how the world economy evolved, what happened to our climate and how we got here.

Evolution Of The World Economy And The Social Contract

Business models, po	pulation and rising temperati	ures are all interlinked	
	Up to the 19 th Century	20 th Century	21st Century
Dominant Business Model	Colonialism	Capitalism	Entrepreneurialism/ Consumerism
Key Drivers	Countries and Dynasties	Corporations	Citizens
Metrics	Power	Profits	Purpose
Population Figures	1850 – 1.2 Bn 1900 – 1.6 Bn	1950 – 2.5 Bn 2000 – 6.1 Bn	2010 – 6.9 Bn 7: 2020 – 7.8 Bn grov
Global Emissions (CO2)	1850 – 196.9 Mn Tons 1900 – 1.95 Bn Tons	1950 – 6 Bn Tons 2000 – 25.23 Bn Tons	2010 – 31.61Bn Tons ₁₇ ; 2020 – 34.91Bn Tons ^{grov}
Global Mean Annual Temperature	1880s – 13.73 degree Celsius	1900s – 13.74 degree Celsius 1960s – 13.99 degree Celsius	1990s – 14.31 degree Celsius 2020s – 14.91 degree Celsius

International trade continued to evolve in the 19th century. Colonialization was its peak. Powerful countries from the west exerted their force on weaker ones, exploiting their resources, leaving them with pittance. This started unravelling in the 20th century. This century was marked by two world wars, liberation of several erstwhile colonies, massive postworld war industrialisation, rise of corporations and an unending race to establish supremacy between the Americans and Soviets.

As we complete, over 70 years since the end of World War II and the formation of United Nations, the 21st century is seeing unprecedented nuclear stockpiles, global warming, mass pandemics and a failing economic agenda. As per the Global Risks Report 2022 by the World Economic Forum, the top 5 risks are either environment or social.

The answers to most of our questions lie in the evolution of the social contract. The social contract is an implicit agreement on which all societies rest. It is an accord that balances the roles and responsibilities of corporations and states with that of individuals. While the exact terms keep evolving based on the law of a society, the larger idea is to keep humanity harmonized. This contract, in one way or the other is breaking globally.

While every country faces its individual problems, the premise has remained the same. In the "so-called" liberalised economies, corporations started to write rules, making way for monopolies. On the other hand China seemed to have combined top-down authoritarianism with the efficiency of capitalism. The world has never been so polarised before.

As corporations grew bigger, governments in liberalised economies ceded control. Focused on shareholder value, corporations failed to deliver on environmental and social agendas.

What we are left with is global warming, unbridled consumer price inflation, fear of constant surveillance, human rights' violations and mass wealth disparity.

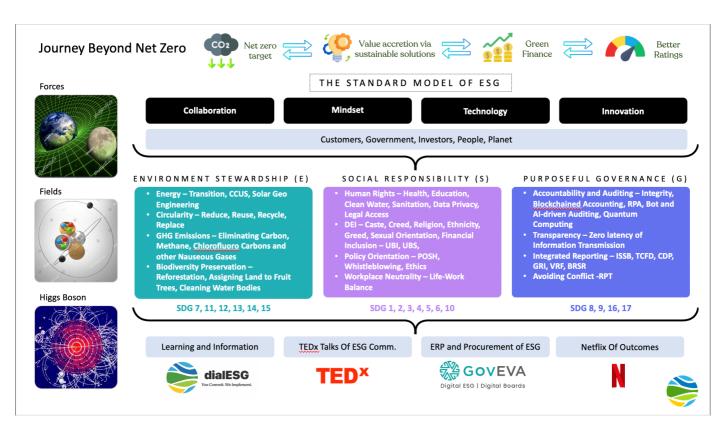
Having failed to deliver on its promise of equitable growth, it is time to reform capitalism. India must lead this reformed and more equitable model of "Conscious Capitalism". This is where ESG comes in.

ESG stands for, E – Environmental Stewardship, S – Social Responsibility and G – Purposeful Governance. ESG, sustainability, climate action, impact investing, PRI (Principles of Responsible Investing), called by several names, have multiple overlaps.

ESG is a mindset, a tool or framework to deliver on the promise of "Conscious Capitalism". An attempt to refocus on stakeholder primacy over shareholder value, to think long-term value over short-term profits, to drive equitable distribution of opportunities and to restore the ecological balance.

Introducing Our Standard Model Of ESG

We believe, that the most important for companies is to STOP seeing ESG as an additional burden or cost. It is an opportunity to rethink supply chains, business models and processes, to make them more eco-friendly and future proof. What you see below is our Standard of Model of ESG. While we have tried to bring everything relevant on one image, the model is continuously evolving.



Our research across multiple sectors has shown, that globally companies that have adopted sustainability with a defined net zero target have managed to attract green finance and better

ratings. They implement sustainable solutions that drive enterprise value accretion and report transparently.

We call our model "A Journey Beyond Net Zero". Our time has been lost and we are moving towards disaster if we do not change course immediately. Critically important is for all organisations to make their net zero commitments taking into account scopes 1, 2 and three. Companies must believe that a change in their business model will lead to better unit economics. Therefore, driven-by lower cost of operation. Only then will ESG take of. Once you have the definition of your journey it becomes important as a validation to seek green finance and to have objective assessments of your activity through an external rating of credibility.

Our pillars of strength and forces that will drive ESG justice are collaboration, change of mindset, adaption of exponential, converging technologies, and rapid high skill innovation.

These forces are being exercised by five sets of economic interests customers the governments around the world investors and lay people (you and me) and the planet, which is crying out to be saved. Let us now go deep into what the E, S and G stand for in our hypothesis. SDGs are a common universal language to communicate efforts in the areas of impact. We have extensively used the SDGs, mapping to them in our ESG model.

E is for environmental stewardship, it encompasses the following:

- Energy transition, carbon capture, carbon sequestration and carbon conversion to energy.
- It embraces circularity in terms of reduce, reuse, recycle, and replace.
- Efforts of significant importance to eliminate greenhouse gas emissions, ie. carbon dioxide, methane, Chlorofluorocarbons, among others. Other nauseous gases which do not permit safe breathing must be mitigated at source.
- Biodiversity preservation, that will cause existence and interaction of all life, on land and under water, reforestation using fruit trees, and cleaning air and water bodies.

For an interconnected world to emerge, we must support the existence of all life of our planet. The SDGs which are supported by this is are 7, 11, 12 13, 14 and 15. Abundant healthy span life can be promoted only if these SDGs are fully implemented by 2030.

Moving on social responsibility is the S in the equation, includes the following:

- Human rights, that includes the right to high-quality health, and telehealth. The
 mapping of the genome, microbiome, the availability of blood markers and all DNA
 representations in the cloud so that a medical practitioner from wherever in the world
 can actually treat a patient.
- Access to education clean water sanitation, data privacy and legal access. All of this
 happens in a way that, the time of need to the time of need satisfaction is kept at an
 absolute minimum.

- Diversity, equity and inclusion (DEI). No discrimination by cast, creed, religion, ethnicity, greed, sexual orientation.
- Financial inclusion for all through instruments of universal basic income (UBI) and universal basic services (UBS).
- Policy orientation must be very strong in every enterprise. They should have a policy on sexual harassment, whistleblowing, unethical conduct, workplace neutrality and a lifework balance.

The S in the equation supports SDG's 1,2,3,4,5,6 and 10

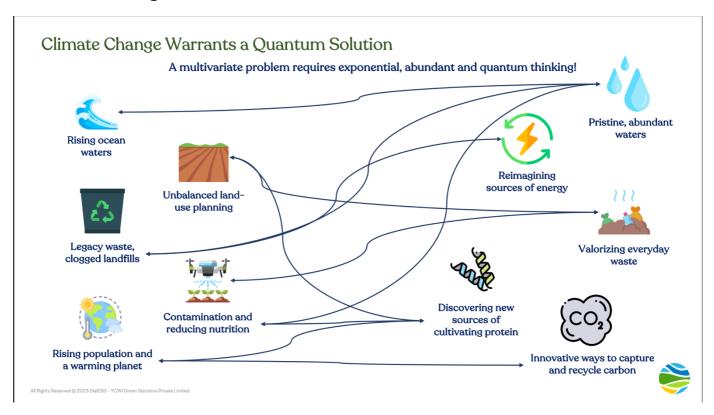
The G stands for purposeful governance and includes the following:

- Accountability, absolutely independent and thorough auditing that will deliver integrity.
- Blockchain accounting robotic process automation driven auditing. Large-scale deployment of machine learning, artificial intelligence, and quantum computing will be critical in delivering great governance.
- Transparency zero latency in information transmission through very high powered internet-driven networks so that information becomes available ubiquitously.
- Integrated reporting on the six capitals, while mapping critical elements of other frameworks such as the Task Force on Climate-related Disclosures (TCFD), Global Reporting Initiative (GRI), Value Reporting Foundation (VRF), and the Climate Disclosure Project (CDP), among others.
- Greenwashing must be avoided at all costs, regulation must accommodate for heuristics and defined deviations, to make reporting and assurance more usable for investors.
- Conflicts arising due to related party transactions must be traced, monitored and avoided at all costs.

The G in the ESG equation supports SDGs 8, 9, 16 and 17.

Significant progress across each of the sub-elements of the E, S and G can be only achieved when supported with initiatives of learning, newsroom and a media house, masterclasses, carbon accounting and documenting outcomes. That is to have a learning and information dissemination utility through an app. Have TedX talks to communicate their sense of ESG. An ERP of sustainable procurement and carbon accounting, with in-built data sets to support the transition to a more sustainable world. Finally, a Netflix of outcomes so efforts of every organisation become for the entire world to learn and get inspired from.

Climate Change Warrants a Quantum Solution



The problem of climate change is one of the most pressing challenges facing humanity today. It demands innovative and unconventional solutions to effectively mitigate its impacts and ensure a sustainable future for our planet. Quantum computing, a rapidly evolving field that harnesses the principles of quantum mechanics, holds the potential to revolutionize the way we approach climate-related issues. With its unique computational power, quantum computing could provide crucial insights and solutions that are beyond the capabilities of classical computing systems.

Climate change is a complex phenomenon involving intricate interactions between numerous variables such as temperature, greenhouse gas concentrations, ocean currents, and more. Traditional computers struggle to model these interactions comprehensively due to their reliance on binary bits that can only exist in a state of 0 or 1. Quantum computing, on the other hand, uses quantum bits or qubits, which can exist in a superposition of states, allowing them to represent multiple possibilities simultaneously. This property enables quantum computers to process and analyze vast amounts of data and variables concurrently, offering the potential to simulate climate models with unprecedented accuracy and detail.

One of the critical areas where quantum computing could make a significant impact is in optimizing complex systems. Climate scientists and researchers often grapple with enormous datasets when developing models and simulations. Quantum computers excel at optimization problems, which involve finding the best possible solution from a vast array of possibilities. This capability could be harnessed to enhance the efficiency of renewable energy sources, optimize supply chains to reduce carbon emissions, and design advanced materials for more efficient energy storage and carbon capture.

Furthermore, quantum computing could aid in the development of new materials and technologies that can address climate-related challenges. Quantum simulations could accelerate the discovery of innovative catalysts for carbon sequestration or create materials with enhanced properties for solar panels and batteries. This could lead to breakthroughs in renewable energy generation and storage, helping to reduce our reliance on fossil fuels.

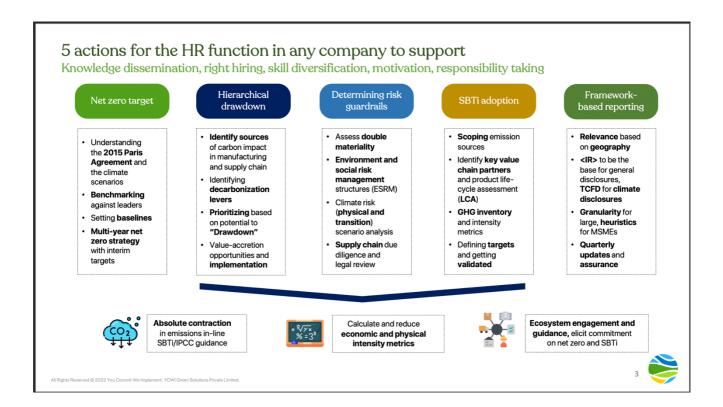
Quantum computing also offers the potential to revolutionize weather and climate prediction. The chaotic and nonlinear nature of atmospheric systems makes accurate long-term weather forecasting a daunting task. Quantum computers, with their ability to process complex data sets and solve intricate equations, could significantly improve the accuracy and lead time of weather forecasts. This, in turn, would aid in disaster preparedness and response, helping communities mitigate the impacts of extreme weather events exacerbated by climate change.

However, it's important to note that quantum computing is still in its infancy and faces several challenges. Quantum systems are highly sensitive to external factors, leading to errors in calculations known as quantum decoherence. Building and maintaining stable quantum computers is a formidable task that requires breakthroughs in quantum error correction and fault-tolerant computing.

In conclusion, the problem of climate change demands innovative solutions that can transcend the limitations of classical computing. Quantum computing, with its unparalleled processing capabilities and potential for handling complex simulations and optimization problems, holds promise in revolutionizing our approach to climate-related issues. While challenges in the development and implementation of quantum computing remain, ongoing research and advancements suggest that it could play a pivotal role in modeling, predicting, and mitigating the effects of climate change. As quantum technology continues to evolve, collaboration between climate scientists and quantum researchers could pave the way for transformative solutions that offer a sustainable future for our planet.

5 Actions HR Functions of All Companies Must Help Implement

As the global community grapples with the urgent challenge of climate change, it is imperative that both technological and organizational efforts are combined to mitigate its impact effectively. Five critical actions stand out as key strategies in this endeavor:



- Setting a Net Zero Target: Committing to a net-zero emissions target is a fundamental step for organizations to align themselves with global climate goals. This involves aiming to balance the amount of greenhouse gases emitted with the amount removed from the atmosphere. A clear target drives companies to reevaluate their operations, innovate, and adopt sustainable practices.
- 2. **Prioritizing Deployment of Decarbonizing Tech based on "Drawdown":** Embracing and scaling decarbonizing technologies, such as renewable energy sources, electrification, and carbon capture, are essential to reduce the carbon footprint of organizations. These technologies not only minimize environmental impact but also lead to cost savings in the long run.
- 3. **Determining Risk Guardrails from an ESG Perspective:** Environmental, Social, and Governance (ESG) risk assessment is crucial for identifying and mitigating climate-related risks. By integrating ESG considerations into their strategies, organizations can proactively manage risks, enhance resilience, and secure their long-term viability.
- 4. Science-Based Targets Initiative Adoption: Aligning emission reduction targets with scientific evidence is a strategic move. The Science-Based Targets initiative ensures that organizations set goals that are in line with preventing the most catastrophic effects of climate change. This demonstrates a commitment to taking meaningful action.
- 5. **Framework-Based ESG Reporting:** Implementing a structured ESG reporting framework allows organizations to transparently communicate their environmental and social performance to stakeholders. This not only fosters accountability but also builds trust and credibility with investors, customers, and the public.

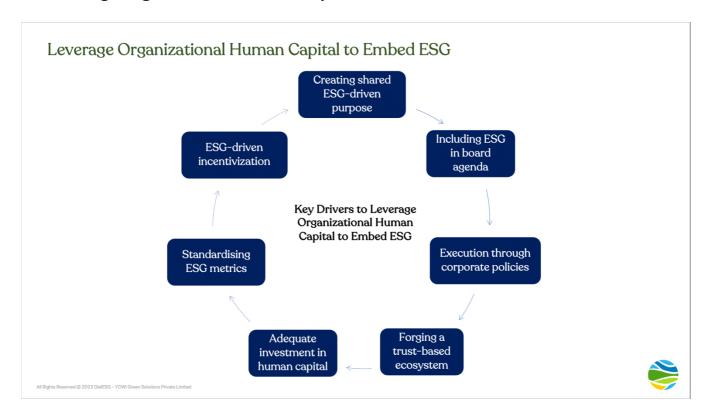
In tandem with these actions, the Human Resources (HR) function plays a pivotal role in supporting companies to effectively implement these strategies. By focusing on knowledge dissemination, strategic hiring, skill diversification, motivation, and fostering a culture of responsibility, HR can contribute significantly to the success of these climate mitigation efforts.

The Role of HR in Driving Climate Action: Human Resources departments are at the forefront of orchestrating organizational change. In the context of climate mitigation, HR can play a multifaceted role in supporting these critical actions.

- 1. **Knowledge Dissemination:** HR can ensure that employees across all levels of the organization are well-informed about the importance of climate action and the specific strategies being implemented. Regular training and communication campaigns can help create a shared understanding and commitment.
- 2. **Strategic Hiring:** Recruitment strategies should be aligned with the organization's climate goals. HR can identify and attract individuals with expertise in renewable energy, sustainability, and decarbonization, infusing the organization with fresh talent and innovative ideas.
- 3. **Skill Diversification:** Climate-focused actions often require new skills and competencies. HR can facilitate training programs that enable employees to upskill or reskill, ensuring that the workforce remains adaptable in a rapidly evolving landscape.
- 4. **Motivation and Engagement:** HR plays a crucial role in fostering a sense of purpose among employees. Connecting their roles to the organization's climate initiatives can enhance motivation and employee engagement, driving a collective effort toward achieving climate goals.
- 5. **Responsibility Taking:** HR can encourage a culture of responsibility by integrating climate considerations into performance evaluations and recognition programs. This creates a sense of ownership and accountability for sustainable practices at all levels of the organization.

In conclusion, the multifaceted challenge of climate change requires a coordinated effort that integrates technological advancements with organizational strategies. By taking actions such as setting net zero targets, deploying decarbonizing technologies, and adopting ESG frameworks, companies can make meaningful strides toward climate mitigation. Concurrently, the HR function stands as a strategic enabler, driving these efforts through knowledge dissemination, hiring strategies, skill development, motivation, and fostering a culture of responsibility. In this holistic approach, organizations can effectively address climate change while empowering their workforce to be agents of positive change. As the urgency of climate action intensifies, the synergy between quantum computing and HR strategies offers a powerful toolkit for securing a sustainable future.

Leverage Organizational Human Capital to Embed ESG



In an era where environmental concerns, social responsibilities, and corporate governance have gained unprecedented significance, embedding Environmental, Social, and Governance (ESG) principles into the fabric of an organization is no longer an option but a necessity. The intersection of profitability and societal well-being has led to a paradigm shift, demanding companies to go beyond mere profit generation and adopt a holistic approach that encompasses sustainable practices. The drivers propelling organizations to leverage their human capital to embed ESG principles are multifaceted and potent, encompassing shared mission-driven purpose, board-level integration, corporate policies, trust-based ecosystems, human capital investment, standardized metrics, and ESG-driven incentivization.

- 1. Creating Shared Mission-Driven Purpose: The bedrock of any successful endeavor is a shared mission-driven purpose that resonates throughout an organization's hierarchy. ESG principles provide this overarching purpose, aligning an organization's objectives with societal and environmental well-being. When employees recognize the meaningful impact of their work beyond bottom-line figures, it ignites a sense of ownership and commitment. Companies that prioritize and effectively communicate their ESG goals create a sense of belonging, fostering a motivated workforce dedicated to realizing the organization's purpose in every action.
- 2. **Including ESG in Board Agenda:** ESG's integration into the core of an organization's strategy necessitates its representation at the highest levels of decision-making. When ESG concerns are a regular fixture on the board's agenda, it sends a clear message about the organization's commitment to sustainable practices. Board-level engagement ensures that ESG considerations are not mere add-ons, but integral

- aspects of strategic discussions, fostering a culture of accountability and cascading commitment throughout the company's operations.
- 3. Execution Through Corporate Policies: Intentions transform into actions when they are encapsulated within the structure of corporate policies. Explicitly defined ESG policies guide day-to-day operations, ensuring that sustainability principles are operationalized across departments. These policies set the rules of engagement, delineating responsibilities, and providing a framework to measure progress. When ESG objectives are seamlessly woven into corporate policies, it becomes intrinsic to an organization's modus operandi, driving consistency and coherence in sustainable practices.
- 4. Forging a Trust-Based Ecosystem: The journey towards embedding ESG transcends organizational boundaries. Collaboration with suppliers, customers, regulators, and communities forms a holistic ecosystem. This ecosystem thrives on trust, where transparent communication and ethical conduct are paramount. Organizations that demonstrate unwavering commitment to ESG principles build credibility, establishing a reputation that attracts like-minded stakeholders. A trust-based ecosystem becomes an incubator for innovative solutions, collective problem-solving, and shared progress.
- 5. Adequate Investment in Human Capital: The human capital within an organization is the driving force behind change. Adequate investment in nurturing this capital is pivotal for successfully embedding ESG principles. Comprehensive training programs, skill development initiatives, and awareness campaigns empower employees to comprehend and contribute to ESG objectives. A knowledgeable and motivated workforce becomes the conduit through which sustainable practices permeate every layer of an organization.
- 6. Standardizing ESG Metrics: Measurement is the linchpin of progress. Organizations must adopt standardized ESG metrics to evaluate their performance accurately. Uniform metrics allow for meaningful comparisons and benchmarking across sectors and industries. Standardization also ensures that the pursuit of ESG goals is quantifiable and not merely relegated to qualitative claims. Clear metrics guide resource allocation, showcase achievements, and highlight areas necessitating improvement.
- 7. **ESG-Driven Incentivization:** Human behavior is often steered by incentives. By aligning employee incentives with ESG objectives, organizations can catalyze a culture of sustainability. Performance assessments and rewards linked to ESG achievements motivate individuals to champion the cause. Incentivization creates a positive feedback loop where employees actively seek innovative ways to contribute to ESG goals, fostering a dynamic and engaged workforce.

In conclusion, the drivers to leverage organizational human capital to embed ESG principles are intricately interconnected, forming a cohesive framework for sustainable transformation. This transformative journey transcends superficial commitment, demanding a comprehensive integration of ESG principles into every facet of an organization's functioning. From the

cultivation of a shared mission-driven purpose to the pragmatic integration of ESG into corporate policies, from the establishment of a trust-based ecosystem to the strategic investment in human capital, these drivers converge to foster a culture where sustainable practices are not just espoused but ingrained.

The strategic inclusion of ESG considerations at the board level ensures that these principles are elevated to the realm of strategic priorities, while standardized metrics and incentivization mechanisms facilitate accurate measurement and dynamic engagement. Collectively, these drivers propel organizations toward a future where profitability and sustainable practices coalesce, leading to not only economic prosperity but also positive societal and environmental impacts. As businesses continue to navigate an evolving global landscape, the successful amalgamation of these drivers will be the cornerstone of a resilient, responsible, and truly impactful organization.

Effective Risk Management, Reporting and Disclosures

Following the growing support for ESG and Stakeholder capitalism, a whole new era of corporate reporting is emerging with a focus on 6 capitals: Financial, Environmental, Human, Physical, Relationship, and Innovation!

With sustainable development and the climate change movement gaining momentum, the sustainability reporting landscape is rapidly changing and becoming more demanding of companies to be more transparent with stakeholders.

Five forces: Planet, People, Customers, Governments, and Investors will operate on Innovation, changed mindsets, and a commitment to a better tomorrow. Unless all of us pull together we won't achieve the exponential results that we are capable of delivering. The Shangri-la of Reporting will have Integrated thinking and a love for the Planet reflected fully!

Companies must adopt risk management tools that can help:

- Evaluate gaps between companies' risk management initiatives and global best practices and implement enhancing actions
- Assess materiality and review of priorities
- Effectively capture and measure data sets
- Commit to science-based commitments and targets
- Produce accurate and reliable outcomes and end reports

To standardize these disclosures reporting bodies and regulators have put together comprehensive reporting frameworks. Some of these include Global Reporting Initiative (GRI), Sustainability Accounting Standards Board (SASB), Integrated Reporting <IR>, Climate Disclosures Project (CDP) and Task Force on Climate-related Financial Disclosures (TCFD) – now all converging into IFRS' Sustainability Standard 1 and 2.

As for India, the transition to ESG reporting started in 2009 with the MCA issuing National Voluntary Guidelines on Corporate Social Responsibility, our first step towards mainstreaming ESG. Since then, ESG reporting in India has continuously evolved. A decade of several iterations has got us to the Business Responsibility and Sustainability Reporting (BRSR) today.

Drawing inspiration from GRI, the BRSR is a comprehensive extension of BRR. Continuous efforts by the SEBI and MCA have demonstrated their intent and commitment towards ESG. Corporates must invest in accurate AI/ML-led data capture to enable reliable reporting. Dedicated efforts to embed ESG in the organisational purpose and culture will create long-term value.

Globally, the UK and US are recognizing climate risks and mandating climate reporting like never before. While the UK has gone with data driven disclosures, the US has proposed that draw heavily from the "four pillar" disclosure framework of TCFD and Greenhouse Gas Protocols (GHG). TCFD is built on the following thematic pillars:

- Governance
- Strategy
- Risk Management
- Metrics and Targets

EXTINCTION IS CLOSER THAN IT SEEMS, OUR TIME TO ACT IS NOW OR NEVER

A garbage patch thrice the size of France is floating in the Pacific, Australia is reeling under one its worst floods in history and constant drilling in Siberia has left temperatures soaring. India is on the brink of one of the worst water crisis ever, 35 million people will face coastal flooding and 40% of the population is to face water scarcity.

Concentrated efforts to push for fast adoption of sustainable technologies is the only way forward. Governments, corporates (large and small), non-profit organisations (NPOs), professionals, and citizens, must all take note, our planet is on the brink of extinction, an event that happened 65 millions years ago.

All governments must immediately push for mass clean-ups of water bodies, zero waste to landfill, waste segregation at source and incentives for full-scale circularity initiatives. At companies and NPOs, from the board to the last employee in the organisation, all must speak only one language of sustainability and climate action.

Only policy formulation will not make the cut anymore. Implementation is the need of the hour. Progress on implementation must be measured, monitored and reported adequately, accurately and communicated transparently. Data and analytics must be available for the world to see in real-time.

We have no time, we can't take pride and relief in committing to net zero by 2050. While we should have taken action yesterday, all we have now is today and every day.

"Conscious Capitalism" built on a greener planet, far-reaching and inclusive community development and transparent tech-enabled governance. Technology and ESG must fuse together in the context of our innate spiritual teachings to see India rise as the nation with maximum quantum of soft power.