

Responsible Leadership and Sustainable Management

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Tanuja Sharma

Jayati Talapatra

Suat Taşkesen *Editors*

Compassionate Organizations in BANI Times

**Achieving SDGs Through Business and
Communities Connect**



Springer

Responsible Leadership and Sustainable Management

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Compassionate Organizations in BANI Times

Achieving SDGs Through Business
and Communities Connect

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For a Fair, Just and Equal world

*How to transition away from the complex
challenges of the Anthropocene?*

Foreword

We live in what the futurist Jamais Cascio has termed as *BANI* times. It is an era characterized by brittleness, anxiety, nonlinearity, and incomprehensibility. These descriptors are not rhetorical abstractions but realities. Geopolitical crises from Ukraine to the Middle East and Sudan destabilize global supply chains and institutions of cooperation. Inequality continues to widen, with the richest 1% capturing an unacceptable portion of our common wealth. We are living through a planetary emergency, as repeatedly affirmed by the Intergovernmental Panel on Climate Change—even if we also see renewable energies and nature conservation rapidly gaining ground.

The world demands nothing less than a wholesale transformation of the way we produce, consume, and organize societies.

Management scholars have illuminated the organizational dimensions of these crises. Nobel Laureate and economist Abhijit Banerjee critiques “corporate sustainability” as too often a facade. Gibson-Graham, the feminist economist duo in their pivotal book “A Post Capitalist Politics” invite us to see the variety of already-existing postcapitalist practices. Philosopher Han Byung-Chul diagnoses the neoliberal “burnout society.” Together, these critiques expose the limits of exploitative organizational models and open space for imagining alternatives.

Such alternatives are neither speculative nor utopian. The Mondragon Corporation in Spain demonstrates how worker-owned cooperatives can achieve resilience and equity at scale. Bhutan’s *Gross National Happiness* framework institutionalizes well-being as a national policy goal. Indigenous-led conservation models in Aotearoa New Zealand and community-owned renewable energy cooperatives in Germany exemplify regenerative, locally rooted approaches. Compassion and reciprocity are embedded at their core. These cases illustrate that compassionate, ecologically attuned organizations are not marginal. They are already materializing, albeit often at the periphery of dominant political systems. I have personally been part of and seen the positive change such organizations have created in communities, leading the way to happier and healthier life for everyone.

Compassion should be understood as more than sentiment. It is a future-focused, logical organizational stance. It is a commitment to dignity, interdependence, and

long-term well-being. Studies show that compassionate practices within organizations enhance resilience, trust, and creativity. Traditional knowledge systems have long operationalized these principles, emphasizing reciprocity, ecological stewardship, and collective well-being.

This book takes seriously the challenge of designing *compassionate Organizations* for BANI Times. It asks us to confront hard questions: How can institutions thrive without replicating exploitative economic patterns? How can indigenous and traditional knowledge be recognized as central rather than peripheral to sustainable futures? Can economic models centered on well-being, equity, and ecological flourishing displace too narrow metrics of GDP and shareholder return?

The chapters that follow do not offer a single prescriptive blueprint. Instead, they assemble provocations, frameworks, and practices that together advance a radical reorientation. Compassionate organizations, the authors argue, are not naïve ideals but pragmatic responses to systemic crises. To cultivate compassion in institutions is to challenge the very architecture of extreme neoliberal capitalism, insisting instead that survival, justice, and sustainability must become added organizing principles of our age.

Erik Solheim
Former Undersecretary General United Nations
Global Leader on Environment and Development

Preface

As HH Dalai Lama says, if you want to be happy, practice compassion; if you want others to be happy, practice compassion.

In this time of environmental crisis and social schisms, businesses need to take cognizance of compassion at workplace not only by creating a leadership model that promotes care and kindness at work and formulating processes and practices to enhance it, but also in changing the mindset which impacts dealings with all concerned stakeholders and the last mile connect with communities. Thus “Creating and Managing Responsible Organizations” for a sustainable world emerged as a very timely theme for an international conference organized by Centre for Ethics, ESG and responsible Organisations (CERO@MDI, Gurgaon). Post it, this book was conceived to continue an important conversation in the Anthropocene world which had moved to BANI (Brittle, Anxious, Non-Linear and Incomprehensible) from VUCA ((Volatile, Uncertain, Complex, Ambiguous) due to climate crisis and unsustainable human actions.

Continuous disruptions have affected both the businesses and the communities in which they exist. Artificial intelligence (AI) has heightened these complexities for both individuals and organizations, locally and globally. A need for compassion and well-being has been an important conversation for the survival of humanity. This leads us to the questions of increasing human suffering due to the inequality within the global political economy shaped by neoliberalism. Human flourishing requires compassion.

Compassion is relational by nature and thus embodied through interpersonal connections with other human beings. Being compassionate at the work place may mean seeing our work not only as a “job,” but as a calling to help and serve others, or looking at how our work impacts those around us. Purposeful work with dignity and care needs to be a norm in a landscape marked by constant uncertainty and human greed. Responsible leadership capacities and cultural orientations empower people not merely to survive these BANI times, but to flourish and to create collective impact for a better world as CERO has envisioned.

A major aim of this research-based book is to create bridges between both communities and organizations for a compassionate and sustainable world. This

book contains several chapters addressing these questions that are both deeply personal and widely systemic in nature.

Topics covered in this book are

- “BANI World or Neoliberal Dystopia: A Political Economic Critique,” is a narration with a historic perspective on how did we land in this BANI world.
- Addressing inequalities through a pluriverse of alternatives questions the neo-liberal economic model which furthers inequalities, pushing more wealth into the hands of a few while much of the population remains economically and politically powerless.
- Women’s Empowerment and Social Change: The case of Mauna Dhvani Foundation in Mayurbhanj, Odisha shows the possibilities a social enterprise presents in transforming the economic and social status of women in tribal India
- Traditional Ecological Knowledge and Nature Tourism further explore this complex relationship between tribal identity and economic empowerment through the specific example of Nature Tourism in Satpura region, home to three major tribes of India.
- New Motherhood versus Career conflict during Re-entry Transitions in the IT Sector in India delves into the return-to-work experience of mothers in the fast-paced Indian IT sector in BANI Times.
- The silver lining of workplace loneliness: How loneliness dampens the effect of organizational politics on sustainability investigates the relationship between workplace loneliness and pro-environmental behavior (PEB) among employees in Indian organizations
- Corporate Social Responsibility: can it be avoided anymore? highlights the growing expectations from businesses to act ethically and address the social and environmental challenges.
- Decarbonizing India’s Economy by 2070: Navigating Challenges in the Context of Climate Change focuses upon the challenges faced by India in decarbonizing its economy by 2070.
- Harnessing Eco-Innovation for Sustainable Development: A Critical Review and Research Agenda highlights the complex dynamics that characterize the relationship between eco-innovation and sustainable development
- Sensemaking in the Age of AI: Compassionate Leadership Framework for Navigating Algorithmic Bias proposes the concept of compassionate governance for an equitable AI sensemaking leadership approach to ensure equity, openness, and reparative measures.
- Non-Cognitive Competencies and Holistic Creative Reflection Skills as Genuine Human Approaches to Compassionate Leadership in Times of BANI and AI focuses on creative reflective practice, creative agility and spiritual poetry to recognize and reflect on genuine human skills.
- Relevance of spirituality to AI ethics in BANI times is a much-needed chapter for the survival of humanity and last but not the least,
- Scaling Impact: Alternative Routes for Growth-Agnostic Sustainable Businesses is a most relevant discourse in the current BANI times.

This book is offered as a resource and a call to action for leaders, practitioners, educators, and all who seek to design, steward, or participate in organizations that nurture human potential and societal well-being. We hope and wish that it inspires purposeful new directions, awakens creative courage, and strengthens the collective journey toward a regenerative and compassionate future.

Gurgaon, India
New Delhi, India
Cappadocia, Türkiye

Tanuja Sharma
Jayati Talapatra
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Acknowledgments The global community commemorates HH The Dalai Lama's 90th birthday in the year 2025. It is being celebrated as the Year of Compassion, to spread his message of compassion and non-violence globally. He was awarded the Nobel Peace Prize in 1989 for his lifelong pursuit of peace and compassion. This seemed to be the most opportune moment to compile the book on "Compassionate Organizations in BANI Times."

The BANI times is characterized by economic uncertainties, climate concerns, rising inequalities across the globe and wars in different geographies. Artificial intelligence (AI) became another major disrupter and generated ethical concerns with no immediate solution. Major business organizations announced reorganization and layoffs due to redundancy resulting in joblessness and despair globally. Discourse on Responsible Leadership and Shared Value propositions to counter globalization's impact on natural resources were also disrupted by trade wars and other related conflicts by leaderships of prominent geographies. In such circumstances, Compassion to gain happiness, thwarted by human greed and our own destructive self-centeredness, has become an only hope for humanity. An opportunity to compile a book from Springer Nature on such an important subject of Compassion focused on achieving SDGs, a global UN framework for connecting businesses and communities, stands out to be the most timely and relevant work. We acknowledge the same. Our heartfelt thanks to Nupoor Singh, senior editor, business and management, and her team from Springer Inc. for supporting us. We are thankful to Dr. Nayan Mitra and Dr. Rene Schmidpeter, series editors for Responsible Leadership and Sustainable Management for giving us this opportunity.

Foreword by Erik Solheim, a well-known global leader, Former Undersecretary United Nations, Global Ambassador for the Global Solar Council and A Patron of Nature for the International Union for Conservation of Nature (IUCN), has motivated us deeply and has strengthened our conviction that it is indeed a timely publication. Our special thanks to Erik for taking out time and extending his support for the idea and the purpose of this book. We are indebted to Geshe Dorji Damdul, Director Tibet House, New Delhi, for capturing the essence of this book in his quote in the back cover. We are extremely thankful to all the authors for contributing to this book on Compassionate Organizations in BANI Times. Their contributions have helped us in creating a rich repertoire for the audience.

This book was conceptualized post an international conference (ICCMRO'23) by Centre of Ethics, ESG and Responsible Organisations (CERO@MDI Gurgaon), a Centre of Excellence (COE) in Management Development Institute, Gurgaon, India. Professors and external experts and advisors at CERO and a part of this conference, Prof. Sunil Ashra, Prof. Madhushree N. Agarwal, Prof. Rupamanjari Sinha Ray, Prof. Meeta Dasgupta, Prof. Kirti Sharma, Prof. Vanita Singh, Prof. Neetu Yadav, Ms. Shubhi Kesarwani, Prof. Rajen Gupta, Dr. Sunita Chugh and Dr. Avinash Kumar including the editors of this book Prof. Jayati Talapatra and Prof. Tanuja Sharma, needs special mention here. Both Jayati and I are indebted to their contribution to this conference and some papers presented in that conference also find a place in this book after substantial modifications. We are thankful to the

unflinching support extended by Prof. Sangeeta Bharadwaj (ex-Director, MDI Gurgaon) and her team. Coordinator, CERO, Mr. Amit Uniyal's constant support has been valuable.

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Endorsement

“Leadership is the key to both the short-term and long-term success, including business. Often one forgets the forest for the trees. Likewise, one forgets the main goal of the endeavour one embarked on, and instead holds on to the means as everything. One can be an extremely successful business leader, but very unhappy family member, with no time for one’s family; no time for one’s own health; and no time for social engagement. His Holiness the Dalai Lama calls this the greatest irony of human beings. In His Holiness’s own words, ‘Man sacrifices one’s health for money; when one loses health, one then sacrifices one’s money for health. One worries about the future, not enjoying the present, and thereby not living in the present nor in the future. One lives as though one is not going to die; and dies not having truly lived.’ We should always remember that money is for health and well-being, and not the other way round, health and well-being for money. This book, with contributors such as Dr. Tanuja among others, is ideal to learn from - on how to lead a meaningful life full of joy and ease for oneself and others.”

—Geshe Dorji Damdul *Director, Tibet House, The Cultural Centre of H.H. the Dalai Lama, New Delhi*

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Jayati Talapatra works in the area of climate change, biodiversity and resource management. She is a Visiting Faculty at Nalanda University, TERI school of Advanced studies, and other business schools in India and Europe. She has been publishing with Springer Nature and her last book is called “Emerging economic models for sustainable business.” She conducts Nature immersion walks to generate awareness and accountability for biodiversity and climate change, under the name “Dilli Meri Jaan Walks.” As a sustainability consultant, she works with micro enterprises in starting their ESG journeys. In addition to that, she conducts ESG workshops for corporates through “All India Management Association” and independently. Her work on Nature-based Solutions for Climate Change and Disaster

resilience in the face of extreme weather events, has helped firms create Net-Zero plans keeping nature and well-being of all species in the center.

Suat Taşkesen, PhD a lecturer educated to PhD and published in theoretical and applied works with significant expertise in political science and political economy as well. With over 5 years of experience at Turkish universities, teaching students from various backgrounds with a focus on local, regional and global political and administrative issues. Talents include an in-depth knowledge of historical capitalism with its peculiar rules and institutions creating the world we have lived in since the sixteenth century onward. Furthermore, in-depth knowledge of the political behavior of the individuals in modern societies by analyzing under the key concept of politics of belonging. Main research areas include historical capitalism, neoliberalism and its world order, hegemonic transitions, nations and nation-states, politics of belonging, social exclusion, migration, etc.

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Abbreviations

AFSA	Australian Food Sovereignty Alliance
AI	Artificial Intelligence
AVE	Average Variance Extracted
BANI	Brittle, Anxious, Non-linear, Incomprehensible
BEE	Bureau of Energy Efficiency
CBD	Convention on Biological Diversity
CCUS	Carbon Capture, Utilization, and Storage
CE	Common Era
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CO ₂ e	Carbon Dioxide Equivalent
COVID-19	Coronavirus Disease 2019
CR	Composite Reliability
CREAGILITY	Acronym of creative agility
CSA	Community-Supported Agriculture
CSR	Corporate Social Responsibility
DC	Dharani Cooperative
DEI	Diversity, Equity, and Inclusion
DG	Diesel Generator
EI	Eco-innovation
ESG	Environmental, Social, and Governance
EV	Electric Vehicle
FAT	Fairness, Accountability, and Transparency
FAO	Food and Agriculture Organization
GASB	Growth-Agnostic Sustainable Businesses
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GI	Geographical Indication
GT	Grounded Theory
GTI	Green Technological Innovation
HCR	Holistic creative reflection

HCRM	Holistic creative reflection mindset
HCRS	Holistic creative reflection skills
HCRP	Holistic creative reflection practices
HRM	Human Resource Management
IAS	Indian Administrative Service
IDGs	Inner development goals
IMF	International Monetary Fund
IT	Information Technology
IFI	Incremental Fit Index
IPCC	Intergovernmental Panel on Climate Change
KIIT	Kalinga Institute of Industrial Technology
KPI	Key Performance Indicators
LF	Liberation Foods
LLCI	Lower Level Confidence Interval
LLM	Large language model
LPG	Liquefied Petroleum Gas
LULUCF	Land Use, Land-Use Change, and Forestry
MBA	Master of Business Administration
MEE	Management Effectiveness Evaluation
MoEFCC	Ministry of Environment, Forest and Climate Change
MSME	Ministry of Micro, Small, and Medium Enterprises
MSV	Maximum Shared Variance
MoEFCC	Ministry of Environment, Forest and Climate Change
MT	Metric Tons
MW	Megawatt
NAPCC	National Action Plan on Climate Change
NDC	Nationally Determined Contribution
NITI Aayog	National Institute for Transforming India
NGO	Non-governmental Organizations
NLP	Natural Language Processing
NTCA	National Tiger Conservation Authority
NTFP	Non-timber Forest Product
OCB	Organizational Citizenship Behavior
OCB-E	Organizational Citizenship Behavior for the Environment
OECD	Organisation for Economic Co-operation and Development
PEB	Pro-environmental Behavior
PLI	Production Linked Incentive
PNG	Piped Natural Gas
POP	Perceptions of Organizational Politics
RMSEA	Root Mean Square Error of Approximation
RPO	Renewable Purchase Obligation
R&D	Research and Development
SAC	Social Agricultural Cooperatives
SB	Sustainable Businesses

SD	Standard Deviation
SE	Standard Error
SDG	Sustainable Development Goals
SET	Social Exchange Theory
SEO	Social Entrepreneurship Organizations
SFURTI	Scheme of Fund for Regeneration of Traditional Industries
SIT	Social Identity Theory
SMEs	Small and Medium Enterprises
SNC	Successful Non-growing Companies
STEM	Science, Technology, Engineering and Mathematics
TBI	Technology Business Incubator
TBL	Triple Bottom Line
TEK	Traditional Ecological Knowledge
TRIFED	Tribal Co-operative Marketing Development Federation of India
ULCI	Upper Level Confidence Interval
UN	United Nations
UNICEF	United Nations International Children's Emergency Fund
UNDRIP	United Nations Declaration on the Rights of Indigenous Peoples
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
VUCA	Volatility, Uncertainty, Complexity, Ambiguity
WEI	Women's Empowerment Index
WHO	World Health Organization
WL	Workplace Loneliness
XAI	Explainable Artificial Intelligence
YSB	Yunus Social Business

Chapter 1

Why Compassion and Equality are Critical for Organizations—A Hopeful Discourse in Disruptive Times



Tanuja Sharma  and Jayati Talapatra

Abstract Humanity has never been wealthier, in monetary and material terms, as in the present. Global incomes are higher than before and individuals now possess more material wealth since the beginning of recorded history. At the same time, geopolitical tensions and polarized views are at their peak, leading to a world wrought with Brittleness, Anxiety, Non-linearity, and Incomprehension. The shift from ‘collective’ to ‘individual’ from ‘well-being’ to ‘growth’, requires exploitative and division methods which now rule our economies. The fragility of such systems is becoming increasingly evident with each passing year of war and extreme weather events. The Global outcry against neoliberal market-driven policies that have created deeper inequalities than ever before, is loud and clear. Deeply intertwined with this loss of social cohesion, is the loss of connect to nature and accountability for the Earth’s resources. As communities grow apart, their ability to nurture ‘commons’ like the forests, waters and other ecosystems, diminish. This chapter studies the historic reasons that have led us to the present age of the Anthropocene. Where and how did such short-term thinking come about? What lessons of the past do we need to remember to ensure a healthy and vibrant future for the next generation? What are some models of growth, or indeed degrowth, that need to be considered, if we are to thrive as humanity and as a race? Finally, how does Compassion lead to a more equitable and a happy world? These are some of the questions that the authors attempt to answer here.

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Keywords BANI times · Compassion · Well-being · Sustainability · Equality

Socrates made a compelling argument on why he should accept the death penalty rather than escaping to freedom in another Greek city, exemplifying the power of the Social Contract that urges people to comply with rules set by their ‘ruler’, fair or otherwise, in return for a certain sense of belonging to a particular set of region, religion or race. Thomas Hobbes, in his epic *Leviathan* (Hobbes, 1651), questioned this absolute submission and re-evaluated the Social Contract to comply with anything that helped humans escape the Laws of Nature, where humans act entirely for their own selfish interests. Subsequent philosophers challenged this need to comply with anything that kept them safe from other humans, and in their way, set the tone for revolt against authority. Society came to be looked at as a communion where rules do not have to be absolute, and people should have the freedom to do the best they can for themselves. This freedom did not come at the cost of harming others. John Locke’s definition of Laws of Nature was that no human could harm another with regard to their health, liberty, or possessions, as all were equal in front of god (Locke, 1690/2016).

While the part about freedom to do the best one can for themselves got widely accepted as the foundation of most of the economically advanced world, the precondition of accepting all humans as equals appears to have been forgotten in the ‘modern’ world. Two manifestations of this thinking, namely, Shareholder Primacy proposing maximum profits to shareholders at any cost and overemphasis on Gross Domestic Product (GDP) at the cost of declining human well-being, were so widely applauded that proponents of both, Milton Friedman and Simon Kuznets, were awarded the Nobel Prize for Economics (in 1976 and 1971, respectively). As Societal Contracts increasingly became zero-sum games, the need to move from collectivism to individualism became necessary (Stiglitz et al., 2009). After all, there is very little economic gain if people come together and spend as one. It became important for individuals, organizations and countries to compete endlessly as they tried to do the best they could for themselves at the exclusion of all those who are not ‘them’. Such an increase in polarity, with ‘us versus them’ becoming common not just between countries and organizations but also between people, may well be what has led to the Brittle, Anxious, Non-linear, Incomprehensible (BANI) times that we live in (Cascio, 2020). The BANI framework, as conceived by Jamais Cascio, describes a world where the fragility of systems (Brittle) leads to widespread worry (Anxious). The lack of predictable cause and effect (Non-linear) makes it difficult to understand events (Incomprehensible). This new paradigm stands in stark contrast to the old, familiar world of VUCA (Volatility, Uncertainty, Complexity, Ambiguity), suggesting a deeper, more systemic crisis. The authors of this book challenge this manner of thinking and propose an alternative discourse that is more compassionate and, consequently, more resilient.

This book is a compilation of research-based chapters that capture the range of discourses on the critical questions facing us in the current disruptive times. While

a common underlying theme is of interdependence and shared humanity linked with compassion, the present chapter seeks to lay the groundwork by providing a historical and philosophical context. The chapters that follow delve into specific issues, providing a comprehensive critique of the current economic and social paradigms and offering concrete alternatives rooted in solidarity, spirituality, and compassionate leadership. A central argument woven throughout is that the single-minded pursuit of profit and growth has created a system that is fundamentally unsustainable, both for people and the planet, and that a return to a more holistic, compassionate worldview is not merely an ethical choice, but a practical imperative for survival and thriving.

Capitalism in its contemporary neoliberal form is characterized by shareholder primacy, and extractive growth imperatives. Polanyi (1944) foresaw how “disembedded” markets destabilise society, while Piketty (2014) empirically demonstrated how capital accumulation systematically generates inequality. Raworth’s (2017) *Doughnut economics* illustrates the impossibility of infinite growth within finite ecological boundaries, complementing earlier insights by Schumacher (1973) that “small is beautiful” and that economics must serve people and planet, not vice versa. The shift towards ‘thriving’ and ‘well-being’ of all species, as opposed to short-sighted, mindless growth, is the new approach being embraced by leading economists and world leaders.

This movement away from traditional metrics of success is central to navigating the BANI world. Taskesen’s very first chapter in this book, ‘BANI World or Neoliberal Dystopia: A Political Economic Critique’ starts with a historic perspective on how we landed in this BANI world; what were the compulsions of the past economic systems, the outcomes that they had hoped to achieve, and where did those models go wrong. The chapter explores two phases of capitalistic expansion—Material, where accumulation of goods is the focus, followed by Financial, where debit and credit mechanisms are used to capture financial markets. Taskesen, a co-editor of this book, points out that each expansion phase was designed to benefit people, with outcomes ranging from welfare, justice, freedom and security. He argues through the pivotal work of global economists and thinkers, that the overemphasis on the last outcome of security, fuelled by certain geo-political situations has pushed us further into a state of heightened anxiety and incomprehensibility. The chapter underscores that the dynamics of BANI cannot be understood without first analysing the forty-five-year history of neoliberalism, which has radically transformed individual, societal, and state relationships.

The consequences of this neoliberal dystopia are profound and far-reaching, particularly in the context of global inequality. The 2030 Agenda for Sustainable Development (UN, 2015) laid down a plan for a peaceful and prosperous future for people and all species on this planet, through the creation of Sustainable Development Goals (SDGs). With only five years left for the achievement of the SDGs, humanity needs to move into ‘overdrive’ as stated by the UN Secretary General, Antonio Guterres. While there have been substantial achievements in eradicating certain communicable diseases and increasing access to electricity and education, the progress has been unequal

(SDG Report, 2025). Digitization has reached the remotest corners of the earth, as has maternal and newborn health and care. Yet, there are still millions suffering from acute hunger, poverty and other indignities. Women and other marginalized groups continue to be under-served and suffer the most in the face of climate crisis and geopolitical tensions. As Economist and Nobel Laureate Sen (2009) argues, many of the world's problems come from inequality of one kind or another. Dreze and Sen (2002) further emphasize that while social inequalities and inadequate political participation can adversely affect a democracy's gains, a true, participatory democracy is also the most effective solution to address these very issues.

It is in this context of widespread inequality and systemic fragility that the wisdom of unconventional thinkers becomes most relevant. One such thinker is Mohandas Karamchand Gandhi, who, though not formally trained as an economist, can be considered a profound political economist. His philosophical framework of trusteeship offers a powerful alternative to the neoliberal model of shareholder primacy that has come to dominate the modern world (Balakrishnan et al., 2017). Gandhi's concept of trusteeship posits that the wealthy, particularly those who control means of production and capital, should consider themselves as trustees of their wealth, managing it for the benefit of society rather than for their personal gain or for the sole benefit of shareholders. According to the foundational principles of this model, as outlined in academic research, Gandhi advocated that business owners should treat their assets as a public trust. They are entitled to a reasonable personal income, but the remainder of their profits must be utilized for the welfare of the community and the planet. This philosophy stands in stark contrast to the extractive growth imperatives of neoliberalism, which prioritize the endless accumulation of capital.

The Gandhian Trusteeship Model goes beyond simple philanthropy or Corporate Social Responsibility (CSR) (Balakrishnan et al., 2017). It is a radical re-imagination of the very purpose of a business. It argues for a fundamental shift in mindset, from the capitalist as an owner to the capitalist as a steward. Gandhi made it clear that trusteeship extends beyond material wealth; business owners are also expected to share their non-material knowledge, skills, and talents with society. He believed this model would lead to cooperative industrial relations and reduce agency problems, stating that "Capital and labor will be mutual trustees and both will be trustees of consumers . . . each believes his own interest is safe guarded by safe guarding the interest of the other." (Gandhi, 1938, p. 162) In a speech to textile industrialists, he explicitly asked them to "hold all your riches as a trust to be used solely in the interests of those who sweat for you and to whose industry and labor you owe all your position and property. I want you to make your labourers co-partners of your wealth." (Gandhi, 1928, p. 145) This vision of a business as a cooperative enterprise, where all stakeholders—capital, labour, and consumers—are seen as partners in a shared purpose, resonates deeply with the core tenets of compassion and equality that are so critically needed in the BANI world.

Perhaps no large-scale enterprise in the modern world better exemplifies the spirit of this trusteeship model than the Tata Group. The foundation of the Tata

empire was built on a deeply compassionate and community-centric philosophy, a radical divergence from the profit-first mindset of its contemporaries (Balakrishnan et al., 2017). Jamsetji Tata, the founder, famously stated, “In a free enterprise, the community is not just another stakeholder in business, but is in fact the very purpose of its existence” (Tata Trusts, n.d.). This was not just a platitude; it was the guiding principle of the entire conglomerate. Long before mandatory CSR was legislated in India, the Tata Group had already established policies and institutions for employee welfare and community development. The Tata Trusts, founded over a century ago, hold the majority stake in the Tata Sons holding company. This unique ownership structure means that a significant portion of the profits from the entire group of companies is channelled back into philanthropic activities, not distributed to private shareholders. This institutionalizes the Gandhian principle of trusteeship, ensuring that the wealth generated is perpetually used for the upliftment of society.

The Tata Group’s history is replete with examples of this philosophy in action (Kandra Digital, n.d.). They pioneered welfare schemes for their employees, including eight-hour workdays, free medical aid, and provident funds, at a time when such concepts were unheard of in India. The establishment of the city of Jamshedpur itself was a testament to Jamsetji Tata’s vision of a self-sustaining industrial township with hospitals, schools, and parks—a model of community-building that went far beyond the requirements of a typical factory. This legacy of putting people and the community at the heart of the business model stands as a powerful counter-narrative to the dominant paradigm of shareholder primacy. By prioritizing the well-being of all stakeholders—employees, communities, and the nation—the Tata Group has not only built a resilient and trusted brand but has also proven that a compassionate, equitable business model can lead to enduring success and stability, even in disruptive times.

In recent history, especially during the tumultuous BANI times, the Tata Group’s actions have further solidified its reputation as a trustee of society. During the COVID-19 pandemic, when global supply chains collapsed and anxiety was at an all-time high, the Tata Group responded with remarkable speed and compassion (Times of India, 2021). Tata Steel, a core group company, did not lay off any of its contract workers and continued to pay them full salaries, a stark contrast to the widespread job losses seen elsewhere. Furthermore, Tata Motors leveraged its manufacturing facilities to produce and supply essential medical equipment, including ventilators and oxygen cylinders, when India was in dire need. Tata Power dedicated resources to set up a new COVID-19 hospital, and Tata Trusts were at the forefront of providing meals and medical aid to frontline workers and vulnerable communities. The group’s hotels, like the Taj, opened their doors to host medical staff and quarantine patients, demonstrating a profound sense of responsibility beyond business-as-usual. This collective, coordinated response across the conglomerate showcased a living example of Gandhian trusteeship in a period of intense crisis, proving that a compassionate business model is not a relic of the past but a powerful and necessary framework for navigating modern disruptions. The Tata Group’s unwavering commitment to its people and the

broader community during the pandemic serves as a poignant, contemporary testament to the enduring relevance of trusteeship and compassionate leadership in building a resilient and hopeful future.

In this light, the concepts of compassion and equality are not just a hopeful discourse; they are a necessary antidote to the anxieties of the BANI world. The importance of compassion in organizational life has attracted increasing research attention over recent years (Poorkavoos, 2017). According to the Oxford Dictionary, compassion is derived from the Latin word *compti* (“suffering with”) and means sympathetic pity and concern for the suffering of others. In critical times, such as during downsizing or restructuring, suffering is inevitable, and research on compassion helps people understand how to cope with it.

Extant research on compassion mainly sees it as an approach to alleviate others’ suffering and pain, following the psychological formula of noticing, feeling, and responding to distress (Dutton et al., 2008; Frost, 1999). However, giving compassion to others requires the “moral development of self.” As Wei et al. (2016) argue in their paper, a person needs to be morally and emotionally ready. They introduce the Confucian concept of self-cultivation (xiu-xin yang-xing), based on xin (mind-heart), which provides a framework for understanding this moral growth. Self-cultivation involves reflection (si) and emotion (qing) and is a prerequisite for compassionate interaction with others. This is particularly relevant for leaders, as their self-cultivation can impact the organization and its relationships (Wei et al., 2016; Worline & Dutton, 2017).

In the book *Leader’s Way* (Dalai Lama XIV & van den Muyzenberg, 2009), authors share fascinating insights on positive views on the wealth and the free market economy. Though the total wealth has increased manifold and technological interventions have altered the business paradigm, billions of people are living in abject poverty, and we face the imminent threat of environmental disasters. Even the most prosperous nations feel insecure about the future due to unforeseeable conflicts, peace and harmony have been elusive, which is an important aspect of the business environment. To deal with these problems, a different kind of leadership is required that sees the current reality in the way it is and understands the interconnectedness among companies, countries, and the economic system. To address the current issues of poverty, sustainability, cultural diversity and environmental responsibility, leadership needs to reorient towards art of decision making which includes these inevitable changes by incorporating a sense of shared responsibilities within and outside the organization. The leader’s way in this BANI world needs to combine moral values with the economic system. The task of the leader becomes to create a company with a strong and warm heart and to perceive reality as it is. This is in sync with Chester Barnard’s classic work on the theory of leadership about the functions of executives and the task of the leaders (Barnard, 1938). The leader’s job is to formulate and define the purpose that gains widespread acceptance, maintain communication systems, secure vital services from individuals, attract and retain a very competent workforce, and encourage them to work together to produce the best efforts for achieving the purposes of the business. The critical

question here is why it still eludes so many? Establishing values and shared purpose is a critical challenge for the leaders. Cultivating a compassion-based approach in leadership is required for interconnectedness and working together for a common purpose.

This cultivation is not a solitary journey. A compassionate workplace, as explored by Roffey Park Institute research, is characterized by several key traits. First, genuine personal connections, empathy for colleagues, and an awareness of personal circumstances. It is a culture where people actively listen to one another, are approachable, and notice signs of pain. This environment fosters a strong team spirit, integrity, honesty, and support for a healthy work-life balance. Such organizations build trust and a sense of psychological safety, which allows for open discussion of problems, failures, and errors without judgment. This, in turn, can lead to innovation and improved organizational performance. Compassionate workplaces also benefit employees in caregiving roles, as they are more likely to have the emotional resources needed for their work and are less prone to burnout. Leadership is fundamentally about people, requiring a new mindset for collaboration, innovation, and self-awareness. Studies of companies like GE, Nike, and IKEA show that mindfulness training programs can enhance performance, productivity, and workplace safety. The Buddhist philosophy of *Bodhichitta* emphasizes “Wisdom based Compassion,” which is an outcome of “Mindful Awareness training.” This tradition describes three styles of compassionate leadership: the trailblazer (leading from the front), the ferryman (accompanying those in his charge), and the shepherd (putting the needs of followers first). These models offer practical frameworks for leaders to embody compassion in their daily actions.

1.1 An Overview of the Book Chapters

The first chapter by Taskesen builds on how this trend gets further exacerbated with the heightened need for ‘security’, moving us further away from each other. This study focuses on the dynamics that gave rise to the concept of BANI in the first quarter of the twenty-first century. It is argued that the role of political economic processes in periodic analyses of the modern capitalist world is crucial. Accordingly, we cannot know the dynamics that gave rise to BANI without determining neoliberalism, which has directly shaped social, political and economic life for the last forty-five years and radically transformed individual, society and state relationships. The post-9/11 world is a period in which security is on the rise and geopolitical options are once again on the table for major powers. It is precisely the security-first world left to those who have been made insecure by neoliberalism that has created the world of BANI.

The book delves into solutions that can address this present state of BANI, fuelled by and resulting in further inequalities and inadequate participation. As mentioned earlier, true democracy is the solution that addresses both. The second

chapter by Avinash Kumar presents a clear link between political agency and access to basic human rights, often a two-way relationship.

The author brings to the fore the importance of solidarity in ensuring an equitable world. His chapter on ‘Addressing Inequalities through a pluriverse of alternatives: Three case studies from India’, questions the neo-liberal economic model, which furthers inequalities, pushing more wealth into the hands of a few while much of the population remains economically and politically powerless. The author presents primary data gathered from selected tribal villages in India, providing insights into how alternative means of resistance and transformation resolve the challenges of inequities caused by capitalistic economies. All three cases, while vastly varied in their programmatic focus, bring out the deep and urgent need for collectivization. This chapter starts with questioning the move from the Collective to the Individual, fuelled by unbridled growth economics.

While all marginalized communities are affected, the adverse impact of the present economic systems impact the original inhabitants of our lands and the protector of 85% of the planet’s biodiversity, the Indigenous Tribes, in ways more complex and severe than others. A working paper on Group Rights by The International Inequalities Institute of London School of Economics, points out an unique conundrum faced by the Indigenous Tribes of India—one in which the special privileges accorded to them as Adivasis (Indigenous People) over forest lands and a sense of identity to their ancient traditions, also places them outside of mainstream society and its growth (Kabeer, 2016). Within this already complex hierarchy of the Adivasis and non-Adivasis, the women in both communities continue to lack economic independence and consequent agency to make life choices.

Anu George’s chapter on ‘Women’s Empowerment and Social Change: The case of Mauna Dhwani Foundation in Mayurbhanj, Odisha’ shows the possibilities a social enterprise presents in transforming the economic and social status of women in tribal India. Focussing on a tribe in Odisha, the chapter highlights the transition of the women from their disempowered state of economic poverty and patriarchal oppression to their transformation into those who are enabled to speak up, assert their rights, and collectively resist patriarchal aggression. While the women who are engaged with Mauna Dhwani remain economically vulnerable—most of them experiencing multidimensional poverty, lacking secure housing, education and access to health care, this chapter seeks to focus on some of the signs of empowerment visible in their ongoing transformation. The women have not only reshaped their individual lives but have also created an ecosystem of collaboration and solidarity that has strengthened their shared pursuit of self-respect and dignity. Formation of networks is a critical tool to navigate the uncertainties of BANI times.

Kabeer states that “The project of women’s empowerment is dependent on collective solidarity in the public arena as well as individual assertiveness in the private” (Kabeer, 1999). At the same time, it poses an important question on the possible cultural appropriation of tribal knowledge systems, as an unintentional result of creating market linkages for the Adivasi products. There remains a fine

balance between providing the Adivasi women agency through financial empowerment and ensuring their tribal identity is left intact, even as they enter mainstream markets.

Talapatra and Varma's chapter on 'Traditional Ecological Knowledge (TEK) and Nature Tourism' further explores this complex relationship between tribal identity and economic empowerment through the specific example of Nature Tourism in the Satpura region, home to three major tribes of India. The Gondi, Korku and Baiga tribes have been the custodians of the vast forests of Central India, which form the Tiger corridor of India and inspired Kipling to write 'The Jungle Book'. Therefore, Nature Tourism in this biodiversity hotspot is inextricably connected to the Adivasi tribes and their Knowledge Systems, which keep the forests alive. The chapter presents primary data from the three tribes on the strengthening or diminishing of their Knowledge Systems and the two-way relationship between Nature Tourism and TEK. A historic perspective on how the Adivasi knowledge systems and, indeed, their role in society, diminished over the years is presented. Learning from the traditions, knowledge, and values of the Adivasi, which have helped species thrive since the beginning of time, might bring the much-needed stability and resilience that we need in these BANI times.

The Sustainable Development Goals Report (2025) highlights the extreme poverty that persists despite substantial efforts, affecting 1 in 10 people worldwide. Well-being is at its lowest. COVID-19 reversed some of the past gains, cutting life expectancy by 1.8 years and slowing progress towards nearly all health-related SDG targets. The global maternal mortality ratio (MMR) dropped slightly, but poor and growing economies are still facing the crisis of childbirth-related deaths. Gender disparities in education persist. Three decades after the landmark Beijing Declaration and Platform for Action, gender equality remains elusive. Despite progress, discriminatory laws and gender-based norms continue to hinder gender equality. Women remain underrepresented in decision-making and leadership roles and often lack autonomy over sexual and reproductive health, land rights and technology access.

Gupta, Sharma and Bisht's chapter on 'New Motherhood versus Career conflict during Re-entry Transitions in IT Sector in India' delves into a critical, yet often overlooked, facet of a new paradigm: the return-to-work experience of mothers in the fast-paced Indian IT sector in BANI Times. Drawing on rich qualitative research with 33 mothers, this chapter explores how the BANI framework intensifies the identity conflict women face as they navigate their professional and maternal roles. It illuminates how fragile corporate systems and opaque career paths exacerbate feelings of anxiety, vulnerability, and overwhelm. The authors compellingly argue that fostering compassionate organizations is not merely a philanthropic endeavour, but a strategic business imperative. They outline tangible business costs associated with a lack of empathy, including attrition, diminished productivity, and stifled innovation, while proposing actionable strategies to empower returning mothers to thrive. This timely and insightful chapter offers a crucial roadmap for building resilient, adaptable, and truly inclusive workplaces in a chaotic world.

Firoz and Shukla's chapter on 'Workplace Loneliness and Pro-Environment behaviour in India' investigates the relationship between workplace loneliness and pro-environmental behavior (PEB) among employees in Indian organizations, with a particular focus on the moderating role of perceived organizational politics (POP). The author collected data from 281 Indian employees using quantitative measures such as the perceived organizational politics scale (Hochwarter et al., 2003), perceived environmental behaviour scale (Boiral & Paille, 2012), and the workplace loneliness scale (Russel et al., 1980). The findings attained by the author show a strong connection between pro-environmental behavior and perceived environmental behaviour under conditions of low loneliness and weakest at high loneliness. The chapter provides new insight into showing that workplace loneliness has a complex/moderating influence on shaping social behaviour, such as cultivating pro-environmental behaviors and other forms of employee organizational citizenship. For practitioners, the study's findings highlight the need to expand the view and look beyond structural frameworks for sustainability. The organizations should consider the important role of organizational climate and emotional health of employees in shaping pro-environmental outcomes.

Chandra P Gupta's chapter on 'Corporate Social Responsibility: Can it be avoided anymore' highlights the growing expectations from businesses to act ethically and address the social and environmental challenges. The author stresses the importance of corporate social responsibility across the business world. In order to understand factors that motivate companies to adopt the CSR model, a qualitative research was done at a dual level, first to understand the reasons why the companies adopted this model, and second to study the potential consequences that the companies faced who neglected these responsibilities. The results indicated that companies engaging in CSR often report better financial outcomes, enhanced brand reputation, and stronger stakeholder relationships, which together foster lasting competitive advantages. The author also highlighted some of the drawbacks of the CSR approach, such as practices of greenwashing, lack of openness, and the risk of intentional misuse. The chapter concludes by urging future researchers to refine and measure the impact of various CSR practices.

Chapter on 'Decarbonizing India's economy by 2070: Navigating Challenges in the context of Climate Change' by S N Mishra focuses upon the challenges faced by India in decarbonizing its economy by 2070 in the context of combating climate change. He draws our attention towards the relation between India's low per capita emissions, rapid economic growth and our country being the world's largest greenhouse gas emitter. The chapter reviews the current policies, sector-wise strategies and initiatives taken. The author also identifies the key factors such as financial, political and social which could potentially slow down this process. Some of the solutions suggested for the same are tax incentives, climate finances, green bonds, international collaborations and private partnership. Essentially, the chapter is trying to bring our attention to India's slow but effective transition towards being a low-carbon economy.

Neetu Yadav's chapter, 'Harnessing Eco-Innovation for Sustainable Development: A Critical Review and Research Agenda', highlights the complex dynamics that characterise the relationship between eco-innovation and sustainable development,

aiming to contribute to understanding how innovative environmental practices can foster resilience and sustainability in an unpredictable world. The study makes significant contributions to the knowledge base by identifying four research themes derived from the sample research studies. In the context of BANI (Brittle, Anxious, Nonlinear, and Incomprehensible) times, eco-innovation emerges as a critical mechanism for focusing on sustainable development in the context of global uncertainties. This review encompasses various disciplines, including economics, finance, and strategic aspects. Finally, this chapter focuses on the need to integrate innovative practices that enhance economic performance and promote ecological well-being, thereby fostering a more sustainable future.

The book attempts to bring to the reader the historic journey of humanity, from self-sustaining, resilient communities to a vastly unequal BANI society. It aims to broaden the discussion on development to include ancient knowledge, spirituality and collectivization along with the current disrupter, Artificial Intelligence (AI) and its influence on Leadership, non-cognitive competences and spirituality.

Piyush Sharma's chapter, 'Sensemaking in the Age of AI: Compassionate Leadership Framework for Navigating Algorithmic Bias', focuses on the onset of artificial intelligence and marks a new phase, distinguished by novel opportunities and significant risks. This brings to light India's socio-cultural landscape, where caste, gender, and geography still shape opportunity; the ethical and operational stakes of AI bias are even higher. The author proposed the concept of compassionate governance for an equitable AI sensemaking leadership approach to ensure equity, openness, and reparative measures. The framework provided in this chapter offers practical steps to designing an inclusive system to uncover and address biases. He emphasizes that by incorporating compassion at the core, leaders can move towards human-centred AI that supports long-term well-being. While this paper is conceptual in scope, the ideas here lend themselves to empirical testing. The paper brings our attention to how leaders turn compassion from an abstract value into a repeatable governance approach. He finally focuses on the importance of approaching AI critically, ethically and with cultural awareness in organizations.

Neuhold and Borghoff's chapter, 'Which genuine human and non-cognitive competences are essential for leaders in times of BANI and AI?—Cross-disciplinary approaches and creative reflections', offers a cross-disciplinary review of existing literature along with heuristic analysis. It explores competencies rooted in the Inner Development Goals (IDGs) and similar frameworks. Emphasis is placed on non-cognitive skills and compassionate leadership, highlighting the essential abilities for successfully managing the challenges of the BANI environment and the growing presence of AI. The author highlights the importance of genuine and non-cognitive human competences such as integrity, empathy, and creativity, which she says are the essential elements to tackle BANI times and AI. In addition, it was stated that crucial human qualities such as intuition and wisdom should also be incorporated in AI. The second author reflects on the findings of part one of the research by applying different approaches such as creative reflective practice, creative agility and spiritual poetry. These newer approaches allow us to dive deeper into creative ways to recognize and reflect on genuine human skills.

Raja Kanuri's Chapter on 'Relevance of spirituality to AI Ethics in BANI times' proposes a diverse worldview-based review and delves into AI Ethics frameworks. This aims to elaborate on the relationship between AI systems' design and spirituality, and thus offer an extension to human centric AI and to AI Ethics. It lays foundation to further research incorporating Integrative Intelligence, Vedanta philosophy and the K-Model of Spirituality. Leaders, policymakers, spiritualists, technology makers, and enthusiasts in the field of AI ethics, may find this diverse approach helpful, in the design and governance of technological artefacts.

The last chapter of this book challenges the very essence of market economics—growth. As Jamsetji Tata, Founder Tata Group, said while creating the largest conglomerate in India and one of the largest in the world "In a free enterprise, the community is not just another stakeholder in business, but is in fact the very purpose of its existence."

Sujay Hammanavar's chapter on 'Scaling Impact: Alternative Routes for Growth-Agnostic Sustainable Businesses' calls attention towards the need to examine the strategies that the "growth-agnostic sustainable businesses" (GASBs) use to scale their positive social and environmental impacts, without catering to conventional growth tactics. The author uses a qualitative approach by analysing the scaling strategies from a pool of 14 GASBs and interviews from three CEO's/directors of globally renowned companies that would help explore this phenomenon in detail. These interviews such as Harshad Barde (executive director, SWaCH cooperative, Pune, India), Tammy Jonas (Co-Custodian, Jonai Farms and Meatsmiths, Victoria, Australia) and Oscar Boatfield (Co-Founder, Wildish, Harrowgate, United Kingdom) provided some enriching insights and were focused on the enablers that helped scale impact and the barriers that hindered scaling up of the business. Fighting their unique challenges, all the interviewees from the business cases said to have faced competition as a major barrier in continuing to scale up their impact. This perhaps reinforces the notion of the author, that the global economic system is made for competitive businesses that strive to achieve exponential growth curves, in the process decimating small-scale businesses that could potentially compete with them. The study presents 11 impact scaling strategies, with examples of how they were operationalized, which other GASBs can use. Although the sample size of the study is not adequate to generalize results, the study adds to the growing discourse on post-growth business and is purely exploratory in nature.

1.2 Conclusion

In conclusion, this book is a compilation of research-based chapters to capture the range of discourses on the critical questions facing us in the current disruptive times. Though a common underlying theme is of interdependence and shared humanity linked with compassion, To quote Archbishop Desmond Tutu, "My humanity is

bound up in yours, for we can only be human together” (Tutu, 1999, p. 33). Martin Luther King Jr.’s assertion that “An individual has not started living until he can rise above the narrow confines of his individualistic concerns to the broader concerns of all humanity” is equally true (King, 1967, p. 91). And this interdependence includes non-human elements as well, such as nature and technology.

As discussed in the beginning of this chapter, no one could harm another as all are equal and interdependent. Compassion needs to be inculcated by expanding consciousness for Including other. Compassionate leadership is all about two vivid principles-Right View and Right Conduct for ensuring that we work together with greater happiness and wellbeing. With Right view one examines the intentions of decision making and its consequences on self, the organizations and other stakeholders. Leaders need to be aware of the harmful consequences of their actions and mitigate them proactively by choosing appropriate strategies. Right Conduct needs an empathetic and compassionate mindset. This requires building mental muscles and mind training, as championed by the mindfulness and self-cultivation frameworks presented in this book. Embracing this hopeful discourse offers a path toward a more resilient and equitable future, away from the brittle anxieties of our current era.

Globalization is a positive development and requires companies to act responsibly with a holistic view of their role in society. Their existence is interdependent and can be mutually beneficial. Capital is means and not an end. Inequality concerns are pervasive and historical. With the current wired world equipped with unprecedented levels of interconnectedness and technology-based access to many, if not all, collective work, aiming at a decent level of living for all is not a utopia. Leadership for compassionate organizations needs to take these complex challenges of making the right decisions in the interconnected world for both short-term shared gains and long-term survival for employees, customers, shareholders, and society at large. SDGs by UN Global framework provide a sense of direction to organizations for constructive and cooperative actions for building sustainable organizations. Leaders at all level of the organizations hold the most powerful positions for decision making and need to lead with the goal of responsible free market economy and reject economic, political, and social system influences without moral and ethical value. To achieve this goal, mind training for a new way of working is essential.

What better text can be there for closing these but “The Eight verses of Mind Training” by Geshe Langri Tangpa (Khenpo Tsultrim Gyamtso Rinpoche, 1989/2014),

With a determination to achieve the highest aim
For the benefit of all sentient beings.
Which surpasses even the wish-fulfilling Jem,
May I hold them dear at all times.

Whenever I interact with someone,
May I view myself as the lowest amongst all,
And, from the very depths of my heart,
Respectfully hold others as superior.

In all my deeds, may I probe into my mind,
And as soon as mental and emotional afflictions arise,
As they endanger myself and others,
May I strongly confront them and avert them.

When I see beings of unpleasant character,
Oppressed by strong negativity and suffering,
May I hold them dear—for they are rare to find—
As if I have discovered a jewel treasure!

When others, out of Jealousy,
Treat me wrongly with abuse, slander and scorn,
May I take upon myself the defeat
and offer to others the victory.

When someone whom I have helped
Or in whom I have placed great hopes,
Mistreats me in extreme hurtful ways,
May I regard him still as my precious teacher.

In brief, may I offer benefit and joy
To all my mothers, both directly and indirectly.
May I quietly take upon myself
All hurts and pains of my mothers.

May all this remain undefiled
By the stains of the eight mundane concerns.
And may I, recognizing all things as illusions,
Devoid of clinging, be released from bondage.

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Chapter 2

BANI World or Neoliberal Dystopia: A Political Economic Critique



Suat Taşkesen 

Abstract This study basically focuses on the dynamics that gave rise to the concept of BANI in the first quarter of the twenty-first century. It is argued that role of political economic processes in periodic analyses of the modern capitalist world system is crucial. Accordingly, we cannot determine the dynamics that gave rise to BANI without evaluating the crucial role of neoliberalism, which has directly shaped social, political and economic life since end of the 1970s, and radically transformed relationships between and among individual, society and state. In historical capitalism, each hegemonic cycle essentially consists of two successive interrelated periods, material expansion and then financial expansion. During the material expansion phase, by focusing on production and trade hegemony consolidates its global power economically, militarily and politically. However, towards the end of this kind of expansion phase, crises of overaccumulation emerge as competition intensifies among capitalist actors. The hegemonic power's way out of these crises is through financialization. Thus, it enters a period of financial expansion, supporting new accumulation projects by managing credit and debt systems through collaboration of financial institutions and states. Thus, as the last example, neoliberalism, which has dominated the capitalist world for nearly 45 years, is exactly the name, ideology and practice of the financialization period of US hegemony. In addition, it is seen that the primary value from Strange's combination of basic values (wealth, justice, freedom and security) is constantly changing for each period. For example, as far as US hegemony concerned, in the period of its material expansion, the primary value is welfare; in the period of overaccumulation crises of 1970s, justice; in the period when financialization rises with globalization during 1980s and 1990s, freedom; and in the final period of financial expansion, when hegemonic competition is visible after September 11,

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security is the primary value. The post-9/11 world is a period in which security has become primary value again and geopolitical options are once again on the table for major powers as seen in the first half of the twentieth century. It is precisely the security-first world left to those who have been already made economically, socially and psychologically insecure by neoliberalism that has created the world of BANI.

Keywords BANI · VUCA · Hegemonic transition · Neoliberalism · Values

2.1 Introduction

Since September 11 attacks in 2001, the world order has undergone a comprehensive transformation in political, military and economic terms, unlike previous globalization period of 1990s. On closer inspection, this transformation is neither related to the increasing global terrorist threat nor to an unexpected turn of events. This situation is entirely related to the logic of how capitalism works. In order to understand the reasons for the emergence of concepts such as VUCA (Volatile, Uncertain, Complex and Ambiguous) and BANI (Brittle, Anxious, Non-Linear and Incomprehensible), which are based on the basic assumption that today's world is fundamentally incomprehensible, unstable, uncontrollable and therefore unpredictable, it is essential to see the operating logic of capitalist world system with historical changes and transformations that this logic reveals. So much so that the phases of political, economic, military and cultural expansion and contraction within the present political economic structure, capitalist societies, like others, do produce some mix of values valid at that time, depending on which phase we are in. Therefore, these values produced by periodic dynamics not only construct the world we know but also determine how we see that world.

Many writers today argue that we live in a world of BANI, and these writers attempt to explain its inexplicability. However, the real point is not to think what we think, but to question why we think the way we think today. Of course, as Strange points out, the future cannot be predicted; but it cannot be ignored (Strange, 2004, p. 19), and with the resources we have, we can try to understand the present and contribute to shaping the future. In order to do this, it is first necessary to analyze the dynamics that shape today's emotions, thoughts, behaviors and ways of perceiving the world.

As is known, the neoliberal ideology and its practices that have been prevalent in the capitalist world for more than 40 years continue as a political economic process that has brought about a major transformation at the individual, society, state and system levels. Neoliberalism, symbolized by Margaret Thatcher's notorious saying, "There is no such thing as Society" has left behind a state without a system, a society without a state, and an individual without a society.

Here, in this book chapter, the main argument is that the way to understand the BANI world is through periodic analysis by focusing on US hegemony that is the

last hegemonic structure of historical capitalism since 1945 onwards. Therefore, the periodic analysis in this study will be based on Susan Strange's values, Giovanni Arrighi's hegemonic transformation approach, and finally criticism of neoliberalism, and in the conclusion section, reasons for emergence of the BANI world will be discussed.

Strange argues that every society possesses certain basic values—wealth, security, freedom, and justice—and points out that these values form a combination, with one value always taking precedence over the others. Which value comes first within a value combination can vary from society to society and within the same society over time.

Arrighi, on the other hand, explains how hegemonic shifts occur within historical capitalism, detailing the stages of rise and fall experienced by each hegemony. In this context, this study will briefly examine the stages of US Hegemony and which value took precedence in the combination of values within each stage. Finally, which of these stages corresponds to neoliberalism, and the combination of values it has generated, will be evaluated.

Thus, we can understand how we came from the globalization discourse of the 1990s, which promised freedom and justice to individuals and societies, to the BANI world of the 2000s, where war, terror, threats, conflict and security perceptions are on the rise.

2.2 The Values We Live by

In her spectacular book, *State and Markets*, British political economist Susan Strange introduces some basic values, *wealth*, *security*, *freedom*, and *justice*, which 'human beings seek to provide through social organization' (Strange, 2004, p. 17). According to Strange, these four basic values exist simultaneously in every society, but the priority given to one of these values varies in each society or at different times in the same society. For example, in the year 2025, while security may be the top priority in societies like Iran, Israel, and North Korea, freedom and justice may be the top priority in developed societies like Sweden, Switzerland, and Norway, and welfare may be the top priority in developing societies like Turkey, India, and Brazil. Similarly, within any given society, different values may be prioritized at different times. For example, in many societies, the emphasis on freedom and justice, which rose in the 1990s under the influence of globalization, was soon followed by increasing inequality and impoverishment, leading to a preference for welfare. Since September 11th, the emphasis on security has gradually gained momentum. As Strange points out,

all societies need to produce food, shelter and other material goods; but some will give the production of wealth in material form the highest priority. All societies will be organized to give the individual some greater security from the violence and abuse of others, both from others within that society and others from outside it. But some will put order and security first. Indeed, the two great advantages of social organization over life in individual

isolation is that association with other humans both increases the possibility of wealth and adds to personal security. Social organization does, however, entail certain choices regarding freedom, or the individual's right to choose; and regarding the relative justice of one set of arrangements over another (Strange, 2004, p. 17).

As mentioned above, these four values are seen simultaneously in every society, but the order of priority given to these values may change depending on time and place. Thus,

once you have a society, therefore, you have arrangements made which provide some wealth, some security, some element of freedom of choice for the members or groups of them, and some element of justice . . . societies therefore differ from each other in the proportions in which they combine the different basic values (Strange, 2004, p. 17).

While asserting these values, Strange argues that the present international political economy is not only about social, economic and political arrangements including production, exchange and distribution, but also contains a certain combination of values, and this combination determines the decisions, preferences, perceptions, and ideas in power relations. In other words, Strange argues that the decisions, preferences, ideas, and perceptions of actors within a particular political economic order may vary depending on which value is primary in the combination of values they possess at that moment (Strange, 2004, pp. 18–19). Thus, the combination of values held by society also directly affects the actors' perspective on the world, themselves, the present, and the future.

As clearly seen in the post-September 11 and Covid-19 periods, the perception of external threats and/or pandemics has brought the perception of security to the forefront even in democratic societies. When we look at authoritarian and militarist societies, *security* clearly takes a primary position in the value composition of these societies. On the other hand, after World War II, in parallel with increasing prosperity of the capitalist world under the leadership of US hegemony, during the 1950s and 1960s *wealth* is observed at the top of the values component. On the other hand, in the period of neoliberal globalization based on the market economy led by finance capital, which developed in response to the political and economic crises of the 1970s, the values of *freedom* and *justice* were seen to be priority throughout the 1980s and 1990s, when the obstacles to capital were removed and the sovereignty of nation states was restructured and finally the Cold War ended.

As noted above, societies at the same time phase, or even a society at different times, may have different value combinations. These components are shaped by the influences of social, economic, political, and even cultural dynamics at the national, regional, and global levels. Unlike regional and national components that have a relatively limited impact, dynamics at the global level can have a much more comprehensive impact and reveal a values component at the global level. When we look closely at the stages that American Hegemony has gone through, which has shaped the capitalist world system, especially since 1945, we can see how the priorities in the combination of values have changed.

Each change in the order of priorities in the combination of values not only reflects the political economic landscape of global capitalism, but also changes the emotions,

thoughts and behaviors of people in the period in which each change occurs, the way they perceive the world and their expectations for the future. Therefore, it is important to understand the operating logic of the capitalist world system and the reflections of this logic on American Hegemony from 1945 to the present.

2.3 Outlook of the Hegemonic Transition Today

Gioanni Arrighi, who analyzed historical capitalism with a systemic approach in his spectacular work *The Long Twentieth Century* (Arrighi, 2010), and in his several subsequent works, revealed that capitalist world history is also the history of hegemonies. To him, a hegemony in the capitalist world basically refers to the relatively superior ‘power of a state to exercise functions of leadership and governance over a system of sovereign states’ (Arrighi, 2010, p. 28). As can be understood from the definition, hegemony simply refers to the capacity to determine the rules and institutions in the present modern state system. Based on this definition, Arrighi states that four hegemonic structures have emerged since the Italian City States, where historical capitalism flourished—Genoese, Dutch, British, and American. Arrighi states that each hegemonic structure has a systemic accumulation cycle and argues that the rise and fall of these structures can also be characterized by these cycles. Here, it’s necessary to make a point about the Genoese hegemonic structure. Despite possessing a systemic cycle of hegemonic structure, the Genoese cycle is considered a non-hegemonic cycle because it possessed relatively more local power and, more importantly, because the modern Westphalian state system including sovereignty, the exclusion of feudal supra-state (Holly roman Empire) and sub-state (fiefdoms) actors from international agreements and procedures, international law, and non-intervention had not yet emerged until the Peace of Westphalia in 1648. Therefore, the first hegemonic power in historical capitalism was the Dutch hegemony, followed by the British and American hegemonies, respectively.

Each hegemonic structure that has emerged throughout the historical process is much more comprehensive, more effective, and more profound than the structure that preceded it. With each cycle of accumulation, the capitalist world system gradually incorporated the known world into its own system and was eventually able to build a “global” order. As Arrighi points out:

under the Genoese regime, the world was “discovered,” and under the British it was “conquered.” The Dutch and the US “corporate-national” regimes, in contrast, were intensive in the sense that they have been responsible for the geographical consolidation rather than expansion of the historical capitalism. Under the Dutch regime, the “discovery” of the world realized primarily by the Iberian partners of the Genoese was consolidated into an Amsterdam-centered system of commercial entrepôts and joint-stock chartered companies. And under the US regime, the “conquest” of the world realized primarily by the British themselves was consolidated into a US-centered system of national states and transnational corporations (Arrighi, 2004a, p. 535).

As mentioned above, every hegemonic structure also has a cycle. Arrighi modeled these processes, which he called ‘the systemic cycle of accumulation’ as ‘a recurrent pattern of world capitalism’ (Arrighi, 2007, p. 231), in the form of $M-C-M$ by transforming Marx’s individual capital investment/accumulation formula, MCM (Arrighi, 2010). Here, M , or money, is a flexible asset and can be transformed into the most suitable investments to make profit for continued accumulation. C (commodity), on the other hand, is rigid and lacks the flexible and fluid characteristics of monetary capital. However, it is a necessary stage for capital accumulation, and therefore, a portion of monetary capital is temporarily transformed into C through certain profit-oriented investments. In other words, it is invested in goods and the production of goods, resulting in the production of commercial goods. Monetary capital (M), temporarily locked up during the process of investments in goods, later yields profit upon completion of the production and sales processes ($M + m$) and emerges as M' , which is larger than the initial capital. This monetary capital, increasingly incorporated into capital cycles, means greater flexibility, greater fluidity, and the freedom to direct more profitable new investments for accumulation opportunities.

Drawing on Marx’s formula for infinite capital accumulation ($M-C-M'$), Arrighi argues that this formula can explain the process of individual capitalist capital accumulation, as well as capitalist world history from a macro-global perspective. According to him, with this formula, which expresses the cycles of capital, we can explain not only the activities of capitalist entrepreneurs seeking to increase profits and expand their capital, but also the cycles within historical capitalism that have evolved into a world system.

Despite their different historical periods, actors, geographical locations, scope, and content, all cycles share a common character that can be formulated as $M-C-M$. This is precisely the reason Arrighi argues that the four cycles observed throughout historical capitalism exhibit a systemic and recurring character, and

each characterized by a fundamental unity of the primary agency and structure of world-scale processes of capital accumulation: a Genoese cycle, from the fifteenth to the early seventeenth centuries; a Dutch cycle, from the late sixteenth century through most of the eighteenth century; a British cycle, from the latter half of the eighteenth century through the early twentieth century; and a US cycle, which began in the late nineteenth century (Arrighi, 2010, pp. 6–7).

Here, the common formula ($M-C-M$) put forward by Arrighi for each systemic cycle states that all cycles first begin with a new “global” accumulation process called *material expansion* ($M-C$), which includes new actors, new geographies, new production/trade models, and then move on to the *financial expansion* ($C-M$) process, in which accumulation continues with financial instruments (Arrighi, 2010, pp. 1–28, 2005; Arrighi, 2004b). Thus, when the material expansion, ($M-C$), and financial expansion, ($C-M$), phases that form a full cycle come together, the abbreviation $M-C-M$ emerges.

The material expansion phase is the $M-C$ phase of a cycle. During this period, monetary capital (M) transforms into unprecedented amounts of commodities and investments, incorporating commodified labor and natural resources. Capital’s

flexibility and fluidity here temporarily decreases. Because it is more profitable, monetary capital is transformed into commodities, merchant ships, and/or factories that produce these goods.

During the financial expansion period, denoted as C–M, in the second part of the formula, in contrast to the first (material expansion), an increasing amount of monetary capital moves more flexibly and fluidly, freeing itself from investments in commercial goods and commodities. Again, the strategy of capital in this phase, seeking to profit, grow, and thus continue to turn the wheels of endless accumulation, is to make money from money through financial pursuits (MM').

Considering these two interconnected stages together, the systemic character of capital accumulation can be explained through successive cycles throughout capitalist world history. In fact, each cycle complements its own unique material and financial expansions during its own peculiar systemic accumulation cycle (MCM).

Each cycle, built on the achievements of the previous one, has expanded capitalist activities economically and politically to a broader and more comprehensive scope. Each possesses unique and distinct characteristics; different production and/or trade capacities, different investment styles, different accumulation configurations, and different state structures. Despite all these differences, each has inevitably experienced both material and financial expansion through its own systemic cycle (MCM). Similarly, each has possessed its own unique spatial organization in which all the actors and institutions are rearranged.

The material expansion phase occurs under the guarantee and protection of a hegemonic power. Capitalist powers in dominant capitalist centers operating under a hegemonic system operate in the capital accumulation process during the material expansion phase (MC). This phase largely depends on production and trade-based capitalist activities as an accumulation strategy. Therefore, the most important point to understand here is that during the material expansion phase (MC), investment in real economic activities is essential, and expanding material production is much more profitable for investment. In other words, the opportunities to make money from money (MM) are quite weak during this phase.

This process drives other capitalists to emulate the central capitalist powers that reap substantial profits from their activities. More and more new investors join the process, and competition intensifies. Consequently, profits from material investments gradually decline. Ultimately, the system of accumulation based on trade and production reaches such a point that it becomes difficult to profitably reintegrate produced capital within the existing economic space. Consequently, new investments become difficult, and existing capital is in danger of being devalued. Consequently, the profit-making opportunities of the central capitalist powers, under the superior shield of hegemonic power, gradually disappear. Crises of overaccumulation emerge, triggering the cycle's shift from material to financial expansion. Here, the term overaccumulation, indicating 'surpluses of labour (rising unemployment) and surpluses of capital (registered as a glut of commodities on the market that cannot be disposed of without a loss, as idle productive capacity, and/or as surpluses of money capital lacking outlets for productive and profitable investment)' (Harvey, 2003, p. 109), basically refers to 'a situation in which excessive investment has occurred and hence

goods cannot be brought to market profitably, leaving capital to pile up in sectoral bottlenecks or speculative outlets without being put back into new productive investment' (Bond, 1999, pp. 420–21).

Thus, towards the end of the material expansion phase, declining profitability increases competition among capitalists, and thus, competition between states intensifies. Geopolitical competition, conflict, and military policies come into play as states take active roles for the sake of their own capitalist interests.

This process paves the way for capitalists who have acquired surplus capital during the material expansion phase to change their investment preference from production and trade to financial opportunities. During the financial expansion phase, capital accumulation also becomes financialized, that is, achieved through financial means (making money from money—MM'). However, the financial expansion phase does not bode well for a hegemonic cycle. The transition from material to financial expansion—from MC to CM—paves the way for other capitalist groups to organize their own unique stages of material expansion through spatial arrangements, thus opening up the way for the emergence of the next hegemonic system.

Genoese capital withdrew from trade in the 1560s and became Europe's bank (hence the word bank in Italian); similarly, the Netherlands became Europe's banker in the 1740s (the world's first stock exchange was established in Amsterdam during the same period); England assumed this role again in the 1890s and later (the London market is still very important in international borrowing); finally, the US hegemony entered a period of financial expansion from the 1970s onwards and established the dominance of monetary capital with neoliberal policies throughout the 1980s and 1990s.

However, every financial expansion results in major wars, and the existing hegemonic structure dissolves, giving way to a new hegemonic system. Therefore, Braudel argues that the financial expansion process is the sign of autumn (Braudel, 1992, p. 246; Arrighi, 2005, p. 86) of the current cycle, that is, the autumn of the current hegemonic power. At this point, we can say that, under the label of Neoliberalism, we are currently witnessing not only the financial expansion of US Hegemony, but also its autumn.

2.4 Neoliberalism: Financial Expansion Period of the US Hegemony

Neoliberalism is often described as “an ideology of market and private interests”, contrasted with state intervention (on which Keynesian economics was based). While it may claim to have its own distinct ideology and propaganda, or to be a dominant view enabling the construction of a “new world order”, neoliberalism is actually a brand-new social order. In other words, neoliberalism, as an ideology and a set of policies, has led to a major transformation at the individual, society, state, and system levels since the early 1980s. This transformation is so profound

that, according to Harvey, future historians may see ‘1978–80 as a revolutionary turning-point in the world social and economic history’ (Harvey, 2005, p. 1).

Determining beginning and/or end dates of historical periods is often difficult and controversial. The same applies to neoliberalism. Indeed, the pioneering steps of neoliberalism were taken in the 1970s. During this period, when the overaccumulation crisis was experienced, theories of “monetarism” emerged, particularly to combat rising inflation, and began to propose new policies for central banks and governments to overcome crises. According to Gerard Dumenil and Dominique Lévy, if a specific date must be given for the beginning of the neoliberal era, it must be 1979. On this date, the FED suddenly decided to raise interest rates. The authors entitled this event the *1979 Neoliberal Coup* (Duménil & Lévy, 2005).

Actually, the 1970s were a transitional period. By the late 1960s, the US began running persistent trade deficits for the first time. This was largely due to the catching-up efforts of European countries and Japan. Recall how cooperation began to give way to competition at the end of periods of material expansion, and how other capitalist powers, imitating the rising power, intensified this competition! Thus, dollar surpluses accumulated outside the United States by other capitalist powers, and the threat of these savings being converted into gold grew increasingly. To eliminate this threat, the dollar needed to be devalued against gold and other major currencies. Thus, in 1971, the US ended the Bretton Woods System (dollar-gold convertibility) and adopted a floating exchange rate system. Nixon declared suspension of ‘the convertibility of the dollar into gold’ (Nixon, 2025). Although the US lost relative power during this period, it gained a new and effective tool by floating currencies. This tool would become a primary component of neoliberal policies in the years to come. The lifting of the restrictions on capital flows of the 1960s and the liberalization of capital in 1974 were among the results of this component. As neoliberal dynamics strengthened during this period, Keynesian policies were increasingly criticized. The UK joined these movements in 1979, and other European states began to follow.

As referring to “new rules of functioning of capitalism”, neoliberalism basically includes:

a new discipline of labour and management to the benefit of lenders and shareholders; the diminished intervention of the state concerning development and welfare; the dramatic growth of financial institutions; the implementation of new relationships between the financial and non-financial sectors, to the benefit of the former; a new legal stand in favor of mergers and acquisitions; the strengthening of central banks and the targeting of their activity toward price stability, and the new determination to drain the resources of the periphery toward the center (Duménil & Lévy, 2005, p. 10).

When these rules are viewed as a whole, it is possible to better understand why neoliberalism has brought about radical change and how profound an impact it has had on the individual, state, society, and system levels. The critical point here is that by state-backed policies neoliberalism ‘offered a finance-friendly solution to the problems of capital accumulation’ (Saad-Filho & Johnston, 2005, p. 4), because it basically refers to financial expansion of the last hegemonic power. That’s why ‘the most basic feature of neoliberalism is the systematic use of state power to

impose (financial) market imperatives, in a domestic process that is replicated internationally by ‘globalization’ and finally;

neoliberalism is a particular organization of capitalism, which has evolved to protect capital(ism) and to reduce the power of labour. This is achieved by means of social, economic and political transformations imposed by internal forces as well as external pressure. The internal forces include the coalition between financial interests, leading industrialists, traders and exporters, media barons, big landowners, local political chiefs, the top echelons of the civil service and the military, and their intellectual and political proxies (Saad-Filho & Johnston, 2005, p. 3).

For this reason, the state’s monopolies of law-making, taxation and use of violence have often been used to implement neoliberal policies and create a neoliberal world. With the features mentioned above, the state has become a tool for global capital to implement neoliberal policies. Indeed, since the beginning of the neoliberal process, state monopolies have been frequently used in all efforts towards privatization, commodification, financialization processes, manipulation of public resources to serve capital, and curtailment of social rights. While the fundamental principle of neoliberalism is to reduce the state and remove all obstacles to capital mobility, it is ultimately seen that the state has actually become smaller in the face of capital but has grown even larger in the face of the people through the intensive use of its monopolized powers, turning into a ‘leviathan’. Moreover, as neoliberalism transformed the state, it also transformed the state bureaucracy, leading to the emergence of a bureaucratic class that prioritizes the interests of corporations over the public. The distinction between corporate executives and bureaucratic representatives has gradually disappeared, and transitions between the two groups have even become more frequent. All these transformations were legitimized by neoliberal globalization discourses.

Considering the transformation caused by neoliberalism at the individual and societal levels, ‘private enterprise and entrepreneurial initiative are seen as the keys to innovation and wealth creation’ and ‘individual right to freedom of action, expression, and choice must be protected. The state must therefore use its monopoly of the means of violence to preserve these freedoms at all costs’ (Harvey, 2005, p. 64). However, the state does not resort to the monopoly of using violence in cases of interference with these individual rights and freedoms, but rather in cases of the right to organize, environmental rights, the right to defend public resources, labor rights, and social rights. As mentioned above, neoliberalism is also a project to create a stateless society and an individual without society. Therefore, even though individuals appear to be completely free within the context of rights and freedoms defined within the neoliberal framework, the demands they put forward as social beings can be ignored or simply subjected to the state’s monopoly of violence. For this purpose, while individuals’ personal freedoms and rights, cultural demands, and charitable works (volunteering in jobs that were once generally the responsibility of the state) are supported and blessed, their social and political demands based on labor, justice, and equality in several areas are seen as threats and usually punished with legal and physical means. Thus, the individual, removed from the social structure, has been transformed into an atomic being whose success

is attributed to the capitalist system and whose failure is attributed to him/her (Harvey, 2003, pp. 65–66).

At the societal level, the gap between state and society, and between individuals and society, appears to be inaccessible to any mainstream ideology. Classical left-right politics has lost its meaning, and political parties appear to have been left to be political mechanisms that produce or defend any values. This deep gap appears to be filled by shallow, crude, exclusionary, irrational, and usually nationalist populist leaders who lack any ideological consistency. The current political landscape of the world clearly demonstrates how neoliberalism creates a gap between the state, society, and the individual, and how this gap negatively impacts the production of inclusive political values other than irrational choices.

2.5 Concluding Remarks: BANI World or the World Made by Neoliberalism

Understanding the *Zeitgeist* of a peculiar period is often vital and inevitable when analyzing societies, social groups, and ultimately the individuals that compose them, within their respective eras. Such an analysis makes it easier to understand the periodic characteristics, present figures, behaviors, and identities, as well as the shared values, emotions, thoughts, and perceptions of the same period. So how do we understand the *zeitgeist* of a particular period, or what kind of processes and/or variables should we look at to understand or at least sense it? The nearly 500-year journey of historical capitalism, which has transformed into a world political economic system since the sixteenth century, gives us the necessary clue. Because historical capitalism has not only spread its endless capital accumulation model throughout the world through internationalization and/or globalization processes but has also succeeded in standardizing different cultures through political, economic, and sociological modernizations. It had happened once before in the capitalist world, and the reason for this was the emergence of monotheistic religions. Therefore, we can argue that of the two significant events that have standardized historically diverse cultures, ethnicities, and belief systems on a global scale, the first is the emergence of monotheistic religions, and the other is modernization, which constructed the capitalist world in line with the endless capital accumulation process. Thanks to modernization, capitalism has managed to connect even the most remote corners of the world politically, economically, and sociologically to the center and create a *global* world order. This situation, at least, gives us the opportunity to sense and understand the *zeitgeist* of a certain period of the modern world. This clue is the political economy, which not only ensures the production and trade of goods and services in a capitalist society but also the management, protection, and reproduction of the production and trade processes. Similarly, in the modern world, power relations and forms of power change within political economic processes, and thus, mechanisms of consent and coercion also

shift in line with the *zeitgeist*. This change brings about the dominance of certain values, ideologies, discourses, and means of legitimacy at certain times, shaping the emotions, thoughts, behaviors, and perceptions of both societies and individuals.

Likewise, in order to analyze the *zeitgeist* of today's BANI world, it is necessary to look at the political and economic developments of this period and the recent past, and the political, economic, social, and psychological elements on a global scale that these developments have caused. Of course, variables such as COVID-19, climate change and postmodern narratives have contributed to and accelerated the blurring of reality and the perception of the world as Brittle, Anxious, Nonlinear and Incomprehensive, abbreviated as BANI. As is known, before 2020s BANI, in the early 2000s, the term VUCA was used (Tshetshe, 2025) to reflect more or less the same idea, claiming that the world we live in is chaotic (Sidor-Rzadkowska, 2022) and in this chaotic world 'individuals feel overwhelmed and struggle to find easy ways to adapt' (Tshetshe, 2025).

So how did we suddenly find ourselves in such a chaotic world in the twenty-first century? Has reality disappeared, or is something manipulating our perceptions of reality? The way to answer these questions and to make an analysis by bringing together the main ideas in the above sections of this article (combination of values, hegemonic transformation, and the role of neoliberalism) is to take September 11, 2001, as a turning point. The date of September 11 is a real turning point; between globalization and the resurgence of the nation state, between cross-border freedom and security walls, between the politics of inclusion and exclusion, between cosmopolitanism and nationalism, between world peace and geopolitical wars, between liberal democracy and authoritarian regimes, between libertarian and democratic leaders and anti-democratic populist leaders. While we were living in a world where neoliberal globalization was taking place before September 11, and the actors, processes, and values ranked first were valid, a transformation in the exact opposite direction took place in the post-September 11 period and the actors, processes and values ranked second above have become valid until today. In other words, we suddenly found ourselves leaving the paradise of neoliberal globalization, where reality was certain and Western democracy built on a free-market understanding was the only truth, and found ourselves in the worlds of VUCA and/or BANI.

To understand how September 11 became a symbol of such a radical transformation, it is necessary to briefly touch upon the changes and transformations that the US hegemony has experienced since World War II. Because each change within this hegemonic structure, which is a systemic cycle, not only changes the direction of the capitalist world, but also adds new actors, new processes, and new values to the capitalist society and carries it to the next 'new world order'.

Immediately after the War, through the Marshall Plan, European Economic Community, and NATO, a strong alliance between the US and capitalist Europe was established. Thus, strong cooperation, including economic, political, and security areas, between the two capitalist powers has been enabled. Furthermore, these initiatives fostered the emergence of the institutions, rules, and regulations of

the new world order led by the US. In fact, this new order ushered in the largest and most comprehensive period of material expansion in history over the next quarter century. Between 1948 and 1971, the world economy grew by an average of 7.3%, the highest rate since 1860 (Arrighi, 2010). During this material expansion period under the US hegemony, the level of prosperity of capitalist societies took a leap forward, like never before.

As you may recall, Strange talked about four fundamental values —*wealth, justice, freedom and security*—and stated that a combination of these values is valid in every society and at different times within the same society. As for the material expansion period of US Hegemony from 1948 to 1971, although the establishment of NATO, the beginning of the Cold War, the Korean War, and most of the Vietnam War occurred during this period, the primary value of the period was the *wealth*. In this period, it is clearly seen that the welfare levels of capitalist societies that had escaped the devastating effects of the War increased enormously, and that there was a creative competition and more cooperation based on a win-win game between capitalist powers. During this period, the main aim of all governments, both in the West and outside the West, was to raise the welfare level of their societies as much as possible. For this reason, these capitalist powers have demonstrated a willingness to adopt the rules and institutions required by the new world order established under US leadership. In this period when the rules and institutions of the new world order were just being adopted, the values of justice, freedom and security were secondary in the combination of values.

However, the capital accumulation cycle was once again emerging with its fundamental characteristics, and by the mid-1970s, this period of immense prosperity was declining, and the world economy was once again entering crisis. By this time, in the West, no trace of the prosperity of 10–20 years prior had vanished, and unemployment had begun to double and inflation to triple. The 1973–74 oil crisis and America's inability to respond signaled that something was changing. Just as the American material expansion of the 1950s and 1960s was structurally similar to the British material expansion of 1840–1870, the crises of the 1970s were similar to those of the 1870s, which we commonly refer to as crises of over-accumulation (Arrighi, 2010).

The overaccumulation crisis caused new investments to no longer be made profitably, leading to a surplus of capital; the inability to create new jobs led to increased unemployment; the oil crisis led to increased inflation, and the level of social welfare deteriorated radically. Left-wing and social democratic movements, which claimed to restore the disrupted balance of welfare and, in particular, to address the suffering of workers and the poor stemming from income inequality, were on the rise during this period. At the same time, the growth of the working class, particularly in the non-Western world, due to the acceleration of urbanization under the influence of industrialization, led to the emergence of a strong left-leaning working class during the crisis environment of the 1970s. These leftist movements, backed by the anti-war, libertarian, and civil society protests of 1968, which generally coalesced around student movements, emphasized justice and

freedom throughout the 1970s, and thus *justice and freedom* became the primary values in Strange's combination of values of this period.

The overaccumulation crisis that dominated the 1970s led to the end of the material expansion of American hegemony and a shift in the preference for a capital accumulation model from trade and production to financialization. As mentioned earlier, the Fed's decision to raise interest rates in 1979 led to the implementation of entirely monetary policies, ushering in the neoliberal era.

As financial expansion of the US Hegemony, Neoliberalism, the era of monetization, implemented the principles of liberal democracy and the free market to remove all obstacles to fluid capital and shaped its policies toward the free flow of capital through global channels. This freedom is achieved through the shrinkage of states, the elimination of borders, privatization, and the commodification of previously public goods (universities, hospitals, education) and nature. Credit and debt systems through financial institutions compel weak states to comply with neoliberal policies, often even forcing the so-called state apparatus to implement them at the expense of its own people (Harvey, 2005).

In the financial expansion phase, capital accumulation is also financialized, that is, provided by financial instruments (making money from money—MM'). This process paves the way for capitalists who have accumulated surplus capital during the material expansion phase to shift their investment options from commodity capital to financial instruments. The most important financial instrument at this stage is government debt. Government debt represents high, guaranteed returns and low risk. Because states possess the "monopoly of using violence and defining what is legal," they also possess the capacity for coercive taxation, and with these characteristics, states effectively roll over debts.

As mentioned earlier, periods of financial expansion also mean the *autumn* of the current hegemonic structure. On the other hand, periods of financial expansion are also an inevitable way to escape the overaccumulation crisis that emerged as a result of material expansion and to create a new breathing space for capital. Therefore, periods of financial expansion are fundamentally comprised of two very different stages. The first stage is the period of financialization, the establishment of financial instruments and financial institutions, increased capital mobility, and the removal of barriers to capital. Throughout the 1980s and 1990s, we experienced this stage as the era of neoliberal globalization. The globalization myth was legitimized by the free market, liberal democracy, and freedoms. Therefore, the primary value in this period's combination of values was *freedom*.

As for the second stage, this stage is directly related to the financial expansion process being the *autumn* of the present hegemony. At this stage, the cooperation between capitalist powers in the material expansion era is being replaced by competition involving geopolitical wars and conflicts. Therefore, *freedom* of the first stage of financial expansion as primary value is being replaced by *security*, and thus in the values combination the primary value is *security*.

In this new situation, where geopolitical options are back on the table after a long break and new hegemonic candidates are rising from different poles, *security* is the primary value, so much so that *freedom*, which was the primary

value of the immediate previous period, can only find itself in the last place after wealth and justice. Therefore, September 11 is an important date that symbolizes the transition from global freedom to geopolitical security.

Thus, the post-September 11 world was radically different from the neoliberal globalization period of the previous decade, which promised freedom, human rights, liberal democracy, development, prosperity, and world peace. This period, in which wars, geopolitical strategies, regional conflicts and global terrorism are on the rise, is also accompanied by economic crises that deepen as they recur. First, with the developments following September 11 (war, occupation, terrorism, uprising, etc. all over the world) and then with the COVID-19 pandemic, the emphasis on internal and external security has increased in almost every state and international institution, and keeping the perception of security high has become the dominant measure of daily politics.

As a result, in this period when the zeitgeist is surrounded by security, it is not surprising that concepts such as VUCA and BANI have emerged. So much so that in neoliberal society, which consists of societies left without a state and individuals left without a society, their social rights have long been usurped, and institutions, values, ideologies and theories have been commodified and presented for the benefit of capital. In a world where military and security policies are prioritized, economic crises are deepening, and anti-freedom authoritarian populist leaders are on the rise, workers not only cannot live decently with wages and retirement rights but also lack job security. Students are uncertain that the education and training process offers them a future. Investors seeking to increase their capital through pure capitalist activities are struggling to find a haven for their investments. Many people no longer have faith that inequality and poverty can be resolved in a just manner. Similarly, many people today do not trust either governments or intergovernmental organizations to determine common human action regarding nature, the environment, and the Earth.

Here, to understand the world we live in today, I tried to make clear that the post-September 11 world has formed the zeitgeist that gave birth to the concepts of VUCA and/or BANI. If we understand the dynamics functioning today, we can at least have an idea about the near future. Of course, we may not know the future, but we can know the dynamics that create it.

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Chapter 3

Addressing Inequalities Through a Pluriverse of Alternatives: Three Case Studies from India



Avinash Kumar

Abstract This paper situates the contemporary crisis of inequality within the global political economy shaped by neoliberalism and the post-COVID world marked by fragility, anxiety, and ecological precarity. While the BANI framework usefully captures today's brittle and uncertain realities, it remains limited in its engagement with the structural roots of inequality embedded in market-driven growth models. Focusing on India, the paper highlights how the celebrated growth story masks persistent poverty, deepening precarity, and systemic marginalisation of Dalits, minorities, and especially Scheduled Tribes. Against this backdrop, the study explores three case studies that embody alternative pathways of resistance and transformation. The first, rooted in pandemic-era struggles, demonstrates how collective mobilization through public hearings and inquiry committees challenged state neglect and demanded accountability. The second case examines a fluorosis mitigation programme in tribal Madhya Pradesh, revealing both the gains of targeted interventions and the limitations of vertical, beneficiary-driven models. The third study, from West Bengal's Dooars, illustrates how community–state–civil society collaboration can generate climate-resilient, livelihood- oriented, and ecologically sustainable practices. Together, these cases explore the possibilities of a pluriverse of alternatives—grounded in equity, solidarity, and ecological justice—while underscoring that genuine transformation must go beyond symptomatic relief to address structural roots of deprivation.

Keywords Inequality · Neo-liberalism · Pluriverse · Community · Alternatives · Solidarity · Justice

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3.1 Introduction

The occasion for this chapter arises at a time when the world seems to be going in a tailspin. Localized wars are impacting entire regions threatening to engulf the world; populist electoral autocracies riding on the wave of isolationism are bringing tariffs and anti-migration policies and anti-poor and anti-minority hysteria seem to be the norm of the day. Inequality, internal and external wars and social strife have become synonymous with the new normal. As the proverbial Yeats quote never gets old: ‘Things fall apart, centre cannot hold; Mere anarchy is loosed upon the world’.

Framing this crisis, the editors of this volume point out in the call for papers that ‘BANI concept has gained relevance in the wake of impactful global events post the onset of the COVID-19 pandemic in 2020. People interpreted the BANI as reflective of a brittle, anxious, non-linear, and incomprehensible world, highlighting the unprecedented challenges posed by post pandemic wellbeing issues, concerns for rising inequality and climate crises.’ While it is for the editors to elucidate the details of the concept and its ramifications for the present world, what is clear indeed is that, yes, the world post-COVID has indeed become brittle and fragile, living on the edge. Things have become far more unpredictable giving rise to new sets of anxieties around how to bring back things to the ‘older normal’, where businesses and people and states could go about their businesses as usual. Jamais Cascio who coined the term, emphasized on bringing back values like empathy, resilience, flexibility and transparency in order to address the present crisis. (Obenaus, [n.d.](#)). However, as is evident, the crisis is not limited to businesses nor can merely addressing of leadership within the organizations the larger crisis be addressed. While BANI remains a useful concept to capture what’s happening to the present world, you cannot address a disease based on the symptoms. For that you need to understand the underlying causes and then address the same. It is in this context that BANI has been rightly critiqued for ignoring the historical and structural roots which have led to the present moment. Going deeper into structural roots would mean recognizing how the present phase is an outcome of untrammelled market driven, profit obsessed extractive political economy which has made the world fragile socially, economically and ecologically. This phase came out of what is known as ‘Washington Consensus’. The term was used to apply to a broader policy framework that the IMF and the US government urged on all developing countries. These policies included cutting government spending and balancing the budget; reducing marginal tax rates; eliminating tariffs and other barriers to trade; privatizing publicly owned companies; encouraging foreign companies to make direct investments; and liberalizing flows of financial capital. As a result, a system, noted economist Joseph Stiglitz wrote, “one in which a few institutions—the World Bank, the IMF, the WTO—and a few players—the finance, commerce, and trade ministries, closely linked to certain financial and commercial interests—dominate the scene, but in which many of those affected by their decisions are left almost voiceless.” (Cassidy, [2025](#)).

States have played a part in this developmental model backed by a consumer-driven, unrelenting search for instant gratification. “Whether under state planning in the past or under the business-friendly regime now in place, India’s economic and technological policies have taken little (often no) account of the country’s resource endowments or of broader questions of environmental sustainability,” the historian Ramachandra Guha wrote in his biography of Gandhi. Consequently, Guha went on, modern India is “an ecological disaster zone, marked by deforestation, species loss, chemical contamination of the soil, declining soil fertility, depleting groundwater aquifers, and massively high rates of atmospheric and river pollution.” (Cassidy, 2025).

All that at the expense of the marginalized and the voiceless poor. However, the logic of this unregulated neo-liberal economy has been such that the middle class which initially expanded and benefitted out of this path to development, is now staring at the brink of stasis, with few jobs on offer, even fewer means for social protection. This logic demanded that all social protection be rolled back, the state cut its so-called ‘inefficient subsidies’ to the poor while continuing to give economic incentives to the capitalist class, which would fuel growth. However, that growth has now reached a point where it has been termed as a ‘jobless growth’.

More importantly, this juggernaut of economic model has also made sure that the hegemonic battle of ideas is always skewed in its favour. While it was Karl Marx who said that ideologies prevalent in any society are those of the ruling classes, it was Antonio Gramsci, who developed this idea further in his ‘Prison Notebooks’ conceptualizing the idea of ‘hegemony’. It’s the intellectual and cultural hegemony that allows the ruling classes to capture the minds and imagination of the people in general. In their recent book, George Monbiot and Peter Hutchison argue that neoliberalism—a dominant political-economic doctrine promoting free markets, deregulation, and minimal state intervention—has quietly reshaped modern societies into an invisible yet pervasive ideology. They trace its origins to the 1930s intellectual sphere—notably figures like Friedrich Hayek—and reveal how a coalition of think tanks, wealthy elites, media outlets, and educational institutions systematically embedded this doctrine into policymaking across both right- and left-leaning governments worldwide. (Monbiot & Hutchison, 2024). Hence, this logic of an unchecked growth-driven free market model was imbibed by even those questioning its aftereffects. As the inequality increased sharply and social strife began to hit the roof impacting businesses and their profits, ironically even the meaning of ‘development’ changed its colours. Scholar-activist Nick Dearden observed some years ago, “Back in the heyday of “development”, from the 1950s–1970s, the term had been closely associated with national liberation governments like those of Kwame Nkrumah in Ghana and Julius Nyerere in Tanzania, which fought poverty, deprivation and dependence by using strong state intervention and provision”. Ugandan activist Yash Tandon described development as “people’s struggle for liberation from prevailing structures of domination and control over national policies and resources.” For Tandon, development was not merely about economic growth or institutional reform—it was fundamentally about dismantling the legacies of colonial exploitation and shifting control

over resources and policymaking from the Global North to the Global South (Dearden, 2015). However, this definition of development was soon jettisoned for a resource extractive, growth-driven model which argued that development was contingent upon profit and growth, and the more the profit, the more the growth, the greater the pie to be shared amongst all. This logic and meaning of development has been followed even by various UN definitions including Millennium Development Goals (MDGs) and Sustainable Development Goals (SDGs) which while talking of reducing poverty, inequality, and addressing climate crisis, never questioned this model of development, rather once again believed that with more growth, there will be more money to address poverty. Unfortunately, two-third down the line since SDGs were rolled out in 2016, we seem to find ourselves in a greater predicament. The logic of ‘sustainable development’ premised upon unregulated market therefore becomes suspect.

In a recent essay (Demaria et al., 2023), stress the need to go beyond the mere critique of present models of development and argue for looking at possible existing alternative practices many of which emerge from the global south. According to them, “What is remarkable about these alternative proposals, however, is that they often arise from traditionally marginalized groups. These worldviews are different from dominant Western ones as they emerge from non-capitalist communities or from non-capitalist spaces such as the household sector in the global North. Firstly, they seek to transform the structural roots of global injustice along political, economic, social, cultural, and ecological axes. Secondly, they question the core assumptions of the development discourse—growth, material progress, instrumental rationality, the centrality of markets and economy, universality, modernity, and its binaries. Thirdly, they encompass a radically different set of ethics and values to those underpinning the current system, including diversity, solidarity, commons, oneness with nature, interconnectedness, simplicity, inclusiveness, equity, non-hierarchy, pluriversality and peace” (Demaria et al., 2023).

The present essay seeks to establish the grounds for possible alternatives within that framework by taking the larger state of political economy in India into account. It seeks to break it down for what it means to those on the margins. Following the editors’ plea for ‘compassionate thinking’, it further seeks to bring in three case studies: one of collective resistance, a beneficiary-driven model of vertical emancipation, and finally, a more wholesome community-driven programme which seeks to bring market, state, and community in a tri-partite collaborative relationship. Looking at the merits and challenges of each of these models, it seeks to outline possible alternative paths to emancipation. While these stories don’t necessarily make the larger claims of challenging the growth-driven model, they do show alternative pathways for ecologically sustainable, equity-driven communities. All three case studies are interestingly centred around the lives of Scheduled Tribes from different parts of India, if only to showcase that change and learning are often possible from the most marginalized.

3.2 Socio-Economic Landscape of India Today

Let's pull back a little and look at the macro picture that India presents today. In its fourth decade since liberalization, India presents a picture of large achievements. With a consistent over 6% growth over decades, its services sector-led boom backed by a rising middle class, the country recently boasted of becoming the fourth largest economy in the world. Evidently, despite COVID-19 setback, which had threatened to derail the growth story, India is back on track and is now dreaming of becoming a 5 trillion-dollar economy soon. According to one analyst, "Once an agrarian economy, with about half of its gross value added (GVA) coming from agriculture and allied sectors at the time of independence in 1947, the country has emerged as a global hub for services in the twenty-first century. The services sector, now accounting for roughly half of India's gross value added (GVA), has been a key engine of growth. Industries such as information technology, financial services, and telecommunications have positioned India as a global leader in outsourcing and digital innovation. (Born, [n.d.](#)). One of the factors outlined for this growth story and future possibilities is India's demographic dividend, as it is among the youngest nations in the world. With a median age of about 28 years, the country has one of the youngest populations in the world. As of 2023, approximately 35% of India's population was residing in urban areas, and this figure is projected to rise to over 47% by 2050, fuelling the growth story. India's middle class is expected to account for 46% of the population by 2030 and more than 60% by 2047. This growing middle class is a major driver of consumption across a wide range of sectors, including housing, retail, automobiles, and services such as healthcare and education. (Born, [n.d.](#)). Accordingly, exuberant claims of poverty rates having gone down sharply have been made by a range of experts and institutions. The World Bank has revised its poverty estimates for India for 2022–23 at 5.3% based on the international poverty line of USD 3.00 per day per capita (2021 PPP), up from 2.3% under the earlier USD threshold (2017 PPP). (Jose & Hussain, [2024](#)).

The question amidst all this plethora of data is, where do the poor figure in it? It's interesting to note, therefore, that in the recently released Bihar Socio-economic Caste Census, it was found that approximately 34.1% of families in Bihar—94.4 lakh out of 2.97 crore families—survive on less than Rs 6000 per month, even lower than the World Bank's extreme poverty line (which the latter claimed had been almost eradicated). Another 29.6% (81.9 lakh families) earn between Rs 6000 and Rs 10,000 per month. (Jose & Hussain, [2024](#)). The Economic Survey of 2025 has pointed out that while corporate profits touched a 15-year high in 2023–24 growing by 22.3%, wage growth has failed to keep pace and employment expanded by a mere 1.5%. Scholars have termed it a 'jobless growth'. India today tops the Global Multidimensional Poverty Index with 23.4 crore of its citizens below an already low 'poverty line'. The latest surveys also show that agricultural labourer's wages dropped by –1.3% annually in rural areas, and non-farm rural wages fell by –1.4% annually during last five years.

Let's look at the debt situation and asset situation of the vast masses. In the year 2000, household savings accounted for 84% of the total savings in the economy, but this share dropped to just 61% in 2023. Recent studies show that household financial savings have been declining sharply due to a surge in financial liabilities, primarily unsecured personal loans. The stock of household debt has increased in past three years. What is most concerning is the fact that the debt is not a result of building assets. The stock of household assets has fallen which means people are borrowing for their consumption. (Wada Na Todo Abhiyan, 2025a).

Now let's turn to measures of social protection for the poor. The central government pays Rs 200 per month to the elderly as a social pension—a figure unchanged for over 15 years, despite cumulative inflation exceeding 100% over the same period, making the payout meaningless. Similarly, the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), a critical safety net for rural workers—75% of whom are women—has declined in real terms, its share of the total budget having dropped during the past year. The budget for food subsidies has also been reduced precisely at a time when we are slipping into an abyss in the global hunger index. It goes without saying that it is the historically marginalized—the Dalits, the minorities, and women—who suffer the most with every penny denied in social welfare. Among the big data points, let's look at hunger. In the 2024 Global Hunger Index, India ranks 105th out of the 127 countries. With a score of 27.3 in the 2024 Global Hunger Index, India has a level of hunger that is *serious*. According to the same ranking 35.5% children under five are stunted (the share of children who have low height for their age) and 18.7% children under five are wasted (children with low weight for their age). Overall, 13.7% of the population is undernourished. (Global Hunger Index, 2024). In terms of policy response, since the implementation of the National Food Security Act (NFSA) in 2013, over 5.97 crore ration cards have been deleted in the name of streamlining and targeting. Though Aadhaar-based deletions are positioned as anti-duplication efforts, they have often led to the wrongful exclusion of legitimate beneficiaries. Biometric failures disproportionately affect the elderly, manual labourers, and economically weaker groups, denying them food they are legally entitled to. The exclusions persist despite an October 2024 Supreme Court order directing that all workers registered on the e-SHRAM portal should be given ration cards. (Wada Na Todo Abhiyan, 2025c).

And now contrast this with the fact that from 2014 till date the Indian commercial banks have written off more than Rs. 16 lakh crores. And it is in this context that it becomes important to recognize that as against the sheer volume of GDP, India ranks 144th (out of 196) in per capita GDP.

What does the above-mentioned per capita mean for an average tribal person in India? The Tribal Health Report highlights that around 40.6% of the Scheduled Tribe (ST) population continues to live below the poverty line, nearly double the 20.5% rate observed among non-tribal groups. This gap is even more pronounced in rural areas, where over 45% of ST individuals are estimated to be living in poverty, according to figures cited in the Ministry of Tribal Affairs' 2021–22 Annual Report. (Horo, 2025). According to data from the National Family

Health Survey (NFHS), life expectancy at birth for Scheduled Tribes is significantly lower than the national average, with high rates of malnutrition and inadequate healthcare services. It must be kept in mind that India has the world's largest tribal population, with tribal people accounting for 8.6% of the country's total population. Almost 75 tribal groups are the most vulnerable among 705 ethnic groups in India, each with its own social and cultural characteristics. The last National Family Health Survey (NFHS 2019–21) also reports that nearly 13% of Indian women are underweight, while 33.2% are overweight. Almost 17.4% of tribal reproductive women belong to underweight. (Das & Munda, 2022).

The purpose of data crunching above was not merely to inundate the reader with numbers but to elucidate two levels of deep-rooted challenges that exist. One is the continuing lag that a large mass of rural, urban poor, Dalits, tribals and minorities suffer from the dazzling growth story and second, more crucial is the fact that it is the inherent logic of this services driven, urban infrastructure centric growth story which gives a wide berth to a minuscule corporate class in sync with state. And that keeps the poor and most marginalized where they are. While on one hand, there are large corporate subsidies and loans being given and written off (as evidenced by data) in the name of 'incentives', basic measures of social protection, an economic framework that could include more and more people in this growth story, is simultaneously being discarded. State policy, corporate profiteering and pauperization of the masses are but *three* sides of the same coin, to stretch the phrase a bit further.

3.3 Acts of Social Movement Backed Resistance: A Case Study

However, in a context where there is a general crisis of accountability and elite capture backed by rent seeking, very often a cataclysmic instance like COVID-19 which made people's misery starkly visible, also provide opportunities to bring the state to account through people's organized resistance. This case study seeks to examine one such instance in greater detail. While a comprehensive account of the COVID-19 pandemic's impact globally—and in India in particular—is beyond the scope of this paper, it is now widely acknowledged that India recorded one of the highest numbers of excess deaths during the period. Access to healthcare and emergency services declined significantly at a time when the country's public health infrastructure was already under strain. Although the pandemic was often described as a shared global experience—captured in the phrase “everyone is in the same boat”—this narrative obscured the profound disparities in how different segments of the population were affected. The mass movement of migrant workers, many of whom walked hundreds of kilometres under hazardous conditions, some succumbing to exhaustion or facing police brutality, highlighted the differential vulnerabilities within society. Rather than merely reflecting institutional shortcomings, the state's response in many cases appeared to exacerbate existing inequalities. Simultaneously, certain private actors were seen to benefit materially from the crisis, raising further concerns about equity and accountability.

In the immediate aftermath of the destruction that COVID-19 left, a group of civil society actors, grass roots workers, community leaders, academics and retired professional got together to start a process of investigating what had happened to the communities already on the margins, what role state played and what role the market played in this seemingly unending storm. The result was formation of a process called Public Enquiry Committee (PIC) and Public Commission (PC). According to the website set up by the group: *'Public Inquiry Committees' and 'Truth, Accountability & Justice Commission (People's Commission)' on COVID-19 Pandemic in India* 'is a collective formed across India is in the process of forming public inquiry committees, empowering people to investigate/question and initiate a public process of asking for state and private sector accountability.' (Kumar, 2021). As a result of this exploration where retired judges, public health experts, former bureaucrats and seasoned activists joined hands together, a series of public hearings were held, grass roots data captured covering communities like forest workers in Uttar Pradesh, Adivasi dwellers in Jharkhand, handloom weavers in Andhra Pradesh and Telangana and street vendors and waste pickers in and around Delhi. It would be useful to look at some of these stories.

3.4 Methodology

This series of public hearings were based on the household surveys covering key information from the select tribal villages. In addition, select number of people were invited to depose before the Inquiry Committees. Author was himself present in four of these hearings as a member of the jury. Hence, a total of 17 depositions were made covering experiences of about 150 families of Manikpur block in Chitrakoot district at the hearing. The break-up of the cases shows that less than 45% of presentations concerned medical issues, whether COVID-19 or otherwise. Fifty-five percent related to other types of traumatic experiences during this period. Similarly, in Sonbhadra district, 40 case depositions were made covering stories of 233 families, and in Chandauli district, 15 case depositions were made covering stories of 693 families. These depositions from Sonbhadra and Chandauli show that 95% and 53% of the cases, respectively, were problems people faced during a pandemic and those which got accentuated during the pandemic, such as atrocities by the forest department or police officials. All the three districts fall in Uttar Pradesh. Similarly, 230 individuals associated with waste picking were interviewed covering four landfill areas across Delhi NCR and 40 depositions were made before the Inquiry Committee. Two public hearings conducted in two parts of Andhra Pradesh—Chirala and Madanapalle and one in Telangana—Pochampalle were focused on the handloom weaving community where they reiterated the reality that the handloom sector and weaving community are on a steady decline as power loom expands. The stories are taken out of these surveys and depositions.

3.4.1 *Stories and Findings*

Rajkumari, along with many other families, had been tilling the land in Sakraunha panchayat for years just like her ancestors. During the lockdown, their standing crops of peas, gram, and barley were either burnt down or fields were dug open by the officials of the Forest Department on the grounds that they were “illegally” tilling these lands. When they went to meet the District Magistrate of Chitrakoot to lodge their complaint, they were reportedly told: “What do you have to do with the land? You are *shudras*. Your job is to labour. Better go and work under MGNREGA.” In another case, many families’ standing crops were crushed under the tractors and cases were filed against them for which they must repeatedly appear before courts with no relief in sight.

Or take the case of Mahadeiya, who lost her unborn child in the process of being sent from Manikpur CHC to Karvee district hospital and then to Prayagraj district hospital—losing thousands of rupees in the process.

While the state officials asked these labourers to go and work under MGNREGA, there were many cases in which the labourers were given payment for just 12 or 15 days as against 45 days of work. All these stories were from one single block of Chitrakoot district—Manikpur—in Uttar Pradesh alone, mostly inhabited by the Adivasi Kol community. These stories were narrated at a public hearing organized by All India Forest Workers’ Union to investigate the three Ds: Death, Debt and Distress due to then ongoing COVID-19 pandemic—or rather the State’s response to it. (COVID Truths, [n.d.](#)). As a jury member observed: “In 55% of the cases, the problems experienced were the direct result of the Central government’s policy of not treating the pandemic as an illness where people should be protected by the state but (instead, the policy of) spreading terror.”

One public hearing done in Bhalaswa landfill, Delhi brought out stories of issues faced by waste pickers’ community during COVID-19 and the subsequent lockdown. Their narratives and tale of miseries ranged from no income during COVID-19 to decreased income since the pandemic leading to relying on private money lenders to merely sustain themselves and their families, increased debt (to the tune of lakhs), privatization of waste management and their forceful eviction from their only means of livelihood. They were forced to pay up levies to the private contractors, to be able to collect waste or sweep, while kids missed out on education and forced to work under unhygienic conditions. (Covid Truths, [n.d.](#)). Their demand from state was an honest and strict implementation of Solid Waste Management Rule 2016, giving them freedom from municipality contractors, water, electricity and toilets at workplace and a space to segregate waste. The rights which they are already entitled to under the mentioned rule.

Similarly, a series of public hearings was held with handloom weavers in Andhra Pradesh and Telangana. In one such public hearing held in Chirala, revealed that during the pandemic and the lockdown, weaving works available were so low that they had to rely on other jobs to make ends meet. Master weavers reduced amount for the weavers during the pandemic. This simultaneously resulted

in an increased suicide rate among handlooms weavers which resulted in their partners struggling to fend for themselves. The community's repeated request to the government for a COVID relief package which would also aide in limiting suicides were not paid any attention to by the government. This resulted in increased loans when one of their family members fell sick. The community also recalled how the government had not listened to their constant demands of GST exclusion, providing yarn at subsidized rates and controlling power looms. The education of kids was compromised during the pandemic as they struggled with access to digital devices and stable internet connection. (Covid Truths, [n.d.](#)).

These stories make it abundantly clear that poverty is not some abstract misfortune or an act of God—as many described the COVID-19 pandemic—but the result of an actively sustained system, very often upheld by state institutions and an unaccountable, profit-driven market, particularly in sectors like healthcare. What must also be underlined is that while immediate victories may be elusive, alternative models of development cannot emerge without collective resistance.

It's interesting to note that PC-PIC got the Andhra Pradesh government to issue health insurance, medical insurance, and cards for all the weavers. The Andhra Pradesh government initially announced a full waiver of GST for handloom weavers. However, it was later clarified that GST includes both Central GST (CGST) and State GST (SGST), and only the Union government has the authority to waive CGST. The state corrected its position: it would waive the SGST component, and, for the CGST portion, it would reimburse the Union Government on behalf of the weavers. This ensured that handloom weavers would not have to bear any GST burden. Currently, no GST must be paid by the handloom weavers in Andhra Pradesh. (The New Indian Express, [2025](#)). However, this became possible largely also where unlike other states where public hearings and Inquiry Committees worked, there was a stronger organized labour union and a somewhat more responsive government that worked together.

The narratives shared above are not merely accounts of suffering caused by a crisis, or by those complicit in perpetuating it—they are also acts of resistance. The very act of recounting these experiences in organized, collective spaces becomes a form of defiance. Only by naming and analysing the systemic, institutional roots of exclusion, deprivation, and exploitation can we begin to imagine and build a more just, democratic, and resilient model of development—what Ashish Kothari and others have called a *pluriverse of alternatives*.

3.5 A Model of Beneficiary Driven Intervention

3.5.1 A Note on Methodology

This programme was focused on directly implementing a fluorosis mitigation initiative in 38 highly affected villages in Jhabua and Ali Rajpur districts reaching out to a population of 40,000. An NGO worked directly with schools, anganwadis

and local government in 38 villages (28 in Jhabua District & 10 in Ali Rajpur). It also aimed to establish district level policy advocacy platforms that would benefit 5 lakh people across 240 villages in the 2 districts.

The model involved working at 3 levels:

1. Individual Level—with affected children, pregnant & lactating women to reverse fluorosis through safe water & good nutrition
2. Village level interventions to protect & promote safe water sources, communication to drive improved nutrition intake through nutrition gardens, supplements & food choices
3. District level water quality platforms to embed these interventions in key line departments for long term change

This case study includes desk review of the programme, socio-economic context of the two districts of Jhabua and Alirajpur, the problem of water scarcity and fluoride contamination in water sources, the intervention strategy adopted by the local NGO etc. It then included direct visits and meetings with the NGO staff, key stakeholders including community members, local PHE engineers, PRIs, farmers and trained staff and community leaders. Focused Group Discussions were held with communities and one to one in-depth interviews were conducted with state officials and other NGOs active in the area. The visit sites were selected as samples covering the two districts covering 12 villages, ensuring diversity of location, communities and types of interventions made. Focused Group Discussion with villages of five villages in one place, interviews with Anganwadi workers, ANMs, Sarpanches, PHED officials and schoolteachers were also conducted. A structured set of questions was prepared in advance in consultation with the NGO for each set of stakeholders.

3.5.2 Findings and Stories

In the early months of 2022, just when the rage of COVID-19 was finally settling down, this author travelled to Jhabua and Alirajpur, two western districts of Madhya Pradesh, also predominantly tribal.

While staying in the small district town of Jhabua, author travelled to nearby villages across the two districts, amidst their hilly and sometimes leafy terrain. It was during one such visit to a village called Pithanpur, that he happened to visit the home of a Bhil couple, both disabled through years of fluoride infection from contaminated water supplied from the local handpumps. While uneasily sitting on his *khat*, the man pointed towards their small little girl with big eyes, Bhuri, who was also infected by fluorosis but had managed to reverse her disability. This had happened thanks to timely intervention by the organization on whose behalf the visit was made possible. After some time, father asked the girl to show us where she got the water for home. The girl, slightly hesitant, walked through the uneven field, a distance covering about 400–500 meters carrying an even more uneven

looking aluminium pot. As one was still scanning for the water source around, she suddenly stopped and bent down near what seemed like a slight hole in the earth. Without a word, she looked at us and then downwards. While still trying to comprehend her action, the author looked closely and suddenly saw his reflection coming out of that narrow, open mouth of the earth. It was the local *jhiri*, the open water source, inside which she bent, extended her pot and after some effort pulled it out partially filled with somewhat clean looking water. She then silently got up and walked back to her parent's hut, situated on an elevated land. In the coming days, the researcher met several such tiny little Bhuris or their male counterparts, who were being brought up by their grandparents or their other relatives, as their own parents had migrated to nearby towns of Gujarat in search of work. In one case, a bent boy had been put inside a pit waist down by his father in the hope that he will straighten up, only to be rescued by his grandmother. Most of the households had at least one or more disabled person living in due to the curse of skeletal fluorosis even as other able members had gone far off.

Jhabua district lies in the western part of Madhya Pradesh. It is surrounded by Panchmahal and Dahod districts of Gujarat, Banswara district of Rajasthan, Alirajpur, Dhar and Ratlam districts of Madhya Pradesh. Wikipedia informs, founded in the sixteenth century, Jhabua is situated along the Bahadur Shah lake. The terrain is hilly and undulating. Average rainfall in the district is about 800 mm. Jhabua district was divided into two parts in May 2008, namely Alirajpur and Jhabua. The district is highly drought-prone and degraded waste lands form the matrix of Jhabua. In 2006 the Ministry of Panchayati Raj named Jhabua one of the country's 250 most backward districts (out of a total of 640). (Ministry of Panchayati Raj, 2009). It is one of the 24 districts in Madhya Pradesh currently receiving funds from the Backward Regions Grant Fund Programme (BRGF). As per last census 2011, Jhabua has a sex ratio of 989 females for every 1000 males, and a literacy rate of 44.45%. More than 90% of the population lives in rural areas. Scheduled Castes and Tribes made up 1.70% and 87.00% of the population respectively. The Bhil and Bhilala people inhabit the interior of the district. More than 85% of the population speak different Bhili dialects. Almost half of the population lives below the poverty line. The majority of men who migrate from Jhabua) find work with construction projects while others work in agriculture and other forms of work.

The district, alongside its bordering Alirajpur, has many sub-regions impacted by the curse of fluorosis very often unaddressed due to active seasonal migration and access to some kind of water in most seasons being the priority of the people. Hence, they don't even bother much about a disease which can leave them crippled for life. But this is not simply a story of individual misery in face of a natural calamity and the vagaries of endemic poverty. This is more a story of how inequality, if we want to dissect its abstract notion, is embedded and perpetuated right in the faces of living beings, day and night. So, let's take this a little further and look at the broader story. Around these very areas that the author was visiting, there was a huge lake which supplied clean drinking water to a small town which was 40–45 kilometres away even as the three villages surrounding it were still fated

to access their water from the contaminated hand pumps dotting the area. Even the Jal Jeewan Mission (JJM), government's flagship programme on piped water supply to every household in India, had not reached them. However, there was another irony. Many of the places that one visited that were covered by JJM, were simply supplying the water from the local contaminated water source, officials without bothering to find an alternate one. In some senses thus, this had made the onset of fluorosis even more accessible, and all-pervasive. The problem of safe drinking water in a zone which has rocky terrain, black soil and often infected with poor water quality is evidently not of water alone. The new development of Delhi-Mumbai expressway cutting through the landscape has seemed to adversely impact whatever sources of safe water existed making them farther away from the reach of the people. Very often, even when the awareness of the problem existed, the solution eluded people. As one Sarpanch said, he kept getting hand pumps (5 of them) or tube wells installed in search of safe water source around the local secondary school, but they kept drying up and eventually turned out infected. Ironically enough a local official at the Public Health Engineering department (PHE) suggested that it was for the NGO to do the complete survey to let them know the scale of the problem so that they could then take action. The episode reminded one of a similar experience in far off Bihar some years earlier where a top official urged the concerned NGO to do something to provide relief to the local villagers of another fluoride impacted area. Evidently, the situation in Jhabua was not an isolated one.

The NGO, quite intent in its mission to address the problem of fluorosis had focused on working with 200 individuals out of the 755 affected by fluoride contamination in the district. It covered 28 villages and engaged with approximately 43 patients—both new and existing—suffering from skeletal fluorosis. Besides, finding alternate safe and sustainable water sources, it taught the villagers to grow healthy, nutritious green vegetables through their own kitchen gardens, while addressing the badly affected medically. It had indeed managed to make the difference in the lives of those it worked with. It's intervention, however, with panchayats, local concerned departments to address the larger systemic changes of addressing safe and sustainable water source, water quality testing, improving the state water supply schemes remained limited at best. It was also not able to mobilize support towards its intent to create district level platforms for larger systemic advocacy. The larger issues arising out of a vertical intervention amidst the rampant, structural poverty, denial of access to basic and universal education and health care hence remained unaddressed.

Leaving aside the broader issue of state complicity and inefficiency—now almost a given in any impoverished district, especially those inhabited by highly marginalised communities like the Bhils and Bhilalas—the development architecture of the district itself has been exclusionary by design. Despite the influx of resources under schemes like the Backward Regions Grant Fund (BRGF), the structures put in place have ensured that these families remain at the margins. In a context further strained by widespread seasonal migration, where the most vulnerable—often women, children, the elderly, and disabled—are left behind,

the failures of the state's development model become even more stark. These are not anomalies that a symptomatic framework like BANI can capture. What we are left with is the quiet tragedy of many more little girls like Bhoori being forced to grow up too soon—struggling daily for survival, bearing responsibilities well beyond their years against most hostile circumstances.

3.6 What Happens When Community, State and Civil Society Come Together

A little earlier before visits were made to Jhabua and Alirajpur, the author had visited Dooars of West Bengal, famous for their tea gardens, reserve forests and nearby hill stations. The region is in the foothills of northern Bengal. The purpose was once again to look at a local organization's work in making potable water accessible to the tea estate workers (predominantly women), local communities besides helping them diversify their livelihood options. What one immediately witnessed was the display of a historically structured exclusion.

The tribes of Dooars may be conveniently classified into two broad types- those emerging from Nepalis communities and others from Jharkhand from where they were brought and settled in the late nineteenth century. The Oraons, Malpaharis, Kharias, Mundas, Lohars and Santhals for the latter while Mech, Rabha, Garo and Toto belong to Nepalese subgroups.

Tea gardens of Dooars area are largely dependent on tribals who work as labourers, informal workers, tea garden workers etc. Tribals who depend on tea gardens for their earnings are known as tea-tribes. There are two types of workers: permanent workers who work on daily wage basis and temporary workers who work as temporary or seasonal workers, locally known as bigha workers. Seasonal workers are engaged during plucking period. Each family (primarily women) cannot have more than one permanent permit while others from the family do either allied activities or some petty business or migrate to far off places in search of work. They go as far down as south of India. Tea gardens in Dooars boast of some big names that include Goodricke group, Duncan's group, Diana group, Bijohnagar Tea Company, Ellenbari Tea Company etc. Despite a high level of tea being produced in these parts, plantations often close down intermittently making the lives of the workers even more vulnerable. Working conditions are harsh where the women need to be in the gardens as early as 5 am to pluck the leaves missing which they can be penalized for their entire day's wage. Before that they need to finish all their household chores

Starvation, malnutrition, ill health and premature deaths are common. Exploitation is rampant and basic infrastructural facilities are absent. According to a recent study, the Infant Mortality rate was 48 per 1000 population in 2011 for the Country in rural areas and for the state of West Bengal it was 33. The infant mortality rate in Mal subdivision was 65 per 1000 children as per the collected sample data. Highest infant

mortality rate of 80 was recorded in Bagrakot followed by Odlabari, Rangamatee, and Tesimla. (Sarkar, 2022). In terms of literacy, while it is close enough to national average, just about 5% are graduates and above. On the other hand, there's a significant dropout rate of children from school ranging from 40–50% in many Gram Panchayats.

One of the key challenges amidst all this is that of water scarcity despite region receiving abundant waterfall during the rainy season. The situation gets worse during winters and peak summers when women are forced to walk for miles to carry a bucketful of water back home. Very often water sources are river streams, seasonal waterfalls, kholas or surface water streams or water springs. Hence, the poverty is inter-generational, structural and runs in a loop with private profiteers exploiting the workers and state often looking the other way.

3.7 The Work: Community, State and NGO Partnership

3.7.1 A Note on Methodology

Visits were made to districts of Darjeeling, Kalimpong and Jalpaiguri to see the work on how with small little efforts and innovations, one could either revive and protect surface water streams, bring water through gravity fed pipelines (covering over 4000 households), protect and rejuvenate spring water sources in the hills (250 springs in total benefitting 4000 households) and raise the water levels of open wells in the low-lying areas (covering 1750 households). Besides, communities were also taught to innovate through kitchen gardening, locally suitable diversified crops including spices and pisciculture giving them alternate options for livelihoods. The outreach covered more than 6400 households across 64 hamlets covering three districts to build and showcase the model. However, it envisaged not simply innovating in a few villages or Gram Panchayats but then following it through by leveraging village and district level developmental plans and budgets to create a chain effect covering much larger populations. The model therefore seeks to address the layered vulnerabilities of these regions—where institutional neglect, entrenched social inequality, ecological stress, and the limitations of traditional development frameworks converge. What is also critical is the way community doesn't remain a mute spectator to these changes but becomes an active participant whether through joint planning, contributing through hard labour, adding its savings or even presenting their demands to the state officials. Most importantly, the researcher met scores of young men and women who were working as coordinated cadres of change.

The study included desk review of the programme, the context of the Dooars, intervention patterns etc. It then included direct visits and meetings with the NGO staff, key stakeholders including community members, tea garden workers, local PHE engineers, PRIs, farmers and trained para-geo hydrologists. Focused Groups Discussions were held with communities and one to one interview were conducted

with state officials and estate managers. The visit sites were selected as samples covering all the three districts of Darjeeling, Kalimpong and Jalpaiguri, covering 3 Tea-estates, 9 locations covering three districts. The sites were chosen to ensure coverage of different kinds of interventions and different ethnic groups by the team. A structured set of questions were prepared in advance in consultation with the NGO for each set of stakeholders.

3.7.2 Findings and Stories

A tea garden worker woman from Mateili Murtee Tea Estate shared: “Now, we wake up at 5 a.m. instead of earlier 3 a.m. . . . we aren’t also going to river 3 km away anymore which means 2 hours saving every day.” This had happened thanks to an innovation around gravity flow-based water supply system from a faraway water stream, made with partial contributions from the community. This ensured household level access to clean drinking water for them.

From Mateili Murtee to Chisang in Kalimpong, the NGO operates in areas where the state has been either absent or erratic in its development delivery. Basic services like roads, health centres, and functional schools are often missing. As another woman noted, “only one person was eligible to work in the garden from each family, and that didn’t allow for the cost of their education.”

Communities as shared above are multi-ethnic—Munda, Oraon, Tamang, Chhetri, Santhal—and multi-religious. Yet, these diversities often reinforce marginalisation in the absence of responsive governance. Even where the government is present, as seen in the Mateili Murtee Tea Estate, the support is fragmented and uncoordinated:

“We first went to the (tea) factory, but help didn’t come. we spoke to BDO office, got the NCO for pipeline work, then the NGO came in. They explained and worked with BDO to help us find a solution,” said a representative of the tea-garden workers.

But there was also a clear realization that bringing only water through the pipeline won’t solve the problem, rather source sustainability is the long-term option. So work was done to address that creating trenches around springs and open surface streams. Which protected them. However, the challenge of a vertical intervention soon became apparent. In many tea garden communities, the wages remain insufficient, the work seasonal, and the state’s interventions often limited to scheme-based silos. A woman shared: “Only Rs 200 a day wasn’t sufficient for our family’s upkeep.”

Hence the community mapped resources, identified recharge zones, and committed to reviving water bodies. The innovation extended to integrating spring-shed management with local farming and livestock strategies, using simple tools like vermicompost, SRI methods, and mixed cropping. And building on top of this, it directly participated in preparing Detailed Project Reports (DPRs) in government parlance to utilize the budget effectively given at the Gram Panchayat and Block

levels. In one year's, time over 32 government schemes amounting to over ₹4.9 crore had been leveraged till then, showing the strength of this convergence approach.

In terms of addressing internal hierarchies, while women had been at the centre of water collection and domestic burdens, one could see that their role as technical leaders was still evolving. In several cases, while women were part of Water User Associations (WUAs), an informal group created at the community level, and contributed labour or funds, men dominated technical planning conversations. Yet, their agency was visible in powerful ways. As another person enthusiastically shared: "We gave labor, cleaned the water source . . . men said don't go, it won't help. We said we need it as we work with water . . . life is much easier now."

Central to the enterprise was collaboration with state through an institutionalized route. And it had to be done at several levels. During the visit the author met local engineers and planners who often came to these community meetings to help work out possible solutions while planning for services around water. He also met a Block Development officer who shared plans and budgets that his block had worked out in collaboration with the local communities facilitated by the local NGO. He also met a visibly impressed District Magistrate who ordered extension of tarred road to a village which seemed to be nowhere in the jungles. All because she saw immense determination in the eyes of the villagers when she visited them, looking at their work around water conservation and management, diverse and resilient cropping, their collective and shared ways of meeting challenges imposed upon them often from above. The author met a young IAS officer, an SDO in one of the sub-divisions there who shared how only after being exposed to this ground-work he decided to launch another Sanjivani scheme in Jalpaigudi covering 10,000 households across three water sustainability models (rooftop rainwater harvesting, protecting and reviving springs, and wells). The experience could be read both ways, a young bureaucrat eager to make his mark in the beginning of his career or the system going beyond an individual responding to positive incentives as showcased where community and the NGO took the lead.

The work, therefore, was not just about solving local water crises; it offers possibilities of a blueprint for climate-resilient development. By strengthening water sources (e.g., recharge areas, ponds, perennial springs), enhancing soil fertility, promoting organic agriculture, and integrating renewable energy (e.g., solar pumps), communities showcased workings at the intersection of climate justice and community empowerment. The model of success evidently lies not in the number of pipelines laid or households reached, but in its ability to push beyond vertical solutions and address the structural roots of deprivation. It confronts the failures of state and market, seeks to reshape the development agenda from below, and invites a rethinking of scale, ownership, and impact.

Murmu, a community member, captured the emotion: "Getting water for my village is like a gold medal—just like the girls and boys of Bihar and Jharkhand get gold medals for their state . . ." Another young fellow recounted how after years of struggle in Delhi, he came back to his village bordering Bhutan only to realize the immense possibilities that awaited him there. While trekking through the jungles to

show the author spring recharge points, he shared: ‘for me, it has been a revelation about how much I can do and achieve, staying where I belong to.’

The structural issue of the precarious and exploitative livelihoods of the tribal tea workers, however, remains unresolved. Not least because, the plantation industry itself remains on tenterhooks, often shaken by the vagaries of larger forces, where the value of tea grows disproportionately by the time it reaches retail markets. That disproportionate value is often added and expropriated by those in the middle and end point distributors. Lower down the value chain, plantations keep shutting down and changing hands, in a country whose most important drink is tea. Unfortunately, local equations coupled with a master/slave mindset (a legacy of colonial times) don’t allow the owners to ally with the workers, keeping them on lowly wages. So even when the owners and managers one spoke to remained concerned with the water scarcity for the workers, they saw it only as a vertical problem to be addressed seasonally and not part of a larger problem which created this vicious cycle.

And yet, hope persisted in the eyes of young Santhal boys and girls, having found a way to address their challenges if not do away with endemic poverty overnight. Could this case study in contrast to the one recounted previously in Jhabua be seen as the win all, single formula for building community and climate resilience, addressing the root causes of structural inequality, not only the symptoms of brittle fragility? It is difficult to say. One could simply argue that where governance is better and responsive, you have possibilities of success for this kind of model. Possibly. And yet, it is critical to keep documenting these stories in search of many more such possibilities.

3.7.3 Where Do We Go from Here: Time to Circle Back?

Way back in 1936 in a pamphlet, J.C. Kumarappa, the noted Gandhian economist following his guru, argued for self-sustainable villages, in the soon to be independent India. He stated, ““Our economic system gets a lopsided development”. He further wrote, “Our lands are being shifted from food cultivation to the production of raw materials for mills. People are starving due to the shortage of rice, while rice lands are made to produce oil for soap-making . . . The existence of such a state of affairs proves that money values are not dependable scales of human need.” In a series of pamphlets and books, he put forward a vision of an Indian economy based on self-sufficient local communities that would grow their own food and develop their own handicrafts industries. He also recognized that the state had an important role to play in larger-scale projects that were beyond the scope of local communities, such as providing transport links, dams, irrigation canals, and energy facilities. He referred to his vision of decentralized production with government support in some areas as “planning.” (Cassidy, 2025). In an age marred by competition between two types of economic models of market driven capitalism and state backed socialism, both relying on heavy mass production of goods, there were few takers of his vision during those years. In today’s world—on the brink of ecological disaster and marked by deepening

inequality, where the dominant contest is between market-driven and state-led models of capitalism—there remains a small but urgent window to pause, reflect, and revisit older visions of sustainable societies, even as we confront new emerging challenges.

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Chapter 4

Women's Empowerment and Social Change: The Case of Mauna Dhwani Foundation in Mayurbhanj, Odisha



Anu George and Jayati Talapatra

Abstract Women's empowerment is difficult to define because the determinants of empowerment are often context-specific. Economic advancement alone cannot be considered as empowerment if the prevailing social norms continue to deny women the freedom to make independent decisions outside the dictates of traditions. Shifts in attitudes and perceptions are crucial, particularly when evaluating how women internalize patriarchal norms and contribute, often unknowingly, to their continued reproduction in society. Drawing on qualitative data, this paper examines subtle but significant attitudinal changes along with the leadership and collective solidarity among rural poor women in the Mayurbhanj district of Odisha following their first experience of working together in handloom weaving centers established by the Mauna Dhwani Foundation. It argues that these women's achievements, manifested through individual assertiveness, collective solidarity and leadership, represent genuine empowerment, especially within a deeply patriarchal and caste-stratified context where women have historically lacked autonomy and decision-making power.

Keywords Women empowerment · Mauna Dhwani · Social change · Mayurbhanj

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4.1 Introduction

Women's empowerment is a widely discussed concept, and yet largely undefinable. The term is closely linked to power and the ability to exercise it. The notion of women's empowerment differs across social and cultural contexts, and therefore, one single measure does not capture the diversity of the many contexts (Malhotra & Schuler, 2005; Gupta & Yesudian, 2006; Nath & Das, 2024). Kabeer (1999) states that power is consistent with the ability to make choices, and empowerment occurs through the process of gaining the ability to make choices, particularly when emerging from a state of disempowerment. Therefore, empowerment gives meaning when it is assessed from useful standpoints that provide an idea of the level of disempowerment people are subjected to. These standpoints encompass the socioeconomic, cultural and religious contexts as well as the intersections between them. Thus, meaningful empowerment should increase the ability to make strategic life choices where this ability was previously denied (Kabeer, 1999). According to Kabeer, this ability to make strategic choices is determined by three interlinked dimensions—resources, agency and achievements. Resources provide the conditions that enable women's agency, while achievements represent the outcomes of that agency. They together help create capabilities—the ability people have for living the life they want (Sen, 1985).

Although there is no consensus on what constitutes women's agency (Nath & Das, 2024), a number of studies have developed indices that help measure women's empowerment in specific sectors as well as individual level (Alkire et al., 2013; Phan, 2016; Narayanan et al., 2017; Richardson et al., 2018; Galie et al., 2019; Malapit et al., 2019; Ewerling et al., 2020). There are two forms of women's agency—instrumental agency and intrinsic agency (Yount et al., 2020; Ewerling et al., 2020). While the instrumental agency refers to women's financial independence, decision-making power in the household, freedom of movement, community participation, and control over reproductive decisions, the intrinsic agency relates to their views, perceptions, and attitudes towards these very dimensions of instrumental agency (Miedema et al., 2018; Malapit et al., 2019). Amplifying the context of women's empowerment, Nath and Das (2024) expanded the traditional Women's Empowerment Index (WEI) by including three additional domains—technological acquaintance, leadership and work-life balance. One of the important factors to consider when measuring women's development is the social and economic context in which they live (Kabeer, 1999; Mason & Smith, 2003; Malhotra & Schuler, 2005). The values and norms that the community upholds have a great influence on women's rights and gender relations within the society. Mason and Smith (2003) argue that women's empowerment is shaped by the structures and norms of social systems. Although group behavior can be challenged by the individual, the individual's behavior is strongly influenced by the norms and values a society collectively upholds. Therefore, any attempt to evaluate women's empowerment should also focus on the different ways in which rights, obligations and resources are granted to men and women under different gender systems (Mason & Smith, 2003). Process and agency are the two defining

characteristics of the concept of empowerment (Kabeer, 1999). Moreover, these processes of change are regarded as genuine empowerment when women themselves are the primary agents for that change (Malhotra & Schuler, 2005).

This study examines the women-focused initiatives of the Mauna Dhvani Foundation, a Bangalore-based NGO, which aims to improve local livelihoods and socioeconomic conditions by engaging women in employment in the Udala Block of Mayurbhanj district in Odisha, India. Mayurbhanj is one of the poorest and third most populous districts in Odisha. The population is predominantly rural, with most people relying on agriculture and monsoon-dependent seasonal cultivation for their livelihoods. Mayurbhanj has the highest percentage of tribal population among the 30 districts of the state and is designated as one of the nine tribal districts. According to the Multidimensional Poverty Report (2023), tribal districts in Odisha experience severe poverty and deprivation. The report indicates that 30.57% of Mayurbhanj's population is multidimensionally poor. NITI Aayog's District Nutrition Profile (2022) reveals alarming statistics for Mayurbhanj: 46% of children under five are underweight, 72% are anemic, 37% are stunted, and 28% are wasted. Additionally, the school dropout rate among Scheduled Tribe students is high, with Mayurbhanj having the highest dropout rate in Odisha at 15.56%. Poverty and unemployment are widespread issues in the district.

The Mauna Dhvani Foundation, a Bangalore-based NGO, began its pilot work in the Udala Block of Mayurbhanj, where over 70% of the population is tribal. Mayurbhanj was once renowned for its traditional cotton weaves, but over time, this craft declined due to unmanageable costs. Despite handloom weaving being deeply rooted in the local culture, people abandoned the craft in search of alternative livelihoods, as it had become economically unsustainable without external support, which was not available to them. Recognizing both the severity of poverty in the region and the local knowledge surrounding a valuable but abandoned craft, the Mauna Dhvani Foundation chose to establish a handloom weaving center in Udala Block to provide employment and livelihood opportunities for women. The initiative gradually expanded to 17 centers, now employing more than 600 women. These women receive training from master weavers, with one master assigned to every 25 women. They produce various items, including sarees with traditional designs, travel bags and kits for a ship management company, and other cloth-based products such as diary covers and laptop sleeves. The women are compensated on a piece-rate basis, most earning between 3000 and 7000 rupees monthly, and some up to 10,000. The revival of the handloom weaving not only gave livelihood for these women but also rekindled a sense of pride in their cultural heritage.

4.2 Methodology

This paper analyses the degree of empowerment of women in the Mayurbhanj district of Odisha, after they had been trained and employed as weavers by Mauna Dhvani Foundation. It describes how these women's choices transformed their

lives from what they were previously. The information used for the analysis was gathered through in-depth interviews with 13 women and focus group discussions with two groups of women who are working in the handloom weaving centers run by Mauna Dhvani Foundation. The women interviewed were from 4 weaving centers in four villages—Chuliaposi, Atanati, Astia, and Dhanapana in Udala block of Mayurbhanj district. The social category of the women varied. Nine women interviewed belonged to the Santal tribe community, three to the Patra, a traditional weaving community, and one to the Brahmin. Each of the women interviewed shared her personal story of how her new role as a weaver changed her life, describing the impact on their personal and community life, the challenges they faced—some of them enduring tragic hardships in their individual lives, but all of them confronting the control of men and upper caste custodians, the support systems they relied on, their future aspirations, including the hope of being liberated from the misery of poverty. The transcribed data revealed that the women at the weaving centers run by Mauna Dhvani Foundation obtained more than a livelihood. They have come out of the limits imposed by their personal and social circumstances and have used their agency to question and challenge the status quo (Mosedale, 2005; Kabeer, 2016; Richardson et al., 2018). The transformation in the lives of each individual woman becomes meaningful given their different backgrounds.

To understand the empowerment experienced by women in Mayurbhanj after joining the weaving centers, this study will use the three lenses—leadership, women's attitude towards patriarchal norms, and collective solidarity fostered through community participation—to explain how women who have joined the NGO's weaving centers have been empowered. In the introduction, we have already seen that existing literature judges these three domains among the determinants of empowerment. The women's life stories revealed the process of change that happened to them and how each of them, in their own individual contexts, emerged from a state of powerlessness as they identified and seized the opportunities available to them. Aligning with Kabeer's (1999) definition of empowerment, the lived experiences of these women were analyzed from the perspective of empowerment as a process through which individuals acquire the ability to move out of a state of disempowerment.

4.2.1 Evidence of Empowerment

In 2018, when Mauna Dhvani Foundation first came to Chuliaposi, a village in Udala block in Mayurbhanj, it met hostility from the local leaders who branded them as outsiders. According to the Mauna Dhvani staff, the upper caste local leaders were even more infuriated at their decision to employ tribal and backward-class women without consulting them. There were mainly two strategies that Mauna Dhvani adopted to give the women access to the resources they were denied. First was facing the hurdle of the upper caste led patriarchy that controlled

women's lives. The idea of social empowerment of women through economic activities was a problematic idea, given the male-controlled nature of the social environment of Chuliaposi, and caste based social stratification was a norm nobody wanted to disturb. Although caste-based discrimination is legally prohibited, it continues to persist in India in various forms, reinforced by the intersection of caste, gender, and class. This oppression is sustained and reproduced through cultural practices, social norms, and institutional biases (Gopal, 2013; Sharma & Geetha, 2021; Nath & Das, 2024). The women recruited by Mauna Dhvani had multiple marginalized identities—They were women, members of backwards castes and tribes, and economically poor. Despite the strong disapproval from the upper caste men in their society, Mauna Dhvani's idea was embraced by a few women who decided to defy the social norms and ventured to explore the possibility of earning an income doing a craft that resonated deeply with their culture. The initiative found success, and that attracted more women to join, crossing caste boundaries. By doing so, they not only defied caste hierarchy but also male domination over the craft and over women's choices. Leveraging the government schemes brought Mauna Dhvani further recognition and trust from the women and the community leaders. In 2019, the *Udala Weaving Cluster* was set up to promote natural dye and handloom weave under the Scheme of Fund for Regeneration of Traditional Industries (SFURTI) by the Ministry of Micro, Small, and Medium Enterprises (MSME), Government of India. Kalinga Institute of Industrial Technology (KIIT)—Technology Business Incubator (TBI) provides the technical agency to this cluster.

The second was the elevation of women to leadership roles for the revival of a lost craft once dominated by men. Mayurbhanj had a long-standing tradition of handloom weaving, but historically, it was led and owned by men, while women, though involved in the craft, had no ownership over the looms. Mauna Dhvani set out to change this narrative by placing women at the center of work, allowing them to lead and take ownership of the profession, thereby breaking away from tradition. Recognizing the need to bring women into leadership roles within the weaving centers, they launched the *Tantha Sathi Leadership Development Program* in 2023. This six-month program trains women weavers as master trainers, equipping them to take on training responsibilities at the established centers. This marks a historic shift in the handloom industry, as the role of master trainer, traditionally reserved for men, is now being taken up by women for the first time. The women themselves have been the primary agents of this change, and the transformative process they have started will contribute to their empowerment, particularly as leadership—one of the determinants of empowerment—is also a crucial component of instrumental agency (Nath & Das, 2024).

Mauna Dhvani's attempt bore fruit, and women's lives began to change. Among them, the tribal women were the poorest and many of them were previously working under the harsh conditions in others' fields or on construction sites for daily wages. They were semi-literate, and most of them did not own land or proper houses. Some had husbands who were sick to care for or alcoholics who never brought home their earnings for the women and children at home to survive, some

were widows, and others had their husbands working as migrant laborers outside the state, and many of their children had dropped out of school. Along with the weaving centers, Mauna Dhvani had also established a community kitchen and provided affordable lunches because many women were in malnourished conditions, and it also saved them time otherwise spent on cooking. This initiative was followed by the creation of an education initiative that focused on providing remedial classes for the children, especially the ones who had dropped out of school and made schooling compulsory for all Mauna Dhvani women's children.

The tribal women who joined the weaving centers all belonged to the Santal Tribe. Santhal is one of the major tribal groups in Mayurbhanj, and they are the largest tribal group in the Chotanagpur region, which extends to five states—Jharkhand, Bihar, West Bengal, Odisha, and Chhattisgarh. The Santals lived isolated from the others because they were linguistically and culturally different from the others who lived in their surrounding areas. They mostly engaged in agricultural work, which only provided a seasonal occupation and therefore, the poverty among the Santals and their need for work that would give them a stable income was most urgent. The tribal women were the first group to promise Mauna Dhawni their support and cooperation to start weaving centers in their village. The tribal women did not have to seek the community's permission to work outside their homes because the absolute poverty they suffered had brought them out of their homes anyway, as most of them worked on construction sites when they did not work in fields. However, the caste hierarchy had objections to their choosing a job not assigned by them. But to their disbelief, the “shy” tribal women refused to back out and stood firm against intimidation. They were desperate for work and money, and they saw here an opportunity to redeem themselves from the misery of poverty, without having to migrate for survival. Poverty and disempowerment are visibly connected because here, even the basic needs are not met (Kabeer, 1999). The tribal women, who work at the weaving centers, are “happy that they didn't have to work in the sun anymore”. They also “learned to be confident to face people and talk to them”, and to socialize and work with other groups, which was difficult for them earlier because of their isolated lives. They got their “salary on time and never have to fight for it”. One of the designs the Mauna Dhawni weaving cluster worked on to revive was the centuries-old but long-forgotten tribal weave known as the *Mayurbhanj Sari* design, drawing on the knowledge of the Santali women at the weaving center. To add it to the weaving heritage of Mayurbhanj, they are seeking the Geographical Indication (GI) tag for the design.

The second group was women from the Patra community. There were a traditional weaving community, which formed a large number among the Mauna Dhvani women. They were traditionally known for their skill in weaving silk yarn (Singh, 1997). When the men in their community abandoned weaving, they moved to other occupations for a livelihood. The revival of the weaving work gave them a chance to move out from the shadow of men and take leadership roles in what their community traditionally had owned. Then, there is a small number of upper caste women who have joined the weaving centers along with the other groups after long individual struggles. Their struggle to convince the men in the

family and their community to venture out of their homes was tougher. Working outside homes is one indicator of women's agency, but among the upper caste groups, women working outside homes is linked to social status—women with higher social and economic status opt to remain at home because it is a matter of family honor (Kabeer, 2001; Richardson et al., 2018). One of the upper caste women working at the weaving center said it took “one year of pleading with her husband to let her join the training at the weaving center”. At last, when her father-in-law, who, she said, was very conservative, had died, her husband let her go. The upper-caste women did not join the weaving centers solely out of economic necessity for survival. Rather, they were drawn to the art of weaving and sought to engage in an activity that they liked to do, expressing that they were “bored” with spending idle time at home. Women's empowerment also encompasses the freedom to choose the work they like to do, extending beyond the pursuit of economic gain (Sen, 1999).

Although each group of women faced distinct challenges shaped by their social contexts, they were able to overcome them. The income they earned made them financially independent, transforming their individual lives and impacting mostly their decisions about their children's education and health, as they spent more on these areas. This adds to the growing body of evidence that when women earn, they tend to allocate a great share of resources towards their children's health and education (Duflo & Udry, 2004; Doss, 2006). In just a few years, the tribal women, once isolated and living under harsh conditions, and other women working in the shadows of the male family members, rarely resisting the authority of upper caste leaders, have collectively emerged as leaders and decision makers. Their transformation qualifies as empowerment because it has challenged the deeply entrenched structures of the society that previously denied them a voice (Kabeer, 1999). Furthermore, these women's awareness of how these structures limit their lives and changes in perception is an important component of empowerment. (Kabeer, 2008; Gammage et al., 2016). The women of Mauna Dhwani weaving centers are happy they have a job outside their homes and earn an income that can support their needs. Beyond these, some of them have also learned to look inside their society and analyses their relationship with it as women. It is a crucial aspect of women's empowerment because their ability to make strategic choices is inherently linked to how they perceive themselves and their place in the world (Kabeer, 1999, 2008).

4.2.2 Empowerment as Change in Individual Consciousness

The negative effects of patriarchy on women are recognized and discussed in many circles. However, patriarchy is difficult to manage because it is sustained and perpetuated through structural systems such as education, religion, and the media (Walby, 1990). Its traditions and ideals are reproduced across generations primarily through the indoctrination of gender roles. Patriarchy is present in everyday sexism

and misogyny, and it is a system that is updated and modernized, the effect of which runs deeper than the visible gender inequality (Enloe, 2017). The pervasive influence of patriarchy operates at a psychological level as well, fostering the unconscious internalization of patriarchal norms and values (Gupta et al., 2023; Evteeva, 2024). One of the strategies for challenging patriarchy is self-reflection, which enables the detection of complicity (Enloe, 2017). The type of patriarchy the Mauna Dhwani women face is not a modernized or sophisticated version but rather the clear and explicit control of men over their choices and mobility. However, they found ways to confront this through exposure and critical reflection on their own society.

Mamita from Astia joined the weaving center not because she was desperately in need of money like many who are working with her, but weaving and working with Mauna Dhwani made her “happy from the heart”. She is not happy with the social censuring that women must put up with and thinks women in cities have more freedom. She says -

When I compare the town and village, sometimes I think why I was born here. Because women are free in towns, they can wear what they want, do what they like and be independent, and nobody bothers to even notice, but here we must take permission before we do anything. And the permissions should be taken not only from the family alone, but also from others around. Society watches you and what you do closely. I have so many desires, but not all of them will happen.

Anita from Dhanapana village, a young and shy woman who was diligently working at the loom daily to complete her target, was reticent to talk in the beginning. She has never seen the world outside, and her family has never left the village for work. She does not know much about what happens around, and she has never even heard of the *Ayushman Card* (the national public health insurance scheme of the central government), but when she was asked what she desired for the women of her village, to the surprise of the interviewer, she raised her head, looked in the distance and said “freedom”. Reflecting on women’s status, she had much to say

Women should be given freedom to manage their lives on their own terms. Now, if women want to go out to work, then allow them to work. But when women work, the burden of household work is also on them. This work must be shared by all in the family. When the family shares the work and helps, it makes the woman happy. Some people think that women should not go out to work when men are earning enough. When this kind of thinking takes root, there is tension and lack of peace. There is so much work at home, caring for children and old people, cooking, and then having to go out to work as well. All this, men don’t understand. Some men even say you stay at home and do nothing. Men who drink alcohol treat their women even more badly. Men drink and beat up women because they think they can. The women also drink here, but they don’t beat up anyone.

What both these women said can be counted as manifestations of their agency. Both women are acutely aware that women in their society are burdened by patriarchal obligations and constrained by deeply entrenched social norms and rules. This awareness makes them think of preventing the reproduction of these

inequalities in their children's lives and want to support them to flourish in freedom. Mamita said she will send her daughter to the city for education because she wants her to experience freedom. Anita dreams of her daughter becoming an IAS officer, and she only knows that an IAS officer is "very powerful". This makes it clear that these women are aware of how patriarchal societal norms limit women and girls and assign subjugated roles to them. Changes in individual women's consciousness are a crucial aspect of empowerment, as they initiate a long-term process of transforming patriarchal structures (Kabeer, 2005; Yount et al., 2020; Evteeva, 2024). The changes in attitudes and awareness of patriarchal ideals manifested in everyday life, as previously discussed, reflect intrinsic agency, which correlates with both instrumental and collective agencies (Yount et al., 2020; Ewerling et al., 2020). There is a big role that women as a collective play in challenging the structures of constraint as they collect together to act against the conditions of oppression.

4.2.3 Empowerment and Women as a Collective

The women as a collective amplify their voices and become more influential and powerful than individual women acting in isolation (Agarwal, 1994, 2000; John Blaxall, 2007; Kumar et al., 2021; Moscatelli et al., 2025). These collectives save individual women from bearing the cost of defying patriarchy. In Mayurbhanj, the women stood as a collective behind Mauna Dhwani when they had to face men questioning their decision to think of a better option for earning an income. Collective action by women has emerged as a critical force in the promotion of women's rights (Bina Agarwal, 2000; John Blaxall, 2007; Kumar et al., 2021; Kabeer, 2016; Moscatelli et al., 2025).

The women were inspired by each other's success, and they helped and supported other women, especially the weaker ones, who were without support or who were shy and intimidated by the world outside their homes. Working together, the women created a rapport with others across social categories. This led to a gradual shift in attitudes and marked a significant step toward breaking down traditional barriers and fostering greater inclusivity within the community. They supported the illiterate ones, who did not own land or any material resources, who had a sick person, either a husband or in-laws, to take care of. They intervened when their colleagues' drunken husbands beat them up or usurped their savings.

Initially, setting up the necessary infrastructure posed a significant challenge for Mauna Dhwani. With only minimal critical infrastructure in place, the lack of good road connections in the villages made it difficult for the women to travel to other villages for training. However, the women themselves took the initiative to overcome these obstacles. In a remarkable display of community spirit, one of the women donated a small piece of her own land to Mauna Dhwani to set up a center.

This allowed the foundation to establish a training center within their own village, eliminating the need for women to cross the river to another village for training. This solution not only addressed the logistical challenges but also reinforced the women's commitment to the success of the initiative. Belonging to the handloom weaving clusters led by women gave them an identity that made them feel good about themselves. They demanded their voices to be heard and reclaimed their bargaining power. Their collective strength as women had a deep impact not only on their individual lives but also on their family members. The men observed the women's transformation, with some resisting the change while others supported and accepted it. In conservative societies where men hold divergent gender attitudes, women's progressive views often provoke resistance, sometimes leading to backlash (Cullen et al., 2024). Some men in Mayurbhanj also had retaliatory views on the women's transformation, and they complained that Mauna Dhvani Foundation had "turned their women into husbands".

The authors realized that the case of Mauna Dhvani Foundation made it amply clear that the concept of Women's Empowerment has multiple facets and the correlation between economic independence and socio-political agency is not simple, has many contextual layers and gets further complex with addition of caste and regional dynamics.

This chapter is about the socioeconomic changes that have taken place among the poor women in the remote areas of Mayurbhanj district in Odisha after the NGO started weaving centers there which gave them employment. The authors argue based on the concept of women empowerment by Naila Kabeer that the changes that have come about among these poor women qualify as empowerment. The two main evidences are—the change in individual consciousness and the strength of women as a collective, both of which are seen among the women who joined the weaving centers.

To strengthen the understanding of the relationship between livelihood creation, economic independence and women's empowerment, additional secondary data was gathered from two Self Help Groups (SHGs) created for enhancing economic independence of rural women in India. To remove any regional bias, these two programs were selected from geographically disparate areas—one from Uttar Pradesh in North India and one from Kerala in South India. It is important to note that both the states differ widely from each other in terms of population, education levels and women's participation in mainstream businesses and politics. In terms of Human Development Index (HDI), Kerala scores at par with many developed countries, with High Life Expectancy, High rates of literacy (95%) and a strong focus on women's health and participation in workforce (Human Development Report, 2025). In sharp contrast, Uttar Pradesh ranks as one of the lowest in India, in terms of health and education parameters, putting it at par with undeveloped countries globally. Female Infanticide and low rates of participation of women in economic activities, makes Uttar Pradesh one of the least progressive in terms of Women's Empowerment.

Following is the research on two SHGs in Uttar Pradesh and Kerala, seeking to answer the question, does earning lead to deciding?

4.3 Case Study: A Comparison Between Women's Empowerment Outcomes of SHGs in Uttar Pradesh and Kerala

Since the 1990s, Women's Self-Help Groups (SHGs) have been an important part of India's strategy for women's empowerment and poverty reduction. There are presently 12 million SHGs in India with approximately 88% of them being entirely run by and for women. While SHGs ability to increase women's access to credit and income has been proven over the years, whether they lead to transformation of gendered power relations, remains to be seen (Swain & Wallentin, 2009; Kabeer, 2005). This case study looks at two sharply contrasting SHG programs: **Sitapur district in Uttar Pradesh**, where SHGs raised incomes but failed to enhance women's agency, and **Kerala's Kudumbashree program**, where SHGs were successful in increasing both economic and social standing of the participating women.

4.3.1 Case 1: Sitapur District, Uttar Pradesh

In the district of Sitapur Uttar Pradesh, SHGs were formed under the National Rural Livelihood Mission (NRLM) in the late 2000s. Close to 600 women across 40 villages were gainfully engaged in saving collectively and using microcredit, to get loans for multiple economic activities such as tailoring, vegetable farming, goat-rearing, tailoring and petty shops. The following outcomes were observed as a result of the formation of these SHGs in Sitapur district.

- Increase in household income: In three years, household incomes rose by 25–40% in reducing the community's dependence on village money-lenders who often cheated them with extremely high rates of interest on loans (NABARD, 2018).
- While there was an increase in economic independence, the following were also observed.
 - Men continued to be the owner of household income (Garikipati, 2008).
 - Patriarchal systems of 'permission of travel' to women, was only relaxed for SHG meetings. For all other travel, women still sought permission of men.
 - Alcohol consumption by men, remained high leading to domestic strife. Men began demanding more from their wives as they were now earning thanks to the SHGs (Rahman, 1999).
 - Though the Panchayat system of governance was created to provide women with political voice, the men in Sitapur continued taking all decisions on behalf of their wives, who were the elected representative of the villages in Sitapur (Ban & Rao, 2008).

This case demonstrated how women's earnings increased but without empowerment. The increase in economic prosperity due to the SHGs did not change the patriarchal power structures in the district. This proves the afore mentioned statement that microcredit or financial gains do not solely lead to women empowerment (Kabeer, 1999; Garikipati, 2012).

4.3.2 Case 2: Kudumbashree in Kerala

Covering more than 4.5 million households in Kerala and created in 1998, **Kudumbashree** is one of the world's largest women's community networks. This network is a combination of SHGs, called *Neighborhood Groups*, and a multi-tiered structure linked to local self-governance systems like the Panchayat. Their activities spread across civic participation, skill trainings, microenterprises and collective farming.

The following outcomes were observed as a result of the creation of Kudumbashree.

- Increase in household incomes: A large variety of collective enterprises came into being, where women began earning steady monthly incomes earning stable incomes through organic farming, IT centers and catering units. (Devika & Thampi, 2007).
- As in the above case, the authors specifically researched whether this increase in economic independence led to an increase in the women's socio-political say. The following was observed.
 - Decisions on group earnings and reinvestment were taken by the women.
 - The role of women leaders increased in Gram Sabhas and other Panchayat operations, putting them in the forefront of village-level politics (Oommen, 2008).
 - As women moved unrestricted to attend Kudumbashree meetings and political events, the community's perception of the role of women changed.
 - Some research showed an increase in their agency within and outside of their homes, post them joining Kudumbashree (Swain & Wallentin, 2009).

A key difference between the interventions in Sitapur and Kudumbashree is the design of the intervention. In the latter, capacity building, collective ownership of enterprises were linked to the district level political institutions like the Panchayati Raj. This combination of livelihood creation and political linkages helped achieve outcomes closer to the true meaning of women's empowerment.

On comparing the work of Mauna Dhvani Foundation with the above two interventions, it may be surmised that

1. Regional and social context understanding is critical for success. In patriarchal Indian states like Uttar Pradesh and Odisha, there may be further escalation of gender inequalities where men feel threatened by the increase in financial

independence of women. In high literacy and matrilinear societies like the ones in Kerala, it may be easier to enhance financial and social voice.

2. Program design should be multidimensional. Creating interventions solely to increase incomes has limited impact on women's empowerment. Addressing existing systemic shortfalls, like education, health and gender ratios, may form critical inputs and are prerequisites for interventions created for enhancing women's economic and social status.

4.4 Conclusion

The case of Mauna Dhvani's intervention in Mayurbhanj has brought out some of the critical expressions of women's empowerment. It begins from their disempowered state of economic poverty and patriarchal oppression to their transformation into women who are enabled to speak up, assert their rights, and collectively resist patriarchal aggression. While the women who are engaged with Mauna Dhvani remain economically vulnerable—most of them experiencing multidimensional poverty, lacking secure housing, education and access to health care, this paper seeks to focus on some of the signs of empowerment visible in their ongoing transformation. The women have not only reshaped their individual lives but have also created an ecosystem of collaboration and solidarity that has strengthened their shared pursuit of self-respect and dignity. As Kabeer states, “The project of women's empowerment is dependent on collective solidarity in the public arena as well as individual assertiveness in the private” (Kabeer, 1999, p. 457). The women interviewed clearly demonstrated the exercise of their agency in reshaping their life circumstances. They actively seized the opportunities created through the interventions of the NGO and challenged certain constraints of their social and economic contexts, made choices that transformed their lives, and this transformation has positioned them more advantageously within their households and communities. Agency also consists of critical thinking skills, and empowerment is not a one-time achievement but a dynamic process that is never static and is continuously shaped by the challenges these women face and the remedies they find. (Kabeer, 1999; Mosedale, 2005).

The Case Study of the women of Mayurbhanj Odisha, is more than a case of triumph where collectivism led to increase in women's empowerment, in terms of agency, political voice and to some extent, economic status. It is also a case of reviving and embracing identity in the face of increasing adoption of homogenous livelihoods dictated by a globalized economy.

This chapter presents a general assessment of the livelihood intervention undertaken by the Mauna Dhvani Foundation. While there has been attempt at bringing in comparative data from Uttar Pradesh and Kerala, to further the understanding of the linkages between economic independence and agency, there could be further research in this field. Future research could add on by examining the impacts on

each social category separately, since the socio-economic and cultural contexts of the groups involved are not homogeneous, even though certain shared realities exist. A further analysis of the organizational structure of the NGO—including its critical training and infrastructure, supply chains, and the broader ecosystem it has developed—would also provide a more comprehensive understanding of the impact of such interventions. In addition, a valuable area for further exploration is whether entrepreneurial initiatives that seek to create markets for traditional tribal art and craft, while generating economic benefits, could also unintentionally lead to cultural appropriation that could weaken tribal knowledge systems. Addressing these gaps would reveal richer insights into how social entrepreneurship-led livelihood interventions contribute to broader debates on women's empowerment, social justice, and economic development. Given the complex nature of contemporary BANI times, creating networks through collaboration is essential for navigating the emerging challenges (Menaria, 2024). Within this context, when Mauna Dhvani offered the women a prospect for change, they responded with agility, working their way through difficulties while building their own support systems and fostering social solidarity. In doing so, they demonstrated how marginalized groups can develop adaptive capacities that enable them not only to cope with uncertainty but also to thrive in the disruptive dynamics of a BANI world.

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Chapter 5

Traditional Ecological Knowledge and Nature Tourism



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Abstract As the world continues to move at a frenetic pace, fueling uncertainty and anxiety among people, tourists are increasingly seeking experiences that help them unwind in nature. With 106 National Parks, covering more than 1% of land in India, the opportunities for Nature Tourism in India is immense. Well-designed nature tourism can help India meet its Nationally Determined Contribution to combat Climate Change and achieve most of the Sustainable Development Goals. Forests are homes to ancient tribes of India. While nature tourism plays an important role in species conservation and proliferation, it also revives traditional practices that form the identity of the indigenous people of India. Successful conservation programs have involved local communities and the use of indigenous knowledge. Through a review of anecdotal evidence and qualitative analysis of data from Satpura Tiger Reserve, Madhya Pradesh India, this research examines how cultural traditions, sacred natural sites, and community practices contribute to resilience in socio-ecological systems, which is much needed in today's BANI world. The findings emphasize the potential of Traditional Ecological Knowledge (TEK) in biodiversity conservation and climate adaptation but also highlight societal and systemic challenges that indigenous people of Satpura have historically faced and continue to grapple with. The paper proposes bridging these divides through collaborative approaches, ethical considerations, and adaptive governance systems that validate and incorporate TEK into modern resource management strategies. The paper proposes bridging these divides through collaborative

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approaches, ethical considerations, and adaptive governance systems that validate and incorporate TEK into modern resource management strategies.

Keywords Traditional ecological knowledge · Indigenous · Sustainable tourism · Wildlife tourism · Satpura

5.1 Introduction

At the time of writing this paper, hill states of Uttarakhand and Himachal in North India, were being devastated with cloud burst incidences claiming several hundred lives. Increasing construction along the river beds is a key contributor to these disasters that have now become annual events. A substantial portion of these constructions are hotels and homestays catering to the burgeoning tourist population. The ecological crisis in the Himalayan states is serious cause for concern and has prompted the Supreme Court of India to urge immediate remedial action to prevent these states from “vanishing into thin air” quoting bench of justices Pardiwal and Mahadev (Choudhary, 2025). Traditional structures created using century old knowledge of local materials and style called Koti Banal in Uttarakhand, have weathered extreme weather events as well as earthquakes much better than modern concrete structures (Srivastava et al., 2023; Talapatra, 2025). Ironically, the same state of Uttarakhand initiated one of the largest conservation movements in the world in 1980, called Chipko Andolan, led by Gaura Devi, a village woman who protested commercial felling of trees (Encyclopaedia Britannica, 2025). This village-led movement ensured a ten-year long ban on logging in the region.

After years of ignoring the rights of the indigenous people and dismissing their centuries old wisdom, the United Nations formally accepted their significance in keeping the planet alive on September 2007, leading to the adoption of the United Nations Declaration of the Rights of Indigenous People (UNDRIP). The Convention on Biological Diversity (CBD), the United Nations arm responsible for the annual Biodiversity Conference where global guidelines are drawn up to protect ecosystems, recognizes the critical role played by Indigenous people in protecting the planet. While they form only 5% of the population, they are stewards of 85% of the earth’s biodiversity (Hoffman et al., 2021).

In India, numerous tribes are associated with conservation of biodiversity hot-spots such as the Mishmi tribe of Arunachal, who consider the tigers to be their brothers (Aiyadurai, 2016). One of the earliest conservation actions in the world, was carried out in 1730 CE by the Bishnoi tribe in a village in Rajasthan, India (Mago, 2022). Amrita Devi Bishnoi and members of her community, gave up their lives to protect Khejri trees (*Prosopis Cineraria*), a native tree considered sacred by the community. It is important to note that there is little mention of this act of sacrifice to save a forest, in western literature on conservation movements, while there are sufficient details of other western conservation actions of the time.

On researching the history of conservation movements across the world, the authors found that indigenous contributions have largely been ignored till the twentieth century. Post which, there has been an increasing coverage of the role the indigenous people and their knowledge systems play in conserving the planet (Meine, 2013). Specific to the Satpura region, the authors found literature capturing the open contempt with which the colonial rulers treated the three tribes, Gondi, Korku and Baiga, that they were researching. They were described as ‘Naked savages living on roots and sprigs and hunting for strangers to sacrifice’ by Maratha Official Grigson in the 1800s (Kundalia, 2020). There was consistent eroding of values and traditions that the original ancestors of the land had, by those outside the tribal community (Guha, 2014). This systemic ‘misrecognition’ of traditional knowledge and culture is a critical reason for the loss of Traditional Ecological Knowledge. Charles Taylor’s concept of misrecognition and loss of Tribal Identity is further dealt with later in the chapter, in conversation with a researcher of Tribal culture.

As majority of ecosystems in India, along the cost, in the mountains, wetlands or forests, are homes of the Adivasi, indigenous tribes of India, an effective tourism program will need to recognize and respect their value system, practices and knowledge. Fast-paced, exploitative tourism imbibing ever-changing trends are proving to be disastrous for both people and planet as is evident from the cases of Uttarakhand and Himachal in India or Southern Europe where protesters are pushing back on over-tourism (Hall, 2025). This paper explores the possibility of going back to the ‘roots’ in the form of embracing Traditional Ecological Knowledge to promote a thriving, resilient tourism model that holds its own in BANI times.

5.1.1 Traditional Ecological Knowledge

Traditional ecological knowledge (TEK) is defined as a cumulative body of knowledge and beliefs, handed down through generations by cultural transmission, about the relationship of living beings, including humans, with one another and with their environment, according to renowned ecologist and academician Fikret Berkes, University of Manitoba’s Natural Resources Institute (Berkes, 2018). Convention on Biological Diversity, Article 8j, defines TEK as knowledge, innovations and practices of local communities around the world. Rapidly changing climate and resultant loss of ecosystems requires a re-think on our present practices of managing land, water and air. Modern practices have severely degraded our soil, making more than one-thirds of it inarable. According to UNICEF, more than two-thirds of the earth’s population suffer from severe water scarcity at least for one month every year. 7 million people die of air pollution related illnesses and 9 out of 10 people in the world breathe polluted air, according to the World Health Organization (WHO). Traditional Ecological Knowledge may provide insights into better management of our planet and all its species, as it has stood the test of time. There is a need to understand indigenous principles of ecosystem

management which encompasses all living species and systems, while being firmly rooted in spirituality. To site a specific example, fire plays an important role in land management in indigenous land management practices across the world. With increase in forest fires globally, the United States government is reaching out to Tribal Leaders to understand the connection between Fire and Forests and learning how to use it preserve our natural forests.

Traditional Ecological Knowledge offers immense potential for addressing the challenges posed by climate change and biodiversity loss, particularly in regions with strong socio-ecological linkages. This study explores the role of TEK in climate adaptation, conservation, and sustainable resource management, drawing on insights from global literature and focusing on the Central Indian Forest region of Satpura which is home to three of the oldest tribes of the country. TEK encompasses long-standing practices, beliefs, and systems of knowledge that have historically guided human-environment interactions. However, its application is increasingly hindered by degradation due to socio-economic pressures, globalization, and insufficient integration with modern scientific methods. This paper focusses specifically on the state of Traditional Ecological Knowledge in the Satpura region of Madhya Pradesh, India.

5.1.2 Satpura Forest

The Satpura Tiger Reserve, located in Madhya Pradesh, is bordered by villages primarily inhabited by the Baiga, Korku and Gondri tribes—communities that have coexisted with the forest and wildlife for centuries. Their detailed ecological knowledge, passed through oral traditions, rituals, and everyday practices, forms an intrinsic part of their cultural identity (Adivasi Mukti Sangathan, 2000).

However, modern influences such as urbanization, relocation for conservation purposes, and the adoption of new lifestyles among the youth are contributing to the erosion of this traditional knowledge. At the same time, the growth of wildlife tourism around the Reserve has created new socio-economic dynamics. As tourists seek authentic experiences of nature and culture, indigenous communities find themselves navigating the delicate balance between tradition and modernization.

Situated in the central Indian state of Madhya Pradesh, the Satpura Tiger Reserve is a landscape of ecological, geological, and cultural significance. The reserve forms part of the ancient Satpura range—its name meaning “Seven Hills” or “Seven Folds” in Sanskrit. These hills, among the oldest in the Indian subcontinent and predating even the Himalayas, serve as a crucial biogeographic boundary between the northern plains and the Deccan Plateau. It is also known as the Genetic Superhighway—forming an essential ecological corridor connecting two global biodiversity hotspots—the Western Ghats and the Himalayas.

Covering a total area of approximately 2133.30 km², the Satpura Tiger Reserve comprises a core zone of 1339.26 km² and a buffer area of 794.04 km² as per the UNESCO World Heritage list released in 2021. It includes three contiguous

protected areas: Satpura National Park, Bori Wildlife Sanctuary (established in 1865 and considered one of the oldest forest reserves in India), and Pachmarhi Wildlife Sanctuary. Collectively, these form a vast and continuous habitat critical for the conservation of central Indian wildlife.

Declared the first Biosphere Reserve of Madhya Pradesh, Satpura is notable for its high biological diversity and complex terrain. The diversity of habitats supports a wide range of flora and fauna, some of which are unique to this region such as the Indian Giant Squirrel.

The faunal diversity of the reserve is remarkable, with over 50 species of mammals, 300 species of birds, 30 species of reptiles, and more than 50 species of butterflies. Notably, the reserve supports viable populations of apex carnivores such as tigers (*Panthera tigris*), leopards (*Panthera pardus fusca*), and Indian wild dogs (*Cuon alpinus*), sloth bear (*Melursus ursinus*) and the hard-ground swamp deer/Barasingha (*Rucervus duvaucelii branderi*). The Barasingha had gone locally extinct and were successfully relocated from Kanha in the Bori and area. The tiger population has been rising since the past decade. Satpura has been famous for leopards and sloth bears but with the rising tiger population, have shied away, affecting tourist sighting.

In addition to its ecological importance, the Satpura region possesses considerable archaeological significance. Within its boundaries lie over 50 prehistoric rock shelters adorned with paintings that range from 1500 to over 10,000 years old. These cultural artefacts offer valuable insight into early human life and interaction with the landscape.

Equally integral to the identity of Satpura are its Indigenous communities, primarily the Gond and Korku tribes, who have lived in symbiosis with the forest for generations. Traditionally dependent on forest produce for sustenance, medicine, and livelihood, these communities possess an intricate understanding of the local ecology. In recent decades, many tribal members have been incorporated into forest protection and ecotourism efforts, serving as guides, trackers, and forest guards. Their inclusion in conservation not only provides livelihoods but also strengthens the socio-ecological fabric of the reserve.

Unlike many tiger reserves in India that prioritize jeep safaris, Satpura remains one of the few parks in India to offer walking safaris (inside the core area), canoeing, mobile camping, night drives and boat safaris. Satpura's model of conservation—integrating scientific management, community engagement, and responsible tourism—has contributed to its recognition as one of the best-managed tiger reserves in India. In the 2022 Management Effectiveness Evaluation (MEE) by the National Tiger Conservation Authority (NTCA), Satpura was ranked second among 51 tiger reserves nationwide.

The transformation of this region into a flagship conservation area began in 1981, with the formal establishment of Satpura National Park. In 2000, the area was declared the 28th Tiger Reserve of India under Project Tiger, and its boundaries were expanded to include the adjacent Bori and Pachmarhi sanctuaries. The reserve's inauguration was marked by the presence of the eminent ornithologist Dr. Salim Ali, underscoring its ecological importance on a national scale.

Today, Satpura Tiger Reserve stands as a model for integrated conservation, balancing ecological preservation with cultural continuity and sustainable development. Its unique blend of biodiversity, traditional knowledge systems, and innovative conservation practices positions it as a leading example of holistic protected area management in India.

In 2024 it was established as a Ramsar site, implying that it is recognized as a wetland of international importance (Ramsar Information Sheet, [2024](#)).

5.2 Research Objectives

This study seeks to:

- Explore the perspectives of different community members, including tribal elders, youth, and those engaged in tourism activities, on the evolving relationship between their cultural heritage and tourism.
- Examine how tourism models in the Satpura Tiger Reserve can be aligned to support both conservation goals and cultural preservation.

5.3 Methodology

The research will employ a qualitative approach, including:

5.3.1 Interviews

- Semi-structured interviews/Focused Group Discussion with forest guides, all of whom belong to local tribal communities.
- Interview with a village elder, who belongs to a tribal community and has experienced the transition of culture over the past seven decades.
- Conversations with a naturalist who has spent nine months in a tourist lodge in Satpura.
- Interview with a researcher of Tribal Culture and Identity

5.3.2 Author Observation

Both authors have spent the past one year observing various aspects of the three tribes of Satpura

- Observing interactions between tourists and local communities.
- Documenting rituals, practices, or narratives shared in tourism contexts.

All interviews were conducted with informed consent, and cultural sensitivities were carefully respected throughout the research process.

5.3.3 *Expected Outcomes*

- A nuanced understanding of how nature tourism affects indigenous ecological knowledge in Satpura.
- Recommendations for creating tourism models that prioritize cultural sensitivity and knowledge preservation.
- Contribution to academic discourse on sustainable tourism, indigenous rights, and conservation strategies that integrate cultural diversity.

5.4 Significance of the Study

This research aims to contribute to broader conversations about how conservation efforts and economic development through tourism can be harmonized with the preservation of indigenous cultures. It will provide practical insights for policy-makers, conservationists, and tourism operators working within and around protected areas.

5.4.1 *Adivasi (Indigenous People of India) Culture and Tourism*

While this research brought to light data on the Adivasi in general, the attempt was to sort out aspects specific to the Gondi, Korku and Baiga tribes. It may be noted that these three tribes share much of their practices and beliefs with tribes of the neighboring states of Odisha and Jharkhand (Elwin, 1964). All indigenous people of India, and it may be extrapolated to the world, share the same beliefs of respecting nature and living in harmony with it (Abas et al., 2022).

Ministry of Tribal Affairs was set up by the Government of India in 1999, to bring about socio-economic progress to the Tribal people of India, who constitute 8.6% of the population (Ministry of Tribal Affairs Annual Report, 2024) 28 Tribal Research Institutes have been set up in the country, to promote and preserve Tribal culture and heritage. These institutes are responsible for holding festivals and events showcasing tribal art and craft, which are proving to be significant tourist attractions. Additionally, the Tribal Co-operative Marketing Development Federation of India (TRIFED) aims to provide livelihood to the Adivasi, through

promotion of forest produce and other traditional products that they have been creating for centuries. These products have further generated an interest in their place of origin and led to increase in tourism in those areas. In Satpura, the authors have observed tourists asking for Gondi paintings and Dokra metal work because they have been exposed to those in the Tribal fairs and festivals in their home cities.

Extensive literature exists on nature-based healing practices of the tribes of Satpura. A virtuous cycle of increased interest in natural medicine by tourists and increased tourism to the region due to the revived practices of natural healing by the Adivasi, was evident in multiple research papers (Landge et al., 2014). In sharp deviation from the previous centuries which derided the food habits of the Satpura Adivasi, there is now a keen interest in understanding how insects eaten by the Adivasi, have medicinal effect especially on diseases such as diabetes (Bhowate et al., 2020).

India is one of the most vulnerable countries to drought and Central India has been exposed to drought conditions for centuries. Consequently, indigenous grain of the region is Millets as opposed to Wheat and Rice prevalent in rest of the country. Increasing heat, drought and loss of biodiversity has brought focus back on Millets which grow well in harsh conditions as well as prevent biodiversity loss from soil. The International Year of Millets 2023 under the leadership of India has led to further awareness of the vast health and planetary benefits of the grain. An active promotion of traditionally cooked grain in all government-run tourism properties in Satpura, such as Government guest houses, have encouraged the Adivasi to grow, consume and sell the grain of their ancestors. As per the Food and Agriculture Organizations of the United Nations (FAO), bringing millets back to the plate has not only helped preserve the difficult terrain of Satpura but also helped indigenous tribes get meaningfully employed in their traditional occupations of growing and cooking with millets (FAO, 2024). Food forms the core of a community's identity. In these BANI times, reconnecting with the food of one's ancestors, can provide stability in the midst of ever-changing trends.

Art of the region is another area that finds its place in many publications. The Korku tribe creates intricate carved teak wood structures to commemorate their dead which are now tourist attractions. All the three tribes decorate their homes with paintings of nature, namely flowers, animals and trees. Tourist areas commonly exhibit and offer Gondi paintings for sale. The authors have found Gondi paintings being sold in multiple large cities of Madhya Pradesh as well as at key exhibitions and art festivals in other cities of India. Madhya Pradesh has the highest concentration of Rock Paintings in the world, dating back to the Paleolithic period, as per UNESCO World Heritage Website (UNESCO, 2020). Satpura Tribal art is inspired by these ancient rock paintings (Dubey, 1991). These sites have seen a steady increase of tourists which has further led to the popularity of the tribal art inspired by rock paintings.

Trees are central to all three tribes and are venerated as gods. Mahua (*Bassia latifolia*) is revered by all and its flowers are eaten as food or fermented to form a liquor that is part of all major celebrations. After a century of being disparaged, the Mahua liquor is now bestowed with the status of being a heritage liquor and sold at

government-owned liquor shops. Mahua distillation, tasting and buying is now part of the tourist route of Satpura region.

Verrier Elwin, perhaps the first and biggest contributor to reviving tribal culture in Central India, describes the importance of Mahua to the tribals by quoting them, saying the Adivasi will stay alive as long as the Mahua flowers in the jungle (Elwin, 1939).

5.4.2 Traditional Ecological Knowledge in Satpura: A Naturalist's Perspective

The following is data gathered from a naturalist, employed with a leading sustainable tourism company in Satpura. Her insights have been captured and presented verbatim. Other naturalists of the region have also been interviewed by the authors and they have corroborated the said naturalist's observations.

During my time as a lodge naturalist in Satpura Tiger Reserve, I had the privilege of working closely with local safari guides and drivers—most of whom were Adivasi from villages surrounding the park. While I brought formal naturalist training, I soon realized that the most profound ecological insights came from them. Their knowledge was not written in books, but carried in memory, language, and observation—shaped by generations of living with the forest. They have short formal training sessions but for them they just need to learn the English names as they are already familiar with the fauna and flora, having grown up around them.

They could track animals with startling accuracy, interpret bird calls as ecological signals, and navigate the dense forest using subtle cues most outsiders would miss. This traditional ecological knowledge (TEK) was deeply rooted in their daily lives. Even those whose children or relatives worked outside the region would return seasonally to farm or gather Non-timber Forest Product (NTFP) like mahua flowers or tendu leaves—activities that continued to tie them to their land and knowledge systems.

However, in quiet moments during interviews and informal chats, many shared their growing concern: this knowledge, once passed down effortlessly through stories, observation, and shared work, is under threat. Heirloom practices and tools are slowly being replaced by modern alternatives. Children are increasingly drawn toward formal jobs and urban lifestyles. The younger generation may not always find value in ancestral ways, and the forest, once their classroom, now competes with phones, schoolbooks, and changing aspirations.

Despite this, many guides expressed a quiet determination to keep teaching their children the old ways—even if tourism ceased tomorrow. Wildlife tourism, they said, has become one of the few platforms where this knowledge is still seen, respected, and valued. When guests ask about animal tracks, forest plants, or local customs, it rekindles their own pride. In this way, tourism acts not just as income

generation but as cultural reinforcement. When done ethically, it has the potential to protect what modernity might otherwise erase.

Both authors have personally experienced the animal tracking abilities of guides belonging to indigenous tribes of Satpura, as well as their in depth knowledge of trees, birds and other species of the forest.

5.5 Focused Group Discussion With Forest Guides

All forest guides employed in Satpura belong to the indigenous tribes of the region, namely Gondi, Korku and Baiga. The authors conducted a Focused Group Discussion with 10 guides with 4 belonging to Gondi and Baiga tribes and 3 from Korku tribe. The discussion was focused around their observations and experience of the following:

1. What traditional ways are being maintained in their families and community at large
2. How are they being able to use these traditional ways in their work as guides
3. How does their traditional knowledge boost tourism. The authors allowed the group to share any connection that the respondents saw, between their traditional knowledge and tourism.

Responses of the guides have been collated and mentioned below.

All three tribes said they worshiped all elements of nature, which are the five Tatva according to them namely water, air, trees, fire and earth. Their culture is centered around trees and animals. Some claimed to worship rocks as well. All respondents emphatically shared the importance of Trees in their culture and in their lives, saying "If we have trees, we lack nothing". The Crocodile Bark Tree, called Saaj in the local language has special significance for the Gondi Tribe. They believe one of their most important gods, Badadev, loosely translated to Big God, resides in this tree. Marriages are conducted around the Kaim or Haldu tree which are the Parvifolia or Cordifolia tree. Though both are different species, we observed them referring to both interchangeably. The Korku tribe use wood from the Teak tree to carve a memorial for the deceased and place it in a place of worship. They believe that praying at this teak carving will ensure that they break free from the circle of life and rebirth.

While they did not lay the same emphasis on animals as they did on trees, they all accepted that animals were important to them. They worship the Tiger as 'Baghdev' or Tiger God. The Cow is held in great reverence and prayed to. During Diwali, an important festival in the region, leaves of the Doodhi tree, a native species of the Satpura, are shaped into bowls called 'patal' and fed to the cows by hand. The parts uneaten by the cows are then eaten by people as though they have been blessed by the cows.

The responses were mixed on whether people are retaining or forgetting traditions. Some said there is lesser traditional values and practices to be observed at

present while some said people are preserving and even reviving traditional practices. They gave the example of traditional farming methods being revived which are known to be beneficial to the soil and biodiversity as compared to mechanized farming. All respondents said there was a renewed focus on traditional crops such as millets, during the COVID pandemic. They said sorghum, jowar in local language, local varieties of corn and little millet, called Kutki, have now become popular once more in the Adivasi community.

Some of the traditional forms of art such as creating things with clay, are now not as prevalent as before and less sustainable substitutes are becoming prevalent. There was also a decline in the use of Gond art, which have historically adorned the walls of the Gondi houses. However, there is an effort to revive it and training is being imparted, especially to girls and women, to paint Gond art. They showed the authors ecological homestays where the arts were on display. The authors observed all government-run shops in the region selling traditional art, especially Gond. Creating Gond art is also gaining popularity as an activity for tourists to do when they are in the region. The respondents shared that Satpura region has many cave paintings and these are now getting their due as their value is increasing with tourism.

As observed by the authors and confirmed by the respondents, the Adivasis still wear traditional attire and live a simple life. Their homes are simple and they do not use much electricity in them. Their grains are stored in storerooms and they eat fresh vegetables, reducing dependency on appliances such as refrigerators. This simple way of living is now being showcased as tourist attraction where tourists get to see their traditional homes, their ways of farming using minimal machinery, using stone to grind spices and grains and other practices which leave a minimal footprint on the planet.

5.6 Interview With a Village Elder

The authors were directed to a Village elder by the guides, as they felt he would be able to provide further insights into the practice of Traditional Ecological Knowledge of the Tribes of Satpura. The discussion was free-flowing in which the authors asked him to elaborate on how he has seen Traditional Ecological Knowledge being practiced in his village. The gentleman belongs to the Gondi tribe but spoke for all the three tribes under study in this paper. The following are the key points of what he shared with the authors.

Adivasi believed that wild animals lived with them and are therefore not scared of them. They do not harm them and believe in co-existing with them. However, wild animal meat has been part of their diet for centuries. Historically, the Adivasi do not cut trees. The gentleman pointed out that they used to use fallen wood to create instruments. In the rare case that they had to cut trees, they were quick to plant more to replace them. He said that over the past few decades, he has observed a change in their ways of life. There has been influence of 'outsiders', by which he meant those not from the Adivasi community, who have started exploiting their

lands and cutting trees. The original harmony with which the tribes lived with nature, is slowly getting eroded, he felt.

He made a special mention of a village called Ghogri, which became popular for its Traditional Knowledge of plants used for healing, after a few documentaries were made on them. The authors found reference of this village on a number of documentaries on Satpura range. Their traditional medicines are gaining popularity and they have a steady stream of non-tribal people coming for treatment to the village. One of the authors has been to a tribal medicine dispensary and personally used their products, especially the jungle garlic oil that is being promoted by the state government, as an effective pain balm. The gentleman mentioned another tribal leader by the name Sarangpur Mangal Baba, who is claimed to have used traditional knowledge to 'set bones' for decades. The village elder emphasized on the loss of traditional knowledge of healing, as he sees tribal villages disappear into the urban sprawl. He said their communities did not need to go to hospitals as all treatment was available from forest produce. The air, water and soil were clean and healthy and everyone ate freshly foraged or hunted food. He has been seeing an increase in illness in the past couple of decades.

The authors found the village elder to be less hopeful of the preservation of Adivasi knowledge as compared to the guides. However, the village elder did mention that seasonal agricultural practices were still prevalent in the villages, namely sowing of local millets during monsoon while invoking the rain god, Indradev, for good rain. Praying to the rain god is a critical part of their sowing activity. They perform a prayer ritual involving women forming a circle and doing a traditional dance called Karma, to evoke the god of rain. He said that national days like the Vishwa Adivasi Diwas on August 9, which is observed on the same day as the United Nations International Day of World's Indigenous People, are important in recognizing the importance of the Adivasi people and their way of life. He has attended country-wide events held to celebrate Adivasi culture where their food, dances, dresses and jewelry, are displayed and celebrated.

Despite the increase in tourist interest in Adivasi culture, the village elder feels that the way of life he had seen as a child is lost. The authors felt that he saw the values attached to nature and simple way of life have given way to more brittle existence, constantly influenced by the outside world.

The authors surmised that the guides were less exposed to the earlier ways of life and were therefore hopeful of the revival of TEK as they saw the revival of millets, their dance forms and attire coming back to their villages. The village elder had a longer exposure to what it truly meant to be an Adivasi and felt that spirit of simplicity and resilience, was irrevocably lost.

5.6.1 Interview With a Researcher of Tribal Culture and Society

While this paper focusses on the three tribes of the Satpura Range, the authors felt it necessary to seek primary data from an expert on Tribal culture and the state of

Traditional Ecological Knowledge in Indian tribes in general. As part of a research study commissioned by The Centre for Gender Equality and Inclusive Leadership, on tribes of Jharkhand and Odisha, researcher Anu George had gathered primary data on tribes of the region. As Satpura forests and Jharkhand share a similar ecology, the authors gathered data from George on the Munda tribe of Jharkhand, which share similarities with the Gondi, Baiga and Korku tribes of Satpura. The following is a synopsis of the insights gathered from George.

Understanding Tribal culture is complex and requires deep knowledge of societies and their evolution. Her research used the concept of ‘misrecognition’ proposed by Charles Taylor, where a community or group may feel inferior to others because of the way others in society define them (Taylor, 1994). Minority communities or groups, such as those of color in the western world or women across the globe, have looked upon themselves in a deprecatory manner because others looked at them in a demeaning way, as per Taylor’s thesis. George felt that tribes have experienced the same approach of ridicule or demeaning from society for an extended period of time, diminishing their self-worth. In a BANI world, the loss of self-worth can further reduce resilience of people. Loss of Traditional Ecological Knowledge is a direct outcome of reduced appreciation of themselves.

George has observed a reluctance of present generation Munda people to eat foods that were traditionally eaten at their homes. Local and seasonal forest produce, that help keep the ecology healthy are now being replaced by generalized food items eaten by every community, not just in Jharkhand but the entire country. This practice not only damages the ecology but also their own health. A case demonstrating this is that of the Mahua tree, which played a central role in Munda culture. George shared that Mahua had properties that helped keep blood hemoglobin at healthy levels. Over the years, Mahua has stopped being part of the Munda diet. Today Jharkhand has one of the highest rates of anemia in the country. George shared that the Munda people today feel a sense of ‘shame’ in their food and practices. However, she felt there has been a steady shift in thinking over the past few years, with the recognition of the Indigenous people and the role their knowledge can play in fighting present planetary crises, especially Climate Change. She said that the mainstreaming of Sustainable Development Goals and celebratory events such Vishwa Adivasi Diwas, Adivasi Melas across the country, have provided a fillip to reviving Adivasi culture. She is personally working with tribals from Jharkhand who had left their cities and their tribal identity, and moved on to mainstream jobs. They have chosen to come back and reclaim their Adivasi identity and are working as social entrepreneurs, promoting Adivasi products. George sees a positive correlation between tourism and revival of Adivasi traditions. She said that people were beginning to see the importance of natural and simple living, the way the original people of the land, the Adivasis, lived.

George enabled an understanding of the reason behind the shift from a traditional and sustainable life to one which is destructive and much less meaningful. Taylor’s thesis helps us connect this desire to distance from one’s own identity, as a fall-out of social conditioning, where certain groups have systematically been made to feel inferior to the point that they have begun to accept it. The hope is that the worst is over and the tribes are beginning to understand their own worth, reclaiming their identity and nourishing it.

5.7 Discussion and Recommendation

While the chapter had aimed to explore the relationship between Traditional Ecological Knowledge of Satpura Tribes and Nature tourism, the year-long observations, conversations and literature review has presented insights into the historical and social aspects of TEK, which need to be addressed before applying TEK to Nature Tourism. The oppression of the tribal people, making them feel inferior and thereby forcing them to lose their ways, has taken centuries and cannot be undone in a hurry. The issue of Tribal Identity erosion is a complex one with layers of religion, societal expectations, colonialism, capitalism constantly working with each other to make the Adivasi question her way of life and values. Elwin describes in detail the psychological trauma caused by Colonial administrators, often inspired by a zeal to ‘convert the savages’ to their religion, making the Adivasi shed their leaf-based clothes, local and seasonal food and adopt attire and food unsuitable for the region (Guha, 2014). The vast forests of Central India which thrived under the stewardship of the Adivasi, started losing its biodiversity as they stopped living in harmony with it. The disconnect with nature continues to this day, further influenced by the exploitative consumer mindset of those outside the Indigenous community.

This paper is limited by the lack of availability of documentation of TEK of the three tribes. As most indigenous knowledge passed down from one generation to another in the form of stories and art, there is an urgent need to document these stories from the generation that has seen TEK evolve over the past few decades. With the limited insight gathered over the year, the following are recommended to build a tourism model that regenerates the tribal identity as well as the planet:

1. **Mainstreaming Adivasi knowledge.** While provisions for including Indian Knowledge Systems have been made in India’s Education Policy in 2020, there has not been any formal inclusion of Tribal Knowledge (Nandikolmath et al., 2023). The Ministry of Tribal Affairs has set up Eklavya Schools in areas with more than 50% population of Adivasi, to make education accessible to the Adivasi children in their familiar environment (Ministry of Tribal Affairs Report, 2024). These schools are modelled on the Navodaya School model, which makes ‘high quality’ education available to children in rural areas. The definition of ‘High Quality’ is the curriculum set by the Central Board of Education in India. There is no specific measure to inculcate Adivasi knowledge and wisdom, in the indigenous youth. Until Tribal knowledge, the knowledge that a country has used for centuries, is understood, respected and applied, any action down-stream will have limited impact.
2. **Representation of Tribal art and culture.** Tourists could be exposed to the vibrant art forms of the Adivasi people, through performances and sale of art. Such initiatives not only provide a means of livelihood to the Adivasi but also make them feel proud of their culture. It is critical to educate the tourists about respecting the Adivasi performers and accord them the same recognition that they would, to an award-winning performer back in their city. The authors felt

an emotion akin to shame or helplessness, when the Adivasi were called to perform at gatherings where the audience were distracted or not particularly interested in their performance. Such incidents damage their already eroded sense of self-respect. It brings to mind the story 'The Adivasi will not dance' by one of the few national award-winning Adivasi authors, Hansda Sowendra Shekhar, in which he narrates the indignation the Adivasi feel, when they are expected to perform for a group of people who have come to take their land away for building a power plant (Shekhar, 2017).

3. Inclusion of Tribal food items in all hotels, lodges which are in biodiversity-rich zones. Kitchen Staff should be able to educate the tourists on tribal food and their value.
4. Consultation with Tribals on building material and design. The tribals of Satpura traditionally built houses from local natural material which kept their homes cool in the harsh summer of the plateau. Their granaries were scientifically designed to keep grains fresh and pests away. While hotels may not be able to incorporate tribal structures in their entirety, they can use the basic principles and modify to their needs.

It should be noted that except for recommendation 1, the rest are all being carried out to varying degrees of consistency, in hotels and lodges in Satpura. The suggestion is to formalize it and make it an integral part of the tourist experience.

5.8 Conclusion

The paper attempted to understand the relationship between Tourism and Traditional Ecological Knowledge, focusing on the Satpura region of Madhya Pradesh. While centuries of wisdom may have been lost due to reasons of colonialism, exploitative capitalism and social systems that appropriated monetary gains by pushing the Adivasi to the fringes of society. It is now that the realization has struck that those monetary gains came at a great cost of human and planetary health. Consequently, seeking the wisdom that kept all species alive since the beginning of humankind, thriving and in harmony, is again being looked at with renewed interest.

In this study, the authors found multiple programs, guidelines and even laws, protecting and reviving Tribal culture. Tribal food, clothes and jewelry are being efficiently marketed and are now recognized widely across the country. Tourism has emerged as a significant livelihood source for the Adivasi, directly and indirectly, over the past years. Adivasi are being employed as forest guides in the Satpura Tiger Reserve as well as other nature reserves across the country. Tourists visiting Satpura today have the opportunity to get deeply enriched by the Traditional Ecological Knowledge that the Baigas, Gondis and Korkus bring to the forest and tourist sites. The hope is that the tourists become aware of this privilege and deserving of it, ensuring that the Adivasi stand proud and tall as the stewards of our planet and human well-being.

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Chapter 6

New Motherhood Versus Career: Identity Conflicts During Re-entry Transitions in IT Sector in India



Roopal Gupta , Tanuja Sharma , and Nidhi S. Bisht

Abstract This chapter examines the impact of BANI (Brittle, Anxious, Non-linear, Incomprehensible) conditions on returning mothers in the Indian IT sector through the theoretical lens of identity conflict. Drawing on qualitative research with 33 mothers, we explore how BANI environment brings dissonance in women's sense of identities for balancing professional and personal roles. Interviews reveal feelings of vulnerability, anxiety, and overwhelm, exacerbated by cultural pressures around motherhood and workplace performance in India's fast-paced IT industry. These women navigate BANI systems while internalizing intense responsibility for unpredictable workloads and unclear advancement opportunities. To foster compassionate organizations, we propose strategies like flexible work policies, mental health support, and transparent career frameworks to alleviate excessive accountability pressures. By addressing these needs, Indian IT firms can create inclusive workplaces that empower returning mothers to thrive, enhancing resilience and adaptability in a chaotic BANI world.

Keywords Maternity leave · Return-to-work · Career transition · Indian IT · BANI

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6.1 Introduction

The turn of the millennium marked the advent of the VUCA (Volatile, Uncertain, Complex, Ambiguous) era, a framework that has long served to describe the dynamic and unpredictable nature of the global business environment.

However, recent geopolitical shifts, technological accelerations, and societal disruptions suggest a further evolution into what has been termed BANI: Brittle, Anxious, Non-linear, and Incomprehensible (Cascio, 2020; Harari, 2018). In a BANI world, existing systems are easily fractured (brittle), pervasive unease and fear dominate individual and collective psyches (anxious), cause-and-effect relationships are disproportionate and unpredictable (non-linear), and the sheer velocity and volume of information render genuine understanding elusive (incomprehensible). This paradigm shift presents unprecedented challenges for organizational stability, leadership efficacy, and human resource management, demanding a fundamental departure from traditional, rigid approaches towards more agile, empathetic, and inherently resilient strategies. Understanding the BANI framework is crucial for organizations, as it provides a diagnostic tool to identify the specific nature of contemporary challenges, enabling more targeted and effective strategic responses rather than relying on outdated models designed for less turbulent times. By recognizing the brittleness of systems, the anxiety of individuals, the non-linearity of outcomes, and the incomprehensibility of complex information, leaders can better prepare their organizations and support their workforce.

Within this turbulent global context, the Indian Information Technology (IT) sector stands as a prime example of both immense opportunity and intense pressure. Recognized globally for its rapid growth, continuous technological innovation, and a demanding, often relentless work culture, the Indian IT industry is a critical engine of the nation's economic progress and a significant global player (IBEF, 2022; NASSCOM, 2022). Yet, its very dynamism often translates into relentless demands on its workforce, characterized by extended working hours, high-pressure deadlines, and the imperative for continuous skill acquisition and adaptation (Valk & Srinivasan, 2011). It is within this particularly acute BANI environment that a critical and often vulnerable demographic faces unique and magnified challenges: returning mothers. These highly skilled women, re-entering the professional sphere after the transformative experience of maternity leave, must navigate not only the universal complexities of motherhood—encompassing physiological recovery, profound emotional adjustments, and the demanding realities of infant care—but also the intensified pressures of a BANI workplace. Such environments frequently lack the empathetic structures, adaptive policies, and understanding cultures necessary for their seamless reintegration and sustained professional success.

Our aim is to examine the return-to-work experiences of these women, specifically focusing on how the prevailing BANI conditions within the Indian IT sector intensify their identity conflicts. This conflict arises from the tension between their salient professional and maternal social identities, profoundly influencing their

decisions and behaviors. Drawing upon rich qualitative insights from in-depth interviews with 33 mothers, we illuminate how organizational brittleness (e.g., frequent reorganizations, unstable team structures), non-linear career trajectories (e.g., unclear promotion paths post-maternity, perceived stagnation), and often opaque or incomprehensible organizational structures (e.g., ill-defined roles, lack of transparency in decision-making) significantly heighten the dissonance between these women's internalized sense of self in their professional and personal roles. This leads to an intense feeling of struggling to effectively balance demanding professional roles with their equally significant personal and familial obligations.

The resulting psychological burden manifests as pervasive feelings of vulnerability, chronic anxiety, and profound overwhelm, which are further intensified by deeply ingrained cultural pressures surrounding motherhood in India. In a societal context where a mother's primary role is often culturally perceived as centered on childcare and household management (Bagchi & Krishna Raj, 2017), the expectation to simultaneously excel in a high-performance IT workplace creates an almost insurmountable dual burden. Our analysis reveals how these women, despite their inherent ambition, dedication, and professional competence, grapple with fragile and unpredictable systems while attempting to reconcile the conflicting demands of unpredictable workloads, ambiguous performance metrics, and unclear advancement opportunities, leading to an intense internal struggle.

Ultimately, this chapter constructs a compelling argument that fostering compassionate organizations is not merely a philanthropic endeavor or a "nice-to-have" look for the corporates (Pirson & Kimakowitz, 2014), but rather a pragmatic business imperative for survival and prosperity in the BANI era. By meticulously outlining the tangible business costs directly associated with a lack of organizational compassion—including escalating attrition rates, diminished productivity, stifled innovation, and an eroding employer brand—we aim to demonstrate that neglecting the specific needs of returning mothers directly undermines an organization's strategic goals and long-term viability. To counteract these profound challenges, we propose a series of strategic interventions, including the implementation of genuine flexible work policies, the provision of robust mental health support systems, and the establishment of transparent career frameworks. These actionable strategies are designed to alleviate identity tensions, cultivate genuinely inclusive workplaces, and empower returning mothers to not just survive but truly thrive. By addressing these critical needs, Indian IT firms can enhance the well-being and retention of a vital segment of their workforce while significantly bolstering their overall organizational resilience and adaptability, positioning themselves for sustainable success in a chaotic BANI world.

6.1.1 Returning Mothers and Identity Conflict in a BANI World

The transition back to professional life after maternity leave represents one of the most significant and universally challenging periods in a woman's career trajectory

(Stumbitz & Jaga, 2020). This journey is deeply multifaceted, encompassing a complex interplay of physiological recovery from childbirth, profound psychological adjustments to new motherhood, shifts in personal identity, and the daunting task of re-engaging with the demanding professional sphere (Ladge & Greenberg, 2015). Research consistently highlights that this period is frequently marred by a phenomenon often termed the “maternal wall”—a set of subtle yet pervasive biases, stereotypes, and discriminatory practices encountered by mothers in the workplace (Ridgeway & Correll, 2004). These biases often manifest as implicit assumptions about reduced commitment, diminished competence, or an inability to handle demanding roles due to caregiving responsibilities, regardless of the individual’s actual performance or intent (Arena et al., 2023). This can lead to a “motherhood penalty” where women experience reduced earnings and slower career progression compared to childless women or fathers (Correll et al., 2007; Glass, 2004).

The four common struggles reported extensively in the returning mothers literature include, first, work-family conflict which is perhaps the most widely researched challenge. This refers to the pervasive difficulty in balancing the intensive demands of a new baby and household responsibilities with professional obligations, leading to significant stress, emotional exhaustion, and burnout (Greenhaus & Beutell, 1985; Kossek & Ozeki, 1998; Greenhaus & Powell, 2012). This conflict is not merely about managing time efficiently but also about the profound emotional and energy depletion that arises from competing roles (Karelaia & Guillén, 2014). Second, guilt and identity crisis. Returning mothers frequently grapple with profound and pervasive feelings of guilt—often termed “mom guilt”—about leaving their children in care, feeling that they are not fully present either at home or at work (Berger et al., 2022). This is often coupled with an evolving sense of professional identity that may feel compromised, fragmented, or less central to their being than pre-maternity leave (Gatrell et al., 2017; Cuddy et al., 2004;). The once clear boundaries between work and personal life blur, leading to constant internal negotiation and self-reproach. Third, career stagnation and reduced advancement. Despite equal or often superior qualifications and pre-maternity performance, returning mothers frequently experience slower career progression, being overlooked for promotions, or being subtly shunted into less demanding, less visible roles, effectively sidelining their careers (Correll et al., 2007; Arena et al., 2023;). This “motherhood penalty” directly impacts their earning potential, long-term career trajectories, and overall job satisfaction. And fourth, perceived decline in professional competence. This is attributed to the time away from work, the rapid pace of technological change in sectors like IT (Valk & Srinivasan, 2011), or a lack of opportunities for continuous learning and skill refreshers (Chen & Kimura, 2024; Escudero-Guirado et al., 2024). This can contribute significantly to self-doubt, anxiety, and a diminished sense of professional efficacy, regardless of their actual capabilities.

In the specific context of India, these universal challenges are often intensified by unique socio-cultural dynamics and the characteristics of the Indian IT sector. While traditional joint family structures can sometimes offer childcare

support, they can also simultaneously impose additional expectations on mothers regarding their domestic roles and primary childcare responsibilities, often positioning these as taking precedence over professional aspirations (Shanmugam, 2017). The Indian IT sector itself, characterized by its global client base necessitating round-the-clock operational demands, its highly competitive, performance-driven culture, and an imperative for continuous skill upgrades, further exacerbates these pressures (Valk & Srinivasan, 2011; Priya, 2021). The expectation of round-the-clock availability, coupled with intense project deadlines and a fast-evolving technological landscape, can make the return to work particularly daunting and unsustainable. The existing literature strongly suggests that a pronounced lack of formal supportive organizational policies (e.g., genuinely flexible work arrangements, accessible and affordable creche facilities, equitable parental leave for fathers) and a prevailing absence of a truly compassionate work culture—one that genuinely understands and accommodates the unique needs of returning mothers—significantly contributes to increased stress, burnout, and ultimately, a higher rate of attrition among this critical talent segment (Ladge et al., 2018; Gabriel et al., 2020). The absence of a psychologically “safe” space for vulnerability and the relentless, unyielding drive for efficiency can alienate mothers who desperately require a period of empathetic adjustment and systemic support (Morgan & King, 2012).

6.2 Social Identities, Identity Conflict, and BANI World: The Weight of Dissonance

Individuals’ understanding of themselves is profoundly shaped by their membership in various social groups; this is the core tenet of Social Identity Theory (SIT) (Tajfel, 1978). People categorize themselves and others into social groups (e.g., “IT Professional,” “Mother,” “Indian Woman”), and these group memberships contribute significantly to their self-concept and self-esteem. Individuals strive to achieve and maintain a positive social identity, often by comparing their in-group favorably to relevant out-groups. Within organizational contexts, professional identities (e.g., dedicated employee, high-achiever) and personal identities (e.g., nurturing parent, devoted spouse) become salient social categories, each carrying a set of associated norms, expectations, and values.

Identity conflict arises when these multiple, salient social identities held by an individual are perceived as incompatible or contradictory (Ashforth & Mael, 1989; Karelaia & Guillén, 2014; Settles, 2004). This incompatibility can stem from conflicting role expectations, demands on time and energy, or differing values associated with each identity. For returning mothers, the potential for identity conflict is particularly high, as the traditional norms of a demanding professional career (requiring long hours, constant availability, and singular focus) often clash with the societal and personal expectations of intensive motherhood (demanding

presence, emotional labor, and primary caregiving). The individual then experiences internal tension, stress, and a diminished sense of well-being as they attempt to reconcile these opposing facets of their self.

When studied in the context of BANI, the experiences of returning mothers help us understand how the organizational and environmental context exacerbates their identity conflicts. Each element of BANI intensifies the individual's struggle to integrate their professional and maternal identities, transforming a manageable tension into an overwhelming psychological burden:

- **Brittle Environments (BANI):** Organizations characterized by brittleness are often rigid, fragile, and prone to sudden, catastrophic failures or breakdowns in the face of stress or disruption (Cascio, 2020). They lack inherent resilience, adaptive capacity, and often operate on outdated or overly complex systems. In such environments, the professional identity demands unwavering commitment and stability, while the reality of maternal responsibilities introduces perceived "fragility" (e.g., childcare emergencies, reduced availability). This creates an internal conflict where mothers feel their maternal identity is incompatible with the perceived unyielding demands of their professional role in a brittle system. They may feel hyper-responsible for shoring up precarious structures or compensating for systemic weaknesses, viewing their personal needs as a direct threat to their ability to fulfill their professional identity, which is further compounded by an absence of redundancy, adequate backup systems, or shared responsibilities.
- **Anxious Conditions (BANI):** A pervasive atmosphere of anxiety, driven by rapid market changes, economic uncertainties, fierce global competition, or a continuous threat of disruption, permeates organizational culture (Harari, 2018; Bennett & Lemoine, 2014). This amplifies the pressure on individuals to constantly demonstrate unwavering competence, resilience, and unflagging commitment to avoid perceived threats to their job security or career progression. For returning mothers, this manifests as an intense drive to prove their professional identity is uncompromised, leading to hyper-vigilance and overwork (Oh & Mun, 2022). This clashes directly with the often vulnerable and demanding reality of their maternal identity, intensifying the internal conflict between being the "perfect employee" and the "perfect mother," often at the profound expense of their personal well-being.
- **Non-linear Trajectories (BANI):** In non-linear environments, cause-and-effect relationships are disproportionate, unpredictable, and often defy traditional logic. Linear career paths, predictable performance indicators, and even the anticipated outcomes of specific actions become difficult to foresee or control (Cascio, 2020). This pervasive ambiguity makes it challenging for returning mothers to establish a clear and stable professional identity. The disruption of traditional career progression post-maternity (Correll et al., 2007) is magnified by this non-linearity, leading to an amplified identity conflict. They struggle to reconcile their pre-maternity identity as clear-path professionals with a post-maternity reality of ambiguous growth, constantly second-guessing their efforts

and choices without clear validation (Ladge et al., 2018). The absence of transparent development opportunities and promotion criteria makes it exceptionally difficult to define or achieve their professional self, leaving them feeling disconnected from their career aspirations.

- **Incomprehensible Structures (BANI):** Organizations can become incomprehensible due to excessive complexity, fragmented internal communication, opaque decision-making processes, or a general lack of systemic transparency (Cascio, 2020; Snowden & Boone, 2007). When systems, policies, or strategic directions are difficult to understand, individuals struggle to enact a consistent professional identity. For returning mothers, this translates into an overwhelming burden of deciphering constantly shifting priorities, unspoken expectations, and unwritten rules, while also trying to integrate their maternal role (Allen et al., 2000; Kahn, 1990). This ambiguity creates profound identity conflict as they try to align their personal values and needs as mothers with an organizational environment that feels illogical and unsupportive, often leading to feelings of isolation and frustration.

This chapter synthesizes these critical literatures, arguing that the profound intersection of the returning mother's unique transitional journey with the exacerbated identity conflict induced by prevailing BANI conditions creates a critical and often neglected vulnerability within organizations. We contend that organizations that fail to acknowledge, understand, and proactively address this intersection are not merely overlooking an ethical imperative; they are fundamentally compromising their own strategic survival, growth, and long-term viability in a rapidly evolving, chaotic world. By understanding this complex interplay, we can develop more targeted, empathetic, and ultimately, more effective interventions that truly foster compassionate organizations capable of thriving in the BANI era.

6.3 Methodology

This chapter draws its empirical foundation from a comprehensive qualitative research study conducted with 33 returning mothers in Indian Information Technology (IT) sector. The overarching aim of this research was to gain a deep, nuanced understanding of their lived experiences, the multifaceted challenges they encountered, and the adaptive coping mechanisms they employed during their complex journey of reintegration into the workforce post-maternity leave.

We employed hermeneutic phenomenology, a qualitative research approach deeply rooted in the philosophical traditions of phenomenology (study of lived experience) and hermeneutics (theory of interpretation) to study the lived experiences of women (van Manen, 2016). This approach emphasizes understanding the meaning of human experience as it is lived. This method seeks to explore and interpret the fundamental structures and meanings of a phenomenon, rather than merely describing it or testing hypotheses. The choice of hermeneutic

phenomenology was deliberate, aligning with the study's aim to capture rich, nuanced narratives and uncover the subjective meanings participants ascribed to their experiences. This approach recognizes that human experience is inherently interpretive, and the researcher's role is to engage with the text (interview transcripts) in a way that allows the meaning to unfold, rather than to impose pre-conceived categories. It prioritizes the "what" and "how" of experience over causal explanations (van Manen, 2016). For this study, the "phenomenon" under investigation was the lived experience of returning mothers in the Indian IT sector.

6.4 Participants and Context

Participants were selected using a purposive and then snowball sampling strategy (Miles & Huberman, 1984). All 33 participants had successfully rejoined their respective workplaces within one year of going on maternity leave, ensuring that their experiences were recent and relevant to current workplace dynamics. Their professional backgrounds were varied, with individual work experience ranging from a minimum of 5 years to over 15 years, encompassing a spectrum of technical, project management, and leadership roles within the IT domain. This broad range of experience ensured a rich tapestry of insights concerning career trajectory, perceptions of organizational policies, the nuances of workplace culture, and the profound personal challenges inherent in balancing a demanding career with family responsibilities in the Indian context. Prior to their participation, each individual provided explicit informed consent, with stringent measures implemented to guarantee their complete anonymity and the strict confidentiality of all shared information. This ethical consideration was paramount, fostering an environment where participants felt secure enough to share their deeply personal and often vulnerable experiences.

6.5 Data Collection

The primary method for data collection involved conducting semi-structured, in-depth interviews. The interview protocol was meticulously developed, drawing upon broad themes from existing literature on work-life balance, maternity transitions, and organizational psychology. However, it served as a flexible guide, allowing the conversation to flow organically based on the participant's narrative. Consistent with the hermeneutic phenomenological approach, these interviews were designed not merely to extract information but to invite participants to share their lived worlds and construct rich narratives around their experiences. We adopted an empathetic, non-judgmental stance, employing active listening and reflective questioning to encourage deep elaboration and exploration of personal meaning. Each interview was a comprehensive exploration, typically lasting

between 70 to 120 minutes, allowing ample time for participants to express themselves fully and for emergent themes to surface.

All interviews were audio-recorded, and subsequently transcribed verbatim to ensure the preservation of nuances in the participants' language, intonation, and expressions, which was crucial for maintaining the fidelity and depth required for subsequent qualitative analysis within a phenomenological framework.

6.6 Data Analysis

While the data collection was guided by hermeneutic phenomenology to uncover lived meaning, the analytical process primarily employed techniques from thematic analysis, specifically informed by the systematic approach of Strauss and Corbin (1998) for generating categories and themes. This hybrid approach is common in qualitative research, where the philosophical depth of phenomenology informs the understanding of experience, and systematic coding techniques provide a rigorous method for analyzing the textual data. The focus remained on discovering patterns and meanings inherent in the data, rather than on building/confirming a formal theory.

The analytical process involved an iterative and recursive movement through the data:

1. **Open Coding:** This initial stage involved meticulously reading through the verbatim transcripts, line by line, to identify and label discrete concepts, ideas, and phenomena mentioned by the participants. Codes were generated directly from the data (in vivo codes) or conceptualized, capturing the essence of each segment. For example, expressions like "constant guilt," "shattered focus," "no mental bandwidth," or "checking job portals" were coded. This process involved asking questions like "What is this data about?" and "What does it represent?"
2. **Axial Coding:** Following open coding, related concepts and codes were grouped into broader categories or "axes." This involved identifying relationships between categories, looking for their properties (characteristics) and dimensions (variations along a property). For instance, codes related to "leaving thoughts," "colleagues resigning," and "job search" were linked under a higher-order category like "Attrition & Talent Drain Risk." This stage allowed for the development of preliminary thematic structures.
3. **Selective Coding:** This final analytical step involved identifying the core phenomenon or aggregate theme that connected all other categories and themes. While we did not aim to build a formal "core category", this stage allowed us to articulate the overarching narrative of the chapter—the impact of BANI conditions on identity conflict among returning mothers, leading to significant business costs. This stage also involved refining the relationships between the major themes and validating them against the full dataset.

Throughout these coding processes, the constant comparative method was employed (Glaser, 1965). This involved continuously comparing data with data, codes with codes, and codes with themes, to refine conceptualizations, identify variations, and ensure that the emerging themes were truly reflective of the empirical data. Hand-notes was extensively used, allowing us to record reflections, analytical insights, and theoretical connections as they emerged.

The iterative nature of this analysis, while systematic, remained flexible enough to honor the phenomenological commitment to understanding lived experiences. It allowed for the emergence of themes grounded in the data while still enabling us to interpret these themes within the broader context of BANI conditions. This rigorous analytical approach ensured the robustness, credibility, and interpretive depth of the findings presented in the next section.

6.7 Findings

Our qualitative inquiry with 33 returning mothers in the Indian IT sector reveals a profound and multifaceted impact of BANI (Brittle, Anxious, Non-linear, Incomprehensible) conditions, intensified through the theoretical lens of identity conflict. Far from being a mere social responsibility, our findings emphatically demonstrate that the failure to foster compassionate organizational environments for returning mothers carries significant, tangible business costs. The rich experiences shared by participants underscore a critical nexus between employee well-being, their retention, and overall organizational performance, resilience, and reputation in an increasingly chaotic global landscape. The analysis highlights four key areas where the lack of compassion translates into measurable business liabilities.

6.7.1 *The Escalating Cost of Identity Conflict: Attrition and Talent Drain*

Returning mothers frequently experience intense identity conflict between their professional and maternal roles, exacerbated by the Indian IT sector's inherent brittleness—manifested through frequent reorganizations (TOI Tech Desk, 2024), volatile project demands (TOI Tech Desk, 2024), and unstable team compositions—alongside non-linear and often incomprehensible career paths. This internal struggle for navigating dual, often contradictory, roles, in the stark absence of robust systemic support or clear organizational empathy, frequently pushes these highly skilled professionals to their absolute breaking point, directly translating into a palpable risk of significant talent drain and increased attrition. Participants vividly articulated a pervasive sense of unsustainability in their current roles, often leading to active

consideration of, or even engagement in, exit strategies. This widespread sentiment among a crucial segment of the workforce signifies a tangible threat to organizational human capital. As one participant poignantly lamented, "It's been six months, and I'm still debating if this is sustainable. Some days I just want to quit and become a full-time mom. The pressure is just too much to handle both, and I feel like I'm failing at everything" (P1). This raw expression of feeling overwhelmed highlights the internal conflict and the strong desire for relief, often leading to the consideration of leaving the workforce entirely.

The observation of peers experiencing similar struggles and making the decision to leave further fuels this internal debate and sense of precariousness. "I saw a few colleagues leave because they couldn't manage. It makes you wonder if you're next, if you're strong enough to keep fighting this uphill battle," (P6) shared another mother, illustrating how attrition becomes contagious, fostering a climate of insecurity and prompting others to evaluate their own staying power. This collective observation of attrition creates a self-fulfilling prophecy, making the thought of leaving more normalized and less daunting. The actively engaged search for more supportive environments underscores the severity of the issue: "I'm always checking job portals, just in case. The security isn't just about the money, it's about finding a place that understands, a place where I don't feel like I'm constantly fighting against the tide" (P10). This indicates that the core driver for seeking new employment is often not compensation, but a desperate search for organizational empathy and structural support.

The psychological toll can be so severe that it compels individuals to contemplate drastic measures, even without a clear alternative. "My mental health was suffering so much, I nearly resigned without a backup plan. That's how desperate I felt, just to escape the constant anxiety and the feeling of inadequacy," (P15) a participant confided, revealing the extreme lengths to which these pressures can push talented individuals. This signifies an emotional tipping point where the perceived cost of staying outweighs all other considerations. The internal discourse among these women reinforces the strategic implications of neglecting their needs, with one participant candidly stating, "If they don't support us, they will lose good talent. It's as simple as that. And we talk among ourselves, so the word spreads. We share our experiences, the good and the bad" (P20). This highlights not only the direct loss of talent but also the powerful, informal networks through which employer brand perceptions are shaped, making future talent acquisition significantly more challenging.

The ripple effects of high attrition are profound. The continuous churn of skilled and experienced employees, particularly those with valuable institutional knowledge and client relationships, creates significant operational inefficiencies (Hajra & Jayalakshmi, 2025). It disrupts team continuity, impacts project timelines due to knowledge gaps, increases the workload on remaining team members (potentially leading to their burnout), and necessitates considerable financial investment in recruitment, onboarding, and

training for new hires. The intangible loss of established professional networks, team cohesion, and morale further undermines an organization's ability to maintain its competitive edge and achieve strategic objectives in a highly dynamic market like the Indian IT sector. A compassionate approach, conversely, fosters loyalty and retention, preserving valuable human capital.

6.7.2 Diminished Productivity and Eroded Performance: The Hidden Efficiency Sink

Under the harsh BANI conditions of unpredictable workloads and unclear advancement opportunities, returning mothers experience pervasive anxiety, chronic stress, and profound overwhelm, stemming from the clash between their professional and maternal identities. This incessant internal struggle for balancing an ever-increasing array of responsibilities directly impairs their ability to focus, concentrate, and perform optimally, translating into a tangible reduction in individual and collective efficiency and output, thus forming a significant, yet often unquantified, hidden efficiency sink within organizations. Participants vividly described their struggle with maintaining focus: "I'm constantly distracted, worried about home, worried about work, worried about what I'm forgetting. My focus is shattered. I know my output isn't what it used to be, and that adds another layer of guilt," (P2) revealed one participant, clearly articulating a direct and distressing impact on her cognitive capacity and overall productivity. Another shared the exhausting reality of her workday: "I pull 12-hour days, but honestly, half of it is just firefighting personal and professional emergencies. I feel inefficient, like I'm constantly running but never actually moving forward or completing anything meaningfully" (P5). This highlights a critical distinction: effort does not equate to effective output under conditions of extreme mental load and constant interruption. The quality of work inevitably suffers under such duress.

The emotional toll, particularly the pervasive sense of guilt about perceived shortcomings on both the home and work fronts, further exacerbates this decline in performance. A participant noted, "The guilt is a constant companion, it gnaws at me. It affects how I approach my tasks, making me hesitant. I'm so afraid of making mistakes, which ironically makes me more prone to them because I'm overthinking everything" (P7). This internal paralysis and fear of failure directly translate into slower task completion, increased errors, and a general reluctance to take initiative or engage in complex problem-solving. This diminished capacity for complex tasks and analytical thinking (P11) directly translates into project delays, increased need for rework, and a perceptible reduction in the overall quality of deliverables. When employees are operating in a perpetual survival mode, merely "doing the bare minimum to survive the day. There's absolutely no space for

innovation or going the extra mile anymore; it's just about staying afloat" (P13), organizations lose the invaluable discretionary effort, intrinsic motivation, and commitment that drives sustained success and competitive advantage. The relentless cycle of missed deadlines, driven by unexpected domestic demands, followed by exhaustion from late-night compensatory work (P16), further compounds these operational inefficiencies. This demonstrates unequivocally that a lack of compassionate support directly compromises the workforce's ability to perform at its peak, leading to tangible financial losses through reduced output and increased operational costs.

For IT firms operating in a highly competitive global landscape, where efficiency, precision, and timely delivery are not merely desirable but absolutely paramount for client satisfaction and market standing, the cumulative impact of diminished individual productivity across a significant segment of the workforce presents a considerable, yet often unquantified, financial drain. Compassionate organizations, conversely, create an environment where mental clarity and focus are preserved, allowing employees to deliver high-quality work consistently.

6.7.3 Suppressed Innovation and Stifled Creativity: The Loss of Strategic Edge

The overwhelming pressure and cognitive load experienced by returning mothers, stemming from the relentless demands of a BANI environment and the heightened identity conflict between their professional and maternal roles, result in the severe suppression of innovation, creativity, and strategic thinking. With every ounce of mental energy consumed by the exigencies of survival and managing daily anxieties, there remains little to no cognitive or emotional bandwidth for higher-order cognitive functions—such as strategic foresight, creative problem-solving beyond immediate tasks, or the proactive generation of new ideas—all vital components for sustained growth and thriving in the dynamic and rapidly evolving IT industry. Participants articulated a clear mental block when it came to engaging in creative or strategic work. As one mother succinctly put it, "There's just no mental bandwidth left for anything beyond the immediate deliverable. Forget thinking strategically or proposing new ideas, I can barely keep up with my regular tasks" (P8). This directly impacts an organization's intellectual capital and its capacity for future growth and adaptation. The profound shift from enthusiastic engagement to mere task completion signifies a significant and strategic loss for the organization: "I used to love brainstorming sessions, contributing new concepts, now I just want to finish my tasks and log off. My brain feels completely fried by the end of the day; there's nothing left for creative thought" (P17). This indicates a systemic draining of creative potential. The survival mentality, driven by the intense identity conflict and unmanageable workload, leaves "no space for innovation or going the extra mile anymore; it's simply about getting through the day" (P13). This mindset is antithetical to innovation.

Furthermore, the “brittle” nature of IT projects and the “incomprehensible” organizational changes often demand constant, reactive problem-solving, which consumes cognitive resources that could otherwise be directed towards proactive, innovative solutions. When employees are perpetually in reactive mode, the capacity for forward-looking, imaginative thought is severely curtailed. In the rapidly evolving Indian IT sector, where innovation, adaptability, and the continuous generation of new solutions are not just buzzwords but key differentiators and drivers of market leadership, the inability of a significant portion of the workforce to contribute creatively or strategically represents a tangible erosion of competitive advantage. Companies that fail to provide environments where employees feel psychologically safe, supported, and mentally unburdened enough to engage in higher-order thinking will inevitably fall behind their more compassionate and forward-thinking counterparts. Compassionate organizations, conversely, actively cultivate an environment where diverse perspectives, including the unique life experiences and insights of returning mothers, can flourish, be heard, and actively contribute to novel solutions, thereby enriching the organization’s innovative capacity and strategic agility.

6.7.4 Eroding Employer Brand and Organizational Reputation: A Future Talent Liability

Under the relentless pressures of BANI conditions, the collective experiences of returning mothers, characterized by a perceived pervasive lack of genuine organizational support, empathy, and understanding and exacerbated by profound identity conflict, directly contribute to the erosion of an organization’s employer brand and overall reputation. This erosion poses a significant long-term business risk in terms of talent attraction, retention, and overall market standing, especially within India’s highly competitive and talent-driven IT market. The direct correlation between perceived support and organizational appeal was strikingly evident in participants’ narratives. One mother explicitly stated, “I’m always checking job portals, just in case. The security isn’t just about the money, it’s about finding a place that understands, a place that genuinely supports mothers, not just on paper” (P10). This powerful statement indicates that the lack of understanding and tangible support becomes a primary driver for external job searches, signaling disillusionment with the current employer. More critically, this internal dissatisfaction invariably spills outwards, profoundly shaping the perception of the organization within the broader professional talent pool. As one participant candidly forewarned, “If they don’t support us, they will lose good talent in droves . . . And we talk among ourselves, through our networks, on social media, so the word spreads fast about which companies are good and which are not” (P20). This highlights the immense power of informal professional networks and online platforms in shaping employer reputation. Negative word-of-mouth can be far more damaging than positive marketing is beneficial, especially in a tight-knit industry like IT.

Furthermore, when organizational rhetoric around diversity, equity, and inclusion is not demonstrably matched by concrete actions and genuine support for returning mothers, it is quickly perceived as mere “lip service” (P21). Such policy-practice gap leads to widespread cynicism and distrust among current employees and prospective candidates alike. “They talk about being a ‘family-friendly’ company, but their actions for returning mothers completely contradict it. It’s just a branding exercise, not genuine support,” (P21) shared a participant, exposing the disconnect between corporate values and lived reality. This dissonance can severely damage employee morale and loyalty.

Ultimately, the market is becoming increasingly sophisticated in recognizing the strategic value of empathetic and supportive workplaces. “A compassionate workplace isn’t just a perk anymore, it’s a fundamental necessity for survival and thriving in this industry. Companies that truly understand this and embody it will undeniably win the talent war,” (P23) states a participant, articulating an emerging industry standard and a clear competitive differentiator. In an environment where attracting and retaining top-tier talent is paramount, a muddy reputation for not supporting critical demographics like returning mothers can severely hamper an organization’s ability to attract and secure the best and brightest. This directly impacts its future growth trajectory, innovation capacity, and overall sustainability. Therefore, compassion is not merely a moral virtue; it is a pragmatic, strategic investment in human capital, future talent pipelines, and long-term business viability, essential for navigating the BANI landscape effectively.

6.8 Discussion

The compelling findings of this study significantly reinforce and extend existing literature on the experiences of returning mothers by demonstrating, with rich qualitative depth, how the pervasive characteristics of BANI conditions profoundly amplify their identity conflict within the Indian IT sector. While prior research has consistently highlighted the inherent difficulties associated with work-life balance, the “maternal wall,” and career progression for this critical demographic (e.g., Blair-Loy, 2005; Dean et al., 2022; Williams, 2004), our study distinctly illustrates a crucial influencing mechanism: how the “brittle, anxious, non-linear, and incomprehensible” nature of modern work environments exacerbates these issues primarily through the lens of identity conflict between their professional and maternal roles.

The pervasive sense of identity conflict for managing an ever-expanding array of professional demands and personal responsibilities, even in the explicit absence of clear organizational support or defined pathways, emerges as a pivotal and highly impactful influencing factor. This is not merely an external imposition of tasks but an internalized burden that leads to a deeper, often debilitating, psychological impact. This manifests as chronic anxiety, fragmented focus, profound feelings of inadequacy, and a pervasive sense of inefficiency that extends far beyond simple workplace stress. This finding strongly resonates with theories of identity conflict

(e.g., Ashforth & Mael, 1989; Settles, 2004) which posit that dissonance between salient identities, when resources or clarity are insufficient, leads to significant distress. In a BANI context, where resources such as clear policies, predictable workloads, psychological safety, and transparent communication are inherently scarce, volatile, or ambiguous, this clash between desired identity enactment and available support becomes particularly pronounced and damaging for returning mothers. The constant need to be “on” and to “figure it out” without adequate scaffolding is a defining characteristic of their struggle upon return to work.

Furthermore, our findings represent a crucial shift in the discourse surrounding support for returning mothers. We move beyond a purely humanitarian or ethical plea for organizational empathy (Pirson & Kimakowitz, 2014), instead firmly establishing a robust and undeniable business case for compassionate organizational practices. The direct, empirical links identified between the specific challenges faced by returning mothers and the resulting tangible business outcomes—increased attrition rates, significantly diminished productivity, profound suppression of innovation, and an escalating erosion of the employer brand—provide compelling and irrefutable evidence for a strategic paradigm shift. This directly aligns with and strengthens a growing body of literature that rigorously advocates for the measurable economic benefits of fostering genuine diversity, equity, and inclusion within the workforce (e.g., Hunt et al., 2015). More specifically, it underscores the critical strategic imperative of retaining experienced STEM talent, particularly in leadership and mid-career roles, given the significant investment organizations make in their development. In the context of the Indian IT sector, an industry that thrives on human capital, intellectual property, and continuous innovation, the ongoing and often silent loss of skilled returning mothers represents not just a moral failing but a severe, self-inflicted competitive disadvantage. The cost of replacing these experienced professionals, coupled with the loss of their specialized knowledge and established networks, far outweighs the investment in supportive measures.

The incomprehensible aspect of BANI conditions is particularly salient when mothers report a critical lack of transparent career frameworks, ambiguous performance metrics, or unclear advancement opportunities. This pervasive opacity contributes significantly to their identity conflict, as they are left to struggle independently to decipher elusive pathways for growth while simultaneously managing immediate and often overwhelming work and home demands. The absence of clear navigational charts in an already turbulent sea forces them to bear the sole burden of charting their course. Similarly, the non-linear nature of contemporary careers, where traditional progression models are often disrupted or become obsolete, means that established support systems or clear developmental trajectories are no longer sufficient. This places an undue and disproportionate onus on the individual to autonomously forge their own path, intensifying their identity conflict and leading to a sense of isolation and uncertainty about their future. This lack of predictable progression can be particularly disheartening for women who have invested years in their professional development.

6.9 Implications for Practice:

Drawing from research on compassionate workplaces (Poorkavoos, 2017; Wei et al., 2016), and integrating with our findings, a truly compassionate organization exhibits several key features that are particularly beneficial for returning mothers navigating BANI conditions:

- **Personal Connection and Empathy:** A compassionate organization fosters genuine personal connections and empathy among colleagues (Poorkavoos, 2017). In a BANI world, where anxiety is high and structures are brittle, this human connection provides a vital buffer. For returning mothers, it means having colleagues who notice signs of struggle, are aware of personal circumstances, and offer understanding rather than judgment. This directly alleviates the identity conflict by creating a supportive environment where their maternal identity is acknowledged and respected, reducing the pressure to compartmentalize or hide their personal lives.
- **Culture of Approachability and Listening:** Compassionate workplaces cultivate a culture where people feel safe to talk about their problems and seek help (Poorkavoos, 2017). This is critical in incomprehensible BANI environments where clarity is scarce. For returning mothers, an approachable leadership and peer network means they can voice their struggles with workload, ask for flexibility without fear of penalty, and receive genuine listening. This helps to reduce the isolation often associated with identity conflict and provides avenues for practical support in navigating unpredictable demands.
- **Respect, Value, and Good Team Spirit:** Organizations that respect and value their employees, fostering a good team spirit, create a sense of belonging (Poorkavoos, 2017). In brittle and anxious environments, a strong team can provide stability. For returning mothers, feeling respected and valued directly counters the “motherhood penalty” biases and feelings of inadequacy that exacerbate identity conflict. A strong team spirit means shared workload, mutual support, and a collective effort to accommodate individual needs, rather than placing the entire burden of reconciliation on the individual.
- **Consistency in Leadership and Integrity:** Compassionate leadership demonstrates consistency and integrity (Poorkavoos, 2017). In non-linear and incomprehensible BANI conditions, consistent leadership provides a much-needed anchor. For returning mothers, this translates to predictable support, clear communication about policies, and a sense that their well-being is genuinely prioritized. This reduces the ambiguity that fuels identity conflict by providing a stable organizational identity that aligns with their need for predictability and fairness.
- **Advocacy and Support for Work-Life Balance:** A compassionate organization actively advocates for and supports good work-life balance (Poorkavoos, 2017). This is paramount for returning mothers where the work-life conflict is often at its peak. By genuinely supporting flexible arrangements and discouraging excessive hours, organizations directly address the core tension of identity

conflict by enabling mothers to fulfil both their professional and maternal roles without feeling constantly torn or guilty. This helps to integrate their identities rather than forcing a painful choice between them.

These features collectively contribute to a workplace where returning mothers can feel psychologically safe, understood, and supported, thereby mitigating the intensity of their identity conflict and enabling them to contribute effectively and sustainably within the dynamic BANI landscape.

Organizations within the Indian IT sector must fundamentally pivot their mind-set. They must move beyond viewing support for returning mothers as a mere compliance checklist, a superficial corporate social responsibility initiative, or a charitable act of “being good” (Pirson & Kimakowitz, 2014). Instead, it must be unequivocally recognized as a fundamental, strategic investment in human capital and a critical enabler for sustained business success. This necessitates concrete, actionable, and deeply integrated steps, including:

1. **Implementing Genuine and Comprehensive Flexible Work Policies:** This extends far beyond symbolic gestures. It means truly enabling and encouraging remote work options, flexible working hours that accommodate varying family needs, and realistic compressed workweeks. Crucially, these policies must be implemented without any subtle or overt penalty to career progression, performance evaluations, or the perceived commitment of employees. Flexibility should be seen as a strategic advantage, not a concession, fostering autonomy and control over one’s work-life integration (Kossek et al., 2023).
2. **Providing Robust and Accessible Mental Health and Well-being Support Systems:** Recognizing the immense psychological burden and chronic anxiety experienced by returning mothers, organizations must offer easily accessible counseling services, comprehensive stress management programs, and proactive mental health workshops. Furthermore, it is paramount to cultivate an organizational culture where seeking help is not only destigmatized but actively encouraged and integrated into holistic employee support frameworks (Grant & Dutton, 2012). This includes training managers to recognize signs of distress, respond empathetically, and guide employees to appropriate resources.
3. **Establishing Transparent Career Frameworks and Dedicated Mentorship/Sponsorship Programs:** The anxiety caused by non-linear and incomprehensible organizational structures can be profoundly alleviated by clearly defined growth paths, competency frameworks, and transparent promotion criteria. Complementing this, dedicated mentorship programs can provide invaluable guidance, practical advice, and emotional support, while active sponsorship from senior leaders can champion returning mothers for challenging assignments and advancement opportunities, ensuring their visibility and preventing career stagnation (Ibarra, 1993; Hewlett, 2008;). This clarity empowers mothers to envision and actively pursue long-term careers within the organization.
4. **Fostering a Deeply Embedded Culture of Empathy and Psychological Safety:** This cultural transformation must begin at the very top and permeate every level of the organization. Leadership at all levels must not only articulate but also

visibly model and actively champion compassion, understanding, and flexibility as core organizational values (Dutton et al., 2006). Managers must be comprehensively trained and empowered to support returning mothers effectively, recognizing their unique challenges without bias or judgment. Crucially, the organizational environment must cultivate genuine psychological safety, where employees feel secure enough to voice concerns, admit struggles, propose solutions, and even make mistakes without fear of reprisal or judgment, ensuring their contributions are genuinely valued and integrated into organizational learning and innovation (Edmondson, 1999).

By decisively embracing these strategic interventions, Indian IT firms can move beyond a reactive crisis management approach to a proactive, human-centric capital development model. This transformative shift will not only empower returning mothers to thrive, realize their full professional potential, and maintain their well-being, but critically, it will fundamentally fortify the organization itself. A workforce that feels consistently supported, understood, and valued is inherently more engaged, resilient, adaptable, and innovative. This, in turn, will enhance the organization's overall resilience in the face of BANI turbulence, bolster its agility to respond to market shifts, and ultimately, secure its competitive advantage and sustainable growth in the chaotic and unpredictable BANI world. Compassionate organizations are, indeed, future-proof organizations.

6.10 Conclusion

This chapter has explored the multifaceted and often overwhelming challenges faced by returning mothers in the Indian IT sector. Our analysis has been anchored in the critical theoretical lens of identity conflict, which we have interrogated within the prevailing and intensifying BANI (Brittle, Anxious, Non-linear, Incomprehensible) conditions of the contemporary global landscape. Our findings unequivocally demonstrate that the inherent brittleness of organizational structures, the pervasive anxiety within work environments, the unpredictable nature of non-linear career paths, and the often opaque and incomprehensible organizational systems all significantly intensify these women's internal struggle to balance conflicting professional and personal identities. These opposing identity demands, when critically unsupported by robust organizational compassion, lead to severe, quantifiable, and strategically detrimental business repercussions.

The empirical evidence from our research is compelling and irrefutable: the current state of affairs, characterized by a lack of genuine organizational empathy and structural support for returning mothers, is actively driving valuable and experienced talent away through escalating attrition rates. This represents not just a numerical loss but a significant depletion of institutional memory, specialized skills, and established networks, leading to considerable financial outlays in recruitment and training.

Furthermore, this neglect is severely impacting operational efficiency across the IT sector, manifested through diminished productivity and eroded performance. When a significant segment of the workforce operates under chronic stress and fragmented focus, the quality of deliverables, adherence to timelines, and overall output inevitably decline, directly affecting client satisfaction and market competitiveness.

Perhaps most critically for an industry built on creativity, the current environment is stifling the lifeblood of the IT sector by suppressing innovation and creativity. When mental bandwidth is consumed by survival, the capacity for strategic thinking, novel problem-solving, and proactive contributions is severely curtailed.

Finally, and with long-term strategic implications, this widespread dissatisfaction is ultimately eroding the employer brand and organizational reputation in a highly competitive talent market. Negative word-of-mouth and a perception of hypocrisy regarding diversity initiatives make it exponentially harder to attract and retain the best and brightest talent. These are not merely abstract social issues to be addressed as an afterthought; they are profound, strategic business vulnerabilities that directly impact the financial bottom line, market leadership, and the long-term sustainability of Indian IT firms.

A stringent and immediate call for action is therefore not just recommended, but imperative for organizational survival and growth in the BANI era: By decisively embracing the strategic interventions enumerated above, Indian IT firms can move beyond a reactive crisis management approach to a proactive, human-centric capital development model. This transformative shift will not only empower returning mothers to thrive, realize their full professional potential, and maintain their well-being, but critically, it will fundamentally fortify the organization itself. A workforce that feels consistently supported, understood, and valued is inherently more engaged, resilient, adaptable, and innovative. This, in turn, will enhance the organization's overall resilience in the face of BANI turbulence, bolster its agility to respond to market shifts, and ultimately, secure its competitive advantage and sustainable growth in the chaotic and unpredictable BANI world. Compassionate organizations are, indeed, future-proof organizations.

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Chapter 7

Invisible Boundaries: Exploring the Relationship Between Workplace Loneliness and its Influence on Environmental Behavior in India



Anoushka Shukla and Mantasha Firoz

Abstract In the contemporary BANI (Brittle, Anxious, Nonlinear and Incomprehensible) world, organisations face increasing pressure to advance not only economic objectives but also social and environmental sustainability. While many organisations institutionally support environmental sustainability, the sustainability cause demands going beyond structural policies and green initiatives. The efficacy of environmentally responsible policies frequently depends on the pro-environmental behavior of individual employees. Among the various organisational factors that may affect pro-environmental behavior, employees' perception of organisational politics can play a significant role in influencing how employees engage with environmental initiatives. Furthermore, the emotional climate of the workplace such as experiences of loneliness may further affect employees' willingness to contribute to sustainability initiatives. Guided by Social Exchange Theory, this study explores how perceptions of organizational politics influence pro-environmental behavior. Multi-wave data was collected from employees in the hospitality industry in India. The results from the moderated regression analysis indicate that perception of organisational politics has a significant negative effect on pro-environmental behavior. Furthermore, the interaction effect is significant, interestingly, workplace loneliness significantly moderates this relationship by weakening the negative relationship between politics and pro-environmental behavior. Workplace loneliness also shows a negative relationship with pro-environmental behavior. Theoretical contributions and practical implications are also discussed.

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Keywords Workplace loneliness · Perceived organisational politics · Pro-environmental behavior · India · Hospitality

7.1 Introduction

The recent global environment for organisations has become increasingly complex and unpredictable. These conditions are described using the BANI framework, where BANI stands for Brittle, Anxious, Nonlinear and Incomprehensible. Environmental volatility and complexities were emphasized earlier, with the VUCA framework (Volatility, Uncertainty, Complexity and Ambiguity). However, increasing emotional intensity and existential uncertainty in recent times are better captured by the BANI framework. This shift in context has brought forward the pursuit of sustainability, which has now become an urgent need. Organisations are expected to achieve financial performance while simultaneously addressing social and environmental responsibilities (Epstein & Buhavoc, 2014). In recent years, organisations have increasingly found themselves at the intersection of multiple challenges, ranging from mounting stakeholder expectations around sustainability to growing concerns about employee well-being. Employees are not only organisational members but also global citizens who bring their personal values and environmental awareness into the workplace. Employees' perspectives on sustainability are often underrepresented and incorporating employees' values can help organisations better understand and foster environmental sustainability (Norton et al., 2012). Employees' perspectives on sustainability are often overlooked because corporate reporting tends to emphasize top-down metrics such as energy use, emissions reductions, or compliance with regulatory frameworks, while giving little attention to the lived experiences and values of employees (Norton et al., 2012). Yet ignoring employees' views risks creating a disconnect between organizational policy and workplace practices. For example, an employee who consistently recycles and conserves resources at home may find limited opportunities to act on these values if organizational systems do not support sustainable choices. This disconnect illustrates how important it is to integrate personal environmental values with organizational frameworks to generate more meaningful and effective sustainability outcomes (Ones & Dilchert, 2012). The meta-analysis by Katz et al. (2022) demonstrates that characteristics such as openness to experience, conscientiousness, moral reflexiveness, and self-efficacy are positively related to employees' pro-environmental behaviors. These findings suggest that personal dispositions act as psychological drivers of sustainability, shaping whether employees embrace or resist pro-environmental practices. For instance, conscientious individuals are more likely to follow recycling protocols diligently, while those high in openness are more inclined to experiment with innovative eco-initiatives (Kim et al., 2017). In addition, employee's perceptions of organisational support, corporate social responsibility and green psychological climate further reinforce these behaviours. These findings underscore the idea that employees' environmental awareness and attitudes are not separate from their work

roles but are actively expressed through daily practices that align personal values with the broader sustainability initiatives of the organisations. Beyond structural mechanisms, it is increasingly recognized that employees' everyday choices accumulate into substantial organizational outcomes. Small, voluntary acts such as reducing paper use, switching off unused equipment, or supporting green initiatives contribute to broader sustainability targets. Paillé and Boiral (2013) emphasize that pro-environmental behavior at work is often discretionary rather than mandated, which makes it highly dependent on employees' personal values and sense of responsibility. This highlights that sustainability is not achieved solely through top-down directives but also through the bottom-up engagement of employees who view ecological responsibility as part of their professional identity.

While many organisations adopt structural initiatives like green practices and mandatory reporting frameworks, the role of employees in achieving sustainability goals is rising (Qalati et al., 2023). Pro-environmental behaviors (PEB) refer to the acts that benefit the natural environment and the omission of acts that harm it (Lange & Dewitte, 2019). While PEB includes a wide range of actions, this study focuses on the organisational aspect often referred to as organisational citizenship behaviour for the environment (Boiral & Paillé, 2012). These behaviours are discretionary which makes PEB sensitive to both organisational context and individual motivation. However, when employees feel that their work environments are politically charged, their propensity to engage in such voluntary efforts may be reduced. Perceptions of organisational politics (POP) are defined as an individual's subjective evaluation of the extent to which the work environment is characterised by coworkers and supervisors who demonstrate self-serving behaviour (Ferris et al., 2002). High levels of POP are linked significantly to lower job satisfaction (Miller et al., 2008; Vigoda, 2000; Jisr et al., 2020; Paarima et al., 2024), higher stress (Poon, 2003) and decreased engagement (Chang et al., 2009; Vigoda, 2000, Miller et al., 2008). When employees perceive high politics in the organisation, they may perceive green initiatives as image management tools rather than being genuine commitments. This perception can diminish trust in the initiatives and reduce motivation to take part in PEBs. Understanding how POP acts as a barrier to pro-environmental engagement is both practically and theoretically significant, particularly in contexts where sustainability depends on voluntary contributions. The influence of personal values becomes more evident when viewed in the context of organizational settings. Research on person-organization fit suggests that value alignment can shape workplace attitudes and behaviours, including those related to sustainability. Wagner et al. (2025) examined how individual and perceived organizational biospheric values relate to pro-environmental behaviors at work. Their study found that both employees' own values and their perceptions of organizational values were positively associated with workplace pro-environmental behaviors, partly because they strengthened employees' sense of self-efficacy. These findings indicate that pro-environmental actions at work are influenced not only by what individuals care about personally but also by how they interpret the priorities of their organization, with confidence in one's ability to act serving as an important mechanism linking values to behaviour.

Emotional experiences in the workplace also influence discretionary behaviour. One such experience is workplace loneliness, which refers to the feeling of emotional and social isolation despite being physically present in a work environment (Ozcelik & Barsade, 2018). Loneliness has been associated with negative outcomes such as lower performance (Bryan et al., 2023) and reduced organisational citizenship behaviour (Firoz & Chaudhary, 2022). However, other influential work suggests that loneliness may foster self-reflection and autonomy (Cacioppo & Patrick, 2008), which may have an impact on how employees react to sustainability efforts, particularly in organisational environments where perceptions of politics are perceived to be high.

This study addresses a critical gap in the literature by examining how POP and WL jointly influence employee PEB. While there haven't been enquiries into the relationship between POP and WL, as well as their interaction to the best of our knowledge. Guided by the Social Exchange Theory (Blau, 1964; Cropanzano & Mitchell, 2005), we propose that WL weakens the negative effect of POP on PEB. In other words, when employees feel emotionally disconnected, they may be less sensitive to organisational politics and more internally motivated to act in environmentally responsible ways. We test these ideas using multi-wave survey data collected from employees in the hospitality sector in India. The hospitality sector is an ideal context due to its high environmental footprint and the emotional labour demanded from employees. Employees in this industry are constantly navigating pressures to deliver service quality while also adhering to organizational sustainability goals, making the tension between political climates and emotional experiences especially salient. This study adds to the expanding scholarship on the micro-foundations of sustainability and further expands understanding of the emotional and political dimensions that shape individual-level pro-environmental action. By integrating these emotional and political dimensions, the study highlights that sustainability efforts cannot be fully understood without accounting for the lived experiences of employees who ultimately carry out these practices.

7.2 Theoretical Background and Hypothesis Development

Our study is grounded in the Social Exchange Theory (Blau, 1964). The theory explains human interactions through the perspective of reciprocal exchanges. It posits that social relationships are formed and maintained based on the mutual exchange of resources. The underlying assumption we carry forward with SET is that individuals have inherent expectations when engaging in social interactions for their contributions to be acknowledged and valued. In organisational life, these exchanges are not limited to formal rewards or material benefits but extend to recognition, respect, and a sense of belonging. When employees perceive balance in these exchanges, they are more likely to feel supported and motivated to go beyond prescribed duties. Conversely, when exchanges are seen as unfair or

one-sided, feelings of withdrawal or disengagement can emerge. This framework provides a useful lens for examining how experiences such as workplace loneliness and perceptions of organisational politics might shape employees' willingness to engage in extra-role behaviours, including those that support environmental goals. By viewing pro-environmental actions through the exchange perspective, we are able to explore how employees' perceptions of reciprocity and fairness at work connect with their discretionary contributions to sustainability.

7.3 Perceptions of Organisational Politics and Pro-Environmental Behavior

Pro-environmental behaviors are primarily voluntary in nature. They can include many forms of behaviours such as sharing knowledge on how to reduce pollution in the workplace, suggesting ways to combat waste generation to name a few (Boiral & Paillé, 2012). These behaviours are not mandated by formal appointment job descriptions (Daily et al., 2009). Therefore, PEBs are open to influence by the employees' intrinsic motivation (Silvi & Padilla, 2021; Sharpe et al., 2021) as well as the perception of the overall organisational environment. Research on employee pro-environmental behavior (PEB) has grown rapidly in recent years, reflecting the recognition that organizational sustainability depends not only on structural initiatives but also on the actions and motivations of individual employees. Research has shown that an organisational culture that fosters and encourages environmental values directly boosts the employees' pro-environmental behaviors (Zientara & Zamojska, 2018). Similarly, when employees recognise the organisation's dedication to corporate social responsibility activities, it directly and indirectly influences employee pro-environmental behavior (Afsar et al., 2018). While we have evidence for the positive role of organisational culture and CSR in encouraging pro-environmental behavior, it is just as pressing to consider how negative organisational environments may influence discretionary behaviours like pro-environmental behavior. In particular, perceptions of politics in the organisation may weaken the trust needed to sustain voluntary efforts. Perceptions of organisational politics have long been linked to negative work outcomes, such as reduced job satisfaction (Ferris & Kacmar, 1992; Chang et al., 2009; Miller et al., 2008; Vigoda, 2000; Movahedi et al., 2020), job performance (Vigoda, 2000), increased intention to quit (Chang et al., 2009; Asrar-UI-Haq et al., 2019; Khan et al., 2020), erosion of employee motivation (Rughoobur-Seetah, 2022), higher stress (Movahedi et al., 2020), Increased symptoms of burnout (Movahedi et al., 2020), reduced citizenship behaviour (Bedi & Schat, 2013). Since PEB shares some of its characteristics with organisational citizenship behaviour (like being voluntary in nature, usually unrewarded and being prosocial), it is likely to be similarly affected by POP. SET (Blau, 1964; Cropanzano & Mitchell, 2005) provides a useful perspective for understanding how POP may affect employee PEB. According to

the SET, employees engage in voluntary extra-role behaviours when they perceive that their relationships within the organisation are fair and reciprocal. When the reciprocity is disturbed, by exploitation of trust, employees are less likely to contribute to discretionary effort. This may lead to disruption in the organisational norms of mutual respect and fairness leading employees to question their contribution beyond formal responsibilities. “POPs are indicative of a dysfunctional work environment that violates norms of equity and fairness” (Chang et al., 2009). In such work environments, employees may refrain from engaging in discretionary behaviours as a method of self-protection. Therefore, we propose the following hypothesis:

Hypothesis 1: Perceived organisational politics is negatively related to employees’ pro-environmental behavior.

7.4 The Moderating Role of Workplace Loneliness

While our hypothesised direct effect of POP on PEB is well-grounded in the SET (Blau, 1964; Cropanzano & Mitchell, 2005), it is imperative to also consider individual-level factors that may shape how employees perceive and respond to political environments at work. One such factor is loneliness since loneliness influences not only emotional well-being but also influences how individuals process social cues and their environments. Lonely employees have been found to be less integrated into the social fabric of organisations, which in turn affected their performance on the job. This was partly because of the lonely employees’ reduced affective commitment resulting from the employees’ attribution of their negative feelings to the organisation and lonely employees’ lower approachability, since lonely employees do not receive the relational and task resources like other employees who do not experience workplace loneliness (Ozcelik & Barsade, 2018). Recent evidence from an experimental study also found decreased prosocial actions when participants were primed for loneliness (Yin & Lee, 2023).

Theoretically, employees that experience loneliness at work may qualitatively engage with their organisational environment differently than the employees who do not experience loneliness. Building on the work done by Lodder et al. (2015), social disconnection was found to be a factor that reduced attentiveness to social cues and interpersonal expectations. Therefore, this may lead to lonely employees being unaware of social cues and less likely to be influenced by political behaviour since their feelings inhibit them from being well embedded in the social fabric at work. Furthermore, loneliness has been linked to reduced concern for social evaluation and social conformity (Cacioppo & Patrick, 2008). This may impact the extent to which negative perceptions of politics in the organisation impact the behavioural withdrawal of the employees. Therefore, if this is true, the link between POPs and reduced PEBs may be weaker among employees who are

feeling higher levels of loneliness at work. Recent meta-analytic evidence also shows that lonely individuals tend to have lower trust and higher self-preservation focus that further makes them less sensitive to social cues (Malon et al., 2024). Hence, we hypothesise the following:

Hypothesis 2: WL moderates the relationship between POP and PEB, such that the negative effect of POP on PEB is weaker when WL is high.

7.5 Workplace Loneliness and Pro-Environmental Behavior

Workplace loneliness is a distressful feeling that is caused by the perceived lack of good quality interpersonal relationship in the work environment (Wright & Strongman, 2006). Feelings of loneliness reflect not only an unsatisfactory number of relationships at work but also the emotional disconnection between members of the organisation. Research has shown that workplace loneliness is associated with several adverse outcomes, including diminished organisational citizenship behaviours (Lam & Lau, 2012; Firoz & Chaudhary, 2022) and decreased job performance (Ozcelik & Barsade, 2018), reduced job engagement (Basit & Nauman, 2023), reduced in-role performance (Lam & Lau, 2012). These negative outcomes are particularly important when we consider voluntary workplace behaviours such as PEB since these behaviours rely heavily on intrinsic motivation and emotional engagement within the workplace (Boiral, 2009; Silvi & Padilla, 2021). Prior research shows PEB is a prosocial behaviour that stems from connectedness and empathy and benefits all humanity (Neaman et al., 2018). Therefore, employees who feel like a part of the organisation emotionally, or are connected to the natural environment around them, are more likely to engage in PEB stemming from their shared sense of responsibility. Recent work by Duong and Pensini (2023) highlights the importance of social and emotional connectedness in shaping PEB. Their study found that connectedness at all levels (at community, to humanity and to nature) significantly predicted PEB. While the study does not demarcate between community at work or home, the underlying psychological mechanisms would be applicable uniformly in the workplace context. Given the manifestation of workplace loneliness by the breakdown of feelings of connectedness, it is reasonable to expect similar inhibitory effects on PEB at work. Drawing from the recent experimental study by Drosinou et al. (2025), reminders of environmental and social connection significantly strengthen environmental attitudes. Building on their idea, loneliness may inhibit the development and following action of such concerns. In a workplace setting, this may reduce the likelihood of employees going out of their way to take initiative for the environment, especially when those actions are not mandatorily a part of their jobs. Accordingly, we suggest:

Hypothesis 3: Workplace loneliness has a negative association with employees' pro-environmental behavior.

7.6 Methodology

To examine the proposed hypotheses, we adopted a multi-wave research design. The sample consisted of full-time employees from the hospitality sector in India, recruited through purposive sampling. Participation was voluntary, and data were gathered only after securing informed consent from each respondent. Their institutional identities were kept confidential. The survey forms (with an effectual gap of one week) were shared to participants through electronic means like emails, instant messaging apps, QR codes on social networking platforms as well as in-person visits to the hotels, restaurants and bars. At Time 1, the demographic data (age, gender, hotel star rating, tenure at the current organisation, position in the organisational hierarchy, marital status, total work experience, level of education, level of physical activity, social media usage, alcohol and tobacco consumption) was collected along with the independent variable (POP). At time 2, the mediating variable (WL) and dependent variable (PEB) were recorded. Both surveys incorporated two attention check items to safeguard data quality and confirm that participants remained engaged. At the first stage of data collection, 450 employees were invited to participate in the survey and were provided the first survey form. Of them, 350 employees submitted their response. Following data screening, 27 cases were excluded due to incomplete responses and unsuccessful attention check items. After these adjustments, the effective response rate was calculated as 71.77%. For the second wave of data collection, 316 responses were obtained. After eliminating 35 cases due to incomplete data and failed attention checks, the usable sample was reduced to 281 participants who provided complete responses across both surveys, representing a response rate of 88.92%. Within this sample, 59.78% of respondents identified as male, and 0.35% reported their gender as “other”. The majority of participants (75.8%) were employed in three-star hotel establishments. Standardised and previously validated scales were adapted to measure the study variables. Perceptions of organisational politics, workplace loneliness, and pro-environmental behavior were each assessed using multi-item measures that have been used in prior organisational research. Demographic information was included to allow for the consideration of control variables where relevant. The survey instruments were pre-tested with a small group of hospitality employees to ensure clarity of wording and ease of completion before full deployment. A detailed description of the sample is provided in Table 7.1. To further enhance methodological rigour, the research design also accounted for common issues in survey-based studies. The use of a time-lagged, two-wave design helped to mitigate concerns of common method bias that often arise when data on all variables are collected simultaneously (Podsakoff et al., 2003). In addition, the reliance on previously validated scales ensured that the constructs under investigation were measured with established reliability and validity. The combination of purposive sampling, voluntary participation, and careful screening of responses strengthened the representativeness and credibility of the final dataset. Together, these steps provide confidence that the findings are robust and grounded in sound methodological practice.

Table 7.1 Descriptive statistics

S. No.	Correlations										
	Study variables	Mean	SD	I	II	III	IV	V	VI	VII	VIII
I	Age	30.516	8.033	1							
II	Sex	0.406	0.499	-0.061	1						
III	Tenure in the current organization	1.071	0.911	0.624**	-0.064	1					
IV	Position in hierarchy	2.028	0.755	-0.400**	0.140*	-0.418**	1				
V	Marital status	1.516	0.507	0.498**	0.045	0.476**	-0.402**	1			
VI	Perceived organizational politics	2.010	1.093	-0.021	-0.173**	-0.045	-0.110	0.053	1		
VII	Pro-environmental behavior	3.548	0.988	0.123*	-0.059	0.085	-0.115	0.012	0.231**	1	
VIII	Workplace loneliness	3.803	1.029	0.039	-0.031	0.128*	0.141*	0.063	0.041	-0.375**	1

Notes Correlations marked with ** represent statistical significance at the 0.01 level (two-tailed)
Correlations marked with * denote significance at the 0.05 level (two-tailed)

7.7 Measures

7.7.1 Pro-environmental Behavior

Pro-environmental behavior was measured with the Organisational Citizenship Behaviours for the Environment scale (Boiral & Paillé, 2012), which includes ten items on a 5-point Likert scale (1 for “completely disagree” and 5 for “completely agree”). One example of an item included in the scale is “I stay informed of my company’s environmental initiatives.”

7.7.2 Perceptions of Organisational Politics

Perceptions of organizational politics (POP) were measure using a six-item instrument developed by Hochwarter et al. (2003). The instrument employed a five-point Likert-type response format, with anchors from 1 (“never true”) to 5 (“always true”). A representative item from the measure is “Individuals are stabbing each other in the back to look good in front of others.”

7.7.3 Workplace Loneliness

Workplace loneliness was assessed with a four-item adapted version of the revised UCLA Loneliness Scale (Russell et al., 1980). Items were rated on a six-point Likert scale ranging from 1 (“never”) to 6 (“always”). A sample item is, “No one really knows me well.”

7.7.4 Control Variables

The analysis accounted for potential confounding influences by controlling for participants’ age, gender, length of service in the present organization, position in the hierarchy, and marital status.

7.8 Results

7.8.1 Descriptive Statistics

Means, standard deviations, and inter-correlations among variables are reported in Table 7.1.

The observed correlations among the study variables were consistent with the hypothesized directions.

7.9 Preliminary Analysis

To evaluate whether the multi-item constructs were empirically distinct, a confirmatory factor analysis was performed (perceived organisational politics, workplace loneliness, and pro-environmental behavior). Results from the confirmatory factor analysis indicated that the hypothesized three-factor model provided an acceptable fit to the data [$n = 281$; $\chi^2/df = 1.945$, CFI = 0.910, IFI = 0.911, RMSEA = 0.087]. Moreover, the three-dimensional factor structure demonstrated superior fit statistics when compared with the two-factor and one factor models, as represented in Table 7.2. On this basis, the three-factor structure was adopted for further analysis, and both the two-factor and single-factor models were excluded from consideration.

Further, as can be observed from Table 7.3, the composite reliability values for all the constructs were above 0.80. The average variance extracted (AVE) and maximum shared variance (MSV) were above the threshold level. The confirmatory

Table 7.2 Confirmatory factor analysis

	χ^2/df	CFI	IFI	RMSEA
<i>N</i> = 281				
<i>Baseline Model</i> : Three-factor model [POP; PEB; WL]	3.141	0.910	0.911	0.087
<i>Alternative Model 1</i> : Two-factor model [POP + PEB; WL]	8.758	0.671	0.674	0.116
<i>Alternative Model 2</i> : One-factor model [POP + PEB + WL]	8.723	0.671	0.673	0.166

Notes POP = Perceived Organisational Politics; PEB = Pro-environmental Behavior; WL = Workplace Loneliness

Table 7.3 Reliability and validity

Study variables	CR	AVE	MSV
Pro-environmental behavior	0.942	0.622	0.275
Perceived organizational politics	0.907	0.620	0.068
Workplace loneliness	0.877	0.692	0.275

Notes CR = Composite Reliability; AVE = Average Variance Extracted; MSV = Maximum Shared Variance

factor analysis thereby established both convergent and discriminant validity of the constructs under investigation, consistent with the criteria outlined by Fornell and Larcker (1981).

7.10 Results of Hypothesis Testing

The association between perceived organisational politics and pro-environmental behavior emerged as negative in direction and reached statistical significance ($\beta = -0.523$, $p < 0.005$). Hence, hypothesis 1 was confirmed. Analysis revealed that the interaction term of perceived organisational politics and workplace loneliness served as a significant predictor of employees’ pro-environmental behavior ($\beta = 0.194$, $p < 0.001$) in the hypothesised direction. Accordingly, the results provided confirmation for Hypothesis 2, as presented in Table 7.4. In line with Hypothesis 3, we assess the direct association between workplace loneliness and employees’ pro-environmental behavior. The findings indicated a strong and statistically significant negative effect ($\beta = -0.798$, $p < 0.001$).

Table 7.4 Results

Hypothesis	Direct effect	Estimate	S.E.	t	P	LLCI	ULCI
<i>Hypothesis 1</i>	Perceived Organisational Politics—> Pro-Environmental Behavior	−0.523	0.1774	−2.952	0.003	−0.872	−0.174
<i>Hypothesis 2</i>	Workplace Loneliness X Perceived Organisational Politics—> Pro-Environmental Behavior	0.194	0.044	4.364	0.000	0.106	0.281
<i>Hypothesis 3</i>	Workplace Loneliness—> Pro-environmental Behavior	−0.798	0.1102	−7.243	0.000	−1.015	−0.581
Conditional effects of the focal predictor at values of the moderator(s)							
	WL	Effect	se	t	p	LLCI	ULCI
LOW	2.5000	−0.0388	0.0762	−0.5088	0.6113	−0.1887	0.1112
MODERATE	4.0000	0.2522	0.0475	5.3108	0.0000	0.1587	0.3456
HIGH	4.7500	0.3976	0.0617	6.4403	0.0000	0.2761	0.5192

Notes S.E. = Standard Error, t = T value, p = P value, LLCI = Lower Confidence Limit, ULCI = Upper Confidence Limit, WL = Workplace Loneliness

7.11 Discussion

This study aimed to examine how employees' perception of politics (POP) and workplace loneliness (WL) influence employee's pro-environmental behavior (PEB). The findings bring out important insights into how organisational structural perceptions and employee's emotional experiences at work interact to shape discretionary workplace behaviours, importantly in the sustainability space. POP was found to be negatively associated with PEB, which was hypothesised ($\beta = -0.523$, $p < 0.005$). This finding aligns with existing research portraying that when employees feel their organisations to be highly politicized, there is consequent damage to employees' trust (Ferris et al., 2002), fairness perception (Ferris et al., 2002) and perceptions of organisational support (Hochwarter et al., 2003) in the organisation. All of which are documented as necessary precursors to discretionary behaviours such as PEB. The Social Exchange Theory (Blau, 1964; Cropanzano & Mitchell, 2005) helps explain this dynamic. When employees perceive lack of reciprocity, or they sense that decisions are driven by hidden agendas and favouritism, they are less likely to voluntarily engage with organisational goals which include sustainability efforts. When POP is high in the employees' environments, employees may misinterpret sustainability initiatives as political tactics thereby reducing their motivation to genuinely contribute to sustainability efforts. Interestingly, our study also finds support for the moderating role of WL in the POP-PEB relationship (interaction $\beta = 0.194$, $p < 0.001$). As the level of WL increased, the negative effect of POP on PEB weakened. This suggests that employees with greater feelings of loneliness at work may be less embedded in the social fabric of the organisation. This may be leading lonely employees to be less reactive to POP. This finding is in line with previous research which showed loneliness can lead to reduced sensitivity to social cues and interpersonal expectations (Waytz & Epley, 2012), this potentially buffers employees from the demotivating effects of higher politics perceptions in the organisation. Since lonely employees have lesser connectedness within the organisation, they may be less concerned with reciprocity. Reciprocity is a key assumption of SET and therefore, lonely employees may be more focused on self-contained goals and self-directed coping mechanisms.

Beyond the moderating role of WL, WL was also found to have a significant negative direct effect on PEB ($\beta = -0.798$, $p < 0.001$). This finding is consistent with previous studies wherein experiences of loneliness erode performance, employee engagement and citizenship behaviours (Ozcelik & Barsade, 2018; Lam & Lau, 2012). Since the nature of PEBs are prosocial and relies heavily on intrinsic motivation (Boiral & Paillé, 2012; Neaman et al., 2018), there is a strong need for connection for these behaviours to manifest. A loss of connection with the people in the workplace or to greater organisational goals due to feelings of loneliness is likely to reduce the internal motivation to go above and beyond the job descriptions to contribute towards the environment.

Beyond the direct relationships, the findings also invite reflection on how employees make sense of their work environments when considering discretionary behaviours like PEB. The patterns observed suggest that engagement in sustainability-related actions is shaped by more than individual disposition or organisational policy; it is also conditioned by how employees navigate the everyday realities of political climates and emotional connection. This underscores that employee behaviour is not only a function of top-down directives but also of how the workplace is experienced on the ground.

Another implication lies in the balance between collective and individual orientations. PEBs are often framed as prosocial contributions, yet our results show that employees’ willingness to participate in such actions can vary depending on whether they feel connected to or distanced from others at work. For some, a strong sense of belonging may amplify the negative impact of politics, while for others, reduced social ties may buffer that effect. This complexity highlights that the pathways to sustainability are not uniform across employees, and organisations may find diverse patterns of motivation and restraint within the same workforce.

Finally, the study’s findings contribute to an understanding of sustainability as a lived organisational experience. Employees’ interpretation of politics, their feelings of connection or isolation, and their choices about discretionary actions reveal that sustainability cannot be separated from broader organisational dynamics. These insights call attention to the need for organisations to recognise that achieving environmental goals is intertwined with addressing how employees perceive fairness, reciprocity, and social connection in their daily work lives (Fig. 7.1).

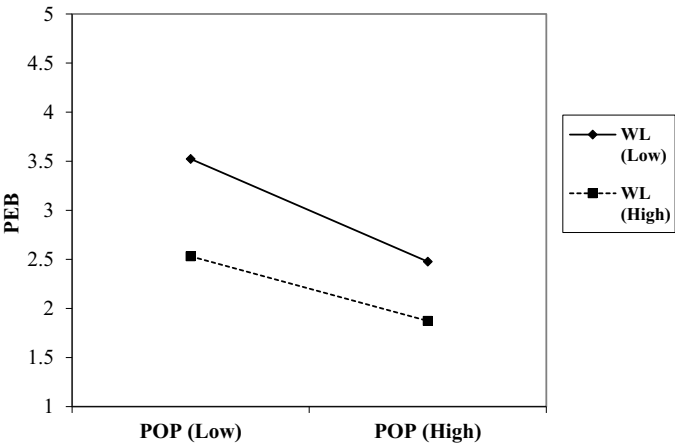


Fig. 7.1 Interaction plot

7.12 Theoretical Contribution

This study offers several theoretical contributions to the literature on employee pro-environmental behavior (PEB), perceptions of organisational politics and workplace loneliness. First, this study highlights POP as an organisational structural barrier to sustainability-oriented discretionary behaviours namely PEBs. This relationship has remained underexplored in prior research. While PEB has been widely studied in relation to positive antecedents such as leadership (Farrukh et al., 2022; Afsar et al., 2020; Ren et al., 2024), culture (Piwowar-Sulej, 2020; Magsi et al., 2018) and green human resource practices (Ahmad et al., 2023; Alherimi et al., 2024), relatively very few studies have examined how negative organisational dynamics and experiences suppress such behaviour. By demonstrating the POP can diminish employees' willingness to engage in environmental organisational citizenship behaviours, this study foregrounds the importance of political perceptions and employee's perceiving the organisation as just; in shaping sustainability outcomes. Second, this research contributes to the Social Exchange Theory (Blau, 1964; Cropanzano & Mitchell, 2005) by introducing WL as a psychological moderator of the POP-PEB relationship. Traditionally, the SET guides research that emphasise fairness, reciprocity in relationships and mutual obligation as driving factors of discretionary behaviours. However, this study shows that the strength of exchange-based reactions to politics may be contingent on an employee's emotional embeddedness in the workplace. Specifically, lonely employees may be less concerned with fairness in the workplace, so they may not respond as negatively to organisational politics as more socially connected employees. This dampening of social exchange norms weakens the negative behavioural response which is typically expected by perceiving organisational politics. This suggests that individual level emotional states may impact the predictive power of SET. This may be considered a boundary condition that has received limited empirical inquiry. Finally, the study integrates structural (POP) and emotional (WL) influences on employee behaviour, this contributes to the growing interest in the micro-foundations of sustainability. In doing so, the study highlights the need for a more holistic understanding of the organisational and psychological drivers of environmental engagement in the workplace.

7.13 Practical Implications

For practitioners, the study's findings highlight the need to expand the view and look beyond structural frameworks for sustainability. The organisations should consider the important role of organisational climate and emotional health of employees in shaping pro-environmental outcomes. While many organisations have successfully implemented green policies, their implementation of such

initiatives often depends on voluntary engagement from the members of the organisation. These actions can be easily undermined in politically charged or emotionally disconnected environments.

First, leaders and HR professionals should be aware that organisational politics can negatively impact employee initiative and lead to negative behaviours (Crawford et al., 2019). This effect can be more pronounced for areas like environmental behaviour that rely heavily on trust and reciprocity. Leaders should make aimed efforts to reduce political behaviour in the organisation through restructuring decision making to make it more transparent, making employee evaluations merit-based and inclusive communication. Prior research has shown that using encouraging as well as discouraging communication strategies together are more efficient in bringing about environmental behaviour change (Kronrod et al., 2023). These policies may help foster a climate where discretionary efforts like PEB can thrive. Second, the study highlights workplace loneliness as a critical factor that is often overlooked. Organisations that strive to promote social connections and relational well-being may not only improve employee morale but also have stronger sustainability outcomes. Interventions to reduce loneliness at work such as mentoring (Curtis & Taylor, 2017; Donaldson et al., 2000), buddy systems, opportunities for cross functional collaboration and supportive leadership can enhance employees' emotional engagement multifold with various organisational goals. Finally, the study's finding highlights the interaction between POP and WL, suggesting that one-size-fits-all approaches to sustainability engagement may not be ideal. Leaders should consider both structural and emotional conditions of their organisations when sustainability initiatives are designed and implemented to encourage discretionary behaviours. Organisations can also treat sustainability initiatives as opportunities to strengthen workplace relationships. When employees are involved in designing green practices such as energy-saving campaigns, waste reduction drives or community projects, they feel more connected to each other and to organisational goals. Participation helps reduce feelings of loneliness and lowers the risk that sustainability programmes will be dismissed as political gestures.

It is equally important to integrate sustainability into recognition and reward systems in a way that feels fair and transparent. Acknowledging employee contributions to environmental goals, through both formal appraisals and informal appreciation, reinforces a sense of reciprocity. Recognition should focus on collective outcomes so that employees see environmental behaviour as a shared responsibility rather than an individual competition. Training and development can further support these aims. Managers need skills to identify and respond to signs of social isolation, while leadership programmes should emphasise ethical conduct, clear communication and inclusive decision-making. Together, these practices reduce the conditions that give rise to perceptions of politics and strengthen employees' willingness to contribute to environmental initiatives.

This study offers insights into how employee experiences of organisational politics and workplace loneliness shape sustainability behaviours in BANI times. In brittle and anxious organisational settings, pro-environmental behavior may be

undermined by emotional disconnection. At the same time, the findings suggest that employees' emotional states can influence how strongly politics affects sustainability-related actions. By considering these dynamics, the chapter highlights pro-environmental behavior as an important area for organisations seeking to remain engaged with sustainability in an uncertain world.

7.14 Limitations and Future Research Avenues

While this study offers novel insights into the relationship between perceived organisational politics, workplace loneliness and pro-environmental behaviors, it has certain limitations. These limitations then pave the way for future research opportunities. First, contextually, the study was conducted in the Indian hospitality sector. This may limit the generalisability of the findings. The hospitality industry is characterised by high levels of interpersonal contact between members of the organisation and many roles demand high levels of emotional labour and public-facing service delivery. These industry-specific contextual factors may have an influence on how employees perceive organisational politics and their experience of loneliness. Future research could re-examine these relationships across different industries and cultural contexts for a more nuanced understanding if similar patterns can be expected in more individualised work environments. It will also be interesting to see cross-cultural enquiries, particularly in parts where cultural norms differ and shape how perceptions of politics and loneliness are interpreted and responded to. Second, while the study uses a time-lagged design to mitigate concerns of common method bias and social desirability bias. Future studies could strengthen validity by expanding the data collection scope from only self-report measures to multi-source data. Supervisor ratings for employee PEBs or team level inputs from team-members for POP can gain from triangulation of findings and reduce the biases further. Third, while the study demonstrates the WL weakens the negative relationship between POP and PEB, the underlying mechanisms through which this takes place has not been explored. For instance, lonely employees may be emotionally disengaged from the work environment, thereby not being affected as severely by organisational dynamics, thereby reducing the salience of POP. On the other hand, sustainability behaviours may be self-driven, directed by values and routines independent of the social context. Future research could investigate underlying psychological processes using a qualitative approach to better understand the reasons for the observed moderation effect. Lastly, future research can also use longitudinal and ethnographic design for a richer more dynamic understanding of how political climates and emotional experiences evolve over time and influence long-term engagement with environmental behaviours. Longitudinal approaches or repeated-measures designs could provide insights into whether these relationships remain stable, intensify, or diminish over time. Such designs would also help identify potential feedback loops, for example, whether sustained engagement in pro-environmental behaviors influences later perceptions of

workplace climate or feelings of connection. Another limitation lies in the scope of contextual variables considered. The study primarily focused on organisational-level dynamics and individual experiences, but it did not account for external factors such as industry regulations, local community expectations, or wider societal narratives around sustainability. These broader influences may interact with internal organisational politics and workplace experiences in ways that shape how employees approach discretionary behaviours. Future research could therefore investigate the role of such external conditions to build a more comprehensive understanding of the factors influencing employee pro-environmental behavior.

7.15 Conclusion

This chapter examined how perceptions of organisational politics and experiences of workplace loneliness shape employees' pro-environmental behavior in the hospitality sector. By integrating structural and emotional dimensions of the workplace, the study adds nuance to the growing body of research on the micro-foundations of sustainability. The results showed that politics within organisations can discourage discretionary environmental actions, while loneliness not only exerts its own negative effect but also alters how politics is interpreted in relation to sustainability engagement.

The findings highlight that sustainability outcomes cannot be understood solely through formal initiatives or leadership-driven programmes. Instead, they are deeply influenced by how employees perceive fairness, reciprocity and their sense of social connection at work. Addressing organisational politics and supporting relational well-being therefore emerges as an important complement to green policies. At a theoretical level, the study extends Social Exchange Theory by suggesting that emotional experiences such as loneliness may moderate how strongly exchange norms shape discretionary behaviours. At a practical level, it underscores the need for managers and HR professionals to design sustainability programmes that acknowledge both structural and emotional conditions within the workplace.

Taken together, the study points to the value of considering employee experiences as central to organisational sustainability efforts. Future research can build on these insights by exploring additional emotional and contextual factors, adopting multi-source and longitudinal methods, and broadening the inquiry across industries and cultures. By doing so, scholarship can further illuminate how everyday organisational realities shape employees' willingness to contribute to environmental goals.

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Chapter 8

Corporate Social Responsibility in India: Can it be Avoided Any More?



Chandra P. Gupta 

Abstract Since society now expects businesses to perform ethically and solve social and environmental issues, corporate social responsibility (CSR) has gained prominence in the business sector. The paper utilizes a qualitative approach and looks into the factors that influence CSR adoption as well as the possible repercussions for businesses that choose to ignore their social and environmental obligations. The results show that CSR for corporations is now a must rather than just an option. This inevitable situation results from a number of variables. All stakeholders, such as customers, employees, investors, and regulators, expect businesses to operate properly and benefit society. Second, for sustainable development, corporations must be involved since they have the means, clout, and ability to contribute significantly to resolving these problems. Third, research has shown that organizations that practice social responsibility frequently have increased financial performance, greater brand perception, and improved stakeholder relationships, which results in long-term competitive benefits. The study also recognizes CSR's shortcomings, including greenwashing, a lack of transparency, and the possibility of deliberate manipulation. This research study concludes by arguing that firms can no longer evade corporate social responsibility. To further improve the efficacy and legitimacy of CSR, future research should concentrate on examining best practices, assessing the effects of CSR activities, and tackling the remaining problems.

Keywords Corporate social responsibility · Sustainability · Business ethics

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8.1 Introduction

The nonmarket strategy known as corporate social responsibility (CSR) has been the subject of most of the investigations. CSR is an act by which an industry tries to create value for society by using its resources in such a manner that the benefit of all its stakeholders is also taken care of. Businesses across a range of industries, including those in healthcare, financial services, software, and consumer products, among others, invest a sizable amount in CSR initiatives (Bhardwaj et al., 2018). (Maali et al., 2021) stated in their study that CSR has a significant impact on the sustainability of an organization. An article by (Iglesias, 2022) available at <http://www.forbes.com> stated that corporate social responsibility is a widely used strategy across the globe, and Fortune 500 corporations spend about \$20 billion a year on CSR initiatives. CSR is frequently viewed as a tactical instrument that is under the control of one department. Businesses utilize CSR to reduce the externalities that their operations produce while detaching it from the heart of their business operations and strategies. In the extreme, businesses use CSR as a tool to repair their damaged reputations, lower risks, or deflect attention from their bad deeds. However, the scenario is changing, and businesses across the globe are under pressure from all parties involved to use their resources and expertise wisely and to positively impact society. Consumers, shareholders, associations, trade unions, and other stakeholders all have higher expectations on this matter, and the business runs the danger of having its reputation damaged and losing some of its intangible worth as a result (goodwill). In a similar vein, customers are pressuring businesses to disclose manufacturing circumstances in greater detail and provide goods and services that are more considerate of both the environment and employees (Charlotte et al., 2021). CSR helps organizations that operate in rapidly changing environments establish a solid reputation and brand. This metric can significantly raise their performance (Yin et al., 2020). In a study, it was stated that CSR improves corporate profitability (Mughal et al., 2021).

Though it is assumed by the corporation that CSR will increase its expenditures, in the long run, it ultimately results in increased revenue. (Chakroun & Amar, 2021) found in their study that CSR mitigates the detrimental effects of earnings management. The CSR Handbook (<http://www.pwc.in>) has defined CSR as an activity that has been performed by Indian corporations for ages but was never in deliberation. CSR is now mandatory for industry (Company Act 2013) and has come to the forefront, and its mandatory provisions have introduced greater transparency and disclosure. The draft rules stress the need for CSR to go beyond philanthropy. With time, the CSR orientation of organizations has changed. As society becomes more aware of its rights, there is a perceptible shift in the way CSR is looked upon. Although CSR by and large still focuses on community development, with time, it is acquiring a strategic nature. Corporates are keenly taking an interest in CSR and are actually posting the CSR activities undertaken by them on their official websites and annual reports. CSR as a concept has gained worldwide acceptance. Corporates that are sincere in conducting CSR activities are

able to do the right thing and improve their goodwill in the market. Irrespective of the size, involvement with CSR makes any contribution important and is beneficial for both the corporation and the community. In the long run, CSR helps the corporation reduce costs, improve goodwill, motivate employees, innovate processes and products, enhance access to capital and markets, improve risk management, and sustain operations.

The CSR concept actually took shape in the later part of the twentieth century. Experts are of the opinion that CSR is more voluntary in nature than a forced activity and reflects corporate willingness and responsibility towards their environment and society. Corporate spending on CSR gives no instant financial benefit but encourages healthy social and environmental change. CSR helps corporations achieve a balance of economic, environmental, and social sustainability (the triple bottom-line approach by Elkington).

CSR activities in India are now governed by clause 135 of the Companies Act. It made CSR mandatory for companies fulfilling any of the three conditions below:

- Annual turnover of Rs 1000 crore or more,
- Net worth of Rs 500 crore or more
- Net profit of 5 crore or more.

Constituting a CSR committee with at least one independent director and other board members has been made compulsory by the act. Companies are now supposed to spend at least 2% of their average net profit over the past three years on CSR activities. The ministry's draft rule on CSR has outlined ways that will guide a company to perform CSR activities. These are:

- A company can perform CSR activities directly on its own.
- A non-profit foundation can be created to perform CSR activities.
- Any independent non-profit organization that has a track record of performing CSR activities for the company for at least three years can be hired by the company.
- Companies can share their resources with other companies.
- CSR activities are to be performed in India only.
- Employee welfare schemes will not fall under the ambit of CSR.

A number of small and medium enterprises (SMEs) have fallen into the domain of CSR because of the requirement of Rs 5 crore or more as a net profit. SMEs, which are already under a lot of pressure to maintain their sustainability and competitiveness in price and quality, will now be faced with the new task of complying with the compulsory CSR activity provisions and also meeting environmental and social standards. It is predicted that this will make SMEs lose their economic viability; hence, they are in search of ways to perform CSR activities that do not adversely affect their economic viability. The Triple Bottom Line (TBL) Approach is one such effective method that helps SMEs not only meet their social and environmental standards but also maintain their competitiveness. With the help of the framework provided by the TBL approach, corporate performance vis-à-vis economic, social, and environmental performance can be measured and reported. The TBL

strategy gives businesses a wider range of working goals than merely profit, which aids in aligning them with the goal of sustainable global development. It is believed that in order for an organization to be sustainable, it must be financially stable, reduce (or, preferably, completely eradicate) its adverse environmental effects, and behave in accordance with society's norms. CSR in India initiatives often focus on minimizing waste, encouraging renewable energy, lessening the impact on the environment, providing aids, doing charitable work, and volunteering to help communities. ensuring safe working conditions, fair compensation, and respecting human rights. investing in education, healthcare, infrastructure, and rural development. and to promote equal opportunities for all, regardless of gender, race, or background (Ketul, 2025).

Beginning from July 14, 2025, under the Companies (Corporate Social Responsibility Policy) Rules, 2025, amended, the Ministry of Corporate Affairs has brought forward a new web-based CSR-1 registration procedure (Cyrill, 2025). This replaces the previous downloadable PDF format and tightens the conditions for non-profit entities that wish to conduct CSR activities on behalf of companies. The entities are required to demonstrate at least a three-year track record in similar development work, unless it is set up by the company itself or by the government. NGO and other agencies holding a valid CSR Registration Number granted prior to July 2025 are not required to re-register. And again, duplicate registration on the basis of PAN is not allowed.

Discussing about the consequences of a noncompliance of CSR, in an article, Acharya (2025) stated that if a company contravenes the provisions relating to CSR spending, the company will be punishable with a penalty of Rs.1 crore or twice the amount required to be transferred by the company to the CSR fund specified in Schedule VII of the Act or the Unspent Corporate Social Responsibility Account, whichever is less. CSR Concept has been seeded through the Companies Act, 2013, which holds Indian corporate houses more accountable to put in place a mechanism and framework for CSR. The Act brings a culture of CSR among Indian corporates as companies are required to formulate CSR policy and spend on activities for social good. CSR is everything about corporate giving back to society.

8.2 Literature Review

Bowen (2013) has stated that “private corporations should be evaluated in terms of their demonstrable contribution to the general welfare in terms of the production of social goods such as higher standards of living and spreading economic progress and security, and that the survival of the free enterprise system critically depends on such contributions”. Friedman (1970) has stated that the social responsibility of business is only one, and that is to utilize its resources in activities that increase profit by engaging in free competition without trickery or deception. CSR has been highly debated for the past 50 years, but no consensus on a valid and commonly agreed-upon definition has been reached. Lantos (2001) viewed CSR as an unclear

concept with undecided limits and arguable legitimacy. Maignan et al. (1999) defined CSR as a task made obligatory on business by its stakeholders to fulfil its economic, legal, ethical, and discretionary responsibilities. On the basis of a theoretical model (Besley & Ghatak, 2007) argue that CSR is actually a private provisioning of public goods and is potentially efficient in comparison to the provisioning of public goods by government. Debnath and Chellasamy (2022) concluded that businesses, governments, communities, and other stakeholders can collaborate on social issues via CSR. It was stated that to make CSR successful and effective in India, barriers in its implementation need to be removed (Debnath & Chellasamy, 2022).

Elkington (1997) stated that 'economic prosperity, environmental quality, and social justice' are what a corporation strives for and termed it the 'triple bottom line'. Later, he phrased the 3Ps, which were "profit, people, and planet, and termed them the three pillars". Elkington, (2004) suggested that organizations need to work not only to gratify stakeholders by improving profits (the economic bottom line) but also to take care of the environment and society in which they operate. A consensus is emerging among corporations to practice and use the Triple Bottom Line (people-planet-profit) approach. With the TBL approach, while performing CSR, corporations take care of economic issues (profit-making), social issues (sensitivity towards social and cultural norms and values), and environmental issues (to care for the environment and continuously strive for its improvement). It has been stated that managers have a moral obligation to work responsibly, irrespective of the effects on the company, and not to engage in CSR activities just because of strategic reasoning. For this, managers need to modify their policies to satisfy the needs of all the stakeholders, not just those of the shareholders. Amendments to the Company Act 2013 have brought many small and medium enterprises (SMEs) under the ambit of CSR. With limited budgets, manpower, and time for strategic evaluation, SMEs need to identify key stakeholders and focus their CSR approaches on them to get better results. Porter (2006) has found CSR to be capable of improving businesses' competitive positions.

Slob and Oonk (2007) have stated that organizations need to be responsible for the impact of their decisions on society and the environment by exercising transparent and ethical behaviour that leads to sustainable development and the welfare of society, taking into consideration the expectations of the stakeholders, complying with applicable law, and being in sync with international behaviour norms. More support from top management will mean more attention for the CSR program (Aguinis & Glavas, 2012). As CSR involves spending funds on nonprofit activities, it is imperative to have top management support. Visser (2008) and Blowfield and Jedrzej (2005) have stated that CSR contributes to governmental resources and delivery mechanisms either to supplement these or as a substitute, to fill up governance gaps, especially where governments are weak, corrupt, and under-resourced, and institutions are weak. According to Gangopadhyay (2012), mandatory CSR is similar to a hidden corporate tax that would add to the burden on businesses and reduce their ability to compete internationally. Those businesses, however, that see the value in CSR will still make the investment regardless of

whether it is required. Karnani (2013) stated that mandated CSR should be viewed as an effort to close governance gaps and a transfer of responsibility for the government's provision of public goods to achieve development goals based on democratically defined priorities. Prado-Lorenzo et al. (2008) stated that mandated sharing of information on CSR initiatives improves corporate image, which in turn boosts the growth rate of the business.

Any organization should have CSR as a long-term goal since it ensures lasting economic benefit and protects businesses in times of crisis (Smith, 2007). Evidence suggests that indulging in CSR practices improves the overall profitability of firms (Orlitzky et al., 2003). Various dimensions of CSR have been studied, and the environment is found to be the most frequently studied dimension. Ramus and Steger (2000) found that if an organization is strongly committed to its environment, it facilitates its employees' environmental initiatives. Paula and Borges (2015) found that economic, social, ecological, and recycling are the four aspects that are primary from the consumer's perspective. Ling and Sultana (2015) studied the factors that motivate management to disclose. According to Najul and Maji (2016), Indian companies' sustainability practices are no longer a myth; they are now a reality. Lee et al. (2017) studied how customer loyalty and corporate reputation are affected by CSR practices. Mombeui and Fotiadis (2017) found that corporate service quality, customer satisfaction, and customer trust are positively correlated with CSR activities. Famiyeh (2017) stated in their research that a company's CSR actions have a beneficial impact on both its overall performance and its ability to compete on price, quality, flexibility, and delivery. Chaudhary (2017) found that a firm's involvement in CSR activities positively influences employees' attitudes and behaviors at work. Organizations were compelled to take the COVID-19 pandemic into consideration since it had such a negative effect on consumers' attitudes, habits of consumption, and purchasing decisions. Organizations discovered themselves in the thick of unanticipated marketing and governance initiatives that were sparked by customers' anxieties (Yin et al., 2020). As a result, the organizations focused on providing medical relief to the needy via their CSR activities. The emergence of a new CSR activity, which was the creation and supply of essential medical items, attracted a lot of media interest during the COVID-19 pandemic. Government of India also took lead by setting up the PM CARES Fund with the primary objective of dealing with any kind of emergency or distress situation such as that posed by COVID 19 pandemic. The circular by Ministry of Corporate Affairs (2020), stated that any contribution made to the PM CARES Fund shall qualify as CSR expenditure under the Companies Act 2013. As a result, a number of corporate houses donated significantly to the fund to help the government fight and provide relief to the COVID-19 sufferers.

It is stated that for CSR to be effective in India, there needs to be a shift from a compliance-driven approach to one that integrates CSR into the core business strategy. This can be achieved by building organizational capacity for better CSR planning and execution, fostering partnerships between corporations, government, and non-profits, and developing robust mechanisms for impact assessment. Agashe et al. (2024) stated that to address the challenges of implementing CSR, there is

a need to increase SMEs involvement, create public awareness, foster long-term visions for CSR activities, emphasis on rural and urban poverty alleviation, sensitizing youth, fostering collaborations between corporations and NGOs are recommended. The authors further stated that alignment of CSR objectives with sustainable development goals (SDGs) and integrating technology and innovation are crucial steps forward.

However, some studies have found that many businesses do not execute their social obligations in accordance with their initial intent (Lee, 2020). Greenwashing is one such act. It is the practice of deceiving customers regarding a company's environmental policy or the benefits of a product or service on the environment. It entails the use of misleading and manipulative sustainable claims by organizations to present a fictitiously superior eco-friendly image than it actually is. These organizations spend more money marketing their products as green than truly reducing their negative environmental impact. As CSR helps improve reputation, organizations may be tempted to minimize their investment in CSR and concentrate on green communication. At this point, greenwashing might manifest, means that companies may start engaging in practices that look eco-friendly on the face value but are misleading or not truly sustainable. According to the study by Lyon and Maxwell (2006), a company that selectively communicates positive news while holding onto bad news is referred to as a greenwasher. Aji and Sutikno (2015) stated that consumers' skepticism of corporate CSR claims is growing due to the variety of examples of greenwashing. Rahman et al. (2015) discovered that infrequent and skimpy CSR communication may negatively affect consumers' purchasing intentions, regardless of the degree to which a company employs greenwashing strategies. Mu and Lee (2023) explored the consequences of greenwashing in CSR on employees and examined how greenwashing across various CSR facets results in different employee responses. They found that greenwashing in primary-stakeholder-oriented CSR was negatively related to trust, and greenwashing in secondary-stakeholder-oriented CSR had a negative and significant impact on employee-company identification. Jog and Singhal (2020) conducted an empirical study by attempting to understand the effect of greenwashing understanding in green purchase behaviour of Indian consumers and effects of receptivity to green advertising, environmental consciousness, and personal norms. They found that the level of greenwashing understanding moderates the relationship between green advertising receptivity and green purchase behaviour. Jog and Singhal (2020) further stated that income influences significantly the relationship between environmental consciousness and green purchase behaviour. Making CSR mandatory in different countries has been cited as a reason for the rise of greenwashing by corporations. Wang et al. (2016) stated in their study that mandatory CSR may cause unfair corporate CSR funding to be distributed to individual projects and initiatives with little or no social impact at all. Janney and Gove (2011) found that scholars are slowly adopting new and less well-known words such as CSR washing, bluewashing, or corporate hypocrisy. CSR washing is a term used to define the successful deployment of a fraudulent CSR claim by organizations to boost their competitive position. Bluewashing is a marketing tactic that

businesses employ to advertise their social responsibility programmes, creating the impression that a firm is more socially responsible than it actually is by employing corporate language and imagery. In his article (McClimon, 2022) stated that the term Bluewashing was originally applied to companies who joined the United Nations Global Compact and its principles without committing themselves to any real policy changes. According to McClimon (2022), since the color blue is in the United Nations flag, Bluewashing came to mean that some participating companies were grasping the Global Compact to whitewash their public perception regarding values, social programs, and governance practices without undertaking any real changes or reforms. However, rising cases of CSR washing have forced the different governments to make a number of policy changes, including drafting new guidelines on CSR advertising. Gallicano (2011) stated in their study that a number of websites, publications, and brochures are now educating consumers about CSR-washing and trying to prevent them from being deceived. Spaniol et al. (2024) considered six requirements necessary to identify greenwashing in their study, being-a claim on the environmental performance, by a private sector organization, marketing a product or a service; which cannot be proved; done with deceptive intent; and carried out to acquire a competitive advantage. The diagnostic tool developed by (Spaniol et al., 2024) in the current research offers the firms with long-overdue guidelines for accountable action. Besides, the regulatory landscape would also benefit from the diagnostic tool, as governments and authorities could use it as an instrument to disseminate and reinforce enforcement mechanisms.

8.2.1 CSR in INDIA

Tata's in India started philanthropic activities when no one even knew about them. It was in 1892 that J. R. D. Tata first gave grants to two lady doctors to go abroad and specialize in gynecology (Timane & Tale, 2012). The contribution that the Tatas have made to India by way of wise guidance, economic development, and philanthropy is something that no one else in any country has been able to do. Off late a number of CSR projects are undertaken by the Tata Group in India related to society upliftment and poverty alleviation. With the help of self-help groups, Tata's are engaged in women's empowerment and social welfare; a number of scholarships are provided in the field of education; they run programs for environmental protection; and they have built hospitals, research centers, and arts academies. One of the largest cement producers in India, Ultratech Cement, collaborates with 407 villages nationwide to promote sustainability and self-sufficiency. Mahindra & Mahindra (M&M) created the K. C. Mahindra Education Trust in 1954, whose primary focus was on healthcare, family welfare, education, infrastructure, the environment, and sustainable living, followed by the Mahindra Foundation in 1969, to advance education in underprivileged areas of society. Foundations work for water conservation, healthcare, livelihood training, scholarships for education, and disaster relief programs for the needy and affected communities.

ITC Group's sustainable livelihood opportunity generation program has benefited almost sixty lakh people. The ITC e-Choupal program, which attempts to connect rural farmers using the internet for the purchase of agricultural products, has connected over forty lakh farmers from roughly three hundred thousand villages in 10 states. Farmers are able to convert wasteland into pulpwood plantation fields with the support of ITC. Over 40,000 rural women now have stable livelihoods thanks to ITC's social empowerment programs (<http://www.indiabriefing.com>). Infosys is another Indian company with a proven track record with respect to CSR activities. It was in 1996 that the Infosys Foundation was established as a not-for-profit trust to support its social initiatives. The foundation actively supports programs and organizations that work for the upliftment of the needy, rural poor, and weaker sections of society (<http://www.infosys.com>). The foundation is involved in healthcare, education, culture, and rural development. Cyrill (2025), in her article, quoted that Tata Chemicals set aside INR 160 million for CSR initiatives for the fiscal year 2022–23. More than 5245 farmers were trained and supported by Tata Chemicals to improve farm productivity and farmer incomes through skill enhancement in areas such as livestock management and organic farming in FY23. Skill development initiatives for rural youth, such as fashion technology and welding, are also engaged in by the company to promote employment and entrepreneurial opportunities. Some of those venues comprise the skill development center in Mithapur and its partner institutions such as Tata Strive Skill Development Centre. The company has formulated various CSR policies, including a Community Development Policy and Diversity & Inclusion Policy.

Acharya (2025) stated that in 2023–2024, 24,392 companies in India contributed to CSR through 51,966 projects, spending around Rs. 29,987 crores in 14 development sectors. Few of them are follows: As per the CSR Journal, Reliance Industries Limited (RIL) spent Rs. 1592 crores for its CSR initiatives in 2023–24. The company made efforts in water conservation, resulting in an increase of the capacity by around 28.5 million cubic meters. It has also undertaken initiatives to improve agricultural practices and benefit more than 39,000 hectares of farmland. Its healthcare initiatives have impacted the lives of more than 9.29 million people. It has also benefitted 84,000 women through its digital literacy programs. In the year 2024, Apollo Tyres spent Rs. 15.7 crore on its CSR initiatives. It positively impacted the lives of more than 1.23 million people. Apollo Tyres supports the Indian Government's commitment to eliminate Tuberculosis in India by setting up a dedicated healthcare program for the trucking community in partnership with the Union and Central TB Division, USAID, and the Ministry of Health and Family Welfare. It is working for rural women empowerment through Project Navya, its CSR initiative to provide access to rural women SHGs (Self Help Groups) to microfinancing and support through skill training to start their entrepreneurial journeys. Adani Group spent more than Rs. 650 crores on CSR in FY 2023–24. In almost a next decade, the group is expected to invest \$100 billion in various green energy projects.

With mandatory CSR in our country now, it would not be possible for corporate India to avoid it any more, especially for SMEs. The inclusion of the clause of a net

profit of Rs 5.0 crore or more has brought a number of SMEs into the ambit of CSR. SMEs in India have their own issues that do not come under the purview of this paper, but these issues have a direct influence on their ability to participate in CSR activities. A literature review clearly elucidates that performing CSR activities will only benefit SMEs in the long run without having a profound impact on their bottom line, but there is a need to change the mindset of people who are in business only to make profit, irrespective of their adverse impact on the environment or society.

8.3 Research Objective

1. To find out the level of awareness about CSR in business houses in the non-Metro city in Uttar Pradesh, India, and their willingness towards it. Sample city name is not mentioned as the respondent responses were based on the condition of anonymity.
2. To find out how important stakeholders, such as employees, clients, community members, and shareholders, are in relation to modern business practices, see CSR.
3. Can CSR be neglected or overlooked in the current business environment?

8.4 Research Methodology

To meet research objective 1, primary data was collected using the survey method. A structured questionnaire was used for the purpose of data collection. A sample size of 20 different organizations was taken from the sample city. The sampling method used was judgement and convenience. Out of 20 respondents, only 9 responded, showing a response rate of 45%. Reasons for the low responses are discussed in the Findings and Suggestions section. A qualitative research design was adopted to explore the subjective experiences, perspectives, and opinions of stakeholders regarding CSR. A thorough analysis of the secondary data available on the different sites research and online articles was conducted to find out the thoughts, experiences, and perceptions of different stakeholder groups about CSR and to examine research objectives two and three.

8.5 Data Analysis and Interpretation

- The data in Table 8.1 shows the categorization of the respondents as SMEs or Large Industry.

Table 8.1 Firm size distribution of survey respondents

Respondents	Responses	
	SMEs	Large Enterprises
Business Houses	09	00

Source Survey Data**Table 8.2** Firm size classification based on number of employees

Respondents	Responses			
	10–50	50–100	100–250	>250
Business Houses	03	06	00	00

Source Survey Data

- The data in Table 8.2 shows the number of employees working in the organization.
- The data in Table 8.3 depicts the responses of the respondents about their CSR knowledge.
- The data in Table 8.4 shows the responses of the respondents to whether they help in environmental and social welfare activities.

The remaining questions were to be answered by only those respondents whose answer to question no. 4 was yes (respondents whose answers were no to question no. 4 were not to reply to any other question of the questionnaire).

- The data in Table 8.5 was about the availability of CSR policies in the respondent organization.

Table 8.3 Survey responses on firms' knowledge of corporate social responsibility (CSR)

Respondents	Responses	
	Yes	No
Business Houses	8	1

Source Survey Data**Table 8.4** Survey responses on firms' participation in environmental and social welfare activities

Respondents	Responses	
	Yes	No
Business Houses	7	2

Source Survey Data**Table 8.5** Survey responses on the availability of corporate social responsibility (CSR) policies

Respondents	Responses	
	Yes	No
Business Houses	00	07

Source Survey Data

- The data in Table 8.6 was about the allocation of funds for CSR implementation by the organization.
- The data in Table 8.7 was about the environmental protection activities performed by the organizations. Multiple choice selection was possible in this question.
- The data in Table 8.8 was about the social welfare activities performed by the organizations. Multiple choice selection was possible in this question.
- The data in Table 8.9 shows the responses of the respondents about the improvement in company image in the market due to the social welfare activities performed.
- The data in Table 8.10 shows the responses of the respondents about the improvement in sales due to the environmental protection and social welfare activities performed by them.

Table 8.6 Survey responses on fund allocation for corporate social responsibility (CSR) activities

Respondents	Responses		
	Yes	No	As per need
Business Houses	00	00	07

Source Survey Data

Table 8.7 Environmental activities undertaken by firms (multiple responses allowed)

Respondents	Responses			
	Energy saving measures	Solid and liquid waste management	Use of renewable resources	Water conservation
Business Houses	06	05	04	07

Source Survey Data

Table 8.8 Social welfare activities undertaken by firms (multiple responses allowed)

Respondents	Responses				
	Run healthcare programs	Provide scholarship to the needy	Free meal for the needy	Sponsor needy players for sports activity	Donation to NGOs for their welfare programs
Business Houses	01	01	01	00	06

Source Survey Data

Table 8.9 Survey responses on perceived company image improvement from social welfare activities

Respondents	Responses		
	Yes	No	Cannot say
Business Houses	01	01	05

Source Survey Data

Table 8.10 Survey responses on perceived sales improvement from environmental protection and social welfare activities

Respondents	Responses		
	Yes	No	Cannot say
Business Houses	01	00	06

Source Survey Data

8.6 Findings and Suggestions

- On a national level, the study of the available secondary data shows the increased inclination by the corporations to fulfil their CSR activities as they have understood that it has become the need of the hour and the expectation of the different stake holders. A literature review establishes beyond doubt that CSR has acquired the status of an unavoidable practice and is considered important by different stakeholders, such as employees, clients, community members, and shareholders. It is not possible for corporations to neglect or overlook it in the current business environment.
- Though mandatory, awareness about CSR was very low in the sample city. It was very difficult to collect the data. Respondents were very apprehensive about replying to the questions. That is why the response rate was only 45% out of the total respondents.
- Data from Table 8.2 shows the number of employees working. Though in a few cases it appeared that the number of employees was higher, the respondents did not include the workers in it as they were either on contract or a daily wage.
- Data analysis of Table 8.3 shows that out of nine (9) respondents, eight (8) were aware of what CSR is.
- Question number 4 was intentionally included in the questionnaire to cross-check whether the respondents are actually involved in CSR activities in any form or not. Responses to the question in Table 8.4 show that out of nine (9), seven (7) respondents were involved in some kind of environmental protection or social welfare activity.
- The remaining questions were to be answered by those respondents whose responses to question 4 were yes. Out of nine (9), only seven (7) respondents replied affirmatively to question 4. The rest of the questions were to be answered by only seven (7) respondents.
- Data analysis of the responses in Table 8.5 shows that none of the respondents had a CSR policy in place.
- Analysis of the responses in Table 8.6 shows that all the respondents replied that they allocate funds for CSR activities “as per need. This clearly shows that respondents understand that sooner or later, as per law, they have to perform these activities.
- An analysis of the responses from Table 8.7 shows the various environmental activities that were taken care of by the respondents. In this question, the option of selecting more than one option was possible. The author felt that the

respondent's positive responses to this question were more because of the compulsion of compliance with the pollution norms prevailing in the sample city than their willingness for CSR.

- It was not a surprise to get a poor response for the question summarized in Table 8.8, which was related to the social welfare activities performed. It was only one organization that responded positively to 4 out of the 5 options given, as they have formed an NGO of their own through which they implement their CRS activities. There were five more respondents who ticked the option Donation to NGOs. One did not respond to this question.
- Analysis of the responses in Table 8.9 clearly shows that five out of seven respondents were not sure whether the welfare activities performed by them were improving their company image. The reason for this is evident, as except for one, the rest were donating to external NGOs, so they were not sure of its impact. One respondent who did not reply to question 8 responded no to this question, and one who was affirmative for four out of five options replied yes.
- Analysis of the responses to the data in Table 8.10 shows that six out of seven respondents were not sure about the increase in their sales because of the environmental protection and/or social welfare activities they performed. The author attributes this to the fact that they did not perform the social activities directly, and the environmental protection activities were performed more out of compulsion than choice.

8.7 Limitation of Study

Numerous studies have been conducted on big corporate houses and their CSR activities; however, few studies are conducted in the non-metropolitan cities that have SMEs operating in them. The researcher conducted the study in the non-metro city of Uttar Pradesh with a sample size of 20 because few business houses fall within the ambit of CSR. Low responses to the questionnaire became the reason for not applying any statistical tool to draw inferences for research objective one. Also, the study was conducted during the pre-COVID era it is possible that the present responses may differ from the earlier one.

8.8 Conclusion

In medium-sized businesses and SMEs, many of which are now under the ambit of CSR, it is still seen as a burden. Organization in the sample city were not willing to respond to the questionnaire, and this may be because either they were afraid of the laws or they have not yet understood the true meaning of CSR. This is also a fact that many of the business units (out of the sample selected) were involved in some

or other form of social work to a great extent but did not term it as CSR activity. This could be because of the lack of awareness about it. Out of the sample, one of the export houses was found implementing CSR activities very sincerely. This they were doing via their own NGO and displaying them on their website as well. The study finds that in the current corporate environment, CSR cannot be simply avoided or disregarded by corporations. The data analysis emphasized the value of CSR and its positive effects on various corporate operations as well as society at large. It was found that CSR programs help with long-term sustainability, increased reputation, and consumer and staff loyalty. Not only this, but customers and society are placing greater demands on firms to act ethically, responsibly for the environment. It's interesting to note that after participating in talks and considering actual instances of effective CSR practices, people who had previously held doubts about CSR came around to seeing its importance. This shows that dispelling myths and building a more positive image of the value of CSR can be achieved through knowledge and education about the advantages and potential of the practice. However, it is critical to recognize that obstacles and hurdles exist in the implementation of successful CSR activities, like a lack of standard measurements for monitoring impact, resource limitations, pressures for quick profits, potential greenwashing, and a lack of standardized metrics. Addressing these issues calls for stakeholder cooperation, regulatory support to assure accountability and openness, and strategic commitment from businesses.

In general, the study offers insightful insights into the varied and complex viewpoints surrounding CSR. It indicates that CSR is an essential component of modern company practices rather than merely a trend or a tool for public relations. The findings highlight how crucial it is for businesses to embrace CSR as a strategic imperative, align their behavior with society's expectations, and use CSR as a catalyst for change. Future studies can build on this one by examining the specific tactics and procedures that businesses can use to successfully integrate CSR into their operations, assessing the long-term effects of CSR programs on organizational performance, and examining the function that regulatory frameworks play in fostering ethical business practices.

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Chapter 9

Decarbonizing India's Economy by 2070: Navigating Challenges in the Context of Climate Change and A Case Study on Decarbonizing Karma Lakelands



Shree Narayan Mishra

Abstract This paper examines the challenging issues faced by India in reaching its low carbon economy by 2070, within the context of addressing climate change. With the urgent need to reduce greenhouse gas emissions and transition to a sustainable, low-carbon economy, this study analyses the obstacles and potential solutions for India to navigate this critical transformation. The escalating impacts of climate change underscore the urgent necessity for global economies to pursue deep decarbonization pathways. India, as the world's third-largest emitter of greenhouse gases, has committed to achieving net-zero emissions by 2070. Realizing this goal requires confronting a complex set of challenges across technological, economic, social, and political domains. This study assesses India's present emissions profile, looks at the barriers to the country's economic transition to a low-emission one, and pinpoints areas for innovation, resilience, and sustainable growth. The study explores sectoral contributions to India's carbon footprint, with emphasis on energy, transportation, industry, agriculture, and waste. The analysis highlights the strengths and shortcomings of the existing policy and regulatory framework, including the National Action Plan on Climate Change (NAPCC) and subsequent initiatives. In addition, it underscores the socio-economic dimensions of decarbonization, stressing the need for a just and equitable transition that safeguards livelihoods, creates green jobs, and minimizes economic disparities. Co-benefits such as improved air quality, enhanced energy security, and synergies with developmental goals—including poverty alleviation and public health—are also emphasized. Beyond macro-level policy and sectoral strategies, the paper incorporates a micro-level case study of *Karma Lakelands*, an eco-luxury golf and residential resort in India. The study undertakes greenhouse gas inventory accounting of energy use, forestry, and waste, and documents a series of sustainability initiatives aimed at transforming

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the resort into a net-zero destination by 2030. Interventions include renewable energy integration, biodiversity conservation, efficient water management, and circular waste practices. The case exemplifies how localized, community-driven sustainability actions can align with and reinforce national decarbonization efforts. The findings demonstrate that India's net-zero transition will demand comprehensive policy frameworks, accelerated technological innovation, active stakeholder engagement, and sustained capacity building. By linking national strategies with localized action models such as Karma Lakelands, the paper illustrates a multi-scalar approach to achieving carbon neutrality. This integration of macro and micro perspectives offers pathways to not only meet India's climate commitments but also to contribute meaningfully to global sustainability efforts.

Keywords Decarbonization · Greenhouse gas emissions (GHG) · Renewable energy (RE) · Sustainable development goals (SDGs) · Climate change · Low-carbon economy · Net zero targets · Sustainability · United nations framework convention on climate change (UNFCCC) · Nationally determined contributions (NDCs) · Intergovernmental panel on climate change (IPCC)

9.1 Introduction

In the face of one of humanity's most pressing challenges, climate change, urgent and concerted action is paramount to mitigate its devastating impacts. India, a rapidly developing nation with a substantial carbon footprint, holds a pivotal role in the global fight against climate change and the pursuit of a sustainable future. Central to this endeavor is India's commitment to decarbonize its economy, a pivotal step towards reducing greenhouse gas emissions and aligning with global climate goals set during Paris Agreement.

India has set forth ambitious goals and targets to achieve a net zero economy by 2070, considering the gravity and urgency of the situation. It has even more ambitious medium-term objectives outlined in the updated Nationally Determined Contributions (NDCs) submitted to the United Nations Framework Convention on Climate Change (UNFCCC) in August 2022. These objectives not only stem from the need to combat climate change but also from India's pursuit of sustainable development, energy security, and an improved standard of living for its citizens. Through its commitment to decarbonization, India seeks to significantly reduce carbon emissions, transition to cleaner and renewable energy sources, and transform its industrial and economic sectors to embrace sustainability and environmental friendliness.

India's goals and targets reflect its dedication to the principles enshrined in international climate agreements, most notably the Paris Agreement. With a steadfast focus on achieving a net-zero emissions economy by 2070, India aims to harmonize its aspirations for economic growth with the imperative of climate action. These targets underscore India's unwavering resolve to lead the global

battle against climate change while addressing the unique developmental challenges and opportunities inherent to its context.

Through a thorough analysis encompassing the current state of India's economy, policy and regulatory frameworks, sector-specific strategies, financing mechanisms, and socio-economic implications, and it aims to illuminate the multi-faceted nature of India's decarbonization challenges. Moreover, we explore the opportunities and co-benefits that emanate from decarbonizing India's economy, underscoring the potential for sustainable development, improved air quality, and enhanced energy security.

By comprehending the significance of decarbonization within the climate change context and gaining insights into India's goals and targets, stakeholders can navigate the complexities of this transition with greater efficacy. This report gives stakeholders, companies, and policymakers important insights and suggestions to propel India's decarbonization efforts, leading to the country's low-carbon future and aiding in the global fight against climate change.

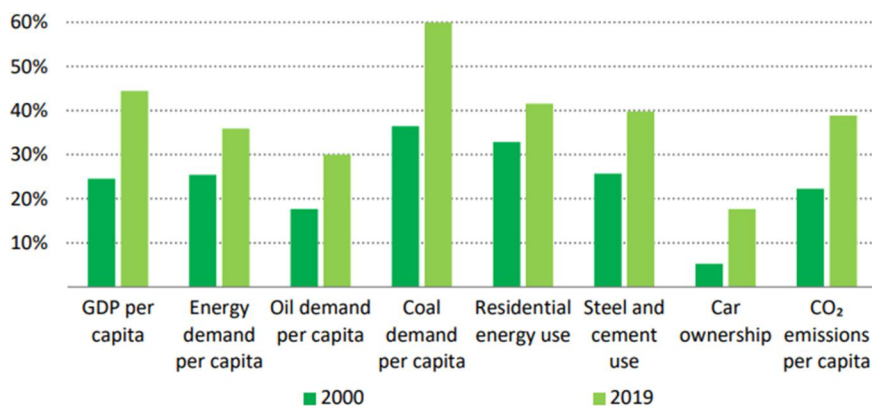
9.2 Current Status of India's Economy and Carbon Footprint

India, as the world's fifth-largest and one of the fastest-growing economies, has made notable strides in the past few years, driving its economic development and improving living standards. Despite historically low greenhouse gas emissions (GHG) per capita, India's rapid economic growth has led to an increase in carbon emissions, making it the fourth-largest contributor to global GHG emissions after China, the United States, and Europe. This growth underscores the urgency of reducing emissions to effectively address climate change.

As per the Ministry of Environment, Forests, and Climate Change's second biannual update report to the UNFCCC, total annual GHG emissions rose from 2136.8 million tons (Mt) of CO₂ equivalent (CO₂e) in 2010 to 2607.5 Mt of CO₂e in 2014. However, India's proactive efforts in climate change mitigation have resulted in a 21% reduction in the emission intensity of its Gross Domestic Product (GDP) from 2005 to 2014.

India's significance on the global stage is underlined by its status as the world's most populous nation. It may be noted that 50% population of India is under the age of 25, India's economic potential is poised for rapid expansion. Since the year 2000, more than 10% of the rise in global energy demand has been driven by India. Notably, on a per capita basis, India has witnessed a remarkable 60% growth in energy demand during this period.

In various economic and energy-related metrics, India has been steadily converging with the rest of the world in recent years as illustrated in Fig. 9.1, with coal demand per capita surging from 25% of the world average in 1990 to 60% in 2019. This increase has driven up carbon dioxide (CO₂) emissions per capita from slightly over 15% of the world average to just below 40%.



Key energy and economy indicators of India are well below the global average, although they have been steadily rising.

Fig. 9.1 Key indicators in India as a percentage of global averages. *Source* India energy outlook 2021 by international energy agency

The choice between per capita and absolute values significantly shapes India's energy landscape's perception. While absolute values are substantial and continue to grow, per capita figures remain comparatively low by international standards. Despite ranking among the world's largest energy consumers, the average Indian consumes significantly less energy than their global counterparts and even less than residents of advanced economies. India's annual CO₂ emissions now rank third-highest globally in absolute terms, but barely make the top 100 when measured by emissions per capita, a ranking that further decreases when considering historical emissions per capita.

India's economy encompasses a diverse range of sectors, each contributing to its overall growth and carbon emissions. The energy sector, driven by fossil fuel-based electricity generation, plays a significant role, as does the transportation sector, marked by increasing vehicle numbers and reliance on fossil fuels. Industrial activities, including manufacturing and construction, also contribute to India's carbon footprint, along with the agricultural sector, primarily through methane emissions from livestock and rice cultivation.

The implications of India's carbon footprint on climate change are substantial. As a major emitter, India's actions in reducing carbon emissions are crucial for global efforts to mitigate climate change. Unchecked emissions can lead to more severe and frequent climate-related disasters, including extreme weather events, sea-level rise, and ecosystem disruption. India, being vulnerable to climate change impacts like water scarcity and agricultural disruptions, recognizes the need to address its carbon footprint for its population's protection and sustainable development.

The urgency to reduce India's carbon emissions is paramount. While India's per capita emissions remain lower than many developed countries, its sheer population size and projected economic growth imply that absolute emissions will continue to rise if not effectively curbed. To address this, India has made commitments, including its Nationally Determined Contributions (NDCs) under the Paris Agreement. These goals are to improve energy efficiency measures, raise the share of renewable energy to 500 GW by 2030, and lower the GDP's emissions intensity by 45%.

Reducing emissions is not only an environmental imperative but also presents significant opportunities for sustainable development and economic growth. By moving to clean and RE sources, India should enhance energy security, create employment opportunities, improve air quality, and promote technological innovation. Achieving this requires a concerted effort from the government, businesses, and citizens to adopt sustainable practices, invest in renewable energy infrastructure, and implement energy-efficient technologies.

India's current economic state and carbon footprint illustrate the intricate relationship between economic growth and carbon emissions. The consequences of India's carbon emissions on global climate change highlight the necessity of coordinated efforts to shift to a low-carbon economy, guaranteeing a sustainable and resilient future for its citizens. As a result, immediate action is required to reduce emissions and mitigate the effects of climate change.

As the most populous country in the world, India occupies a prominent place on the international scene. India now boasts one of the fastest-growing economies in the world, coming in fifth place nominally, behind only the US, China, Japan, and Germany. Notably, with half of India's population below the age of 30, the nation's economic potential is poised for rapid expansion [<https://www2.deloitte.com/us/en/insights/economy/asia-pacific/india-economic-outlook.html>]. Since the turn of the century, India has played a pivotal role in driving over 10% of the global surge in energy demand. Moreover, on a per capita basis, India has witnessed a remarkable 60% growth in energy demand since 2000.

9.3 Third National Communication Report: Is It Encouraging?

According to The Hindu, August 09, 2023, the Third National Communication Report, though pending cabinet ratification, reveals a surprising acceleration in India's reduction of greenhouse emissions over the past 14 years, with a remarkable 33% drop. This reduction is attributed to a substantial increase in renewable energy generation and the expansion of forest cover. Furthermore, the report asserts that India is making substantial progress in fulfilling its commitment to the United Nations Convention on Climate Change (UNFCCC) by aiming to reduce emissions intensity by 45% from the 2005 level by 2030.

India's emissions intensity, which measures greenhouse gas emissions relative to gross domestic product (GDP) growth, has also experienced a notable decline of

33% from 2005 to 2019. Notably, between 2016 and 2019, India achieved an annual average reduction rate of 3%, a significant increase compared to the 1.5% rate recorded between 2014 and 2016. This acceleration represents the fastest reduction to date and can be primarily attributed to the government's proactive promotion of renewables, even in the presence of fossil fuels dominating the energy mix. This consistent reduction in India's economic emissions intensity underscores the nation's ability to successfully uncouple economic growth from GHGs.

9.4 Policy and Regulatory Framework for Decarbonization

The policy and regulatory landscape in India are pivotal drivers in the transition to a low-carbon economy, responding to the pressing need for decarbonization. By examining the current policies and regulations, we can assess their effectiveness in facilitating the necessary changes to reduce greenhouse gas emissions and promote a sustainable future.

9.4.1 India's Decarbonization Initiatives

India has established a comprehensive framework of policies and regulations to bolster its decarbonization efforts. Central to this framework is the National Action Plan on Climate Change (NAPCC), introduced in 2008, serving as a guiding light for addressing climate change across various sectors. The NAPCC comprises eight missions, targeting critical areas like solar energy, energy efficiency, sustainable agriculture, water management, and afforestation. These missions chart a course for implementing specific initiatives and targets aimed at reducing carbon emissions.

In promoting renewable sources, the Indian government launched the National Solar Mission in 2010 with the aim of positioning India as a global leader in solar energy production. This initiative includes clear targets for solar capacity expansion, research and development, and domestic manufacturing of solar equipment. Additionally, the Renewable Purchase Obligation (RPO) requires a certain proportion of electricity to come from renewable sources. by obligated entities, thereby stimulating demand for renewable energy.

To enhance energy efficiency, the Bureau of Energy Efficiency (BEE) implemented the Perform, Achieve and Trade (PAT) scheme. This innovative program establishes energy efficiency targets for energy-intensive industries and facilitates the trading of energy-saving certificates to incentivize conservation efforts. The Energy Conservation Act and the Energy Conservation Building Code (ECBC) establish standards and regulations for energy efficiency across various sectors, including industries and commercial buildings.

9.4.2 India's Long-Term Low-Carbon Development Strategy

India, as an emerging economy, is committed to reconciling its development and poverty alleviation goals with the challenge of rising Greenhouse Gas emissions, starting from a relatively modest base. Notably, India's historical cumulative emissions from 1850 to 2019 account for less than 4% of the world's cumulative carbon dioxide emissions since the pre-industrial era, despite hosting 18% of the global population and similar percentage of livestock. Consequently, India's contribution to global warming has been limited, with annual per capita emissions currently at just one-third of the global average.

At COP 26 in November 2021, India made a significant commitment by announcing its goal to achieve net-zero emissions by 2070, aligning with the principles of the Paris Agreement. This underscores India's long-term low-carbon development strategy, officially submitted to the United Nations Framework Convention on Climate Change, rooted in principles of equity, climate justice, and the concept of Common but Differentiated Responsibilities and Respective Capabilities.

9.4.3 Seven Pivotal Transitions Towards Sustainability

India's long-term low-carbon development strategy centers around seven pivotal transitions towards sustainable, low-carbon development pathways, addressing:

1. Low-carbon Development of Electricity Systems
2. Integrated, Efficient, and Inclusive Transport Systems
3. Promotion of Adaptation Measures in Urban Design and Energy Efficiency
4. Economy-wide Decoupling of Growth from Emissions
5. Development of Carbon Dioxide Removal and Related Engineering Solutions
6. Enhanced Efforts to Expand Forest and Vegetation Cover
7. Addressing Economic and Financial Requirements for Low-carbon Development

For each transition area, India's comprehensive strategy provides a detailed overview of the international and national context, existing policies and programs, essential elements for successful implementation, and potential benefits and challenges. Minister of MoEFCC informed in Rajya Sabha on 03rd Aug 2023.

9.4.4 Strategies for Reaching Net-Zero Emissions

The Indian government has embarked on a series of strategies to curb greenhouse gas (GHG) emissions, facilitate the transition to a sustainable future, and ultimately achieve its net-zero emissions targets. These strategies prioritize a collaborative

approach, entrepreneurship, and the integration of cutting-edge technologies through international partnerships such as the International Solar Alliance and the Global Biofuel Alliance. Additionally, Production Linked Incentive Schemes (PLIs) play a central role in these net-zero strategies, which encompass:

1. Renewable and Clean Energy Generation: Prioritizing the expansion and production of clean energy to reduce carbon emissions.
2. Electric Vehicle Transportation: Embracing electric vehicles (EVs) as a core element in moving towards a more sustainable transportation system, reducing emissions from the transportation sector.
3. Ethanol Blending: Actively promoting the blending of ethanol with conventional fuels to reduce carbon emissions in the automotive sector.
4. Green Hydrogen: Developing and utilizing green hydrogen, produced through environmentally friendly processes, to decarbonize various industries.
5. Biomass Energy: Exploring the potential of biomass energy as a renewable and environmentally friendly energy source.
6. Energy Storage: Implementing advanced energy storage solutions to enhance energy system efficiency and reliability while reducing emissions.

Through these strategies and international collaborations, India is taking significant strides towards aligning itself with the global objective of reaching net-zero emissions and contributing to a more sustainable and environmentally responsible future.

9.4.5 Challenges and the Path Ahead

While substantial progress has been made in several areas, challenges persist. The implementation and enforcement of policies face obstacles like bureaucratic inefficiencies, limited awareness, and restricted access to finance. These factors can impede the effective execution of decarbonization measures and limit their impact.

To address these challenges, continuous evaluation and improvement of policies and regulations are imperative. Regular monitoring and reporting of progress, transparency, and accountability can enhance the policy framework's effectiveness. Strengthening institutional capacities and streamlining approval processes can facilitate smoother implementation. Furthermore, exploring innovative financing mechanisms and providing incentives for private sector participation to improve investment in green technologies, supporting the move to a green economy.

Collaboration and knowledge-sharing with international partners are also essential for India's decarbonization efforts. Engaging with global climate change initiatives and participating in international forums can help align policies with global best practices, promote technology transfer, and foster capacity & capability building, ultimately strengthening India's position in the global pursuit of a green future.

9.4.6 *Challenges in Decarbonizing India's Economy*

Achieving a decarbonized economy by 2070 is a significant undertaking for India, requiring concerted efforts and overcoming various challenges. To better understand the complexities involved, this section identifies the key challenges faced by India in its path towards decarbonization and explores the technical, economic, social, and political obstacles hindering the process.

- **Technical Challenges:**

Energy Transition: Transitioning from fossil fuel-based energy to renewables at the scale required for deep decarbonization presents significant technical challenges, particularly in grid integration, intermittency management, and energy storage. While India has made substantial progress and already meeting nearly 50% of its current energy requirements through renewable and clean energy sources, however further expansion demands advanced technological and infrastructural solutions.

Industry Transformation: Industries heavily reliant on fossil fuels, such as manufacturing and heavy industries, face technical challenges in adopting cleaner technologies and transitioning to low-carbon production processes. This challenge will further become complex for hard to abate industries like steel and cement.

Transportation Shift: Decarbonizing the transportation sector involves technical challenges related to the scale-up of electric vehicles, charging infrastructure, and alternative fuels. India has a target of achieving 30% market penetration of electric vehicles (EVs) by 2030.

- **Economic Challenges**

Financing Clean Technologies: Clean technology and renewable energy infrastructure are expensive up front and demand large expenditures. Mobilizing adequate financing and attracting private investments pose economic challenges.

Cost Competitiveness: Ensuring the cost competitiveness of RE sources and clean-tech vis-à-vis fossil fuels is crucial for widespread adoption and may require supportive policies, incentives, and technological advancements.

Balancing Economic Growth: To prevent any trade-offs between environmental sustainability and developmental aims, decarbonization initiatives must be properly calibrated with aspirations for economic growth.

- **Social Challenges**

Public Awareness and Acceptance: Raising public awareness about the importance of decarbonization, its benefits, and potential disruptions can be a challenge. Ensuring public acceptance and support for clean energy projects, such as wind and solar farms, may face local resistance.

Just Transition: Managing the social impact of decarbonization, particularly on communities and workers in high-carbon sectors, requires addressing issues related to job displacement, re-skilling, and providing social safety nets.

• Political Challenges

Policy Consistency and Long-Term Commitment: Ensuring policy consistency and long-term commitment to decarbonization goals across political cycles is essential for providing a stable regulatory framework and attracting investments.

Stakeholder Engagement: Balancing the interests of diverse stakeholders, including industries, environmental groups, and local communities, can be a challenge. Effective stakeholder engagement and consensus-building are crucial for successful decarbonization efforts.

• Infrastructure and Capacity Constraints

Grid Infrastructure: Upgrading and expanding the electricity grid to accommodate the integration of renewable energy sources and support a decentralized energy system is a significant infrastructure challenge.

Technological Capacity: Developing indigenous technological capabilities and building the necessary human resources and skills to support clean technologies and innovation is crucial.

A multifaceted strategy that incorporates novel financing structures, supportive legislation, stakeholder participation, and international collaborations is needed to address these issues. Overcoming these challenges and quickening India's decarbonization process would require ongoing research and development, technology transfer, and capacity-building programs.

Sector-Specific Strategies and Solutions for Decarbonizing India's Economy: Decarbonizing major sectors of India's economy is important for achieving the goal of a green, low-carbon future. This section discusses sector-specific strategies and solutions for decarbonizing key sectors, including energy, transportation, industry, agriculture, and waste management. It highlights innovative technologies, policy interventions, and best practices that can accelerate decarbonization efforts.

1. Energy Sector:

- **Renewable Energy Transition:** Scaling up renewable energy capacity, such as solar and wind, through policy support, incentives, and competitive bidding mechanisms.
- **Grid Integration:** Enhancing grid infrastructure and implementing advanced grid management technologies to facilitate the integration of renewable energy sources and ensure grid stability.
- **Energy Storage:** Promoting research, development, and deployment of energy storage technologies to address intermittency challenges and support a reliable and resilient power system.
- **Demand-Side Management:** Encouraging energy efficiency measures, demand response programs, and smart grid technologies to optimize energy consumption and reduce overall energy demand.

2. Transportation Sector:

- **Electrification:** Encouraging the use of electric cars (EVs) by developing charging infrastructure, offering incentives, and improving battery technology.
- **Public Transportation and Modal Shift:** Expanding public transportation systems, encouraging walking and cycling, and incentivizing modal shift from private vehicles to public transport, shared mobility, and non-motorized transport.
- **Low-Carbon Fuels:** Encouraging the use of low-carbon fuels such as biofuels, hydrogen, and sustainable aviation fuels to decarbonize various modes of transport.

3. Industry Sector:

- **Energy Efficiency and Clean technology:** To lower energy consumption and carbon emissions, enterprises should adopt cleaner technology and implement energy efficiency measures.
- **Circular Economy:** Reducing emissions and material waste by encouraging recycling, waste reduction, and resource efficiency.
- **Carbon Capture, Utilization, and Storage (CCUS):** Exploring and investing in CCUS technologies to capture and store industrial emissions.

4. Agricultural Sector:

- **Sustainable Farming Practices:** Encouraging sustainable agriculture practices such as organic farming, precision agriculture, and agroforestry to reduce GHG and increase carbon sequestration.
- **Improved Irrigation and Water Management:** Implementing efficient irrigation techniques and water management practices to reduce energy consumption and conserve water resources.
- **Livestock Management:** Promoting sustainable livestock management practices, including improved feed and manure management, to mitigate methane emissions.

5. Waste Management Sector:

- **Waste-to-Energy and Biogas:** Promoting the conversion of organic waste into biogas for electricity generation and promoting waste-to-energy technologies to harness energy from solid waste.
- **Waste Reduction and Recycling:** Encouraging waste reduction at the source, segregation, and recycling of waste materials to minimize landfill emissions and promote a circular economy.

Accelerating decarbonization across these sectors requires a combination of innovative technologies, supportive policies, and best practices. Policy interventions such as carbon pricing, feed-in tariffs, tax incentives through production linked incentive (PLI) schemes, and emission standards can create favorable conditions for low-carbon investments and innovations. Collaboration with knowledge-sharing platforms, international partners, and technology transfer initiatives can facilitate the adoption of best practices and emerging technologies.

Furthermore, fostering public-private partnerships, promoting research and development, and providing financial incentives for clean technology deployment are vital for sector-specific decarbonization strategies.

9.5 Financing and Investment Scenarios for Decarbonizing India's Economy

Decarbonizing India's economy requires significant financial resources to support the deployment of clean energy projects, sustainable infrastructure, and technological innovations. This section analyses the financial challenges associated with decarbonization and explores potential financing mechanisms, public-private partnerships, and international collaborations that can support the transition.

1. Financial Challenges:

- **High Upfront Costs:** Clean energy projects and sustainable infrastructure often require substantial upfront investments, which can pose challenges for financing.
- **Limited Access to Capital:** Limited access to affordable capital and financing options can hinder the implementation of decarbonization projects, particularly for small and medium-sized enterprises.
- **Uncertain Returns on Investment:** Investors may perceive clean energy projects as risky due to uncertainties surrounding regulatory frameworks, policy stability, and long-term revenue streams.

2. Potential Financing Mechanisms:

- **Green Bonds:** Encouraging the issuance of green bonds to raise capital for environmentally friendly projects, providing investors with an avenue to invest in decarbonization initiatives.
- **Climate Funds:** Establishing dedicated climate funds, supported by both public and private sector contributions, to provide financing for clean energy projects and sustainable infrastructure.
- **Carbon Pricing:** Implementing carbon pricing mechanisms, such as carbon taxes or cap-and-trade systems, to create a revenue stream that can be reinvested in decarbonization efforts.
- **Impact Investing:** Mobilizing impact investors who seek both financial returns and positive environmental and social impacts, supporting the growth of clean energy and sustainable businesses.

3. Public-Private Partnerships:

- **Joint Investment Platforms:** Facilitating public-private partnerships to create investment platforms that pool resources and expertise from both sectors to finance and implement decarbonization projects.

- **Risk Mitigation Instruments:** Developing risk mitigation instruments, such as guarantees, insurance, and public-backed loan facilities, to attract private sector investments in decarbonization initiatives.
- **Technology Innovation Funds:** Establishing technology innovation funds that bring together public and private sector entities to support research and development, demonstration projects, and commercialization of clean technologies.

4. International Collaborations:

- **Climate Finance Support:** Engaging with international climate finance institutions and accessing climate funds available through bilateral and multilateral agreements to supplement domestic financing efforts.
- **Technology Transfer and Capacity Building:** Collaborating with international partners to facilitate technology transfer, knowledge sharing, and capacity building, enabling the adoption of best practices and innovative solutions.
- **Knowledge Networks:** Participating in global knowledge networks, research collaborations, and peer-to-peer learning platforms to benefit from international experiences and expertise in financing decarbonization.

To attract investments for clean energy and sustainable infrastructure, it is crucial to create an enabling policy and regulatory environment that provides long-term certainty, stability, and favorable returns on investment. This includes transparent and predictable regulations, streamlined approval processes, and effective monitoring and enforcement mechanisms.

9.6 Socio-economic Implications of Decarbonization

Decarbonizing India's economy has wide-ranging socio-economic implications that extend beyond environmental benefits. This section examines the socio-economic implications of decarbonization, including job creation, equitable transition, and ensuring social welfare. It also discusses strategies for fostering a just and inclusive transition while addressing potential economic disparities and social impacts.

1. Job Creation:

- **Green Jobs:** Decarbonization efforts will create new employment opportunities in sectors such as renewable energy, energy efficiency, sustainable transportation, circular economy, green hydrogen, battery storage and waste management.
- **Skill Development:** Investing in skill development programs and retraining initiatives to equip workers with the necessary skills for the emerging green economy.
- **Supporting Industries:** Promoting the growth of supporting industries, such as renewable energy equipment manufacturing and clean technology research and development, which can generate additional employment.

2. Equitable Transition:

- **Just Transition Framework:** Implementing a just transition framework that ensures fairness, inclusivity, and social justice throughout the decarbonization process.
- **Worker Support:** Providing support for workers affected by the transition, including income protection, job placement assistance, and retraining programs.
- **Community Engagement:** Engaging local communities in decision-making processes and empowering them to actively participate in shaping the transition, addressing their specific needs and concerns.

3. Social Welfare:

- **Energy Access:** Ensuring universal access to affordable and clean energy, particularly for marginalized communities, through programs that promote energy efficiency and renewable energy solutions.
- **Health Benefits:** Decarbonization initiatives, such as reducing air pollution from fossil fuel sources, can lead to improved public health outcomes and lower healthcare costs.
- **Poverty Alleviation:** Leveraging decarbonization efforts to address poverty by promoting sustainable livelihoods, supporting rural development, and enhancing access to basic services.

4. Addressing Economic Disparities:

- **Targeted Policies:** Designing policies and incentives that prioritize investments in economically disadvantaged regions and communities to reduce regional economic disparities.
- **Income Redistribution:** Implementing mechanisms for income redistribution and ensuring that the benefits of decarbonization are shared equitably across society.
- **Access to Finance:** Facilitating access to finance for small and medium-sized enterprises and marginalized groups to enable their participation in the green economy.

5. Social Impact Assessment:

- Conducting comprehensive social impact assessments to understand and mitigate potential negative consequences of decarbonization, particularly on vulnerable groups.
- **Participatory Approaches:** Incorporating participatory approaches in decision-making processes, engaging stakeholders, and ensuring their voices are heard to minimize social disruptions and maximize social co-benefits.

Fostering a just and inclusive transition requires strong policy frameworks, effective governance mechanisms, and active stakeholder engagement. It is essential to collaborate with local communities, civil society organizations, and social welfare agencies to identify and address the specific needs and challenges associated with the transition.

9.6.1 Opportunities and Co-benefits of Decarbonizing India's Economy

Decarbonizing India's economy presents numerous opportunities and co-benefits that extend beyond mitigating climate change. This section identifies the opportunities and co-benefits associated with decarbonization, highlighting the potential synergies between climate action and other developmental goals, including improved air quality, enhanced energy security, and sustainable development.

1. Improved Air Quality:

- **Reduced Pollution:** Decarbonization measures, such as transitioning to clean energy sources and promoting sustainable transportation, can significantly reduce air pollution levels, leading to better air quality and public health.
- **Health Benefits:** Cleaner air can have substantial health co-benefits, including a reduction in respiratory diseases, cardiovascular conditions, and premature mortality.

2. Enhanced Energy Security:

- **Diversification of Energy Sources:** Decarbonization promotes the diversification of energy sources, reducing reliance on fossil fuel imports and enhancing energy security by utilizing domestic renewable energy resources.
- **Resilient Energy Systems:** By strengthening grid resilience and decreasing susceptibility to interruptions in fossil fuel supply chains, investments in decentralized renewable energy systems can improve energy security.

3. Sustainable Development:

- **Green Job Creation:** Decarbonization efforts can encourage the development of green industries, which will result in the creation of new jobs, especially in fields like sustainable infrastructure, energy efficiency, and renewable energy.
- **Economic Growth:** By drawing investments, encouraging innovation, and advancing the development of clean technology, the shift to a low-carbon economy may propel sustainable economic growth.
- **Resource Efficiency:** Decarbonization efforts often require increased resource efficiency, which can lead to reduced waste, improved resource management, and cost savings.

4. Synergies with Development Goals:

- **Poverty Reduction:** Decarbonization can support poverty reduction efforts by promoting access to clean energy, sustainable livelihoods, and economic opportunities, particularly in rural and marginalized communities.
- **Healthcare Benefits:** Improved air quality resulting from decarbonization measures can lead to lower healthcare costs, reduced disease burden, and improved well-being, contributing to better overall public health.

- **Climate Resilience:** Adaptation and resilience-building measures associated with decarbonization can help communities better withstand the impacts of climate change, safeguarding livelihoods and infrastructure.

5. Environmental Conservation:

- **Biodiversity Preservation:** Decarbonization efforts often involve preserving and restoring ecosystems, contributing to biodiversity conservation and ecosystem services.
- **Water Conservation:** Many decarbonization measures, such as promoting energy efficiency and renewable energy, also support water conservation efforts, reducing pressure on water resources.

Capitalizing on these opportunities and co-benefits requires integrated planning, multi-sectoral collaboration, and policy coherence. By aligning climate action with broader developmental goals, India can create synergies that accelerate progress towards sustainable development, social welfare, and environmental conservation.

9.6.2 Case Study: Charting the Path to Net Zero 2030: A Sustainability Roadmap for Karma Lakelands.



Karma Lakelands, an eco-luxury golf resort in Gurugram, has positioned itself as a benchmark in sustainable hospitality by seamlessly integrating luxury with eco-conscious practices. Guided by the visionary leadership of its founder, Mr. Ashwani Khurana, the resort has crafted a comprehensive sustainability and net zero roadmap focused on clean energy, afforestation, water conservation, zero-waste management, and carbon sequestration, aligning closely with India's climate goals and global sustainability commitments.

This report provides a comprehensive analysis of Karma Lakelands' environmental and energy management practices, highlighting strategies for reducing its carbon footprint. At a time when India faces growing energy demands and rising greenhouse gas emissions, the resort demonstrates how the hospitality and tourism sector can adopt effective solutions to address climate challenges.

9.7 Methodology

The current study focuses on measuring the carbon footprint of activities at Karma Lakelands that rely on fossil fuels. It quantifies carbon emissions from various sources and identifies opportunities for mitigation. This assessment will guide the implementation of sustainable practices to reduce emissions and move the resort towards becoming cleaner, greener, and more sustainable.

Guided by the principle “*What gets measured gets managed*,” greenhouse gas (GHG) accounting is critical for developing effective reduction strategies. The GHG inventory was prepared using the **2006 IPCC Guidelines for National Greenhouse Gas Inventories** and the (<https://ghgprotocol.org/sites/default/files/standards/ghg-protocol-revised.pdf>) **GHG Protocol Corporate Standard (revised)**, under Tier 3 methodology. Beyond energy use, emissions from waste and carbon sequestration through land use, land-use change, and forestry (LULUCF) were also included.

The study additionally reviewed sustainability practices such as water conservation, rainwater harvesting, waste and wastewater recycling, plastic-free initiatives, and energy-efficiency measures. The objective was to create a comprehensive GHG inventory and outline strategies to achieve **triple Net Zero by 2030**—Net Zero energy, water positivity, and zero waste.

All major energy sources were examined, including electricity procured from the coal-based grid, diesel used in DG sets, LPG cylinders for kitchens and cafés, and other consumption patterns. Scope I and II emissions were calculated using the IPCC and GHG Protocol methodologies.

9.8 Case Study Results

An analysis of energy consumption at Karma Lakelands from 2017 to 2023 (Table 9.1) reveals clear trends in the resort's carbon footprint and the benefits of adopting energy-efficient and renewable technologies. The findings also capture the emissions avoided through solar energy adoption (Fig. 9.2).

1. Carbon Footprint Assessment

A detailed assessment of emissions from coal, diesel generators, and LPG indicates that **2447 tons of CO₂e** were generated in 2023. Alongside emissions,

Table 9.1 Net CO₂ Emissions from Electricity at Karma Lakelands from 2017 to 2023

Year	2017	2018	2019	2020	2021	2022	2023
CO ₂ emissions (in tons)	970	1198	1492	1288	1587	1930	2243
Net CO ₂ emissions (in tons)	736	771	1092	1056	1240	1595	1851
Emissions saved by solar	-234	-427	-400	-405	-347	-335	-392

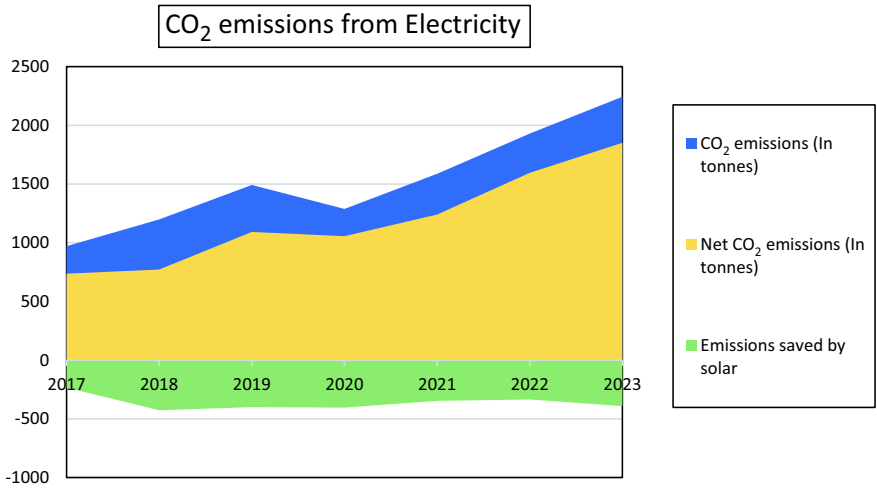


Fig. 9.2 GHG Emissions from Electricity at Karma Lakelands from 2017 to 2023

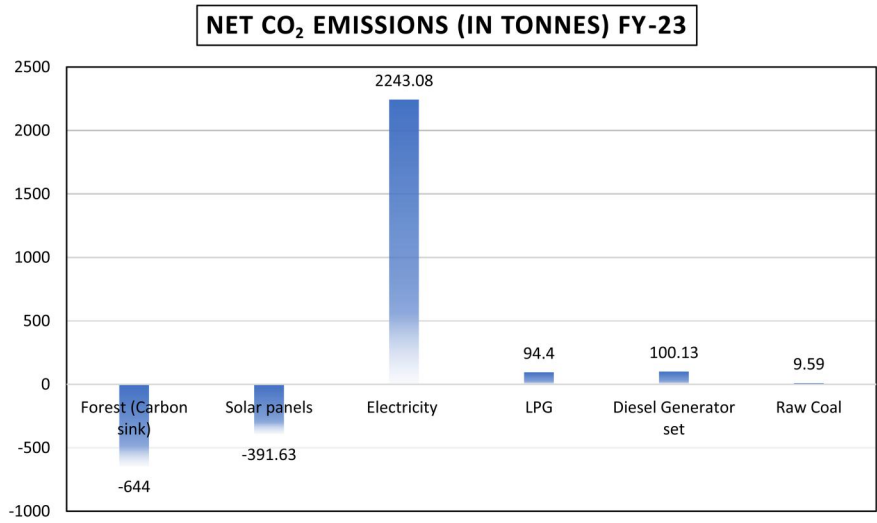


Fig. 9.3 GHG Emissions from Different Sources at Karma Lakelands (2023)

the carbon sequestration potential of the resort's forest cover and wastewater management was evaluated. Karma Lakelands successfully (Fig. 9.3).

- Created a **carbon sink of 644 tons of CO₂e** through its forest cover.
- Avoided **390 tons of CO₂e** through solar power generation.

This results in **net GHG emissions of 1413 tons of CO₂e** for 2023.

9.9 Action Plan for Sustainable Growth & Carbon Neutrality

Given the impressive range of sustainability initiatives already in place at Karma Lakelands, the resort is well on its way to achieving Net Zero. To build on this foundation and realize its Net Zero aspirations within the next four years, the resort can consider the following strategies:

1. Energy Optimization and Renewable Integration

- **Expand Solar Energy:** Increase solar energy capacity by adding more rooftop solar panels and installing solar farms on unused land. Incorporate battery storage solutions to store surplus solar power for nighttime use, minimizing dependence on grid electricity.
- **Energy Efficiency:** Conduct an energy audit to identify areas for further energy savings. Upgrade lighting to smart LED systems, optimize HVAC systems and install energy-efficient appliances throughout the resort. Implement automated energy management systems to monitor and control energy use.

Upgrade to Energy-Efficient Appliances: Replace old or inefficient appliances with newer models designed to use less electricity.

1. Implement Energy-Saving Practices

- Train staff to turn off lights and appliances when not in use.
- Use timers or motion sensors to control lighting in common areas.
- Encourage guests to conserve energy (e.g., by reusing towels).
- Consider using energy-efficient lighting (LEDs).

2. Carbon Sequestration Enhancement

- **Forest Expansion and Carbon Sinks:** Expand the forested areas using native tree species to enhance carbon sequestration. Introduce agroforestry practices on available land to optimize the carbon sink potential while supporting local biodiversity.
- **Golf Course Carbon Sink:** Continue using compost for golf course maintenance, but also explore planting more native shrubs and grasses around the golf course to increase carbon sequestration. Consider creating small wetland zones to act as additional carbon sinks and support local wildlife.

3. Water Resource Management

- **Rainwater Harvesting Expansion:** Increase rainwater harvesting capacity to capture more water, especially during monsoon seasons. This water can then be used to recharge groundwater and supplement lake rejuvenation efforts.
- **Water-Efficient Irrigation:** Implement smart irrigation systems for the golf course and landscaping to optimize water use and ensure the efficient use of recycled and harvested water.

4. Sustainable Transportation

- **Electric Vehicle (EV) Infrastructure:** Continue enhancing EV infrastructure by adding more charging stations and offering shuttle services within the resort using electric carts or bicycles for guests. Explore transitioning any resort-operated vehicles, such as maintenance trucks, to electric models.
- **Promote Green Transport:** Provide incentives for guests to use electric or public transportation when traveling to and from the resort, reducing the overall transportation carbon footprint.

5. Zero Waste and Circular Economy

- **Organic Waste Utilization:** Expand the existing practice of feeding kitchen waste to cows and using cow dung for composting. Introduce composting workshops for guests to educate and involve them in zero-waste practices.
- **Material Recycling:** Implement a comprehensive recycling program for non-organic waste (e.g., plastics, glass) used within the resort. Encourage guests to participate by placing recycling bins in rooms and public areas.

6. Green Procurement and Supply Chain

- **Sustainable Sourcing:** Prioritize the procurement of locally sourced, organic, and sustainable products for the resort's operations. Work with suppliers to reduce packaging waste and encourage the use of eco-friendly materials.
- **Green Partnerships:** Partner with local farmers and artisans to source food, products, and materials, thereby supporting the community and reducing the resort's overall carbon footprint associated with transportation and logistics.

7. Carbon Footprint Monitoring and Offsetting

- **Carbon Accounting:** Implement a robust carbon accounting system to continuously measure and monitor emissions from all resort operations. This data will help identify areas for further reduction and track progress toward Net Zero.
- **Carbon Offsetting:** Explore verified carbon offset programs as a supplementary strategy to offset any remaining emissions. This can include investing in local or regional reforestation projects, renewable energy initiatives, or community-led environmental programs.

8. Sustainable Certification and Transparency

- **Pursue Certification:** Aim for sustainability certifications such as LEED, Earth Check, or Green Key to benchmark performance and validate the resort's sustainable practices. This will provide a framework for ongoing improvement and enhance the resort's reputation for responsible tourism.
- **Regular Reporting:** Publish an annual sustainability report detailing the resort's environmental impact, progress toward Net Zero, and plans. This transparency will build trust with guests, partners, and the broader community.

9. Continuous Innovation and Adaptation

- **Research and Adaptation:** Stay updated on emerging sustainable technologies and practices. Consider pilot projects for innovative solutions such as biogas generation from organic waste or integrating wind or hydro energy if feasible.
- **Flexible Planning:** Regularly review the Net Zero strategy to adapt to changing conditions and new opportunities, ensuring that the resort remains on track to meet its sustainability goals.

By adopting a comprehensive sustainability approach, Karma Lakelands is strengthening its eco-initiatives, engaging guests in conscious living, and charting a clear path to achieve Net Zero within the targeted four-year timeframe. With impactful measures such as solar energy adoption, transition from diesel generators to PNG-based power, wastewater recycling for irrigation, rainwater harvesting, and the plantation of over 250,000 trees, the resort is setting benchmarks for climate-resilient, eco-friendly tourism in India and reaffirming its commitment to Net Zero emissions by 2030 while aligning with the India's Climate goals.

9.10 Conclusion

India's carbon footprint has profound implications for global climate change, and its actions to reduce emissions are pivotal to international mitigation efforts. Failure to act risks intensifying climate-related disasters such as extreme weather events, sea-level rise, water scarcity, and agricultural disruptions. Recognizing these vulnerabilities, India has committed to a long-term transition toward a low-carbon, climate-resilient economy by 2070.

The country's policy and regulatory frameworks reflect this commitment, though challenges remain in enforcement, scalability, and coordination. Overcoming these barriers requires collective action from government, industry, civil society, and international partners. Decarbonization will also have significant socio-economic implications, ranging from job creation and energy security to the need for a just

and equitable transition. Ensuring inclusivity, fairness, and social justice will be essential to align climate action with sustainable development.

In this context, localized initiatives provide important operational insights. The case of Karma Lakelands, an eco-luxury resort in Gurugram, illustrates how private enterprises can integrate sustainability into core operations. Through adoption of renewable energy, afforestation, and innovative waste-to-resource practices, the resort reduced its net emissions in 2023 from 2447 tons CO₂e to 1413 tons CO₂e. With 20% of its energy demand already met by solar power and plans for forest expansion, a 1 MW solar installation, and Biochar production, Karma Lakelands demonstrates the feasibility of micro-level decarbonization models that can complement national targets.

Importantly, India's decarbonization journey offers not only challenges but also co-benefits, including improved air quality, enhanced energy security, and sustainable economic growth. By strengthening policy frameworks, fostering technological innovation, engaging stakeholders, and scaling successful models such as Karma Lakelands, India can accelerate its low-carbon transition. By doing this, the nation will be able to make a substantial contribution to the fight against climate change while ensuring its citizens a resilient, prosperous, and just future.

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Chapter 10

Harnessing Eco-Innovation for Sustainable Development: A Critical Review and Research Agenda



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Abstract In the context of BANI (Brittle, Anxious, Nonlinear, and Incomprehensible) times, eco-innovation emerges as a critical mechanism for advancing sustainable development in the face of escalating global uncertainties. This study investigates the complex dynamics that characterise the relationship between eco-innovation and sustainable development, aiming to contribute to understanding how innovative environmental practices can foster resilience and sustainability in an unpredictable world. The study unearths various theoretical relationships available in the existing knowledge base to theorise eco-innovation integration at organisations to achieve sustainable development. It synthesises current research to understand how eco-innovation operates as a catalyst for sustainability amidst the complexities and uncertainties of the modern world. This literature review provides a comprehensive overview of existing knowledge, identifying gaps and opportunities for future research in the arena of eco-innovation and sustainable development, ultimately emphasising the necessity of resilience and flexibility in achieving long-term sustainability.

Keywords Eco-innovation · Responsible organisation · Sustainable development

10.1 Introduction

Eco-innovation has emerged as a pivotal element in pursuing sustainable development objectives, effectively reconciling economic growth demands with environmental stewardship principles (OECD, 2009). This approach highlights the need to integrate innovative practices that enhance economic performance and promote

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ecological well-being, thereby fostering a more sustainable future. On the other hand, sustainable development is characterised by several critical dimensions, including financial, social, institutional, natural, instructional, and political aspects. This underscores the necessity for comprehensive consideration of these dimensions in fiscal reporting to facilitate progress and environmental improvement. (Cant & Wiid, 2013) argue that sustainable development constitutes a vital component of strategic organizational planning, as it profoundly enhances the operational efficacy of business models, ultimately benefiting all stakeholders involved.

In recent years, there has been a significant rise in consumer awareness of sustainability, prompting numerous organisations to integrate environmentally friendly practices as a foundational element of their business models, which are centred on eco-innovation (Henriksen et al., 2012). This shift indicates a logical response to consumer expectations, as many individuals are prepared to pay a premium for sustainable products and increasingly demand responsible offerings from enterprises (Tang et al., 2018). Empirical studies (Borsatto et al., 2021; Schiederig et al., 2012) suggest that organizations that embrace eco-innovation are likely to experience enhancements in performance and competitiveness. Adopting green innovation practices can enhance product value and provide businesses with competitive advantages through ecological differentiation (Bansal & Roth, 2000).

Eco-innovation contributes in advancing sustainable development by enhancing resource efficiency, mitigating emissions, and promoting economic growth (Rennings, 2000). Empirical research has demonstrated that eco-innovation not only bolsters competitive advantage but also facilitates the emergence of new market opportunities, thereby driving the adoption of sustainable business models (Bossle et al., 2016). Emerging paradigms that integrate resilience thinking posit that eco-innovation plays a crucial role in insulating firms from resource-related shocks. Empirical evidence suggests that companies that implement water-recycling technologies experienced a 15% improvement in operational continuity during periods of drought compared to their peers, thereby highlighting the strategic advantages conferred by such innovations (Hazarika & Zhang, 2019).

(Janahi et al., 2021) posit that eco-innovation effectively reduces material demands by implementing closed material flows or by developing and utilizing novel materials. Concurrently, ecological innovations aim to diminish energy consumption and promote the adoption of alternative energy sources. These innovations play a pivotal role in reducing overall emissions, mitigating environmental burdens, and minimising health risks, while also promoting healthy lifestyles and sustainable consumption practices. According to (Loucanova et al., 2015), the essence of eco-innovation lies in the deliberate selection of appropriate materials, processes, and distribution methods that facilitate lower energy usage, diminished consumption of natural resources, and an overall reduction in environmental impact, thus promoting a sustainable development approach.

Numerous researchers in the domains of innovation, management, environmental economics, stakeholder theory, and institutional theory have explored the key elements that propel eco-innovation. Innovation studies reveal that technological

advancements and market demand are generally the most significant factors (Horbach, 2008). Management research indicates that corporate social responsibility integrates environmental protection into a company's strategy through heightened investments in eco-innovation (Bansal & Hunter, 2003; Kesidou & Demirel, 2012; Potoski & Prakash, 2005).

This chapter aims to unearth various themes emerging from the existing literature on harnessing eco-innovation towards sustainable development. It aims to critically review some of the leading work in this domain and present multiple recommendations for future research. The remainder of the chapter is structured as follows: the next section presents the theoretical underpinnings of the two central constructs, i.e. eco-innovation and sustainable development. The following section outlines the methodology used in the literature review. The following section presents the results and major themes from the literature review. The next section presents the practice review of leading corporations. The last section presents future research directions.

10.2 Theoretical Background

In this section, we will present the theoretical background of two central constructs of this study, i.e. eco-innovation and sustainable development:

10.2.1 *Eco-Innovation*

Eco-innovation is defined as the development and application of products, processes, and services that reduce environmental risks and enhance ecological resilience (Rennings, 2000). The concept extends beyond technological advancements to include systemic and organizational changes that foster sustainability (Kemp & Pearson, 2007). (Kemp & Pearson, 2007) broaden the discussion to include innovative management practices that reduce ecological risks compared to conventional alternatives. The OECD underscores its commitment to green growth, highlighting its ability to decouple economic activity from resource depletion. In contrast to traditional innovation, eco-innovation emphasizes systemic changes—for instance, implementing closed-loop material flows and integrating renewable energy—rather than merely enhancing incremental efficiency. Table 10.1 presents various definitions of eco-innovation outlined by multiple authors:

A key distinction lies in its life-cycle orientation. (Fussler & James, 1996) assert that eco-innovations must provide customer value and significantly reduce environmental impacts across all phases: production, use, and disposal. This systemic perspective positions eco-innovation as a catalyst for circular economies, where minimizing waste and enhancing resource efficiency are central to business models.

Table 10.1 Definitions of eco-innovation

Author(s)	Year	Definition	Source
Rennings, K.	2000	Eco-innovation is defined as the creation of goods, processes, services, and methods that reduce environmental risks and negative impacts of resource consumption	<i>Ecological Economics</i>
Kemp, R., & Pearson, P.	2007	Eco-innovation refers to the production, assimilation or exploitation of a product, production process, service, or management or business method that is novel to the organization and which results, throughout its life cycle, in a reduction of environmental risk, pollution, and negative impacts of resource use (including energy use) compared to relevant alternatives	<i>Maastricht Economic and social Research Institute on Innovation and Technology</i>
OECD	2009	Eco-innovation is the introduction of any new or significantly improved product (good or service), process, organizational change, or marketing solution that reduces the use of natural resources and decreases the release of harmful substances across the whole lifecycle	<i>Organisation for Economic Co-operation and Development</i>
Carrillo-Hermosilla, J., Del Río, P., & Könnölä, T.	2010	Eco-innovations are innovations which prevent or reduce environmental impacts, whether such effects are intentional or not. These may include new, greener products, processes, services, technologies, or ideas, from incremental changes to disruptive transformations	<i>Journal of Cleaner Production</i>

Eco-innovation theories underscore the systemic characteristics inherent in innovation processes, characterized by dynamic interactions among firms, institutions, and ecological systems. (Carrillo-Hermosilla et al., 2010) conceptualize eco-innovation as a non-linear process wherein regulatory signals, market feedback, and technological advancements co-evolve, thereby informing and shaping each other. Institutional theory further elucidates the role of social norms and certifications, such as ISO standards, in legitimizing eco-innovative practices. These certifications serve to enhance the credibility of eco-innovation efforts, facilitating their widespread adoption across various sectors. Several studies within the stakeholder theoretical framework emphasize that pressure from stakeholders plays

a crucial role in prompting a company's adoption of eco-innovation. Additionally, many studies such as Zhu & Geng, 2013 grounded in institutional theory propose that institutional isomorphism encourages the replication of innovative behaviours within organisations. All forms of institutional pressure motivate firms to address environmental challenges.

10.2.2 Sustainable Development

In contemporary discourse, the terms “sustainability” and “sustainable development” have gained prominence, particularly within economic contexts. The defining framework for sustainable development was articulated in the Brundtland Report of 1987, which asserts that it encompasses “development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs.” This definition underscores the imperative of fulfilling current demands while ensuring that future generations retain the capacity to satisfy their own needs (Portney, 2015). Sustainable development is characterized as a phenomenon that advances without jeopardizing the lifestyle of future generations, achieving enhancements in both the natural environment and the well-being of humanity (Thiele, 2016; Hameed et al., 2019).

An exploration of definitions surrounding “sustainable development” leads to the contributions of (Elkington, 1999), who posits that this concept is inherently complex and necessitates a foundation of fundamental values, including, but not limited to, human rights, equity, justice, diversity, the rights of future generations, democracy, citizen participation, and economic vitality. The implementation of these values requires collaborative engagement among organizations, corporations, and the populace. Thus, the promotion of sustainability or sustainable development is contingent upon the active cooperation of all stakeholders—including corporations and citizens—alongside policy frameworks established by governments (Liu et al., 2015). For sustainable development to flourish, three interrelated dimensions must exist in harmony: economic sustainability, environmental sustainability, and social sustainability (Cavagnaro & Curiel, 2022; Kristensen & Mosgaard, 2020). Economic sustainability is defined as engaging in practices and activities that are not only economically viable but also socially and environmentally responsible (Anand & Sen, 2000; Halme et al., 2004). This approach necessitates the pursuit of economic growth and profitability while consciously considering social justice and environmental stewardship. Environmental sustainability encompasses the judicious and strategic utilization of natural resources (Morelli, 2011). In contrast, social sustainability refers to the establishment of balance among the previously mentioned dimensions without precipitating conditions of poverty, marginalization, or inequality; it aims to achieve social justice and equity by empowering societies to participate in wealth creation (Longoni & Cagliano, 2015; Scoones, 2016). Various other definitions of the construct “Sustainable development” are tabulated below in Table 10.2:

Table 10.2 Definitions of sustainable development

Author(s)/ Organization	Year	Definition	Source
Brundtland Commission	1987	Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs	<i>Our Common Future</i> (Brundtland Report)
Daly, H. E.	1990	Sustainable development is the management of natural resources and economic systems in ways that ensure long-term ecological balance and human well-being	<i>Ecological Economics</i>
Hart, S. L.	1997	Sustainable development is the integration of economic, social, and environmental performance in business strategy to maintain and improve competitive positioning	<i>Harvard Business Review</i>
Sachs, J.	2015	Sustainable development is a holistic approach that emphasizes the integration of environmental sustainability, economic development, and social inclusion	<i>The Age of Sustainable Development</i>

Consequently, “sustainable development” can be conceived as the quest for equilibrium among economic, social, and environmental dimensions (Strezov et al., 2017). Within the realm of business, sustainable development advocates for a balance between wealth generation and the equitable utilization of diverse natural, human, material, and financial resources (Huang et al., 2015). Hence, business sustainability aims to safeguard environmental integrity while enhancing the socio-economic conditions of all stakeholders (Parris & Kates, 2003). An organization is deemed sustainable if it is capable of ensuring its continuity and long-term viability while contributing to the progress of both contemporary and future generations (Steurer et al., 2005). Sustainable enterprises cultivate responsible relationships with all stakeholders and the environment, striving for profitability through a holistic and balanced approach (Eccles et al., 2012; Galpin et al., 2015). As such, these organizations distinguish themselves through their diverse commitments encompassing environmental, social, governance, and financial dimensions.

In recent decades, the capitalist economic system has engendered a culture of mass consumption that glorifies and embraces ideals of transience, carefreeness, and hedonism (Migone, 2007; Grawitch & Ballard, 2016). The capitalist paradigm is inherently predicated on the relentless pursuit of expansion, characterized by ongoing renewal, cost outsourcing, and the continual construction of new consumer needs (Klein, 2015). It operates within a linear production and consumption framework (Raworth, 2017), epitomized by the mantra “produce, sell, and dispose.” This linear model involves the extraction, transformation, dissemination, and ultimate sale of materials to create products with limited lifespans and substantial levels of consumption and waste (Millar et al., 2019). While this model has contributed to the prosperity of numerous businesses and nations, it has concurrently precipitated

significant environmental imbalances (Bonviu, 2014; Prieto-Sandoval et al., 2018). Thus, the actions of businesses can be perceived as both a form of social responsibility and a mechanism for rectifying the environmental damage resultant from economic activities (Eccles et al., 2012). The transition from a linear, degenerative system to a circular, regenerative paradigm is a crucial aspect of the shift toward a more sustainable business model (Simon, 2019).

10.3 Methodology

This study utilizes the systematic review approach as outlined by (Torgerson et al., 2012), aiming to rigorously identify research studies relevant to a specific topic. By concentrating on clearly defined phases, a systematic review reduces the chances of researcher bias and facilitates a thorough examination of scientific disciplines and investigations (Denyer & Tranfield, 2009; Kitchenham, 2004; Torgerson et al., 2012).

The terminology surrounding innovations aimed at promoting sustainability—specifically eco-innovation, environmental innovation, green innovation, and sustainable innovation—has been examined in various scholarly studies (Halila & Rundquist, 2011; Schiederig et al., 2012; Hojnik & Ruzzier, 2016a, b). Schiederig et al. (2012) assert that, despite the nuanced distinctions between these terms, they may be employed interchangeably. Notably, sustainable innovation encompasses both ecological and social dimensions, diverging from the more isolated environmental focus of the other terms. Conversely, research by (Charter & Clark, 2007) draws a clear distinction between eco-innovation and sustainable innovation, positing that sustainable innovation incorporates broader social and ethical dimensions alongside environmental and economic considerations. While green innovation is closely aligned with managerial objectives and competitive strategies, the sustainable innovation paradigm emphasizes significant sociological factors (Franceschini et al., 2016).

Keeping these theoretical explanations in mind, we established the review protocol, where literature search process continued using specific search strings to filter through article titles, abstracts, and keywords. Scopus database is used for the search. The set of strings used to refine and gather relevant publications was (green OR eco OR environment* AND innovat*) AND (“sustainable development”). We did not use sustainable innovation as synonymous with eco-innovation. Only journal articles in publications from the subject areas of social sciences, business, management, and accounting were selected which were published in the English language. This search and filtering resulted in 3118 articles for further screening. Furthermore, the abstracts of each article were reviewed for inclusion in the study. Those articles that did not contribute to the interlinkage of eco-innovation with sustainability and sustainable development have been excluded from the analysis. This resulted in a total of 1088 articles that were finally analysed for some major themes emerging from these articles. The analysis results are presented in the next section.

We augmented our search with a practice review by adding existing practices of some leading international corporations that incorporated technological and process innovations to improve business processes and outcomes. The leading corporations chosen for this review were Tesla, Patagonia, Google, Danone and Interface. We reviewed the sustainability reports and other company reports to capture their recent initiatives in this direction and attempted to map them on the themes that emerged from the literature review.

10.4 Results

An exponential increase in the publication of articles intersecting eco-innovation and sustainable development is evident. Figure 10.1 depicts the trend with an increasing number of publications from 2010 onwards that has grown exponentially till 2024. Approximately 35,000 citations were received by the top 100 highly cited articles in the selected articles, which shows the considerable interest shown by authors in this area. The leading journals publishing research on the topics of eco-innovation and green innovation intersecting with sustainable development are *Sustainability Switzerland*, *Journal of Cleaner Production*, *Resources Policy*, *Business Strategy And The Environment*, *Technological Forecasting And Social Change*, *Sustainable Development*, and *Environment Development And Sustainability*. Some of the leading authors with the highest number of articles are Malin Song (Anhui University of Finance and Economics, Bengbu, China),

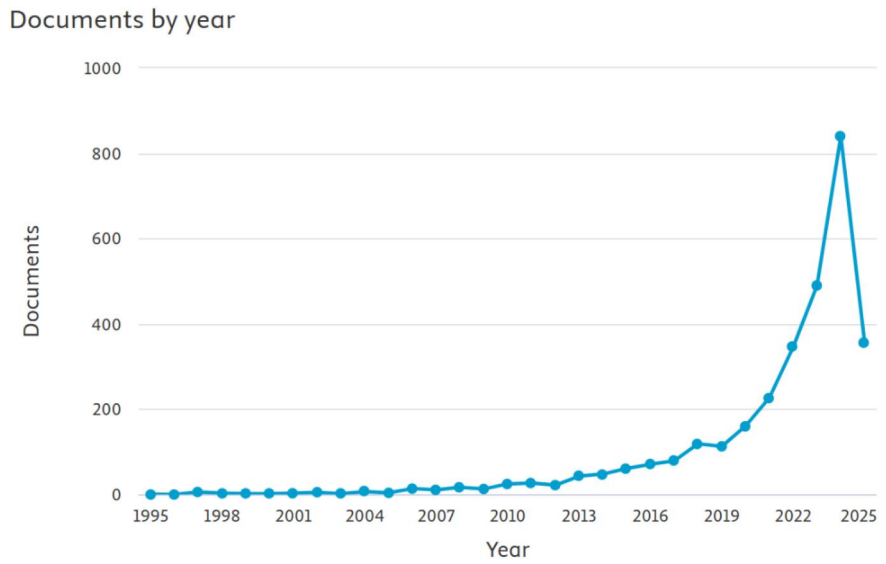


Fig. 10.1 Publications’ trend. Source Scopus Database (June, 2025)

Yu Hao (Tarim University, Aral, China), Kannan Govindan (The University of Adelaide, Adelaide, Australia), and Haitao Wu (Hainan University, Haikou, China).

Some of the highest cited articles in this search captured various aspects, as (Cai & Li, 2018) study of 442 Chinese firms to elucidate the relationship between multiple drivers, eco-innovation behaviour, and firm performance indicate that several factors, including technological capabilities, environmental organisational capabilities, market-based instruments, competitive pressures, and customer green demand, significantly contribute to the promotion of eco-innovation. Notably, competitive pressure emerges as the most substantial motivator for the adoption of eco-innovation, followed by market-based instruments, technological capabilities, customer green demand, and environmental organisational capabilities. The study further demonstrates that eco-innovation behaviour markedly enhances environmental performance, which subsequently exerts a positive indirect influence on economic performance, thereby corroborating the “Porter hypothesis.” The most cited article by Chen et al. (2006) aimed to investigate the positive impact of green innovation on competitive advantage in Taiwan. It revealed that both green product and process innovations positively correlate with corporate competitiveness, suggesting that investments in these innovations benefit businesses. The study highlights the importance of accurately understanding the value and positioning of green innovation. Another review study by (Hojnik & Ruzzier, 2016a, b) provides a concise overview of the literature on eco-innovation drivers, distinguishing between those relevant to the development and diffusion phases, and identifying specific drivers for different types of eco-innovation. It reveals that the predominant theoretical frameworks are rooted in resource-based and institutional theories, with regulations and market pull factors as key influences. Standard drivers, including regulatory frameworks, market demand, environmental management systems (EMS), and cost-saving incentives, impact product, process, and organisational eco-innovation, as well as ecological R&D investments, often correlated positively with company size. Most studies employ quantitative methods, focusing on the diffusion stage of eco-innovation.

Another review study by (De Medeiros et al., 2014) reveals four critical success factors for innovation in a new paradigm where rising awareness of environmental sustainability is transforming the business landscape, driving consumers and companies to seek solutions for urgent ecological challenges stemming from population and economic growth: knowledge of market and regulatory frameworks, inter-functional collaboration, innovation-oriented learning, and R&D investments. (Asadi et al., 2020) study on Malaysian hotel industry investigates the factors influencing the adoption of green innovation and its effects on hotel performance, based on data from 183 hotels in Malaysia as the hotel industry significantly contributes to environmental degradation in tourism, yet research on the impact of green innovation on its performance is limited. Using partial least squares analysis, the findings indicate that both economic and ecological performance have a positive influence on green innovation initiatives. These results highlight the importance of green innovation in driving sustainable performance within the hotel sector, providing valuable insights for policymakers and hotel managers.

The analysis of various keywords used in the sample research articles highlights the emphasis on technological innovation, product development, resource innovation, industry 4.0, eco-transition, energy efficiency, and green economy. The dominant methods used in these studies, as evident in the keywords, are panel data analysis, case studies, and perceptual surveys. Figure 10.2 depicts the word cloud highlighting the primary keywords from the sample articles.

Based on the analysis of abstracts and author keywords of the sample articles, the authors independently identified various themes emerging from the studies. After careful analysis of these themes, some crucial themes that emerged are as follows:

10.4.1 Theme 1: Eco-Innovation as a Strategic Instrument for Sustainable Development

The discourse surrounding eco-innovation is increasingly positioning it as a pivotal strategic tool for achieving sustainable development objectives. Eco-innovation contributes to the Sustainable Development Goals (SDGs) through mechanisms that promote cleaner production practices, facilitate the reduction of carbon emissions, and advocate for circular economy models (Zhang et al., 2020). The findings demonstrate a significant alignment between green innovation activities (i.e., Green Managerial Innovation > Green Process Innovation > Green Product Innovation)



Fig. 10.2 Keywords' word cloud. *Source* Microsoft Office 2023

and the more prominent components of green innovation readiness dimensions (i.e., Innovation Capability of Organization Readiness > Relative Advantage of Technology Readiness > Market Orientation of Environment Readiness). Saunila et al. (2018) research implies that economic and institutional pressures serve as key drivers of green innovation, which, in turn, can yield considerable value in terms of enhancing social sustainability. Organizations demonstrating a heightened valuation of economic, institutional, and social sustainability are significantly more inclined to engage in investments directed towards green innovation. Other empirical and bibliometric analyses underscore the direct correlation between eco-innovation and the reduction of environmental impacts, enhancements in eco-efficiency, and improvements in energy efficiency, signalling its growing association with sustainable development in academic literature (de Jesus et al., 2018; Fatma & Haleem, 2023; Hizarci-Payne et al., 2021; Hojnik and Ruzzier, 2016a, b).

10.4.2 Theme 2: Intersecting Domains of Business, Policy, and Social Dimensions

The existing literature delineates several interconnected domains where eco-innovation aligns with sustainable development. Some of them are that eco-innovation is acknowledged for bolstering firm competitiveness, improving environmental performance, and unlocking new market opportunities (Peng et al., 2021; Yuan & Cao, 2022). (Yuan & Cao, 2022) conducted a survey of 424 manufacturing companies in China and applied linear regression analysis. The following insights were gathered: (1) Corporate Social Responsibility (CSR) practices significantly enhance both green product innovation and green process innovation. (2) Green dynamic capability plays a crucial role in fostering both green product innovation and green process innovation. (3) Green dynamic capability serves as a mediator between corporate social responsibility (CSR) and green innovation. However, its influence on financial outcomes is often contingent upon contextual factors such as firm size, industry sector, and the prevailing regulatory framework. Another is towards policy and governance, where environmental policies and regulations emerge as critical catalysts for eco-innovation, incentivising organisations to adopt greener technologies and practices. The importance of integrating eco-innovation within policy frameworks to advance sustainable development is a recurring theme in the literature (Amin et al., 2025; Xiong & Sui, 2023). (Amin et al., 2025) study's empirical results indicate a dual narrative: where, while economic growth and natural resource rents are found to exacerbate carbon emissions, factors such as research and development expenditures, green energy initiatives, green technological innovation, energy efficiency enhancements, and green finance mechanisms are positively correlated with environmental sustainability. On social and Human Factors, the successful implementation of eco-innovative solutions is significantly influenced by social

responsibility, collaborative efforts, and stakeholder engagement. The interplay between eco-innovation and the social dimensions of sustainable development, particularly human well-being and community resilience, is an evolving area of research.

10.4.3 Theme 3: Technological Innovation for Eco-Innovation

In pursuit of sustainability, eco-innovation has emerged as a pivotal mechanism through which enterprises can mitigate their adverse environmental impacts. Nonetheless, as technological advancements continue to progress, the landscape of eco-innovation is becoming increasingly expansive and complex (Brones et al., 2017). The research articles in this theme defined four dimensions of technology-based eco-innovation: the dimension of green/sustainable product development, the dimension of business model integration, the dimension of green marketing and sustainable consumption, and the dimension of hybrid model construction and optimization. Five case studies from previous research were re-evaluated in light of these identified dimensions. The findings indicated that most companies excelled in the green/sustainable product development dimension. However, new technologies and strategic directions are necessary for organizations to enhance performance in the other three dimensions (Kuo & Smith, 2018; Lilley, 2009; Shi & Lai, 2013).

10.4.4 Theme 4: Emerging Research Themes

The review of various systematic, bibliometric and thematic literature review articles reveals several burgeoning research topics:

- *Circular Economy*: The confluence of eco-innovation with circular economy principles is garnering increased scholarly attention, emphasizing resource reutilization, waste minimization, and the establishment of closed-loop systems (de Jesus et al., 2018; Lu et al., 2020).
- *Environmental Management and Life Cycle Thinking*: A growing body of research examines eco-innovation within the frameworks of environmental management systems, life cycle assessment, and sustainable product design (Drop & Chelstowska, 2024; Tsai et al., 2020; Meinhold et al., 2025).

10.4.5 Practice Review Results

The following sub-sections highlight the leading corporations' eco-innovation initiatives:

Tesla: Tesla, an automotive giant based in the United States, is leading the transition to electric urban mobility. It aims to accelerate the world's transition to sustainable energy by reducing CO₂ emissions in the environment (32 million metric tons of CO₂e in 2024). The battery, a crucial component of this transition, is approaching a closed-loop battery ecosystem, which is the most advanced globally. Some of the initiatives are in-house recycling, where Tesla's facilities now recycle up to 92% of battery materials—including lithium, cobalt, nickel, and aluminium—directly into new battery cells; and a partnership with Redwood Materials, where it partnered closely with this pioneer recycler to capture post-consumer battery waste at scale. Other initiatives are reducing mining dependence, where its recycling initiatives cut projected new mining needs for lithium by 28% for new vehicles produced after 2024.¹ The other notable initiatives include the development of a water-based electrode production process, which enables cleaner recycling with minimal chemical usage, and has plans to integrate recycled materials into 100% of batteries produced by 2030. Tesla's ambition for transition to sustainable energy and transportation through electric vehicles (EVs), renewable energy generation (like solar power), and energy storage solutions, while incorporating sustainable materials and practices in their product design and manufacturing processes. Their focus extends beyond just the vehicles, encompassing a fully integrated approach to a sustainable future, from energy sources to consumer use and even sustainable manufacturing at their Gigafactories.

Patagonia: Patagonia, a leading outdoor apparel company based in the United States, is working toward achieving 100% renewable energy for its globally owned and operated stores, offices, and distribution centres. The firm attempts to reduce the product transportation footprint, which accounts for approximately 10% of the annual total emissions. The increased use of drop-shipping, minimising the need for inbound air shipments and reducing the need for two-day shipping options for customers. It established the East Coast Distribution Centre in Pennsylvania in 2018, that enabled it to reach 95% of the U.S. in three days without using air shipping.

Patagonia has joined the Zero Emission Maritime Buyers Alliance (ZEMBA) along with other businesses to purchase zero-emissions maritime fuel in bulk to decarbonise its transportation emissions. These zero-emission e-fuel shipping solutions exceed current regulatory requirements; The company intends to invest for the technology available for the highest emission reductions available in the marketplace to help achieve its climate goals. In 2024, Patagonia committed a portion of its maritime shipping volume to ZEMBA's inaugural proposal for zero-emission shipping and will purchase the environmental credits associated with zero-emission shipping in 2025 and 2026.

The most significant challenge to achieving environmental footprint targets comes from materials manufacturing, which accounts for approximately 85% of annual emissions. Patagonia takes full responsibility for all of it and is determined

¹ Refer to Tesla Impact Report (2024), accessed at: <https://www.tesla.com/impact>.

to work with its partners and vendors to conserve water, remove toxins, and reduce emissions whenever and wherever possible. It has also switched to organically grown cotton in all products made from virgin cotton and is continuing to increase its use of preferred materials. In Fall 2025, 86% of styles (by weight) incorporate at least one preferred material.²

Google: Google, a leading online search and technology company based in the United States, ensures technological innovation and energy innovation to address environmental problems. It thrives in its commitment towards eco-innovation by investing in next-generation clean energy like advanced nuclear and geothermal, and its products, such as Google Maps, help users reduce their environmental footprint. Google's data centres use increasingly efficient hardware, and the company is working to reduce their energy emissions. It aims to realise the potential of AI by addressing new energy demands, investing in new infrastructure, building resilient grids, enhancing engineering efficiency, and scaling clean energy, which helps meet energy demand as it works on new energy innovations. Google combines massive quantities of weather data, satellite data, and flight data, AI to create state-of-the-art predictions of when and where contrails are likely to form. It attempts to use AI to help airlines prevent contrails. Pilots and dispatchers can then use AI-generated information to adjust the altitudes of their flights. The Google team has developed an approach to leverage satellite imagery and computer vision to detect contrails and attribute them to associated flights, based on hundreds of hours of labelling tens of thousands of satellite images.³

Danone: Danone, a leading global food and beverage company, focuses on solutions for nature, including decarbonization, regenerative agriculture, circular packaging, and water stewardship. It advocates that regenerative agriculture is a holistic, outcome-based approach to farming, that benefits the planet, people, and animals. This approach focuses on enhancing soil health, boosting biodiversity, and conserving water resources, while promoting animal welfare and supporting farmers livelihoods through increased farm resilience and profitability. Through innovation, regenerative practices and strong partnerships, Danone aims to maximize agriculture's positive impacts, creating a sustainable and resilient farming system. It is also committed to reducing plastic usage to minimise environmental impact.⁴

Interface: Interface, a carpet manufacturing firm, is continually investing in the latest machinery, chemistry systems, and materials science, all to do better for customers and the world. Innovations in biomimicry and recycling are enabling it to go beyond carbon neutrality to carbon negativity. Guided by materials science, it has transformed the global backings systems with carbon-negative CQuest™ backings. It is working on Carbontech to utilise carbon to create carbon-negative tiles

² Patagonia company report, <https://www.patagonia.com/our-responsibility-programs.html>.

³ Google Sustainability, <https://sustainability.google/>.

⁴ Danone, <https://www.danone.com/sustainability/nature/circular-and-low-carbon-packaging-system.html>.

and other products by incorporating carbon dioxide and recycled materials. Additionally, it replaced virgin materials in backings with new bio-based materials and more recycled content. Then, it measured how these materials influence the carbon footprint. These new bio-based materials, measured on their own, are net carbon negative—reducing its carbon footprint—and result in carbon negative backings. These innovations enable it to become carbon-negative and thrive in its space.

10.5 Discussion

The degradation of ecological environments has catalysed significant pressure from stakeholders on corporations to prioritize environmental sustainability. This shift has prompted many companies to adopt environmentally friendly management practices, thereby enhancing their environmental performance. In this context, green innovation emerges as a critical driving force for corporations seeking sustainable development. The academic literature review reveals various key research highlights from the last two decades. This study aims to explore the themes of eco-design, technological innovation, and life-cycle assessment. Though the growing research interest in this domain highlights the importance of research, it is of paramount importance to set the directions for future research. The practice examples corroborate the academic themes, as Tesla and Google integrate eco-innovation into their strategic initiatives to advance existing offerings and improve environmental and business performance. Technological innovation, energy innovation, and carbon tech innovations are the major themes of various types of eco-innovation evident in the sample practice examples discussed in the study. The combination of academic review and practice review is the major contribution of the study, where we provided a holistic perspective on the topic from both lenses and integrated the crucial views of industry and academia. Industry professionals utilise these thematic lenses to devise their business strategies and initiatives, ensuring holistic engagement with eco-innovation to achieve sustainable development and create a sustained competitive advantage. The practice review encompasses the initiatives of leading global firms from various industries, making them exemplary models for second-generation firms seeking to harness eco-innovation for sustainable development.

The combination of academic and practice review unearth various themes and open avenues for future research.

10.5.1 *Future Research Directions*

After reviewing the sample literature and empirical studies, several future research directions are proposed, as presented below. These research directions could serve

Table 10.3 Summary of future research directions

S. No.	Author(s) & Year	Future Research Directions
1	Passaro et al. (2023)	The research directions on eco-innovation (EI) drivers in Small and medium enterprises are to examine the role of the external context in supporting EI; the effect of different social, economic and environmental features of a context on the eco-innovation drivers; synergistic effects among various EIs, and intrinsic features of SMEs that can influence the relevance of drivers in SMEs
2	Hizarci-Payne et al. (2020)	Future research endeavours should focus on exploring the contributions of various green firm capabilities to overall firm performance through a more integrative framework. Another promising avenue for subsequent investigation could involve examining the differential factors that influence the relationship between eco-innovation and diverse performance metrics. Furthermore, future inquiries may also delve into the role of eco-innovation within the context of international business dynamics
3	Yuan and Cao (2022)	There is a scope to broaden the integration of CSR with green innovation by extending the examination of the relationship between CSR and green product and process innovation to encompass additional industries pertinent to sustainable development, including agriculture, construction, and tourism, thereby validating the generalizability of the findings across various sectors. Subsequent investigations could delve into the moderating factors associated with organizational characteristics. Lastly, this research refrained from performing a dimensional analysis of CSR and green dynamic capability, a consideration that warrants exploration in future studies
4	López and Montalvo (2015)	Some future research agenda on eco-innovation in chemical industry suggests that understanding how industries operate and how companies manage their assets to enhance efficiency is crucial for developing strategies that promote eco-innovation. Future research should focus on policy interventions and conduct a deeper analysis of eco-innovation within the broader sustainable innovation framework, moving beyond previous contributions
5	Fernandez et al. (2018)	There is scope of future research in measuring impact of R&D spending on CO2 emission, where conducting a fresh analysis utilizing panel data techniques, which will necessitate a considerable increase in the number of cases (countries or regions) to be studied. It would be valuable to differentiate the analysis into periods before and after the adoption of the EU-ETS (European Union-Emission Trading System). Since innovation arises from both the public and private sectors, it would also be insightful to evaluate their differing impacts. In addition to R&D spending (representing public innovation), a new variable to consider would be the number of patents (reflecting private innovation). Given that public and private innovation are not evenly distributed across countries, examining the similarities and differences in the mechanisms and outcomes of

(continued)

Table 10.3 (continued)

S. No.	Author(s) & Year	Future Research Directions
		environmental innovation through a future cross-national comparative study—potentially including the US, India, and China—would be intriguing
6	Wang et al. (2025)	Research on outward foreign direct investment (OFDI) and green technological innovation (GTI) could be to investigate the connection between the continuity of OFDI and GTI. The research scope could be further expanded to include non-listed companies that may offer valuable insights for future studies. Moreover, while Wang et al. (2025) research highlights the link between enterprise OFDI, environmentally friendly processes, and innovations in green products, it does not thoroughly investigate the underlying reasons for this connection. With the rise of the digital economy, future research should explore how digital technologies can integrate with green production processes to systematically analyse the relationships between OFDI by enterprises, digitization, and green technologies

as identifying research questions to examine the interlinkages among various variables of interest in this domain, specifically around eco-design, tech-driven innovation, product and process innovation, firm performance, emissions reductions, environmental performance, and ESG performance. Table 10.3 outlines some of the areas worth researching in this domain.

10.6 Conclusion

As the world moves towards novel solutions to tackle climate issues, technology-linked green and environmentally friendly innovations become a key factor for any enterprise to mitigate risk, balance growth, and achieve sustainable development. This study makes a modest attempt to unearth scholarly development in the last two decades through a systematic literature review. A large sample of research articles, spanning from review articles, empirical studies, and case-based studies, presents a methodological diversity in this domain. This review encompasses various disciplines, including economics, finance, and strategic aspects.

Practice review augments the contributions and findings of the academic review, ensuring an analysis of leading best practices of eco-innovation and sustainable development. Leading firms, such as Tesla, Google, Interface, Patagonia, and Danone, are making significant strides in various forms of eco-innovation to ensure decarbonization, environmental sustainability, regenerative innovation, and ultimately, sustainable development. Technological innovations, such as the integration of regenerative agriculture practices, carbon tech innovations, AI innovations, and energy innovations, are the leading forms being adopted for sustainable development.

The study makes significant contributions to the knowledge base by identifying four research themes derived from the sample research studies. Eco-innovation has been recognised as a strategic tool for sustainable development, with interlinkages between business, operations, and policy. The study bridges the industry-academia gap by combining practice review with academic review. This study also outlines various themes for future research directions that may be valuable for the educational fraternity. There are multiple methods of literature review; future research could utilise meta-analysis to synthesise quantitative studies. Others might take this forward to capture the transition of research in the last decade. The practice review complements the results of the academic review; however, triangulation through case study research could be explored by researchers in the future. Additionally, the researchers might also analyse the various challenges of second-generation companies in harnessing eco-innovation for sustainable development through survey studies to delve into this topic. While setting these scopes for future research, this study marks a significant milestone in integrating the research domains of innovation, sustainability, and economic performance, which are valuable for both industry and academia.

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Chapter 11

Sensemaking in the Age of AI: Compassionate Leadership Framework for Navigating Algorithmic Bias



Piyush Sharma

Abstract Algorithmic bias in AI, particularly across emerging economies like India, presents complex challenges that go beyond technical issues. Too often, AI unintentionally deepens social divides—whether by caste, gender, class, or geography—complicating efforts toward fairness. This chapter proposes a model of Compassionate Governance with three layers—Prevention, Detection, and Healing—that leaders can use to guide fair and just AI use. This approach asks leaders to reflect on real human impact, involve diverse voices in design, and react quickly when things go awry. Bringing in current studies, field cases, and classic leadership thinking, this chapter highlights why being ethical and compassionate in AI adoption is essential for trust—and for preventing harm.

Keywords Compassionate leadership · Algorithmic bias · AI sensemaking · BANI world · Ethical AI

11.1 Introduction

Today's uncertainty seems less about volatility and ambiguity—a landscape once framed by the VUCA (Volatility, Uncertainty, Complexity, Ambiguity) model—and more about a sense of brittleness and anxiety, as the BANI framework suggests. The shift is more than conceptual; it's something many of us sense in organisations every day. AI arguably lands in this world not as a simple tool, but as

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a powerful accelerant. It reshapes decisions, quickens the pace, and—if not handled with care—can deepen old inequalities (World Economic Forum, 2024; Brynjolfsson & McAfee, 2017).

India's embrace of digitisation collides with layers of social complexity—caste, class, gender, and geography all still shape who wins and who loses (NITI Aayog, 2018). Digital tools don't erase these gaps; more often, they risk repeating or making them worse. Algorithmic bias, for instance, refers to systematic, unfair discrimination that emerges from data, proxy variables, or design choices, affecting hiring, career progression, and resource allocation (O'Neil, 2016; Buolamwini & Gebru, 2018). Effective leadership may require more than technical skill; understanding the human impact and designing governance to reduce harm early are essential (Worline & Dutton, 2017).

This paper examines that challenge, proposing a three-layer model of Compassionate Governance—Prevention, Detection, Healing—that leaders can apply to build equitable AI sensemaking. What this refers to is the process of interpreting and governing AI in a way that ensures fairness and justice, actively working to prevent AI systems from reinforcing existing social inequalities. The lens here is on emerging economies, especially India, which, for better or worse, now stands among the fastest movers in adopting AI (KPMG, 2024).

11.1.1 Preamble on Method

The chapter is based on a conceptual review combined with a reflective synthesis of varied sources. These range from peer-reviewed research and government reports to industry analyses and handpicked case studies, mainly from the last five years. The criteria for selection focused on relevance to algorithmic bias in employment or public services, empirical evidence or detailed cases from India or comparable emerging markets, and emphasis on recent publicly available materials (2020–2025). This approach aimed to capture both breadth and depth, balancing scholarly rigour with real-world applicability.

The literature search employed databases like Scopus, Web of Science, and Google Scholar, with keywords such as “algorithmic bias,” “India,” “AI recruitment,” and “AI welfare eligibility.” Policy insights and industry cases came from government sites, company reports, and trusted news sources. Striking a balance between academic and practice-oriented sources was key.

This synthesis brought together peer-reviewed research, policy analysis, industry insights, and Indian case studies from 2020 to 2025. From these diverse inputs, common risks and mitigation approaches emerged, shaping the Prevention–Detection–Healing model presented here. The focus is on providing actionable guidance for leaders dealing with AI governance challenges in unequal settings, not on performing a numerical meta-analysis. This allowed for a nuanced, grounded approach to a complex topic.

11.1.2 *BANI + AI: Why It Matters*

BANI describes contexts that are brittle (liable to sudden collapse), provoke anxiety (heightened stress and fear), display non-linearity (small causes, large effects), and feel incomprehensible (opaque and difficult to make sense of) (Cascio, 2020). Each of these dimensions can be intensified in environments where AI systems are deployed.

Brittle. AI models optimised for narrow tasks can fail dramatically when exposed to situations underrepresented in their training data. For example, automated loan systems in India rejected qualified rural applicants due to their reliance on urban-centric datasets (NITI Aayog, 2018). Similarly, reliance on AI-enabled just-in-time logistics can appear efficient until disrupted by shocks, as the COVID-19 pandemic revealed when global supply chains collapsed with startling speed (Ivanov & Dolgui, 2020).

Anxiety arises when algorithmic decisions seem like black boxes: how or why a choice was made remains unclear, eroding trust and increasing stress among leaders and employees alike (Gillespie et al., 2023). Raghavan et al. (2019) found that automated résumé screeners increase applicant anxiety, especially where stakes are high (see ‘Algorithmic Bias at Work’ section later). Similarly, in the Indian IT sector, rejected candidates often can neither appeal nor understand the reasons (see Box 11.2), resulting in heightened job insecurity and a tense work environment (Morrill, 2023).

AI non-linearity is evident in feedback loops that amplify minor biases into major issues. In India, social media recommendation engines have exacerbated caste and religious divisions by feeding users increasingly polarising content (Banaji & Bhat, 2021).

The incomprehensible aspect of AI stems from its sheer data volume and complex models, which can bewilder human decision-makers (Dhar, 2025). Despite many outputs, clarity often remains elusive (Collins et al., 2021). Deep learning models operate like opaque “black boxes” (Lipton, 2018), baffling even their developers. In India, this opacity has had real effects—benefit algorithms (see Box 11.1) denied claims with no clear explanation (Tapasya & Joshi, 2024). This uncertainty deepens a larger tension: KPMG (2024) notes many Indian CEOs admit uncertainty about when to trust AI recommendations.

In India’s socio-cultural landscape—where caste, gender, and geography continue to define opportunity—the ethical and operational stakes of AI bias are especially pronounced (D’Ignazio & Klein, 2020). These harms are not merely theoretical abstractions but real-world outcomes. Facial recognition systems in Delhi’s public safety grid have, for instance, misidentified street vendors—triggering wrongful detentions and public outrage, as also raising serious concerns about wrongful surveillance and discrimination (Wired, 2021). Similarly, recruitment algorithms (see Box 11.2) have subtly reinforced existing gender gaps, disproportionately excluding women from job opportunities (Chander, 2017). The cumulative effect seems to be a landscape where AI’s benefits are unevenly distributed, with marginalised groups bearing the greatest burden of errors and bias (United Nations, World Social Report, 2020).

Box 11.1 Welfare Eligibility Failure and Community-led Remedy

In 2023, an AI-based eligibility verification system for a state welfare scheme misclassified thousands of rural households as ineligible due to incomplete digital records (Drèze et al., 2017). The errors disproportionately affected low-income, low-literacy populations in remote districts. Community advocacy groups intervened, gathering ground evidence and presenting it to district officials. The response included suspending the automated filter, re-verifying manually, and instituting an appeals process that combined human review with improved data capture. This case raises the possibility that ongoing detection of problems and swift, inclusive remediation may be needed.

Box 11.2 AI Recruitment Tool Governance in Indian IT Firms

Infosys implemented an AI-driven résumé screening system to handle high applicant volumes. Initial audits revealed underrepresentation of female candidates advancing past the screening stage, traced to historical bias in training datasets. In 2024, Infosys took early steps in AI governance by forming an ethics committee and setting rules for fair data use, algorithm audits, and responsible training. These actions, though not legally required, increased client confidence and gave the company a role in national and global policy spaces (NITI Aayog forums, 2018; Carnegie Endowment, 2024; Takshashila, 2025) compliance. Infosys, for its part, has treated Responsible AI as part of its brand identity, using it to differentiate in a crowded market and to gain influence in shaping AI governance both nationally and globally (Shinde, 2024).

At HCL, the company's ethics board (HCL, 2023) and HR team co-designed a bias mitigation protocol: balanced training datasets, fairness thresholds in the screening algorithm, and quarterly diversity audits. HCL has shown that weaving ethics, transparency, and strong governance into AI work isn't just a matter of compliance. It can be a genuine competitive edge (Ethisphere, 2025; HCLTech, 2025). Continuous monitoring, fairness dashboards, and scheduled audits are all part of the mix. HCL Technologies has piloted monthly ethics board reviews of AI recruitment tool outputs, combining technical metrics with qualitative feedback.

Box 11.3 Fairness-by-Design Training at TCS

Tata Consultancy Services Group (2023) introduced “fairness-by-design” training for AI developers, embedding bias awareness into technical workflows. The program combines case-based learning with practical bias-detection tools and includes a final capstone where teams audit one of their models. Early internal evaluations show improved detection of proxy variables linked to caste or gender. This case builds a case for Prevention as a proactive organisational capability.

This evidence makes clear why leadership, not just technology teams, must shape AI deployment.

11.2 Algorithmic Bias at Work: Pathways and Impacts

AI is not only about code and mathematics. It is also shaped by human choices, cultural assumptions, and the histories embedded in its data. Once these systems begin to make decisions, they may favour some groups while disadvantaging others, even without harmful intent (Friedman & Nissenbaum, 1996). This is how bias emerges—rarely deliberate, but often enduring (Barocas et al., 2019). As Crawford (2021) cautions, if such boundaries are not questioned from the beginning, AI risks carrying past inequalities into the future.

Bias tends to enter through several overlapping pathways:

- Data bias occurs when training data reflects past inequalities, causing the model to learn them (Dastin, 2018). For example, recruitment algorithms (see Box 11.2) trained on historical hiring records have downgraded women's résumés because the company's leadership was male-dominated (Raghavan et al., 2019). Similarly, identity recognition used during video interviews has been found to disadvantage certain races and genders (Buolamwini & Gebru, 2018).
- Design bias arises when the chosen objectives and metrics unwittingly skew results (Mehrabani et al., 2021). Algorithms optimised solely for "efficiency" or narrow success metrics may exclude individuals with alternative career trajectories or work styles (Barocas & Selbst, 2016). In performance reviews, such bias often promotes profiles similar to those historically favoured, sidelining others who contribute or grow differently (Raghavan et al., 2019).
- Feedback loops emerge when AI systems not only react but also reshape their surroundings, potentially entrenching biases. As highlighted under BANI's non-linearity, social media recommendation algorithms push users toward increasingly divisive content to maintain engagement (Banaji & Bhat, 2021). Similarly, pay algorithms may perpetuate wage disparities by anchoring on biased salary histories, reinforcing past gender and racial inequities (Lambrecht & Tucker, 2018).
- Context mismatch happens when algorithms built for one cultural setting are used in another, often producing errors. Credit scoring systems imported to India from Western contexts have faltered for this reason (NITI Aayog, 2018), an example of BANI fragility. Even common productivity trackers can misfire by emphasising rigid metrics like keystroke counts, penalising diverse work habits, and misrepresenting true productivity. Unaddressed, these mismatches cause unfair assessments and unnecessary job strain (Moore, 2017).

Algorithmic missteps in India have dire, tangible consequences. For instance, police use of identity recognition technology (see Box 11.6) has resulted in wrongful identifications with severe outcomes (Wired, 2021). Automated welfare

programs (see Box 11.1) have excluded rural citizens due to data mismatches or incomplete records (Drèze et al., 2017). Similarly, hiring platforms (see Box 11.2) have dismissed applicants not fitting rigid algorithmic criteria, overlooking merit (Deshpande et al., 2020). Among the most heartrending examples is Santoshi Kumari, a Dalit child who perished from starvation after her family's welfare benefits were halted because biometric authentication failed (Drèze et al., 2017).

Social class plays a significant role in shaping these outcomes. Access to education, digital skills, and formal credentials frequently hinges on socioeconomic status. AI systems that prioritise elite qualifications risk sidelining talented individuals lacking such resources. This pattern disproportionately impacts the poorest segments, fuelling worries about rights violations and exacerbating existing inequalities (Amnesty International, 2024).

This similarity also appears to recur across many domains. In credit scoring, criminal justice, and recruitment, AI often reproduces and strengthens social biases (O'Neil, 2016). In Delhi, predictive (see Box 11.6) models based on historical crime data have disproportionately labelled Dalit and Muslim communities as "high risk" (Narayan, 2020). Hiring platforms have filtered out candidates from lower socio-economic backgrounds when their résumés or language didn't fit "preferred" templates (see Box 11.2).

All of this highlights one clear point: AI must be developed and used with cultural understanding and strong protections if it is to avoid worsening the inequalities it promises to reduce (Chandak, 2024; Sood, 2022). Research shows the greater danger is not automation itself, but accepting these systems as "good enough." Most AI errors are not random; they reflect and can worsen existing social fractures.

Bias, as we now know, doesn't always shout—it often whispers, slipping through unnoticed until it's too late. For example, a translation model might consistently assign certain job titles to one gender (D'Ignazio & Klein, 2020). Many times, the system's decision-making tends to be a "black box", and leaders must guess whether bias influenced outcomes (Sagodi et al., 2023).

What does all this mean for workplaces? Some AI decisions may seem fair but conflict with ethics or an organisation's core values (Pareek et al., 2024). While in the U.S., a résumé-screener error might be a temporary setback, in India, the same error could block an entire demography from rising for years.

Some might say, 'Just fix the data and we're good.' But that's wishful thinking. No matter how representative datasets are, design choices reflect values (NITI Aayog, 2018). Fairness clearly is less a destination and more a negotiation—messy, evolving, and deeply contextual. This is where effective leadership becomes essential.

11.3 Compassionate Leadership in the AI Era

Leadership in the AI times isn't just about mastering technology or meeting quarterly targets. It's about recognising how technological systems intersect with human lives—sometimes empowering, sometimes harming—and responding

accordingly. Compassionate leadership may be especially relevant at this precise junction.

Worline and Dutton (2017) describe compassion as noticing suffering, making sense of it, and taking action to alleviate it. In AI-driven organisations, that “suffering” could be obvious, like job displacement, or hidden, like the quiet stress of being evaluated by an algorithm no one can explain.

Compassionate leadership in the AI space has layers. First comes awareness—recognising that every algorithm carries the fingerprints of its data, its designers, and the context it was built in (D’Ignazio & Klein, 2020). Then comes empathy—the willingness to step into the shoes of those affected. And finally, action—the choice to change systems, even when it costs time, money, or convenience, to prevent and repair harm (Boyatzis & McKee, 2005; Kanov et al., 2004). In short, compassionate leadership doesn’t just notice and understand suffering; it uses agency to address it.

This author has sat in boardrooms where leaders dissect precision metrics with surgical focus—yet flinch when asked who gets left behind. So, should one view compassion as reactive, something you apply after things go wrong? In reality, the most effective compassionate leaders act preventively: they bake compassion into AI design through inclusive teams, participatory decision-making, and transparent governance (Suresh & Gutttag, 2021).

Compassionate leaders go further than meeting just the compliance requirements. They work to understand the real-world impacts of AI decisions, aiming for outcomes that are not just technically sound but genuinely fair (Afroogh et al., 2024). In an age when opaque systems can quietly erode trust (Morrill, 2023), they foster openness, fairness, and psychological safety (Gillespie et al., 2024). Diversity and inclusion are included in AI design from the outset (Collins et al., 2021), and long-term societal value is weighed just as seriously as short-term efficiency (Dhar, 2025).

As per the World Economic Forum, organisations led in this way are more likely to achieve lasting success (World Economic Forum, 2024). In practice, this might mean:

- Running cross-functional “bias review” sessions—HR, data scientists, and user groups in the same room—before launching any AI tool.
- Offering clear, accessible appeal processes for algorithmic decisions on promotions, pay, or benefits.
- Building digital literacy so employees can question AI outputs rather than accepting them at face value (UNESCO, 2021).

This leads to an important question: how can leaders move compassion from being only an abstract value to becoming a consistent approach in governance? One possible way is by developing what may be described as AI sensemaking agility. This refers to the ability to engage with AI not only in technical terms but also with ethical care, cultural sensitivity, and critical reflection. Without this foundation, sensemaking around AI risks becoming narrowly technical, unable to accommodate the social or human costs that algorithmic decisions may create.

Before turning to the larger theoretical framing, it is useful to illustrate this through a grounded example. The following vignettes, though fictional, are inspired by recurring experiences within India's algorithmic governance context. It shows how compassionate leadership can take shape in ordinary organisational situations—not through dramatic actions, but through careful and attentive engagement with hidden forms of bias.

Box 11.4 Bridging Theory and Practice: A Grounded Illustration

In a mid-sized logistics firm in Jaipur, an AI-based shift scheduling tool was introduced to optimise delivery routes and reduce overtime. Within a few weeks, drivers from lower castes began receiving fewer shifts. The algorithm, trained on past attendance and performance data, had inadvertently penalised workers who had taken time off during caste-based festivals or community events. One supervisor noticed this pattern and raised the issue with the HR department. Rather than dismissing the concern, the company paused use of the tool, invited feedback from affected workers, and retrained the model using broader cultural variables. The revised system now includes a calendar of regional observances and flags possible exclusions for human review.

This small step—listening to a pattern—became a turning point. It demonstrated that compassionate governance is not only about fixing bias once it becomes visible. It is equally about developing attentiveness to the hidden ways bias can appear.

Box 11.5 Unseen Strains: AI and the Informal Sector Worker

In the bustling informal markets of Mumbai, Meena runs a humble fruit stall, relying each week on a microloan platform powered by AI to keep her shelves stocked. The platform's credit decision hinges on alternative digital data—past transactions, phone top-up patterns—but Meena's reality defies neat digital footprints. Her mobile payments waver, and cash dominates her trade, leading the AI to label her a 'high risk' borrower despite her steady, trusted presence in the neighbourhood.

This hidden exclusion surfaced only when a grassroots NGO collaborated with the loan company to audit decisions. The review revealed a systemic bias: many informal workers were sidelined by data proxies tied to digital access rather than actual financial behaviour. Inspired by Meena's story and others like hers, the developers engaged in co-design workshops, broadening data inputs to include community endorsements and tailoring risk models to local complexities. Today, Meena's applications undergo a hybrid process—algorithmic screening paired with careful human judgment.

This vignette highlights a vital lesson: AI's potential to widen financial inclusion risks when it overlooks lived socioeconomic realities. Compassionate governance is not an add-on, but a continuous, attentive practice, marrying technological promise with the nuances only human insight can grasp.

11.4 Reframing Compassionate Leadership

So is compassionate leadership only a moral idea? Well, it is also a practical need in AI-driven workplaces where human concerns and technological systems interact closely. To give this argument theoretical depth, this paper draws on two perspectives: polyvagal theory and systems thinking.

Polyvagal theory explains how human experiences of safety or threat affect trust, communication, and the ability to cooperate (Porges, 1995). It shows that people seek safety and connection. In AI-mediated settings, this is important. When workers face opaque systems—like résumé filters or performance tools—they may feel unsafe. Porges calls this “neuroception of threat.” The body senses danger even if the person cannot explain it. This stress harms trust and engagement. If a system makes people feel like they’re walking on eggshells, no audit will restore trust. Clear AI interfaces, feedback options, and fair processes are not extras. They meet the fundamental human needs.

And too many leaders miss this point. They offer logical reassurances (“we audited the algorithm”) but ignore ‘the body’s reaction’. A résumé rejection (see Box 11.2) without a reason may seem small. But it can trigger stress, especially in critical areas like jobs or welfare (see Box 11.1). Polyvagal-informed design can help. Interfaces that explain decisions, provide choices, and allow feedback can reduce user stress. This is not about leniency. It is about helping people make sense of decisions.

While polyvagal theory offers insight into how neuroception shapes trust and engagement, some critics argue it oversimplifies workplace stress by focusing too narrowly on physiological responses. They caution that stress in AI-mediated environments often stems from complex socio-cultural and systemic factors that cannot be fully explained by autonomic reactions alone.

Systems thinking here may give a wider view. Meadows (2008) and others show that systems are made of parts that interact. Bias in AI is not caused by one error. It comes from how data, design, and context work together. A compassionate leader looks at the whole system. Leaders can ask: Who created the data? How were the metrics chosen? How are results interpreted? These questions move the focus from ‘blame’ to ‘learning’.

Box 11.6 Predictive Policing

One example: in 2023, a predictive policing tool in Delhi flagged certain neighbourhoods as “high risk” based on historical crime data (Narayan, 2020). The algorithm wasn’t malicious—it was myopic. A systems lens would have revealed that the data itself was shaped by biased policing patterns, and that deploying the model without community input risked reinforcing those patterns. Compassionate governance, in this case, would mean not just auditing the model but rethinking the data pipeline, engaging affected communities, and building feedback loops that allow for correction.

Polyvagal theory has its critics, and systems thinking can veer into abstraction. But used judiciously, they enrich the compassionate leadership model. They remind us that fairness is not always a static attribute—it is a dynamic process, shaped by bodies, relationships, and systems. And in a BANU world, where fragility and incomprehensibility reign, such depth is not optional. It is the difference between performative ethics and transformative leadership.

11.5 The Three-Layer Model of Compassionate AI Governance

For compassionate leadership to be effective, it cries for a clear structure. The three-layer model—Prevention, Detection, Healing—offers such a structure. These layers form a cycle, each supporting the others. If any layer is missed, problems can go unnoticed or unresolved (Fig. 11.1).

11.5.1 Prevention

Prevention refers to consciously embedding fairness, inclusion, and transparency into an AI system *before* it goes live. Leaders often speak about prevention but may not allocate enough resources to it. It involves forming diverse, cross-functional design teams (Suresh & Guttig, 2021; Collins et al., 2021), auditing datasets for representation gaps (NITI Aayog, 2018), and running participatory design workshops with the people who’ll be affected by the system.

11.5.2 Detection

Well, even well-designed systems can drift into bias once deployed. Detection is about spotting that *drift* quickly. Detection requires attention from both data



Fig. 11.1 The three-layer model of compassionate AI governance

science and organisational teams (see Boxes 11.4 and 11.5). Independent third-party audits and explainable AI (XAI) tools (Doshi-Velez & Kim, 2017) can also help non-technical leaders interrogate model outputs.

11.5.3 *Healing*

Here's where many governance models stop and where compassionate leadership steps in. Healing would generally mean acknowledging and addressing harm *when* it happens. That could involve retraining a model, offering an appeal process, compensating affected individuals, or suspending a system entirely. Although such work can be costly at first, the long-term costs of ignoring harm are usually higher (Table 11.1).

Leaders sometimes ask, "Which layer is most important?" The answer is: none; and all. Without prevention, detection becomes firefighting. Without detection, healing may act blindly. And without healing, prevention—well, it looks performative (Fig. 11.2).

A self-correction here: this model won't make bias vanish. But it will make the organisation better at catching it early, responding effectively, and building the trust over time that AI adoption depends on.

11.6 Implications

If the three-layer model explains *how* to govern AI with compassion, this section explains *why* it matters. Not in the abstract, but in measurable organisational outcomes.

Table 11.1 Operationalising the prevention–detection–healing model

Layer	Key actions	Responsible actors	Metrics/KPIs	Example (India)
Prevention	• Conduct dataset representativeness audit before launch • Inclusive design sprints with affected-user input • Bias pre-testing in staging	Product managers, data science lead, HR, Ethics Board	Percentage underrepresented groups in dataset Fairness score pre-launch	Fairness-by-design developer training (see Box 11.3)
Detection	• Continuous fairness dashboards • Monthly model audits for drift and inequity • Annual independent third-party audit	Data science lead, ethics board, external auditors	Disparity ratio across protected groups Number of drift alerts/month	Ethics board monthly review of AI hiring (see Box 11.2)
Healing	• Public, accessible appeal process • Retrain or suspend biased systems • Remediate harm (compensation, reinstatement)	HR, Legal, Ombudsman	Appeals resolved Average resolution time Percentage systems retrained post-incident	Welfare eligibility appeals with community oversight (see Box 11.1)

11.6.1 Organisational Trust and Legitimacy

When leaders understand not only how bias is prevented but also how it’s detected, they develop a more balanced, fact-based trust in AI. They can recognise its strengths while staying alert to its limits (Puranam & Poppo, 2022). It goes without saying that trust is often unnoticed until it breaks. And in a BANI world, it’s fragile by default.

Consistent, compassionate governance sends a clear signal (to employees, customers, and regulators alike) that the organisation is not just capable of managing AI but also willing to do so ethically (Boyatzis & McKee, 2005; Tata Ethics Conclave, 2023).

In India, this commitment is reinforced by national initiatives like the National AI Strategy and the Skill India Mission, which connect industry with educational institutions to keep AI training relevant and accessible across the country (Halima, 2025; Ministry of Skill Development & Entrepreneurship, 2024). Efforts such as AI4Bharat and BharatGen, led by IIT Madras and IIT Bombay, tackle language barriers by building AI tools in multiple Indian languages—extending AI literacy to communities often left out of the digital shift (Ravindran, 2025; IIT Bombay, 2025).

Why does this matter? Because in India’s fast-moving AI policy space, what counts as “voluntary best practice” today could be written into law tomorrow. It is this author’s view that legitimacy isn’t earned through glossy ethics statements.

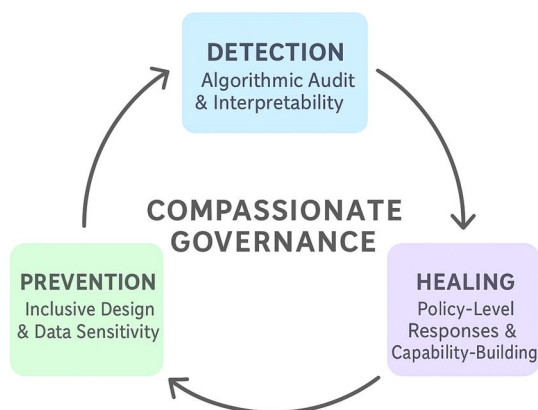


Fig. 11.2 The cyclical nature of compassionate AI governance

It’s built in the unglamorous work—the bias reviews, the appeal processes, the public accountability reports—that show an organisation actually walks its talk.

11.6.2 Competitive Advantage in Talent and Markets

As is known, top talent is choosy. More and more, skilled employees want to work for organisations whose values mirror their own. As detailed in Boxes 11.2 and 11.3, top Indian IT companies have learned that openly sharing their AI ethics policies and worker-focused safeguards pays off in recruitment and retention. As it turns out, when employees trust that AI is fair and leadership is ethical, they tend to be more resilient, and that resilience feeds directly into organisational success.

And beyond the domestic scene, the stakes start rising. In global markets, buyers are now asking pointed questions about AI supply chains. Demonstrable governance is no longer a “nice-to-have”; it’s a selling point. This author has personally seen European procurement teams walk away from AI vendors, not because the product was flawed, but because the vendor couldn’t explain how they checked for bias. That’s a deal lost for lack of preparation, and it’s entirely avoidable.

11.6.3 Risk Mitigation and Regulatory Alignment

The EU AI Act may be written for Europe, but its influence travels far (European Commission, 2023). For Indian firms exporting AI-enabled products or services,

the ability to show compliance with such frameworks would soon be more than a competitive advantage. It will be a basic market necessity.

The Prevention–Detection–Healing model aligns well with this trend: embed safeguards early, monitor continuously, and act quickly to repair harm. This approach doesn’t just guard against regulatory penalties; it also shields reputation and keeps stakeholder trust intact (Suresh & Guttig, 2021) (Box 11.7).

Box 11.7 Caselet Insight

One example is ICICI Bank’s overhaul of its AI-based credit scoring. By drawing on varied data sources, building fairness-focused algorithms, running ongoing bias checks, and giving customers clear explanations for credit decisions, the bank has avoided discriminatory lending, reduced legal risk, and strengthened public confidence in its systems.

11.7 Strategic Value Proposition for India

India’s AI opportunity is, no doubt, enormous. NASSCOM (Panigrahi et al., 2024) projects an additional \$967 billion to the economy by 2035. But without strong governance, that growth risks deepening divides rather than closing them. Leaders who build compassionate governance into their strategies from the start (Dhar, 2025) will be better placed to guide AI toward inclusive growth, avoiding the trap of scaling inequity alongside innovation (D’Ignazio & Klein, 2020).

Governance is usually viewed as risk management. But in India’s complex and competitive market, it also works as a forward-looking strategy. It helps companies reach new markets, build stronger brands, and prepare for policy changes that may affect others more severely (Box 11.8).

Box 11.8 C-Suite Checklist for Compassionate AI Governance

1. Require pre-deployment fairness sign-off for all high-impact AI systems.
2. Mandate quarterly independent audits for models in hiring, credit, or welfare.
3. Ensure a transparent, well-publicised appeal process exists and is resourced.
4. Allocate budget for digital literacy in affected communities.
5. Track an “AI equity” dashboard quarterly at executive meetings.
6. Integrate bias review into standard product sprint retrospectives.
7. Report publicly (annually) on AI incidents and remediation outcomes.

AI governance in India is not fixed. It changes with technology and organisational needs. Leaders, therefore, need to stay flexible. Including voices from technology, ethics, civil society, and policy makes governance more thoughtful and doubly effective. These exchanges help detect hidden bias and respond to new problems. In India, where social and regulatory conditions shift ever so often, companies that learn and adapt will be better placed to meet expectations.

Building fair and human-centred AI is not a single task. It is a continuous effort. It needs reflection, dialogue, and correction. Acts of care matter, but their real strength is in how they shape systems and norms.

11.8 Scaling Compassion in Organisational Systems

Compassion in organisations is often seen as personal. A kind word. A flexible deadline. These moments matter, but are they enough? The key question is how small acts of care grow into shared norms, policies, and systems.

This paper argues that compassion becomes systemic through repetition, visibility, and memory. Individual acts of kindness are insufficient. It must be seen, understood, and repeated. In this way, compassion becomes a signal. And in BANi times, signals are crucial (Box 11.9).

Box 11.9 Compassion Structuring in Action

One example is “compassionate escalation” in healthcare. If a nurse sees a patient in emotional distress, they can start a protocol. Not to blame, but to gather. A small act—seeing distress—leads to a team response. This may change care plans or training. The first act is human. The result is institutional. This kind of structure helps compassion grow.

In tech environments, too, micro-to-macro bridges are emerging. A software engineer at a mid-sized firm once refused to deploy a feature that would gamify user engagement in ways she felt were addictive. Her stance, initially seen as obstructionist, sparked a broader conversation about ethical design. Eventually, the company instituted a “design ethics review” for all new features. One act of resistance became a policy. It is this author’s view that such inflexion points are often missed in leadership literature, which tends to prioritise grand strategy over quiet dissent.

Of course, not all micro-moments scale. Some are swallowed by inertia, or dismissed as sentimental. The difference lies in what organisations choose to remember. When acts of compassion are documented—not in HR files, but in stories, rituals, and shared language—they gain traction. A manager who once paid out-of-pocket for a team member’s emergency travel may not seek recognition, but

if the story circulates, it becomes part of the cultural DNA. Others begin to ask: What would I do in that situation? What does care look like here?

There is also a temporal dimension. Compassionate cultures are not built overnight. They require what some scholars call “slow institutionalisation”—the gradual embedding of values through practice, reflection, and adaptation. In BANI conditions, where speed is glorified, this slowness can feel counterintuitive. But it is precisely this deliberate pacing that allows for depth. A rushed policy may tick boxes; a lived value—well, it reshapes behaviour.

To be clear, compassion at scale has to deal with complexity. It must function within budget limits, legal rules, and competing organisational interests. Yet, in a world shaped by uncertainty and pressure, the ability to transform human care into systemic resilience stands out as one of the most important acts of leadership.

11.9 Compassion Across Cultures

Compassion is not expressed in the same way everywhere. While often seen as a shared human value, its expression differs across cultural settings. In some societies, compassion appears in quiet and formal practices. In others, it is open, collective, and publicly visible. To understand its full role in organisations—especially under BANI conditions—it is important to look across traditions and practices (Cascio & Montealegre, 2016).

The Māori idea of *manaakitanga* goes beyond hospitality. It includes respect, generosity, and the act of lifting others. In New Zealand workplaces that draw upon Māori values, *manaakitanga* shapes both external relations with communities and internal relations among employees. Leaders are expected to show dignity through presence and attentiveness. A manager who listens to staff, remembers birthdays, and walks beside the team rather than ahead of it is seen as practising *manaakitanga*. Such small actions can provide a sense of stability in uncertain times (Spiller et al., 2015).

In South Korea, *jeong* is a central concept. Jeong refers to a deep emotional bond that develops through shared time and experience, often without words. Unlike Western organisational norms that prioritise clarity and direct expression, *jeong* grows quietly, through gestures and actions. In this context, compassion is steady and understated. A supervisor may not verbally declare care but will support a junior by shielding them from blame or helping them after official work hours. Many global leadership models overlook this form of care, as they tend to focus on verbal recognition rather than the silent actions through which bonds are maintained (Chung & Cho, 2005).

In Brazil, *afeto*—affection—is open and visible. Warmth, closeness, and emotion are part of work life. A leader in São Paulo might hug their team or cry during a farewell. In tense times, such openness can help people cope. Though some cultures may see it as unprofessional, what it achieves is building strength.

Still, not all cultural forms of compassion are helpful. In parts of Southeast Asia, the focus on harmony can hide problems. A leader may avoid hard talks to seem kind, but this can hurt the team over time. Compassion must be aware of its effects. It should ask whether the care helps growth or just avoids conflict.

While many reports frame this as a technical challenge, in the author's own field experience, leaders hesitate more because of cultural sensitivities than data flaws.

What emerges then is not one fixed model, but a range of approaches. Compassionate governance in BANI times cannot be copied from one culture to another. It must be shaped together, with nuanced acknowledgement of local habits and social patterns. This paper does not offer a formula. It asks leaders to listen across cultures—to observe, to adjust, and to respect the many ways people show care. In this process, compassion may reveal itself not as a tool, but as a language to be understood.

11.10 Research Agenda: Three Testable Hypotheses and Suggested Methods

While this paper is conceptual in scope, the ideas here lend themselves to empirical testing. Three research hypotheses are suggested as starting points (Box 11.10).

Box 11.10 Hypotheses

H1: Organisations using the Prevention–Detection–Healing model will show higher employee trust in AI systems than those without structured compassionate governance.

H2: Publicly sharing AI ethics policies and bias-mitigation practices will relate to better talent retention and client acquisition in Indian tech firms.

H3: Including cultural and linguistic context in AI design will reduce bias in recruitment and credit scoring in India.

A mixed-method approach offers promise, combining broad surveys, bias metrics, and case studies contrasting early adopters with slower firms. Quantitative analyses such as regression and bias score comparisons reveal patterns, while interviews and policy evaluations unpack the stories behind the data. Such inquiry could test, refine, or challenge the concepts here, deepening understanding of compassionate AI governance.

11.10.1 *Extending the Inquiry: A Distinct Empirical Case*

The following case study is drawn from recent academic research and focuses on fintech applications in rural credit assessment (Box 11.11).

Box 11.11 Case Study: Bias in AI-Driven Credit Scoring for Underbanked Groups

In 2025, several fintech firms in India faced scrutiny over AI-based credit scoring models used to assess underbanked populations. These models relied on alternative data—mobile transactions, utility bills, and digital footprints—to evaluate creditworthiness for applicants with limited formal financial history. While designed to expand access, the models often rated women and individuals from SC/ST communities as high-risk due to lower digital activity and sparse financial records. These proxy variables, while not explicitly discriminatory, reveal deep structural inequalities.

A study by the University of Delhi examined these patterns and proposed fairness-aware machine learning techniques to reduce bias. It recommended adding contextual indicators such as cooperative membership, self-help group participation, and region-specific economic data. The paper also called for transparent algorithmic audits and stronger regulatory oversight to ensure ethical deployment.

This case highlights how bias can surface even in systems built for inclusion, and how academic research can guide industry and policy toward more compassionate AI governance.

11.11 Compassionate Futures: Imagining Organisational Humanity Beyond the Present

If the present times embody the BANI realities, the future may be even harder to grasp. The issue is not whether disruption will come, but whether organisations will stay human through it. This paper positions compassionate governance not just as a response to today's instability, but as a practice for futures still unknown.

One emerging paradigm worth noting is the rise of regenerative business models. Unlike sustainability frameworks that aim to minimise harm, regeneration seeks to restore, renew, and enrich. In practice, this means organisations that treat employees not as resources to be optimised, but as ecosystems to be nurtured. A regenerative company might see sabbaticals not as perks, but as necessary rituals for renewal. It might design workflows that mimic natural rhythms—pulses of intensity followed by deliberate rest. This is not idealism. It reflects biomimicry applied to organisational life.

Another frontier is the intersection of AI and emotional intelligence. As machines become more capable of simulating empathy (through sentiment analysis, affective computing, and conversational agents), the risk is not that they will replace human compassion, but that they will dilute it. A chatbot that says “I’m sorry you’re feeling that way” may offer comfort—but if it becomes the default

interface for distress, what happens to relational accountability? It is this author's view that compassionate governance must draw a line—not between humans and machines, but between simulation and sincerity. The future will require leaders who can discern the difference.

There is also a growing movement called post-growth economics. This idea challenges the common belief that growth and expansion are always good. Instead, organisations focus on having enough rather than growing more, and on quality rather than quantity. A compassionate leader in a post-growth firm might choose to limit revenue, share profits more fairly, or slow down hiring—not because of a lack of resources, but out of principle. This change is radical. It means that care is not only a tool for productivity, but a goal in itself. In difficult and fast-changing situations, such as those described by BANI, slowing down carefully may be the best strategy.

These futures are not certain or guaranteed. They are possibilities with trade-offs. Regeneration takes time. Learning emotional understanding needs training. Post-growth models may challenge investor expectations. But the alternative—business as usual—is becoming harder to sustain. In this situation, compassion is not merely a soft skill.

This paper suggests that the organisations most likely to last are those that see uncertainty as a sign to adapt, not a threat. In chaotic times, compassionate governance is less a policy and more a compass—quietly pointing toward what still matters. On deeper thoughts, fragility could be reframed as a call to care, incomprehensibility as an invitation to listen. Most of all, it reminds us that in confusing times, the human spirit—imperfect and social—is still our strongest resource.

11.12 Conclusion

In a rapidly changing and complex world, AI is not just a technical tool but a force that deeply affects people's lives. Compassionate leadership in AI governance means actively noticing harm, understanding its roots, and taking steps to prevent and fix bias. The three-layer model of Prevention, Detection, and Healing offers practical ways to do this. For India and similar contexts, thoughtful AI governance can help bridge social divides and support fair opportunities. Ultimately, the future of AI in organisations depends on leaders who treat fairness and care as foundational, helping their organisations stay human and resilient amid uncertainty.

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Chapter 12

Non-Cognitive Competencies and Holistic Creative Reflection Skills as Genuine Human Approaches to Compassionate Leadership in Times of BANI and AI



Elfriede Neuhold and Birgitta Borghoff

Abstract We are amid BANI times, and leaders of companies and other organizations are forced to think and act in unusual and new ways. Competencies are becoming increasingly important, not only in sustainability contexts. Leaders are forced to develop transferable skills, such as compassion and authenticity. While cognitive tasks are partially replaced by Artificial Intelligence (AI), they need to address crucial human qualities, especially Non-Cognitive Competencies. This article presents a cross-disciplinary literature review and heuristic analysis. It discusses competencies grounded in the Inner Development Goals (IDGs) and other frameworks. The focus is on Non-Cognitive Competencies and Compassionate Leadership skills to identify key abilities that are needed to navigate the BANI world and the increasing use of AI. In part I, the first author demonstrates how among the many frameworks using different words, clusters or categories for skills, qualities, and competencies, Non-Cognitive genuine human Competencies such as integrity, empathy, and creativity remain recurring and essential. Cognitive skills and technical knowledge are not the only valid measures. Instead, the cultivation of alternative ways of perception like intuition and wisdom become relevant. In part II, the second author reflects on the findings of part I whilst applying different approaches to creative reflection, thereby employing Creative Reflective Practice, Creative Agility and spiritual poetry. These newer approaches allow us to dive deeper into creative ways of perceiving to firstly

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recognize and secondly holistically reflect on our genuine human abilities and skills. In part III the authors draw conclusions and come up with practical implications for promoting Compassionate Leadership through training Non-Cognitive Competencies and Holistic Creative Reflection Skills.

Keywords IDGs · Compassionate leadership · Non-cognitive competencies · Genuine human competencies · Creative reflective practice · Creative agility · Spiritual poetry · Holistic creative reflection skills

12.1 Introduction

Over the past decades, globalization has expanded at an unprecedented pace, resulting in a world of ever-increasing interdependence. This development has given rise to heightened complexity, and, in many respects, to what has been termed a polycrisis (Zenk et al., 2024). In response to such multidimensional challenges, the United Nations (UN) adopted the Sustainable Development Goals (SDGs) in 2015 (UN, 2015). Yet, almost a decade later, the achievements remain modest. The latest UN Sustainable Development Goals Report (2024) underscores that global inequalities continue to deepen, while the loss of biodiversity is accelerating (UN, 2024).

The last 20 years in business and management discourses have been shaped by the diffusion of the concept of a VUCA world—volatile, uncertain, complex, and ambiguous—as a lens to describe the dynamics of a globalized and digitalized economy. Initially formulated by the U.S. Army War College, VUCA was later transferred into organizational contexts as a framework for coping with uncertainty and refining strategic planning. Building on this perspective, methodological instruments such as scenario building, simulations, and modelling have been employed to anticipate and test multiple possible futures (Cascio, 2020).

Today, the situation has changed dramatically: We live in BANI times, that are characterized by “brittleness, anxiety, non-linearity and incomprehensibility” (Cascio, 2020). In his BANI framework brittleness arises from the illusion of strength: “Brittleness emerges from dependence on a single, critical point of failure, and from the unwillingness—or inability—to leave any excess capacity, or slack, in the system.” (Cascio, 2020).

Confronting a system where we are uncertain about our actions, fearing that our choices might lead to disaster, can create a sense of helplessness or anxiety. The world where A predictably leads to B or C no longer exists, it is non-linear. The relationship between cause and effect is either disconnected or disproportionate. Therefore, our world becomes incomprehensible. The volume of data and information leads to a tremendous information overload, what can no longer be controlled with the rational mind (Cascio, 2020). These developments challenge us to focus on our genuine human skills as a counterbalance. Various frameworks describe numerous competencies or future skills. This chapter aims to examine which

Non-Cognitive Competencies might be fruitful to apply by today's leaders to better prepare them to deal with the current challenges.

12.2 Methodological Approach and Structure of the Chapter

The paper explores the following research questions and combines different conceptual approaches stimulating to the authors' inter- and transdisciplinary mindset:

1. Which key Non-Cognitive, genuine human Competencies enable leaders to navigate the challenges of BANI times and the rise of AI? (Part I)
2. How can creative approaches foster Holistic Creative Reflection Skills and stimulate compassionate impulses to inspire transformative actions? (Part II)
3. What practical implications arise from the cross-conceptual intertwining of Non-Cognitive Competencies and Holistic Creative Reflection Skills to develop compassionate leaders and organizations? (Part III)

Part I is grounded in the skills and competencies outlined in the Inner Development Goals (IDGs), which emphasize the need to develop inner skills such as empathy and compassion to drive sustainable development. The authors have applied a cross-disciplinary literature review resulting in a heuristic analysis (Zimmermann, 1992). At first, an in-depth literature review on different competence frameworks was performed. In the heuristic analysis the relevant frameworks like sustainability and leadership, secondly were identified and densely described. Then these competencies are contrasted with skills, mentioned in the IDGs framework to finally develop a new competencies framework in view of Compassionate Leadership embracing Non-Cognitive Competencies to address the problems posed by BANI and AI. The relationship of competencies with IDGs competencies was reconstructed by allocating identical, overlapping, and similar words.

Part II presents a dense description of concepts that illuminate how Non-Cognitive Competencies can be framed through Holistic Creative Reflection. At its core, the notion of Creative Reflective Practice emphasizes the integration of artistic and imaginative dimensions into reflection to access tacit, emotional, and intuitive experiences. Building on this, Creative Agility can be understood simultaneously as a guiding principle, a set of skills, and a methodological approach for engaging with situations characterized by not-knowing, anxiety, uncertainty, and complexity. Further, spiritual poetry, intuitive and inspirational writing exemplify creative modes of reflection, which are synthesized into a Holistic Creative Reflection Perspective applicable to academic and professional contexts.

Part III combines the conceptual insights from part I with the creative perspectives of part II to derive conclusions and practical implications for leaders and organizations. By linking diverse Non-Cognitive Competencies frameworks with newer approaches to creative reflection it can be demonstrated how cognitive, emotional, and intuitive dimensions can be integrated into personal and leadership development. The implications point to the need for integrating Non-Cognitive Competencies and

holistic approaches of creative reflection into both organizational and individual change management processes, for instance through settings such as living labs or workshops. While promising approaches exist, more training formats should be developed, tested, and evaluated. Future research should systematically assess their short- and long-term impact on fostering Compassionate Leadership.

Part I—A Cross-Disciplinary Heuristic Analysis of Non-Cognitive, Genuine Human Competencies

12.3 Key Competencies and Skills in Different Frameworks

12.3.1 Today's Leaders' Need for Non-Cognitive, Genuine Human Competencies

In his article “Facing the Age of Chaos”, Jamais Cascio argued in April 2020 that, in times of BANI, simple notions of volatility or complexity are no longer adequate lenses for understanding the dynamics of our world (Cascio, 2020). He emphasizes that AI systems and their underlying algorithms carry the risk of significant biases. As AI increasingly assumes tasks and decision-making roles across society and the economy, two aspects become crucial: first, understanding how AI functions to formulate effective prompts and obtain meaningful information; and second, cultivating awareness of the underlying algorithmic structures and thereby fostering AI literacy as a central competence in today's technological landscape (Almatrafi et al., 2024). In this regard, Benevuti et al. (2023) highlight the necessity of acquiring new skills and competencies in response to AI-driven transformations of human behaviour. They argue that educational contexts should focus on strengthening “Specifically: Creativity, Critical Thinking, Problem Solving, and Computational Thinking” (Benevuti et al., 2023). Moreover, they stress the importance of specifically cultivating genuinely human skills that cannot be substituted by AI.

12.3.2 Competencies, Competences and Skills

Competencies have become a central focus across multiple disciplines, including education, higher education, sustainable development, complexity science, leadership, and communication.

Baartman et al. (2007), in their work on competence-based education, observe that “a common notion of most descriptions of competence is that it consists of connected pieces of knowledge, skills and attitudes that can be used to adequately solve a problem” (Baartman et al., 2007, p. 115).

Within the field of sustainability in higher education, Wiek et al. (2011) argue that competencies, conceived as combinations of knowledge, skills, and attitudes, should

enable individuals to address real-world sustainability challenges (Wiek et al., 2011, p. 204). They identify five key competencies, including like ‘strategic competence’ or ‘interpersonal competence’. Brundiens et al. (2020) further expand on this discussion, highlighting competencies such as ‘systems thinking competency’ or ‘intrapersonal competency’ (Brundiens et al., 2020, p. 15), and note that the most widely cited framework for key competencies in sustainability remains the one developed by Wiek et al. (2011) (Brundiens et al., 2020, p. 14). More recently, Benevuti et al. (2023) have revisited the distinction between skills and competencies in educational contexts. For the purpose of this chapter, the authors follow the understanding of competencies as outlined by Wiek et al. (2011).

A growing body of research engages with the concept of meta-competencies, understood as overarching competencies that integrate and connect more specific skills (Cheetham & Chivers, 1996, p. 22). Examples include ‘Sustainable Innovation’, which has been examined in the context of complex environments (Zenk et al., 2024, p. 10), or ‘intra- and interpersonal competences’, discussed in relation to higher education (Bates et al., 2022, p. 297). Closely related are so-called ‘soft skills’, a term commonly used to denote abilities that are not tied to a specific task but are essential across professional roles, as they primarily concern relational capacities and interaction within organizations (Cimatti, 2016, p. 97). In the following, the term ‘skills’ is used in this sense, referring to soft skills.

12.3.3 Non-Cognitive Competencies

Gutman and Schoon (2013, p. 2) investigated the role of non-cognitive skills in shaping outcomes for young people. In contrast to academic abilities and attainment, non-cognitive skills refer to behaviours, personality traits, and attitudes. The authors emphasize that the discourse on non-cognitive skills is both complex and contested. While there is evidence of a link between such skills and youth outcomes—at least in the short term—these skills do not operate in isolation. Rather, they are interdependent and must be developed in combination with cognitive and academic skills. Based on their analysis, Gutman and Schoon (2013, 40) identify eight core Non-Cognitive Competencies: “Self-Perception, Motivation, Perseverance, Self-Control, Metacognitive Strategies, Social Competencies, Resilience and Coping, Creativity” (Gutmann & Schoon, 2013, p. 7). Comparable categorizations appear in other frameworks, such as the Inner Development Goals (IDGs), which, for instance, define thinking explicitly as a cognitive domain (see Sect. 4.1).

12.3.4 Genuine Human Competencies

The term ‘human development’ was used in the book “The Evolving Self: Problem and Process in Human Development” in a psychological context (Kegan, 1982). In relation

to competencies, Gilbert (2007) referred to ‘human competence’ when evaluating ‘engineering worthy performance’. The expression ‘genuine human’ is used to describe the quality of ‘genuine human connections’ in studies examining the influence of social networking platforms on interpersonal relationships (Ahmed et al., 2024, p. 334).

In this chapter, the authors introduce the notion of ‘genuine human competencies’ to encompass the Non-Cognitive Competencies required to navigate BANI times, including the challenges posed by AI. These competencies also integrate the dimension of wisdom. The concept of wisdom has been discussed across disciplines such as philosophy and psychology, with additional perspectives emerging from spiritual traditions. Of relevance is the recent definition proposed in psychiatry and neuroscience: “... wisdom is a complex human trait with several specific components: social decision making, emotional regulation, prosocial behaviours, self-reflection, acceptance of uncertainty, decisiveness, and spirituality” (Jeste et al., 2019, p. 127).

There is a significant demand for Non-Cognitive, genuine human Competencies to promote Compassionate Leadership and thus provide a counterbalance to effectively deal with current organizational challenges posed by BANI and AI.

12.4 Competencies’ and Skills’ Frameworks

To determine the key competencies and skills that leaders should cultivate and apply, various frameworks were examined. The IDGs framework was chosen as a reference point, given its global application and availability in multiple languages. It primarily emphasizes personal competencies that support individuals in contributing to the achievement of the 17 Sustainable Development Goals (UN, 2015). In addition, frameworks on Compassionate Leadership and the BANI concept were reviewed and compared with the IDGs framework. The objective was to identify those IDGs competencies that recur most prominently across the different categories.

12.4.1 IDGs Framework

The United Nations formulated the 17 Sustainable Development Goals (SDGs) in 2015 with the hope that the international community could jointly address pressing global challenges (UN, 2015). Building on this, the Inner Development Goals (IDGs) framework was launched in 2020 as a catalyst for fostering sustainable action (IDG, 2024a). It emerged from a co-creation process involving more than 1000 scientists, experts, and professionals (Inner Development Goals, About, 2024b). In 2023, the IDGs Foundation was established with the mission “to identify, popularize and support the development of relevant abilities, skills and qualities for inner growth,

through consciously supportive organizations, companies and institutions, to better address the global challenges” (IDG, Report, 2024b, p. 3).

The IDGs framework comprises five overarching categories—‘being’, ‘thinking’, ‘relating’, ‘collaborating’, and ‘acting’—which together encompass 23 skills and qualities. Since the category ‘thinking’, with its five explicitly cognitive competencies, falls outside the scope of this analysis, the focus here lies on the remaining 18 skills across the domains of ‘being’, ‘relating’, ‘collaborating’, and ‘acting’ (IDG, 2021).

By linking the pursuit of sustainable development with the cultivation of inner capacities, the IDGs framework adopts a holistic approach that emphasizes qualities such as compassion. Compassion-related competencies include ‘inner compass’, ‘self-awareness’, ‘presence’, ‘connectedness’, ‘humility’, and ‘empathy’. Compassion itself is described as the ability to engage with others, oneself, and nature in ways characterized by kindness, empathy, and attentiveness to suffering (IDG, Framework, 2024a).

12.4.2 Compassionate Leadership Frameworks

Leadership constitutes one of the most significant organizational practices for ensuring success. A variety of leadership concepts—such as servant or agile leadership—have been proposed, with compassion increasingly recognized as a central dimension in both research and practice. In organizational discourse, compassion refers to recognizing the suffering of others, experiencing an emotional response, and acting at both individual and collective levels (Kanov et al., 2004, p. 808).

In the study “Does Compassion Matter in Leadership?”, the authors identified six core behaviours of compassionate leaders: ‘integrity’, ‘accountability’, ‘empathy’, ‘authenticity’, ‘presence’, and ‘dignity’. They argue that compassion holds the potential to foster improved organizational outcomes. (Shuck et al., 2019, p. 538).

Importantly, compassion is not merely a personal trait but can be cultivated through training, provided leaders engage in corresponding inner work.

A systematic review the authors arrived at similar conclusions, highlighting six dimensions of Compassionate Leadership: “empathy; ‘openness and communication; physical and mental health and well-being; inclusiveness; integrity; respect and dignity” (Ramachandran et al., 2024, p. 1473). They likewise stress the significance of Compassionate Leadership and underline the necessity of education and training in leadership development.

12.4.3 Competencies and Skills Frameworks in Times of BANI

Many research studies address competencies that are needed to deal with AI. However, fewer studies focus on the competencies and skills needed for BANI

times. Jamais Cascio (2020) identified a direct response to the components of BANI times in genuine human and Non-Cognitive Competencies. He states: "... *brittleness* could be met by *resilience* and *slack*; *anxiety* can be eased by *empathy* and *mindfulness*; *nonlinearity* would need *context* and *flexibility*; *incomprehensibility* asks for *transparency* and *intuition*" (Casico, 2020).

Kusuma and Sarma (2023) listed 14 essential skills required for BANI environments. Only three of these skills—including 'systems thinking' and 'critical thinking'—are related to cognition. In their list of skills, one finds 'emotional intelligence', 'resilience', 'agility' and 'empathy', among others. The authors stress that higher education institutions as well as industry should collaborate to strengthen such skills in employees and students. From an organizational perspective, Human Resource Management has an important role too: "It is only the Human Capital which acts as competitive advantage. In highly unpredictable environments, only one prediction is the skill set of the Human Capital." (Kusuma & Sarma, 2023, p. 5). The study states that we need a human skill set, which primarily consists of non-cognitive skills (Kusuma & Sarma, 2023, p. 57). This understates the importance of non-cognitive skills in complex situations and future decision-making.

12.5 Key Findings and Discussion

The following section presents the central results of the heuristic cross-disciplinary analysis and synthesises the authors' key findings. It becomes evident that each framework emphasizes different focal points, often employing identical, overlapping, or similar terms and definitions.

Table 12.1 presents the non-cognitive skills derived from the IDGs framework, which provides a suitable foundation for this study as it encompasses competencies relevant to Compassionate Leadership and a broad spectrum of sustainability-related skills. For this purpose, the IDGs skills were systematically compared with two frameworks on Compassionate Leadership and two additional frameworks addressing leadership in the context of BANI.

The IDGs framework comprises five categories—'being', 'thinking', 'relating', 'collaborating', and 'acting'. In line with the study's focus, only the non-cognitive categories were considered. Skills from all four external frameworks were then mapped against the categories and skills of the IDGs framework. Where identical terms appeared, they were directly assigned to the corresponding IDGs category. In cases of partial or implicit overlap, a careful allocation was undertaken, drawing on established concepts of interpersonal and intrapersonal competencies as well as the IDGs framework's definitions and explanations. For instance, the skill 'resilience' was allocated to the category 'being', as it primarily relates to intrapersonal constitution and inner strength.

Table 12.1 Key non-cognitive competencies in a cross-table comparison (own depiction by authors)

Competencies/Skills	Being relationship to self	Relating caring for others and the world	Collaborating social skills	Acting driving change
IDG (2021)	Inner compass Integrity Authenticity Openness Learning mindset Self-awareness Presence	Appreciation Connectedness Humility Empathy Compassion	Communication skills Co-creation skills Inclusive mindset Intercultural competence Trust Mobilization skills	Courage Creativity Optimism Perseverance
Compassionate leadership, Ramachandran et al., (2024)	Integrity Authenticity Presence Dignity	Empathy Accountability		
Compassionate leadership, Ramachandran et al., (2024)	Openness Wellbeing Integrity Respect Dignity	Empathy Inclusiveness	Communication	
Skills for BANI times, Cascio (2020)	Resilience Flexibility Transparency Intuition	Empathy Mindfulness		
Skills for BANI environment, Kusuma and Sarma (2023)	Resilience Adaptability Continuous learning Agility Transparency	Emotional intelligence Empathy	Collaboration Communication Cooperation	Creativity
Key non-cognitive and genuine human competencies	Integrity Authenticity Openness Learning mindset Presence	Empathy	Communication	Creativity

Note This table synthesizes key non-cognitive competencies identified across different frameworks and authors, including the IDGs, models of compassionate leadership, and approaches to skills for navigating BANI environments.

Following this process of clarification and alignment, the analysis identified a set of key Non-Cognitive, or ‘genuine human’, Competencies. These were defined as those IDGs skills that were either explicitly referenced or could be reasonably allocated at least once or twice across the four additional frameworks.

12.5.1 Non-Cognitive ‘Being’ Competencies

The IDGs category ‘being’ encompasses skills related to the relationship with the self. This category contains the largest number of competencies, most frequently referenced as ‘integrity’, ‘authenticity’, ‘openness’, ‘learning mindset’, and ‘presence’. These skills cannot be reduced to one or two overarching competencies; rather, they form a constellation revolving around personality and inner constitution.

Skills are inherently interrelated and must be developed in combination (Gutmann & Schoon, 2013, p. 22).

Other scholars discuss such self-related capacities in terms of overarching or meta-competencies. For example, some authors define ‘intrapersonal competence’ as “... the ability to self-manage and self-reflect, to understand one’s own thinking, norms, and values, leading to inclusive, goal-oriented actions” (Bates et al., 2022, p. 297). This underscores the foundational role of self-competencies for Compassionate Leadership in BANI times.

In sum, ‘being’ competencies focus on the inner relationship with the self, addressing the “I” as personality rooted in one’s inner centre. They shape a human being who is present, resilient, and capable of acting with dignity while maintaining openness to the world. For leaders, this requires the intentional development of personal traits and a grounded sense of self—an inner alignment that enables authentic and Compassionate Leadership by a healthy and resilient relationship with the “I”.

12.5.2 Non-Cognitive ‘Relating and Collaborating’ Competencies

The category ‘relating’ concerns care for others and the world—including people, animals, and the natural environment. Across frameworks, the most frequently cited competence in this category is ‘empathy’, closely linked to mindfulness and emotional intelligence. Empathy fosters openness toward others and enables meaningful connection, serving as a foundation for communication and collaboration.

The category ‘collaborating’ focuses on social interaction—how we engage, communicate, and cooperate with others. Communication emerges here as the most prominent skill, since it underpins collective action, and is repeatedly highlighted across frameworks.

Given their interdependence, ‘relating’ and ‘collaborating’ can be conceptually integrated under the umbrella of ‘inter-relational competence’. Bates et al. (2022) define this as “... the ability to apply empathy, to communicate, and to collaborate” (Bates et al., 2022, p. 297). Together, these categories represent the capacity to engage with the ‘YOU’—the other person or being. This relational dimension is central to Compassionate Leadership in BANI contexts, where human connection and cooperation are vital for navigating uncertainty and complexity.

12.5.3 Non-Cognitive ‘Acting’ Competencies

The category ‘acting’ emphasizes empowerment and the capacity to drive change. Within the IDGs framework, ‘creativity’ stands out as the key competence, understood as the ability to generate ideas, innovate, and challenge established patterns. Although explicitly mentioned only once across frameworks, creativity emerges as the most significant competence in this category.

‘Acting’ can be seen as the bridge between the ‘I’ (self-awareness and personal integrity) and the ‘YOU’ (empathy and collaboration), transforming them into a collective ‘WE’. This reflects the transition from individual and relational competencies to shared action and co-creation. In this sense, ‘acting’ represents the practical dimension of Compassionate Leadership—where inner development and interpersonal connection converge to initiate meaningful change.

12.6 Concluding Reflections

We are living in BANI times, marked by unpredictability and challenges that cannot be solved with established strategies or existing knowledge. In such circumstances, we must rely on our Non-cognitive, genuine human Competencies—above all empathy, compassion, creativity, and intuition. These qualities remain uniquely human and cannot be replicated by machines. Even if they are rarely part of formal training, we intuitively draw upon them when we allow sensing and feeling to complement our cognitive abilities. Integrity, dignity, authenticity, and presence enable us to remain grounded, while empathy allows us to perceive the emotions of others and respond in ways that alleviate suffering and create the basis for genuine collaboration. Creativity, in turn, equips us to address uncertainty and complexity with new perspectives and solutions.

The category of ‘being’ forms the foundation: grounding in the self (‘I’) is the prerequisite for openness toward others (‘YOU’), which in turn fosters communication and collaboration. From this relational ground, shared action emerges (‘WE’), which cultivates creativity. Crucially, AI cannot replace this process, since its outputs are limited to the past, whereas humans can envision and enact future possibilities through creativity and intuition. As Cascio (2020) suggests, intuition becomes indispensable in situations that appear incomprehensible. Thus, it might be promising and fruitful to further train today’s leaders on this skill.

While competencies can be developed, and various concepts for doing so already exist in leadership education and training, there remains a significant gap between theory and practice. Nurturing essential human and Non-Cognitive Competencies—such as empathy—must begin early, within environments that provide sufficient space and time for their growth.

The key Non-Cognitive, genuine human Competencies which have been reconstructed from the cross-disciplinary heuristic analysis, can be regarded as the basis of Compassionate Leadership: integrity, authenticity, openness or learning mindset, presence, empathy, communication, and creativity.

Part II—Creative and Critical Reflections on Non-Cognitive Competencies

12.7 Introduction

Building on the preceding cross-disciplinary analysis (Table 12.1), which highlights key IDGs categories essential for compassionate leaders and educators—‘integrity’, ‘authenticity’, ‘openness’, ‘learning mindset’, and ‘presence’ (being), ‘empathy’ (relating), ‘communication’ (collaborating), and ‘creativity’ (acting)—the following section introduces creative approaches to reflection. These approaches serve as pathways to deepen and apply the identified competencies by engaging with tacit, emotional, and intuitive dimensions of experience.

The outlined trends inspired the second author—an inter-/transdisciplinary academic researcher, lecturer, and independent creative and spiritual entrepreneur (brückenwege, 2025)—to engage in a creative reflection on the findings and demonstrate how reflective practice can strengthen our Non-Cognitive Competencies. The reflection of the second author was approached from a multifaceted perspective as a multidisciplinary educator, researcher, and professional practitioner (Borghoff, 2021; brückenwege, 2025), drawing on Donald Schön’s cognitive concept of Reflective Practice (Schön, 1987/2016; Kirschner et al., 2022): ‘Reflection in Action’ is ‘thinking through making’, a continuous reflection during an action, and analyzing why it is performed in a specific way. ‘Reflection on Action’ is a retrospective reflection on a past action (meta-reflection). ‘Knowing in Action’ refers to people’s tacit knowledge that has matured into intuition through experience and lessons learned. This, in turn can lead to implicitly applied experience-based actions while performing.

The author’s multidimensional perspective further integrates elements of Creative Reflective Practice, Creative Agility, and spiritual inspired poetry (e.g., on themes such as “wise leadership” or “knowledge and wisdom” in Borghoff, 2021, pp. 25–26). These components converge to form a holistic mosaic that facilitates a multiperspective approach and promotes shifts in perspective, as elaborated in the following sections.

12.8 Creative Approaches to Practicing Reflection

12.8.1 *Creative Reflective Practice*

“Reflective time engages us intrinsically in a sharply focused attentive mode of functioning. Artists, in particular give themselves over to virtually continuous reflective time placing reflection at the heart of the creative process.” (Burnard & Hennessy, 2009, p. 3).

Linda Candy (2020) expands and deepens Schön’s (2016) perspective to a non-cognitive “Creative Reflective Practice”. She does this in a way that both embraces and expands Schön (2016) original ideas to include creative and interdisciplinary perspectives (Candy, 2020). While Schön’s (2016) work focuses on the practice of reflecting on one’s own actions and constantly improving professional practice, Candy (2020) emphasizes the importance of creativity, reflexivity, and self-fulfilment. She describes Creative Reflective Practice as a dynamic, not only introspective but also creative and transformative practice that allows individuals to gain deeper insights while integrating the artistic and creative dimensions of the work. She stresses that reflection in this context is not only understood as a means of cognitive problem-solving, but as a method that promotes and develops the non-cognitive creative process itself. This kind of reflection can open a holistic perspective by continuously challenging, perceiving and rethinking one’s own practice. Candy includes a wide scope for individual creative expression in her definition of Creative Reflective Practice. She integrates aspects of art, aesthetics, and self-exploration, which results in a dialogical, often collaborative process that not only contributes to improving professional practice, but also to the personal and creative development of the individual (this is the “I”). For Candy, reflection becomes an active creative process that is directed both inwards and outwards and is in constant dialogue with the world and one’s own experiences; and thus, connecting the ‘I’ and the ‘YOU’ to form a collective ‘WE’ (see part I).

12.8.2 *Creative Agility (‘Creagility’)*

In keeping with the motto “Transformation by Creagilization” in the international project CreAIgile Literacy (2024–2026) the second author and her colleagues are currently investigating how language, communication, innovation, and sustainability professionals can use Creative Agility (acronym: ‘creagility’) to train on a responsible use of AI (ZHAW, 2025a).

From 2021 until 2023 and in alignment with Sustainable Development Goal 4 (quality education), the second author examined in an Erasmus + project on Creative Agility how arts-based strategies can transform digital and analogue communication within organizations (ZHAW, 2024). The project team developed a modular, arts-based, and methodologically robust training curriculum (ZHAW, 2025b), which was

piloted across Europe and Switzerland, engaging decision-makers, and managers, including participants from the Swiss Federal Railways (SBB). The author led a case study with municipal decision-makers in Germany, focusing on the application of artistic interventions in organizational contexts. This study explored how political actors address questions beyond their immediate knowledge. The outcomes include a collection of empirically informed and artistically crafted narratives that stimulate public dialogue on sustainable development, societal growth, and innovation both in a cognitive and non-cognitive way (ZHAW, 2025c).

Building upon the findings of the Erasmus+ project the subsequent project initiative focuses on developing and testing multilingual training programs to enhance Creative Agility competencies, emphasizing the responsible use of AI. The rapid evolution of AI is significantly impacting communication-intensive professions and educational practices across various contexts. While AI technologies, such as machine translation and automated text generation, increasingly manage routine tasks, the demand for genuine human and transferable skills is becoming more pronounced. Non-Cognitive Competencies like openness to uncertainty, embracing multiple perspectives, dealing with emotions and deep talk, leveraging diversity, or the capacity to unlearn (ZHAW, 2025d) are essential for navigating complex and ambiguous scenarios. These 'Creagile Skills' enable individuals and organizations to approach uncertainties in transformative processes with flexibility and creativity (ZHAW, 2025a).

In the context of AI's proliferation, responsible and sustainable integration of these technologies is critical. Generative AI systems, such as ChatGPT, provide functional yet average solutions, underscoring the need for advanced human problem-solving capabilities to effectively address multifaceted global challenges and polycrisis. Embedding these future-oriented competencies into educational curricula and organizational structures is indispensable for fostering openness, meaningful dialogue, and collective creative action. By cultivating Creative Agility, preparedness for navigating current and future transformation processes through lifelong learning in times of BANI can be sustainably cultivated and ensured.

12.8.3 Spiritual Poetry

By composing poems, the author came to realize that weaving together multi-perspective strands of her academic and entrepreneurial experiences, perceptions, emotions, reflections and practices across diverse disciplines and domains fosters the creation of medially received poems (Borghoff, 2021, p. 27; Entrepreneurial Storytelling, 2025; brückenwege, 2025).

Reflecting upon the process how her poems are born, the second author reconstructed four essential steps which are described below (brückenwege, 2025 based on and further developed according to; Borghoff, 2021, p. 22).

While your heart
is soul art,
creative flow
makes you grow.
Entrepreneurial spirit
you inherit!
While merging it all into visual design
reflective practice will holistically align.
(Birgitta Borghoff, July 2019)

Soul Art—listening with heart and soul (*spirituality*): while listening with heart and soul the author receives impulses, intuitions, and inspirations from the non-cognitive higher self. She follows her inner perception and gives truth to what is.

Creative Flow—drawing from intuition and creative reason (*creativity*): ideas, visions and concepts with pioneering spirit are created by drawing from intuition and creative reason. Doing this the second author develops, shapes, and formulates original thoughts, poetry, texts, and messages.

Entrepreneurial Spirit—doing with hand, head, and heart (*innovation*): entrepreneurial courage and energy are combined in the making of concrete projects, organizational and entrepreneurial initiatives emerging out of poetic inspirations. Together with clients and organizations the second author dares to create new things, realize dreams, and design true heart businesses.

Visual Design—experimenting with emerging opportunities (*communication*): experimenting with emerging new design tools, such as meme makers, ornament, mandala, or other user-centred design apps, is key to the aesthetic and communicative coherence of text, image, form, and design.

The permanent holistic reflection of the work, be it a poem, a project emerged through the creative play with words, or a company constituted through poetically inspired communication, is key to the lasting effect and charisma of poetry itself.

Following above mentioned design steps the second author succeeds in building bridges from the world of emotions, intuition, visions, and ideas of her higher self to the real manifestation of written poems (brückenwege, 2025; Entrepreneurial Storytelling, 2025), poetically inspired education, creative initiatives as well as research and development projects (ZHAW, 2024, 2025a; brückenwege, 2025).

12.9 Developing a Holistic Creative Reflective Mindset (HCRM)

The three reflection approaches outlined above complement each other to form a Holistic Creative Reflective Mindset (HCRM) with skills (HCRS), and thus cultivating a practice (HCRP) that understands creative reflection as a genuine human

competence in a technology-driven BANI world. This holistic perspective combines practice-oriented reflection methods, agile adaptability, and transcendent, meaningful cognitive processes that can strengthen compassion in both individuals and organizations.

Creative Reflective Practice provides the methodological foundation for promoting empirically observable knowledge-in-action and developing a deep understanding of one's own creative process through integer inner self-questioning.

Creative Agility makes it possible to deal flexibly and dynamically with complexity, uncertainty, and ambiguity and to interpret them with empathy through openness and deep talk from multiple perspectives without losing sight of personal and shared values.

Spiritual poetry opens spaces for intuitive, transcendent presence, and insights that defy purely cognitive logic, but nevertheless express deep human truths, dignity and wisdom that are accessible to the heart and touch one's own emotions and feelings.

12.10 Cultivating Non-Cognitive Competencies through Holistic Creative Reflection Practice (HCRP)

Holistic Creative Reflection is a bridge between inner self-awareness and presence, interpersonal connection, and creative expression. In a world characterized by technological acceleration, social fragmentation, and global crises, it serves as a methodological and spiritual resource for strengthening our Non-Cognitive Competencies, that distinguish us as humans in the first place.

Creative reflection enables the recognition and anchoring of personal values, thereby strengthening us in being authentic and integer. In the quiet depths of reflection, space is created for self-awareness. Creative Reflective Practice allows for asking inner questions, while Creative Agility enables these to be authentically embodied in dynamic contexts. Finally, Spiritual poetry offers a transcendent language to make the inexpressible tangible and express inner truth and wisdom in one's own authentic language.

The ability to creatively reflect empathetically fosters compassion, enables a deeper connection and relating with others, and creates spaces for compassionately collaborating through deep talk and authentic communication. Empathy arises from reflection that points beyond the self. Creative Reflective Practice fosters listening and understanding, Creative Agility enables empathetic action that is adapted to the situation, and spiritually inspired poetry creates connections that go beyond words. Together they form a fabric of compassion, resonance, and resilience. Creative Reflective Practice sharpens the clarity of communicative expression, Creative Agility ensures that communication remains appropriate to the situation, this is both flexible and compassionate. And spiritual poetry opens

subtle channels for deeper, more transcendent understanding, eventually to the point of clairvoyance.

Creative reflection strengthens creativity by enabling continuous and persevere learning through acting, iterative adaptation, and innovative problem-solving. Creativity thrives in reflective spaces where practice, agility and transcendent inspiration combine. While Creative Reflective Practice offers methodical clarity, Creative Agility creates space for spontaneous innovation. Spiritual poetry inspires us to see the world transparently with new eyes and thus experiencing, creating and communicating new things.

By combining the different creative approaches creative reflection becomes an irreplaceable practice for not only surviving in a world shaped by AI and BANI, but also for actively and humanely leading it as wise and compassionate leaders and organization.

A Holistic Creative Reflection Perspective fosters Non-Cognitive Competencies such as integrity, inner wisdom, empathy, and creativity. It enables transcendent communication and transparent problem solving beyond roles and job profiles. As a future skill, it calls for holistic teaching and creative reflective learning approaches, and settings in both educational and organizational contexts, which are vital in BANI and AI environments.

12.11 Performing Holistic Creative Reflection for Skills Acquisition (HCRS) in Academic and Professional Contexts

In the reflection process, Creative Reflective Practice, Creative Agility, and spiritual poetry unfold for the second author as interconnected approaches that complement and reinforce each other.

Through Creative Reflective Practice, she engages in iterative self-questioning and “reflection-in-action” while developing projects, teaching formats, or poetic texts. For instance, during the Erasmus + Creative Agility project, such reflection helps her grasp, why artistic interventions in organizations evoke both resistance and dialogue, highlighting the tacit role of emotions.

This reflection becomes effective through Creative Agility, her capacity to respond flexibly to uncertainty and ambiguity. Moving between her roles as lecturer, researcher, coach, entrepreneur, and foundation board member, she actively lives perspective shifts in real time, cultivating empathy, authenticity, and integrity. In teaching, she often departs from scripts or slides, reading and sensing the underlying dynamics of the field of participants through presence and alertness. This allows her to respond sensitively and create spaces for dialogue and co-creation, where spontaneous insights and solutions emerge.

Such creative skills and practices often open the space for spiritually inspired poetry, which transforms subtle perceptions into symbolic expression and communication. Poetic impulses arrive through deep listening, colours, and tonalities to the current moment, shaped into words, later eventually into texts, presentation slides, sketches, music, or mandalas. In her storytelling and design courses in the bachelor's degree program in Communication and Media, Multilingual Communication, and in the master's degree program in Innovation and Entrepreneurship at the Zurich University of Applied Sciences (ZHAW, 2025f), poems also arise from students' words, ideas, and feelings, interwoven with intuitive associations of the second author (Borghoff et al., forthcoming 2026).

Below poem “Within and without—Reflections of the non-cognitive” exemplifies this process as a form of Holistic Creative Reflection (HCR) by consciously adopting a creagile mindset while intuitively applying Creative Agility to deal with AI: it emerged while co-writing this chapter with the first author. Text passages from the draft were mirrored through the Large Language Model ChatGPT to create an initial poetic reflection, which the second author then further developed and transformed into a humanly resonant piece.

Together, the three creative reflection approaches form a living cycle. Creative Reflection clarifies, Creative Agility enacts, and spiritual poetry distills—linking the ‘I’, ‘YOU’, and ‘WE’ across academic, professional, and spiritual domains.

Within and without—Reflections of the Non-Cognitive

In silent depths where wisdom is found,
dignity rises with a wondrously sound.
Holistic Creative Reflection lights the path inside,
integrity and empathy become the guide.

Through open hearts and patient hands,
leadership grows where compassion stands.
With listening ears and words sincere,
we weave a transparent bond that draws us here.

Where chaos reigns and AI becomes your ping-pong ball,
creativity will heal the ancient crack in the wall.
With courage bright and communication clear,
we lead a BANI-world where all draw near.

(Birgitta Borghoff in a Holistic Creative Reflection dialogue
with ChatGPT 4.0 mini, January 2025)

Part III—Conclusions and Practical Implications for Promoting Compassionate Leadership Through Training Non-Cognitive Competencies and Holistic Creative Reflection Skills

12.12 Conclusions

The first two parts of this article provide conceptual and exploratory perspectives (part I) as well as creative approaches to reflection (part II). Taken together, they suggest the value of a meta-study across multiple frameworks to identify essential Non-Cognitive Competencies required for the leaders of the future. Yet, the true potential lies not only in mapping these competencies, but in focusing on how they can be practically cultivated through leadership training and applied to everyday business challenges. Developing such genuinely human capacities—including integrity, empathy, and creativity—remains a time-intensive effort. To address this, the integration of competency development with creative reflection, creagile, and spiritual approaches appears promising, particularly when embedded in holistic education and training programs for leaders.

Such integration is especially relevant in times shaped by AI and BANI environments. Leaders must be prepared to unlearn entrenched routines, to set aside ego-driven patterns, and to open themselves to new experiences. This requires humility, critical and creative self-reflection, and an orientation towards inner wisdom. The cultivation of wisdom, rooted in philosophy, psychology, and spirituality, is of relevance here. By combining Non-Cognitive Competencies with intuition and wisdom, leaders may activate their inner strength to confront the manifold and complex challenges of contemporary contexts.

Against this backdrop, further inter- and transdisciplinary projects are needed to explore the interconnections between these approaches and to design innovative training formats that foster Compassionate Leadership. Initial attempts to combine different perspectives, as demonstrated in part II, provide a first step towards such integration.

12.13 Practical Implications

The chapter identifies key Non-Cognitive Competencies and establishes their importance in organizational contexts. To strengthen its impact, these insights can be extended through a focused discussion of practical implications, including how organizations might actively foster such competencies in their leaders, what training programs or organizational practices could support this process, and how they can eventually be embedded in e.g. change management or HR processes.

Fostering Non-Cognitive Competencies requires organizational spaces that allow leaders and employees to deal constructively with uncertainty, emotions, intuition, and with experiences that cannot (yet) be easily verbalized. That requires protected spaces. Both empirical findings and theoretical perspectives from Creative Reflective Practice and Creative Agility—comprising above all emotional regulation, unlearning or dealing with uncertainty and not-knowing, or intra- and

interpersonal communication (Borghoff et al., forthcoming 2026)—suggest that new vocabulary—such as the notion of “Reizoffenheitsempathie [eng.: empathy for irritability]” developed in a living lab context at the ZHAW (2025e)—can help to capture and legitimize these subtle dimensions of human experience. Organizations can integrate diverse creative reflection and spiritual approaches and introduce formats such as a meditation or yoga units, mindfulness trainings, or even free-dancing and performance sessions to help individuals disengage from repetitive thought patterns and strengthen embodied awareness.

Living labs for “Creative Agility and Futures Literacy”, as piloted at the ZHAW (ZHAW, 2025e), provide an alternative promising pathway. First findings indicate the transformative potential of “lived perspective shifts” that emerge through collective creagile, intuitive, wise, and eventually spiritual non-cognitive practice. While such effective processes require time, tolerance, and the willingness to endure uncertainty, they have shown to enable more sustainable efficiency in the long run. Entrepreneurial Storytelling practices, as reconstructed by the second author (Borghoff, 2017/2018/2023; Entrepreneurial Storytelling, 2025) through the development of shared baseline narratives, further support the integration of Non-Cognitive Competencies and Holistic Creative Reflection Skills into organizational life and practice.

In addition, creative and spiritual literacy workshops, labs, or retreats—can nurture both individual creative reflection and collective creativity—e.g. spiritual poetry, intuitive and medial writing formats or Creative Agility workshops, as realized by the second author with her business brückenwege (2025) and at the Zurich University of Applied Sciences (ZHAW, 2025a); as well as creative coachings, trainings of intuition and meditation at her academy in progress, offered by the first author. In HR management, these approaches may be embedded in structured trainings for Non-Cognitive Skills, as also emphasized by Kusuma and Sarma (2023).

Moreover, in change management processes, Non-Cognitive Competencies can be institutionalized through the creation of dedicated change teams. Evidence from the international project on CreAIgile Literacy (ZHAW, 2025a) with the university’s project partner from the travel industry DERTOUR Suisse illustrates how employees can take on new roles such as ‘Creagile Emotioneers’, ‘Creagile Sustainers’, or ‘Creagile Prompters’, thereby actively shaping organizational transformation (Borghoff et al., forthcoming 2026).

Hence, there are already multiple promising approaches to train essential Non-Cognitive, genuine human Competencies for existing and aspiring leaders. However, systematic experience with such training is still limited, and there is a strong need for further development of training programs as well as for rigorous evaluation of their short- and long-term outcomes.

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Chapter 13

Relevance of Spirituality to AI Ethics in BANI Times



Raja R. Kanuri

Abstract This literature review presents the historic and current efforts in the field of AI Ethics and positions spirituality in light of the phenomenon of quantified self. It reveals the recurrence of certain principles, which led to the conceptualisation of AI Ethics frameworks. The inputs from various scholars indicates the scope of diversity in approaches to AI ethics and encourage further efforts with double charge thesis from a spiritual worldview. Such efforts could elaborate on the relationship between AI systems' design and spirituality, and thus offer an extension to human centric AI and to AI Ethics. It, being a beginner's observer's point of view, appears to be the first academic attempt of bringing two diverse topics: AI Ethics and Vedanta together, with a motive to find coherence in the context of AI systems. It lays foundation to further research incorporating Integrative Intelligence, Vedanta philosophy and the K-Model of Spirituality. Leaders, policymakers, spiritualists, technology makers, and enthusiasts in the field of AI ethics, may find this diverse approach helpful, in the design and governance of technological artefacts.

Keywords AI Ethics · Spirituality · Human centred AI · Vedanta · Integrative intelligence

13.1 Introduction

Brittle Anxious Non-Linear and Incomprehensible (BANI), or Volatile Uncertain Complex and Ambiguous (VUCA), however one describes it, they refer to not only the state of the whole world collectively, but also the state the individuals

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experience in it. To demonstrate compassion in such times is difficult, as being compassionate is an outcome of patience and understanding.

At the first glance one could find that the rapid developments in various fronts of the world collectively contribute to what we experience. The world economic forum's risk report 2025 names adverse outcomes of the frontier technologies as one of the contributors to such state of the world. Artificial Intelligence (AI) being one of such technologies is named to lead to quantified self (Schwab, 2016) and further to less compassionate individuals and societies. The fundamental understanding that compassion is sharing suffering with others, brings the problem of quantification to the forefront, making the field of AI Ethics relevant for discussion **in the context of BANI times**. When it is understood as a spiritual quality, there is also a need to understand the relationship between spirituality and AI Ethics. The recent times have seen an increase in the discussions related to AI Ethics not only among academia, industry, and aspirant professional AI auditors, but also in general society. While certain sections of the societies seem to be well informed of ethical implications of AI systems, but some do not. While the current legislative, social, and technological frameworks assure ethical behaviour of these systems, the relationship between spirituality and AI Ethics seems to be inadequately explored. This could be potentially due to the unsettled definition of spirituality, its association with organised systems of religion, and the perception that it is not scientific enough, which are embedded in our worldviews. At the same time, it seems that spirituality is often perceived as an individual pursuit with no relationship with AI systems. Amidst these circumstances, and several ethical problems with AI, in interest of compassion, this chapter attempts to position the problem of 'Quantified Self' caused by AI systems in AI Ethics. Quantified self can be understood as an outcome of 'one perceiving themselves or others through the means of quantification or quantifying methods.' Quantifying oneself for self-improvement, as the quantified-self society¹ does, is an example for the former, while making decisions about others mediated by quantifying technologies such as dating applications, is for the latter. Another interpretation of quantified self is quantifying the "Self" which is a spiritual entity. Taking the last approach and spirituality as a synonym for self-knowledge, this article initiates a discussion on the nature of relationship spirituality could share with the fields of AI Ethics and design. Applying some fundamentals of Vedanta, this article offers a beginner's perspective and aspires to contribute to the field. The structure is inspired from an ayurvedic methodology, called the Heya-Heya Hetu method, as below:

- The first section Artificial Intelligence provides the definition of AI systems for this article. The reader would also notice that, where appropriate, definitions and clarifications are provided across the paper as footnotes.
- The second section Heya identifies a specific, which for this article is the problem of 'Quantified Self' and the related.

¹ <https://quantifiedself.com/>

- The next section, Heyahetu, tries to address the problem(s) behind the problem. It assigns this role to the various principles discussed through the body of AI Ethics and presents the findings chronologically in three segments: pre-trustworthy AI, trustworthy AI, and post-trustworthy AI. They can be understood as the past and present of AI Ethics.
- The fourth section Haan attempts to portray the absence of the problem from Heya. This can be termed as the future for AI Ethics and discusses the relationship of spirituality with human centred AI.
- The final section Haanopaya proposes a solution, which could lead us to the stage Haan. It suggests further research efforts applying integrative intelligence and Vedanta.
- Finally, Conclusion is a summary of findings and future research directions.

13.2 Methodology

The literature was identified based on the keywords: “AI ethics,” “machine ethics,” “blind spots of AI ethics,” “(ethics) AND (machine) or (AI),” “AI AND ethics,” “machine AND ethics,” “trustworthy AND AI,” and “(ethics) AND (machine)” on the databases: JSTOR, IEEE, Scopus, and <http://www.scholar.google.com>. Industry specific literature (e.g., AI ethics in healthcare) and the one that considered AI as a science (e.g., robotics, general intelligence) were not included for the review. Literature that considered AI as technology and AI ethics as a discipline was selected, excluding the number of citations in the selection criteria. The identified literature was sorted chronologically based on the published date, and organised into pre, and post Trustworthy AI framework, with 2019² as the temporal cutoff mark. In addition to journal articles, news articles, books, and inputs obtained from field experts were also incorporated into the review along with recently published literature. The book Vivekachudamani by Sri Shankaracharya, (translated by Swami Madhavacharya, 1921) was referred to, for the fundamentals of Vedanta. (The reader should kindly note that the citations mentioning ‘verses’ refer to this source).

13.3 Artificial Intelligence

Rudimentarily, the word Artificial Intelligence (AI), made of “Artificial” and “Intelligence”, refers to intelligence which is artificial or anything which is applied in imitation. With a seeming inspiration from some ancient Greek and Jewish traditional folklore, the word AI, for the modern technology, was coined and

² As the trustworthy AI framework was released this year. <https://digital-strategy.ec.europa.eu/en/library/ethics-guidelines-trustworthy-ai>

published formally by John Mc Carthy in 1956 for the Dartmouth Conference (Buchanan, 2006). Although AI, as a technology, can be defined in many ways, the following definition encompasses most of the relevant attributes.

“Artificial intelligence (AI) systems are software (and possibly also hardware) systems designed by humans that, given a complex goal, act in the physical or digital dimension by perceiving their environment through data acquisition, interpreting the collected structured or unstructured data, reasoning on the knowledge, or processing the information, derived from this data and deciding the best action(s) to take to achieve the given goal.” (European Commission, 2019, p. 36).

It can be classified as a ‘systems’ form of intelligence (Nandram et al., 2017, p. 53), which has 3 stages in its life cycle: Input Data, Processing Algorithm, and Output Decision (Canhoto & Clear, 2020), which can be elaborated into sub stages (Silva & Alahakoon, 2022). AI assisted decisions could be Human in the loop (HITL), Human in the loop for exceptions (HITLFE), Human On the loop (HOTL), or Human Out of the Loop (HOOTL) (Ross & Taylor, 2021).

It is often difficult to separate AI systems from the various business models. For instance, amazon applies a certain model of recommender systems, but the amazon as business is not AI and AI is not the business. Amazon employs AI to offer affordable, and quickly deliverable products. Many AI applications used in everyday use other AI systems as data sources through a standard internet connection and are synchronised on multiple devices both stable and portable. This can be termed as ‘AI gossiping’ and marks the relevance of environment impact in connection to AI systems’ maintenance. Based on the nature of their role and perspectives, AI systems are usually known as: artificial agents, rational agents, machine learning solutions, robots, socio-technical systems, quantifying systems, or simply tools for human assistance. They also represent various automated decision-making artefacts, from a systems theory and socio-technical systems theory perspective. This chapter positions AI as a synonym to weak or narrow AI applications (or) machine learning solutions which demonstrate the qualities mentioned above. It focuses on ethics of such technological artefacts excluding the topics related to Artificial General Intelligence and Artificial Super Intelligence.

13.4 Heya—The Problem

The word “AI Ethics” could be understood in two ways. One, as ethics for AI systems (e.g. Robot Rights), and two, as ethics of AI systems (e.g. privacy, security etc). This chapter adopts the latter approach which was worded by (Hanna & Kazim, 2021) as,

“AI ethics is the attempt to guide human conduct in the design and use of artificial automata or artificial machines, aka computers, in particular, by rationally formulating and following principles or rules that reflect our basic individual and social commitments and our leading ideals and values”.

This definition illuminates that the discussion of the design, deployment, and development of AI systems do not lie distant from the field of AI Ethics, although ethics belongs primarily to philosophy. Concerns over inappropriate usage of data, public surveillance using camera robots, biased decisions in credit lending decisions, and criminalisation of certain communities are only a few examples of ethical problems with AI which come to our mind. Less spoken of, are the problems of, “Quantified self”, diminishing the nature of compassion and cooperation among individuals (Schwab, 2016), Increasingly quantified societies (Marr, 2020), impacts on intimate areas such as health (Sareen et al., 2020), and negative impact on individual subjective wellbeing, intrinsic motivation, and continued engagement in an activity (Etkin, 2016) which indicate the nature of the societies the future holds for us. Given the exponency of the technology, to which all of us are vulnerable, to the extent we become dependent on it (Coeckelbergh, 2020, pp. 107–108), the effect of AI systems on our compassion is not a problem of philosophers alone, but also of businesses, leaders, organisations, and every actor involved in the life cycle of AI. In the mainstream literature and discussions, we often hear several problems addressed by AI Ethics **most of which are from a societal, legal, technical and political perspectives**. However, **despite the interest in AI and religion intersection, the wisdom religions as spiritual traditions offers seem absent**. Consequentially, the discussions on the effect on quantified self, where self is a spiritual entity with relevance to compassion, seems to be not discussed. To verify this, the following section examines the various historic and ongoing efforts in the field of AI Ethics.

13.5 Heya Hetu—The Problem(s) Behind the Problem

This section is segmented into three sub-sections: Pre-Trustworthy AI, Trustworthy AI, and Post-Trustworthy AI. By placing a temporal cut-off for this segmentation in 2019, it tries to understand the past and present efforts in AI ethics.

13.5.1 *Pre—Trustworthy AI*

Discussions on the relationship between modern technology and ethics can be dated back to the mid-late twentieth century. In 1960, in his essay “Some Morals and Technical Consequences of Automation”, Wiener said, if machines were considered slaves, “complete subservience and complete intelligence do not go together”. He also emphasised the importance of reflecting on and understanding the consequences of automation at a rate which is higher than the human abilities. Partly refuting, (Samuel, 1960) responded that the functionality of machines is based on the inputs provided to them and therefore, they are not a threat to mankind. He, however, called for attention to review in advanced stages, due to

the complexity of neural nets, which were then in embryonic stage, which is relevant to contemporary situations. For close to 3 decades, there seems to be no discussion on AI ethics, possibly due to the AI winter.³ At the onset of one of the AI summers, the Association of Computing Machinery named: contributing to society and to human wellbeing, avoiding harm, honesty, fairness, privacy, confidentiality, and Innovation, as principles to ethical computation which remained consistent since 1992 (The Association of Computing Machinery, 2018). Later, lack of human intelligence, emotions, and values, and intended or unintended bias were considered as the cause of ethical concerns of the systems (Khalil, 1993). Then, based on an analysis of actual algorithmic cases, it was suggested that freedom from bias should be counted among the select set of criteria—including reliability, accuracy, and efficiency, according to which the quality of systems used in society should be judged (Friedman et al., 1996, p. 330). Further, a study on Artificial Moral Agents (Allen et al., 2005, p. 153) concluded that the origin of computers and ethics lie in materialist and spiritual worldviews respectively, which leads to the challenge of finding an appropriate balance. This study recommended the fusion of the top-down and bottom-up into a hybrid approach to systems' design by integrating diverse inputs and influences, including top-down values informed by a foundation of moral grammar, having a rich appreciation of context, and involving collaboration of various actors. Later, limited understanding of what a proper ethical theory is, lack of understanding what learning is, and epistemic problems which lie in the computer's inability to have common sense and world knowledge, were named as difficulties in defining ethics for machines (Moor, 2006). Further, morality distributed through infraethics⁴ along with an array of efficient moral enablers, with an authority to the state, were recommended as an approach to ethics for machines (Floridi, 2013, p. 741). In 2016, highlighting biased treatment by AI systems as a 'blind spot' in AI, Social systems analysis to the pre-existing strategies: Deploy and comply, Values in Design, and Thought experiments were the solutions offered. Analyses of the social and political history of the area of technology application, in conjunction with multi-disciplinary approach, were said to equally contribute to machine ethics (Crawford & Calo, 2016, p. 312). The unethical behaviour of AI systems was also attributed to the flaw in design during the inception of AI, which laid in capitalist operations, led by Herbert Simon (Penn, 2018) and the inability of AI systems to function "neutrally" and "objectively" was named among the four time-independent challenges (Hagendorff & Wezel, 2020). These discussions, collectively, inspired initiatives towards ethics frameworks for AI systems. The EU had commissioned the High-Level Expert Group on Artificial Intelligence to conceptualise a framework for AI Ethics in 2018. Based on the roles and factors of AI, Delegation and Responsibility,

³ The modern seems to have 2 summers and 2 winters, currently witnessing the third summer.

⁴ Infraethics is the grease that lubricates the moral mechanism in the right way and successfully. Right sort of infraethics support the right the right sort of axiology (Floridi, 2017), cited in the same paper.

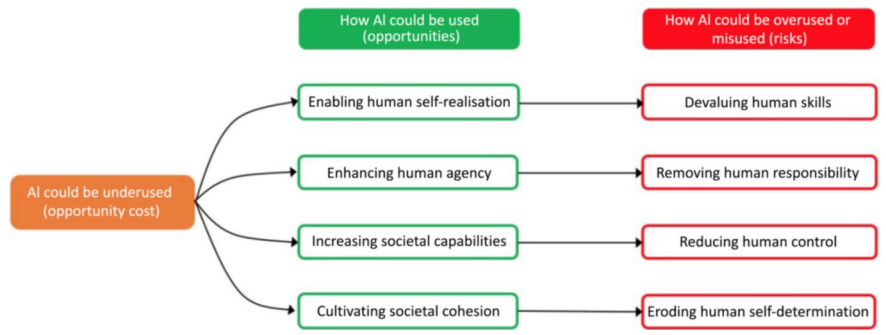


Fig. 13.1 Overview of the four core opportunities offered by AI, four corresponding risks, and the opportunity cost of underusing AI (Cowls & Floridi, 2018)

Invisibility and Influence, and Translational ethics, along with distributed agency, identification of the right set of fundamental ethical principles were recommended to this effort (Taddeo & Floridi, 2018). Based on the closest applicable discipline: Bioethics and inspired by five different then existing frameworks, a total of five principles (four from the mentioned frameworks), namely: Beneficence, non-maleficence, autonomy, justice, and explicability (their contribution) were proposed as principles in the Prolegomena to AI Ethics. (Cowls & Floridi, 2018, pp. 10–14), which are presented in Fig. 13.1.

Parallely, there were also efforts in the sub-disciplines such as data governance and algorithms. For example, Oaths, checklists and 5Cs were recommended as solutions for data experts (Loukides et al., 2018), Explicit soft and hard goals, knowledge of algorithm limitations, (Luca et al., 2016); Historical tradition, Personal Interest, Situatedness, Group Character, Professional Training, Institutionalization, Sanctions, Material Context, Scientific Reflection, and Long-Term commitment (Filipović et al., 2018), and SITL (society in the loop, going after Human in the loop) (Rahwan, 2018) were the recommended as practices to algorithmics. Although these two fields are related to AI Ethics, we continue to focus on AI Ethics as a separate discipline and consider the Trustworthy AI framework central to the discussion in the next section.

13.5.2 Trustworthy AI

Consequent to the various efforts cited in the previous section, multiple frameworks were launched to regulate AI, worldwide, by around 2019. Although they use different adjectives such as, responsible, accountable, holistic, and transparent, they strive to remain human-centric from different perspectives. (Hagendorff, 2020) reviewed 22 different frameworks which indicated overlap of multiple principles and common omissions. Among them, The Trustworthy AI framework by the “High Level Group on Artificial Intelligence” is considered by far as the most detailed AI Ethics

framework. The central aim of Trustworthy AI is to promote development and deployment of AI systems that are human centric, lawful, ethical, and robust, through four principles and seven requirements (Please see Fig. 13.2). The trustworthy AI guidelines are voluntary, generic, based on European values, prone to trade-offs, and are not mutually exclusive. The framework exchanges inspirations with other global frameworks, especially where the frameworks are under development. In line with this framework, the Assessment List for Trustworthy AI (ALTAI) was released in 2020, which presents requirement specific questions to evaluate the trustworthiness of AI systems. These two collectively inspire the proposed and under review EU AI Act, which adopts a risk-based approach and classifies the various risks caused by AI systems into: Unacceptable, High, Limited, and Low (or) Minimal risk categories (European Parliament, 2024). Permission to regulatory sandboxes’ operation to audit and regulate AI systems is one of the features of the AI Act. Collectively, these artefacts guide the constitution of AI governance teams in organisations and society by respective teams and individuals. Although there has not been any formally set auditing approach to AI systems yet, independent bodies build their mechanisms around these artefacts. The tensions between, contextualisation, standardisation, innovation, globalisation, and competition make the formulation of law and ethical principles are often debated upon.

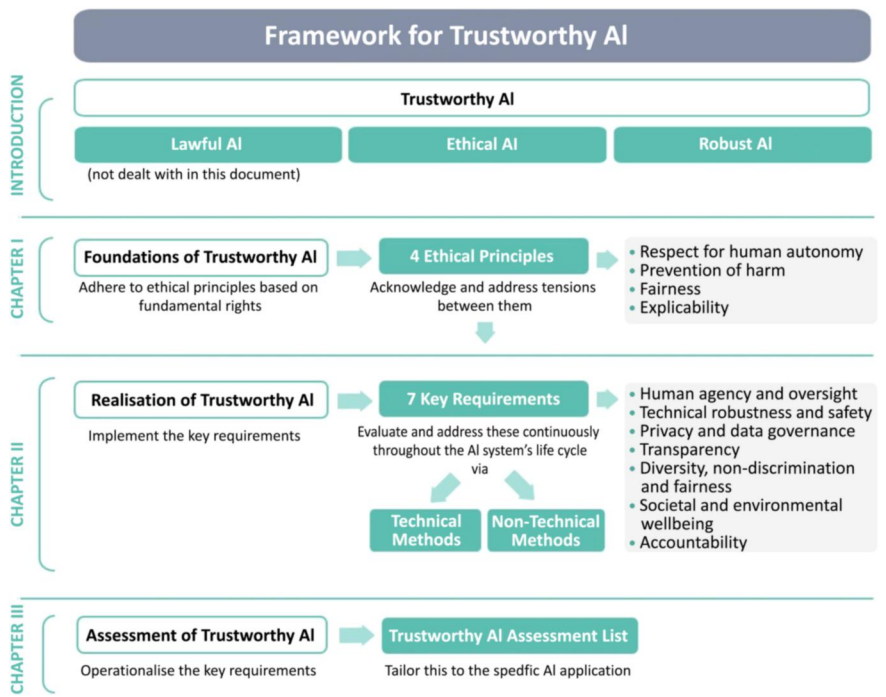


Fig. 13.2 Framework for trustworthy AI (European Commission, 2019, p. 10)

13.5.3 Post Trustworthy AI

Post the release of the Trustworthy AI, the landscape of AI ethics has received many contributions and criticisms, some of which were to the framework itself. In a newspaper interview, one of the expert group members expressed that redlines being diffused, real ethicists being hardly involved, and dominance of industry experts has led to 'ethical washing' in the framework (Metzinger, 2019) and insufficient guidance was pointed out as a limitation of the framework (Geißler & Spielkamp, 2019). Zerilli et al. (2019) recommended the usage of algorithmic systems at discretion, while (Dorobantu & Wilks, 2019, p. 1019) recommended perspectives comprising of embodiment and relationality along with the traditional core machine learning (AI) perspective) and bridging abstract values and technical implementation were also seen as extensions to the widely employed guidelines such as accountability, fairness, and privacy (Hagendorff, 2020, p. 115). There were other blind spots identified in AI ethics too, namely: Anthropocentrism, lack of calculating environmental impact, and casualisation of click-work. Alternatively, mistrust in AI systems and principles beyond technological solvability, based on critical and diverse approaches were suggested as remedies to these problems (Hagendorff, 2021). Since the lack of cultural diversity and 'cosm-ethics' phenomenon were making the framework ineffective (Goffi, 2021), going beyond taking normative form and involvement of true ethicists were seen as contributions to the future technological artefacts (Goffi, 2022, p. 1). It was also said that as technology cannot be a moral agency and the moral behaviour of AI lies in the design which is distributed among various actors (Kirchschläger, 2021, pp. 49–70). Further, (Waelen, 2022, p. 13) suggested that power analysis and human emancipation based on critical theory could contribute to the body of AI Ethics. Not just that, since AI systems could serve as tools to exercise human power and thus raise questions about justice of any kind, the responsibility of the diverse actors in building the technology in avoiding any oversights was also emphasised (Rafanelli, 2022, p. 5). Corresponding to the role of AI Ethicists, (Hagendorff, 2022) pointed that while they do not have any advantage in comparison to non-ethicists and their presence does not correlate to the occurrence of ethical concerns with AI systems. Another recent study indicated that technologists' perception of AI systems is ethically neutral, opposite to their perceptions of themselves, which showed the need of training at academic level, engagement in discussions around ethics, and supportive corporate policies and structures in bridging the worldviews (Griffin et al., 2023). Equally, (Steinhoff, 2023) pointed out that the insoluble contradiction between human flourishing and capitalism needs to be explicitly addressed. Most recently, (Mokander et al., 2023) proposed a three-layered approach to auditing and highlighted that the existing structures of AI Ethics and auditing are not robust enough to evaluate many models such as Large Language Models. Similarly, the requirement of autonomy which is common among the various AI Ethics frameworks was said to demonstrate colonialism, which could

be overcome by drawing on principles from moral philosophy and other ethics such as ubuntu (Mhlambi & Tiribelli, 2023).

The recent years have seen several inputs to enrich the field of AI Ethics too. While (Kijewski et al., 2024) questioned the robustness and rigour of the approaches, the transparency was questioned by (Hill, 2024). Tools to realise ethical AI by several actors (Ortega-Bolaños et al., 2024), embracing realism through philosophy of technology (Murgia, 2024), contextualising AI Ethics principles in light of socio cultural differences (Younas & Zeng, 2024), Virtuous practice design (Hayes et al., 2024), practitioners view (Pant et al., 2024), democratisation of value alignment (Huang et al., 2025) and focusing on sustainability as the third wave to AI Ethics (Bolte & Wynsberghe, 2024) are some of the additions to the ongoing discussion. Further, capability based approach (Ratti & Graves, 2025), citizen science (Cenci, 2025; Deshmukh et al., 2025), deontic approach (T.V & Rao, 2025), embracing the life-world perspective (Heuser et al., 2025), skills of AI Ethicists (Cocchiario et al., 2025), AI auditing skills (Li & Goel, 2024), Stakeholders' evaluation (Knight et al., 2025), universality (Hongladarom, 2025) and exercising meaningful human control in the deployment of AI systems (Robbins, 2025) have also been recommended towards AI Ethics. Alongside these scholarly discussions, there is also interest of applying feminist philosophy, and applying audit mechanism similar to financial audits are some ideas often heard in several discussions which engage enthusiastic AI ethicists.

13.6 Haan—Future

Despite the differences in names and approaches, the various efforts to AI Ethics aim to be human centred through their principles. Cross-skilling and preparation (Hyacinth, 2017), enabling and empowering humans (Krishnan, 2021), considering human well-being and morality at individual and collective levels (Tasioulas, 2022) were recommended as approaches to design of AI systems. Respecting human dignity as one of the central necessities of human life (Hanna & Kazim, 2021) and treating it as equal among equals and prioritising it as a conflict handling strategy, have also been emphasised for such an approach to AI systems (Stahl et al., 2023). Indeed, human centred approach suffers the criticism that it leads to unequal distribution of power related to ethnic origin, creed etc (Mellamphy, 2021) and presents a challenge of respecting human's cognitive capacities (Ozmen Garibay et al., 2023). However, coupling reactive and deliberate intelligences could prove useful in such circumstances (Chetouani et al., 2023, pp. 8–39). Incorporating these recommendations could lead to either design, development and deployment of AI systems which fulfil all of them, or systems which fail to meet them at least to some extent. Hypothetically, if the systems could incorporate all the recommendations, would it mean that the AI systems are positive or neutral agents? Perhaps, Floridi's double-charge thesis (2023) and the bottom-up approach by (Allen et al., 2005) could lead to another bottom-up approach to the AI systems.

What is this approach? The smallest unit of human societies is an individual human being. The highest need of the smallest unit is sustainable happiness, which can be accomplished by self-realisation. Since societies are a gathering of individuals, self-realised individuals could translate to happier societies, theoretically. If risk is defined as “An uncertain event or condition that, if it occurs, has a positive or negative effect on one or more project objectives and can be categorised as individual or overall” (Project Management Institute, 2021, p. 397), then any object intervening with the process of self-realisation can be categorised as a risk. In other words, interpreting as AI system’s role in self-realisation can be helpful understanding the definitions used in AI Ethics differently. Hence, as a next step, enquiring what self-realisation is, and what its process looks like will aid in embracing human centricity by taking a radical(fundamental) bottom-up approach from a spiritual lens towards AI Ethics.

13.7 Spirituality

According to Maslow’s hierarchy, self-realisation is attained when all the other lower-level needs are met, which seems to be the inspiration to (Taddeo & Floridi, 2018) argued that AI systems can contribute to self-realisation. It has also been described as finding the ecological Self (Naess, 1987) and is marked by higher levels of sustainable happiness, ethical, and compassionate behaviour. Vedanta⁵ defines self-realisation as the transcendence of the identity from the jiva to the brahman and as the most precious and highest goal of human life. This realisation or knowledge about self is also described as the highest form of devotion and revered higher than any other textual knowledge obtained from various sources (Verses 1–5; 32, Sankaracarya, 1921). To elaborate, according to Vedanta, existence comprises brahman (the absolute) and the jiva (the manifested world and beings), where the former is eternal, and the latter is temporary. They share a superimposition relationship and transcending these limitations is self-realisation or moksha. These two dualities are also known as purusa and prakriti in the Samkhya school and were named as *Materia Prima* and *Materia Secunda* respectively by Rene Guenon. He compares them to substance and essence, and potency and act (from Plato and Aristotle) and elaborates that Purusa or *Materia Prima* is beyond the process of quantification, whereas Prakriti or *Materia Secunda*, is susceptible to quantification (Guenon, 1945, pp. 23–30). In other words, brahman cannot be objectified (Radhakrishnan & Mohanty, 2008, p. 125) but the jiva, oneself, who is an abode of qualities and experiences (Nandram et al., 2017, p. 84) can be. Also, the emphasis here lies on the superimposition relationship between the brahman and the jiva, and quantification, which could intervene with the process of self-realisation. It is to be noted that AI systems can also be categorised as an expression of prakriti or jiva (being man-made). Therefore, the nature of the relationship between

⁵ Vedanta is one of the philosophies rooted in the Vedas in the Hindu traditions.

these two elements (AI and human) of jiva holds importance in the whole process of self-realisation. This can be demonstrated with an example. Individuals who consume substances for a kind of experience, may at some stage lead themselves into addiction. Although both the person and the substance are an expression of jiva, the person's process of self-realisation could be intervened by the substance due to the various effects of attributes such as cognition and neurochemical processes, which in vedantic terms relate to concepts such as *samskaras*, *vrittis*, and *vasnas*. The same analogy could be applied to AI systems. If the interaction with an AI system, due to the nature of quantification, leads to a state of mind which hinders the process of self-realisation, the AI system could be said to be 'spiritually harmful'. But what does the process of vedantic self-realisation look like in the first place?

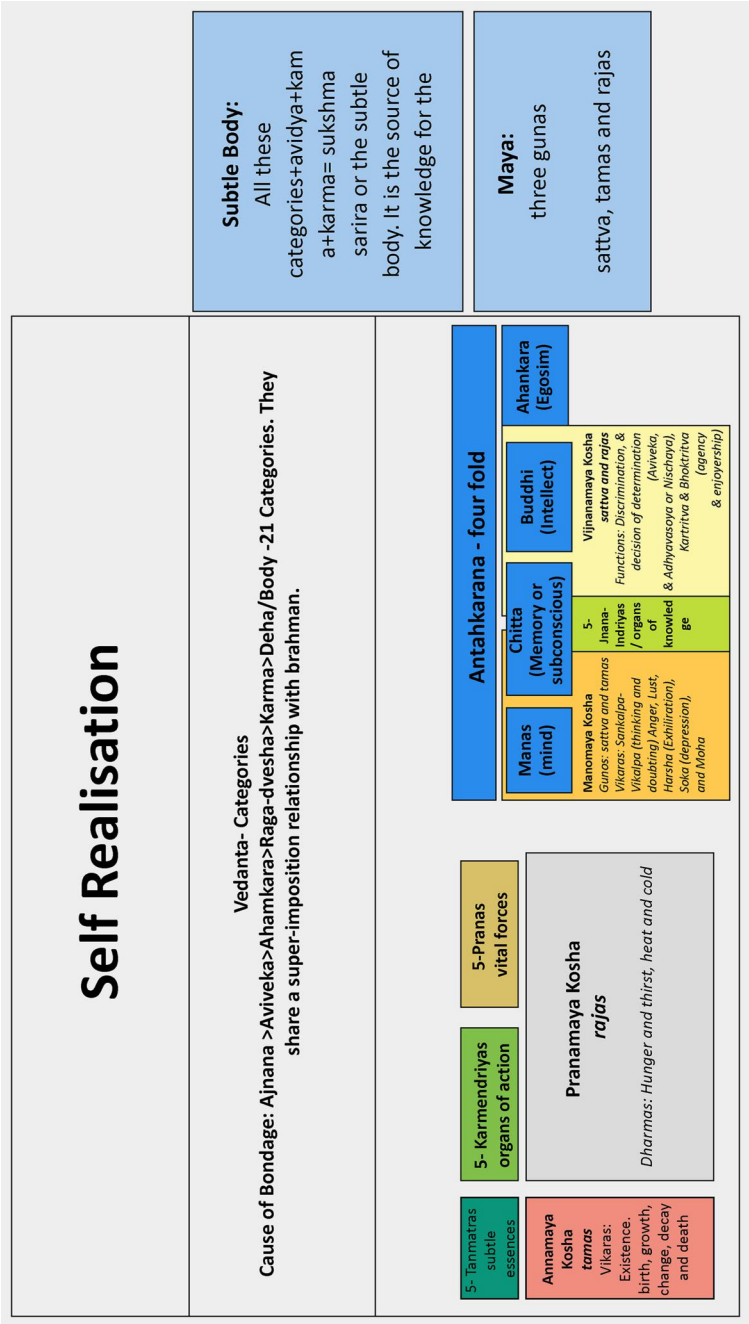
As represented in Fig. 13.3, vedantic self-realisation, as a process, involves interaction among various categories, some of which compose the jiva. These categories could be listed as: organs of action, organs of knowledge, subtle essences, vital forces, four-folded mind, and metaphysical elements such as *gunas* and *dharma* (There are other elements which have not been described here to restrict the discussion). The collective interaction of these categories leads to the superimposition relationship between the jiva and *brahman* led by ignorance or *ajnana*.

"Based on a verse from the Brihadaranyaka Upanishad, according to Vedanta, a person must go through 'Seven stages' (Panchadasi 7.28–84) in spiritual life for realizing the 'ones' true nature as 'Sat Chit Ananda,' which are as follows. (Vasudeva, 2004): 'Ajnana' (Ignorance), 'Avarana' (Veiling), 'Vikshepa' (Error and suffering), 'Paroksha Jnana' (Indirect knowledge), 'Aparoksha Jnana' (Direct Knowledge), 'Dukha Nivriti' (Transcendence of suffering), and 'Ananda Prapthi' (Attainment of Great Bliss)" (Juturi, 2021, p. 2). "The process has three means : 'Shravana' (hearing about the truth again and again), 'Manana' (reflection about the truth in mind), and 'Nididhyasana' (Meditation upon the truth). The three stages deal with three different problems: 'Pramana Asambhavana,' which means 'purports to teach about the Brahman or about some other entity.', 'Prameya Asambhavana,' which means 'doubt whether Brahman and Jiva are identical or not' in other words, 'doubt about the subject matter', 'Viparita Bhavana' which means wrong notions such as 'the universe is real, the difference between Brahman and Jiva is real, in other words' opposite tendency of behaving as if we are the body and mind' (Swami Abhedananda, 1967). (Juturi, 2021, p. 4) Further, an aspirant of self-realisation needs to demonstrate 6 qualities along with *viveka* (discrimination), namely: *Sama* (calmness), *Dama* (self-control), *Titiksha* (forbearance), *Sraddha* (faith), *Samadhana* (self-settledness), and *Mumuksuta* (yearning for freedom) (Verses 22–27, Sankaracarya, 1921).

Physical Gross body = $\frac{1}{2} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8}$ of the five different elements.

The gross⁶ physical body of jiva is made up of $\frac{1}{2}$ of one of the 5 elements and $\frac{1}{8}$ th of the remaining 4 elements: the air, the water, the sky, the earth, and the fire, which correspond to five sense objects: taste, touch, smell, sound, and sight (verses 72–74). This five-elemental composition corresponds to an individual's behaviour and

⁶The word gross needs to be understood as physical body or tangible.



experience based on the dominant element according to the Theory of Doshas. For example, people with dominant air quality, vata, are more sensitive to cold weather than those who have dominant earth quality, kapha. Similarly, the Theory of Gunas illuminates the variety in personality dispositions, owing to the dominant guna (Dube et al., 1983). These theories indicate that the process of self-realisation would be different to everyone, just as their experiences. Despite these differences, the process of identifying one-self beyond their perceived identity can be defined as spirituality (Nandram, 2022) and can be pursued as a discipline (Nandram, 2022). Due to this similarity, the word spirituality is used hereon to indicate self-realisation as a process.

Spirituality does not only form the highest goal of human life, but also increases happiness for business leaders (Thate et al., 2022) and shares a relationship with ethics (Nandram et al., 2022). Not only is spiritual intelligence one of the key skills for leadership (Gill, 2011) but also the distance between spirituality and leadership ceases to exist after a hypothetical point (Bindlish et al., 2012). Thus, drawing a relationship between spirituality, user experience, and AI systems could be seen as a contribution to the human-centric approach in AI Ethics. As an attempt to demonstrate this relationship, below is a brief explanation with the help of two requirements from the Trustworthy AI framework and the mechanism of the EU AI Act.

13.8 AI Ethics and Spirituality

The requirement: Human Agency and Oversight of the Trustworthy AI framework validates an AI system based on its interference with the end-user's decision-making process and the creation of human attachment and stimulating addictive behaviour. If autonomy is defined as one's ability to make decisions and live by their own laws, its relationship can be inferred to be with human rights. However, in light of the five-elemental composition, the Gunas' predominance, and spirituality, the degree of human autonomy can be understood as unique to everyone. If Sama is understood as the ability to remain calm, many studies already show that AI mediated platforms influence our ability to be calm, where the degrees of influence are different to different people. Similarly, the requirement of accountability focuses on auditability and risk management and evaluates AI systems based on the adverse effects they have on individuals and employment of redress mechanisms in design. Risk management approach is also vital to the audit criteria based on the EU AI Act (European Parliament, 2024). Does it then mean "If a jiva intends to pursue spirituality, does the requirement accountability cover the effects of AI systems on the process as risks? To what extent could the technology makers be held accountable for such risks?". Instinctively, one could say that spirituality is an individual journey, which is true from one point of view. However, the BANI situation of the world with everyday advances in technological applications

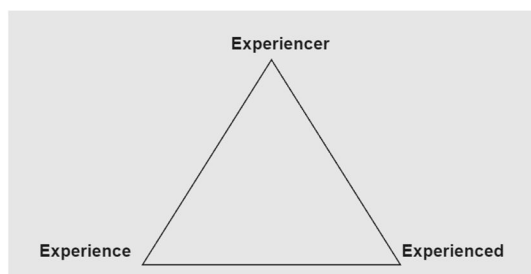


Fig. 13.4 Experience trinity, author's own representation

used throughout the day, makes the process of spirituality different from what it was earlier.

Another major common argument in the deployment of AI systems is the reduction of time spent and effort on 'mundane' work, which is often seen as an advantage. On contrary, Vedanta defines 'work'⁷ as a source to purification and a pathway to the process of spirituality, not reality (Verse 11), i.e., Karma Yoga. Similarly, in the case of applications such as ChatGPT, large language models mediate the process of learning,⁸ which also is considered as one of the pathways to liberation, i.e., jnana yoga. Besides, the terms and conditions of AI powered personal applications (social networking, dating, etc), which require the user to be above a certain age assigning them the legal responsibility and ownership to the consequences of (mis)use. While this appears rational and agreeable to a certain extent, it can be perceived differently through the Theory of Gunas and the Theory of Doshas. According to these theories, individuals demonstrate varied degrees of strength and vulnerability to the objects they interact with, independent of age to an extent. In this case, the nature of the AI systems, which is not clearly established yet, is critical to understand the nature of the relationship they lead to. The argument here is not to aim for the herculean task of creating AI systems in accordance with these theories, as the compliance with the Gunas and Doshas would involve understanding the dynamism of the existence itself. However, the recommendation is to embrace a worldview which reflects on the effect of these systems not just at the conscious levels but also at sub-conscious levels, or meta-physical, if it's the right word. Overall, a deepened understanding of AI Ethics, from a vedantic worldview could reveal the details of their relationship which could further contribute to human centricity of AI systems in BANI times.

⁷ Work- as per the source Vivekachudamani, work refers to any action.

⁸ Learning- can also be considered as an action.

13.8.1 Haanopaya—Solution

As AI systems serve multiple purposes in the various stages of human life; positioning end users as stakeholders, (Project Management Institute, 2017, p. 723), spirituality as a dimension to autonomy, dignity, and human centricity and AI systems as objects of interaction, makes phenomenology relevant to AI Ethics. Vedanta has been considered as transcendental phenomenology (Chaudhury, 1959), and phenomenology has taken the turn into post phenomenology recently. The relationship between (post) phenomenology and technological systems was already emphasised by (Buccella & Springle, 2022; Ritter, 2021). Also, the technologists' role in business related decisions (Thompson, 2019) already demonstrates the artefactual and social constructivist approaches detailed by (Introna, 2017). In the pursuit of the mentioned, building on the experience trinity (Please see Fig. 13.4), understanding vedanta as post phenomenology, applying the S-Model of Integrative Intelligence with a prior intent of coherence (Nandram et al., 2017), and in conjunction with the K-Model (Nandram, 2022) could prove helpful. Therefore, further research efforts clarifying 1) Effect of AI systems qualities essential for spirituality, 2) Relevance of the measures taken during the system design, and 3) Interpretation of AI ethics could result not only in exploring how ethics can be understood and defined, but also in the education of end-users on spirituality in the age of AI.

13.9 Conclusion

The reviewed literature indicates recurrence of certain themes in the historic and current frameworks, which seem to be rooted in western wisdom, a dominant worldview, and potential scope to investigate the position of compassion as a spiritual quality in the field of AI ethics. Consequently, the problem of quantified self, from a spiritual lens, does not seem to be central to the various efforts in AI ethics. This gap leaves a room to emphasise on process of spirituality and explore human centricity in AI design from a vedantic worldview. Specifically, principles such as human autonomy, prevention of harm, and accountability, and the notion of trade-offs could be further elaborated from a vedantic worldview. Further use case specific efforts includes: incorporating Vedanta, post phenomenology, K-Model of Spirituality (Nandram, 2022), and Integrative Intelligence (Nandram et al., 2017), with emphasis on spirituality which hosts compassion in individuals and societies in BANI times which use AI systems.

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Additional Readings

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Chapter 14

Scaling Impact: Alternative Routes for Growth-Agnostic Sustainable Businesses



Sujay Hammanavar

Abstract Hegemonic norms of economic growth and capitalism have influenced businesses to pursue exponential growth in profits, with less concern towards social and environmental extraction that comes along. Research has shown that alternative forms of business, that are “growth-agnostic” and radically “sustainable” in practice, are emerging. While mainstream business argues that growth fuels the impact they create on society, post-growth organizations aim to create and scale impact, without relying on exponential growth. Limited empirical studies exist on the scaling strategies used by post-growth businesses. Thus, this study aims to examine the strategies that “growth-agnostic sustainable businesses” (GASBs) use to scale their positive social and environmental impacts, without catering to conventional growth tactics. Using a qualitative approach (desk-based review and interviews) a pool of 14 GASBs was created, and their scaling strategies were analyzed using previously established scaling typologies. 3 business cases from the pool were interviewed to uncover deeper insights into their scaling strategies. The analysis showed that GASBs from the pool showcased the use of one or more of the pre-established strategies, at different stages of their development, and strive to spread their ideas/models/values to other businesses, aiming towards systemic changes. GASBs exemplified radical ways of doing business and exemplified 3 other strategies beyond those mentioned in scaling frameworks, indicating the need to create more robust frameworks to evaluate and analyze the scaling of impacts by post-growth organizations. Thus, the study presents 11 impact scaling strategies, with examples of how they were operationalized, which other GASBs can use. Although the sample size of the study is not adequate to generalize results, the study adds to the growing discourse on post-growth business and is purely exploratory in nature.

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Keywords Post growth · Growth agnostic business · Impact scaling · Sustainable business

14.1 Introduction

“The first commandment of economics is: grow. Grow forever. Companies must get bigger. National economies need to swell by a certain percent each year. People should want more, make more, earn more, spend more, ever more. The first commandment of the Earth is: enough. Just so much and no more. Just so much soil. Just so much water. Just so much sunshine. Everything born of the earth grows to its appropriate size and then stops. The planet does not get bigger, it gets better. Its creatures learn, mature, diversify, evolve, create amazing beauty and novelty and complexity, but live within absolute limits.” (Meadows, 1996)

Governments’ pursuit of continuous economic growth in terms of metrics such as GDP, mostly fueled by neo-liberal economist theories of development and its reliance on economic growth, has proved detrimental to the environment and society (Hickel, 2020; Jackson, 2011; Raworth, 2018). Over the years, this has translated into capitalist businesses pursuing endlessly growing profits for their shareholders, extracting from the environment and society in doing so (Schrempf-Stirling, 2013). Since the fetish of growth doesn’t diminish, this extraction keeps increasing, as proved by (Haberl et al., 2020) that absolute decoupling of economic growth from environmental degradation is impossible. However, academic discourse in steady-state, ecological, and post-growth economics presents an alternative worldview of development, without absolute dependence on economic growth and GDP (Jackson, 2011; van den Bergh & Kallis, 2012).

Discussions on post-growth economics have largely neglected the role and functioning of business, which makes it difficult to imagine how organizations can operate and thrive in post-growth economies (Liesen et al., 2015; Reichel and Seeberg, 2011). There are however exceptions that attempt to envision dimensions of post-growth business and to rethink theories of conventional organizational growth by linking them to post-growth ideologies (Banerjee et al. 2021; Sekulova et al., 2013). While there is a high corporate and political reluctance to post-growth thinking, as it opposes capitalist, colonial, and consumerist notions (Khmarra & Kronenberg, 2018), alternative “post-growth organizations” are emerging in the form of Non-Profit Organizations, Social Cooperatives, Social Entrepreneurship Organizations (SEOs) (Gebauer, 2018; Colombo et al., 2023; Liesen et al., 2015). Most post-growth organizations are agnostic to whether they grow or not, as they don’t align with conventional, capitalist norms of growth.

There are limited empirical studies on growth-agnostic businesses, their motivation, structures, challenges, and policy interventions required to support such businesses; this is comparatively negligible against literature on conventional, growth-oriented businesses (Gebauer, 2018). Further, studies on how post-growth businesses can increasingly amplify their positive impacts on society and the

environment, are non-existent besides a paper on Social Agricultural Cooperatives in Italy, by (Colombo et al., 2023).

Thus, the aim of this study, firstly, is to understand the strategies that growth-agnostic sustainable businesses (GASBs) use to scale positive environmental and social impacts, without relying on conventional, capitalist forms of business growth. Secondly, to create actionable knowledge on scaling impact that can guide other sustainable businesses, policymakers, and stakeholders in the transition to a post-growth economy. The study is exploratory and intends to contribute to the nascent and continually developing academic discourse on post-growth business and scaling impacts.

The study poses the following research questions:

1. How can growth-agnostic sustainable businesses scale their positive social and environmental impacts, without following the conventional norms of business growth?
2. What are the enablers and barriers to GASBs, in scaling their impacts?

The objectives of the study are:

1. To construct a pool of GASBs, representing various business types, sizes and socio-economic contexts.
2. To analyze primary and secondary data on these GASBs and identify the impact scaling strategies they demonstrate.
3. To present impact scaling strategies exemplified by GASBs, using previously established scaling typologies.
4. To identify the major barriers and enablers for GASBs in scaling their impacts.

Section 2 of the paper presents a brief background that provides a rationale behind pursuing the topic, and defines key concepts derived from a literature review of the previous academic work on business and growth, sustainable business, and scaling impacts. Section 3 elaborates on the methods used for sampling, data collection, and analysis. Section 4 presents the results; a pool of 11 GASBs with a description of the scaling strategies they exemplified and 3 business cases further detailing the scaling strategies with specific examples derived from interviews. Section 5 discusses the results, providing details on trends observed, the relevance of the findings in the greater context of business, and the limitations of the study, and the paper ends with concluding remarks in section 6.

14.2 Background and Literature

14.2.1 *Growth, Post-Growth Economics, and Business*

Since the 1950s, after every few decades, the global economy has doubled (IMF, 2023); with energy and resource demand increasing every year (Wilkins, 2022). Capitalism is the main driver of growth, it generates profits that are not distributed

evenly, fueling income inequality and the many associated problems that come along, such as poverty, hunger, and discrimination (Wilkins, 2022; Hickel 2018). In a market economy, the constant interplay between banks, credit and businesses, through transactional relationships, creates a “growth spiral” that forces businesses to keep growing (Binswanger, 2013). And since governments aim to maximize GDP growth, the economic system caters to for-profit businesses and fosters their growth (Hinton & Maclurcan, 2019; Hinton, 2023). In this system, the purpose of business is to make as much profit as possible and distribute it to their owners, investors, and shareholders (Schrempf-Stirling, 2013). Rather, the system makes it difficult for alternative forms of non-profit-oriented business to thrive, via stringent laws like limits on business income and non-competition rules that apply to not-for-profit organizations (Hinton, 2023).

Degrowth or Post-growth is the notion that it is feasible to transition to and live prosperously under a new political economy with a much lower resource throughput (Kallis et al., 2018). This is not a new idea. It found roots in Club of Rome’s report, *Limits to Growth* (1972), in which the authors argued that it is impossible to have an economic system that relies on endless growth, on a finite planet. Heavily criticized in its time by mainstream economists and politicians, the report over the years has gained widespread popularity. The idea was further developed in the 1990s by steady-state economists that the costs of growth outweigh the benefits after a specific threshold (Daly, 1993), and through ecological economics the acknowledgment of the physical boundaries of earth systems and how infinite resource extraction endangers the overshoot of tipping points (Rockström et al., 2009). To systematically tackle the climate crisis, global inequality, and biodiversity destruction, we need what Schumacher called “an economy of enoughness”, what is now known as “sufficiency” (Schumacher, 1973).

Businesses would be the fulcrum of this economic transition, as they play a critical role in the economy and society at large. A post-growth economy requires a set of organizations and businesses that operate within planetary boundaries, meeting fundamental human needs, and creating growth-independent value while being more regenerative and distributive (Raworth 2017; Banerjee et al., 2021; Daly, 1993). These are often called “growth-agnostic businesses” which prioritize qualitative growth or development, over infinite quantitative growth, and operate within ecological and social boundaries, (Raworth, 2018; Capra and Henderson, 2014). They symbolize post-growth organizations that are not focused on profit maximization and accumulation and are agnostic to whether their business grows or not.

There are also other forms of growth-agnostic businesses that do not have a sustainability-oriented motivation. Several small and medium-sized enterprises (SMEs) pursue the no-growth option due to employee-wellbeing concerns, increased compliance costs, social obligations, and community and supplier relations (Wiklund et al., 2003; Burlingham, 2016; Brickson, 2007). (Gebauer, 2018) found that while it is challenging to find businesses that explicitly state their growth-critical approach, when 700 SMEs from Germany, Austria, and Switzerland were surveyed, nearly half of them disclosed no-growth plans after a specific size and a quarter displayed slow-growth, whereas only 2% aimed at strong growth. The concept is further expanded by

(Liesen et al., 2015), who propose the idea of “Successful Non-growing Companies” (SNCs) as a viable business model. Analyzing 10 existing SNCs in Germany, they find that qualitative growth alternatives offer advantages in a post-growth economy, with emphasis placed on the quality of products, services, and work-life balance over quantities sold. Furthermore, 2 studies also found that SMEs had chosen “sufficiency-based limits to firm size”,

owing to the environmental costs of pursuing conventional growth (Gebauer et. al., 2015). As opposed to conventional businesses, these SMEs invested cost savings due to increased efficiencies into further improving the quality of their products/services, avoiding rebound effects, and enabling sufficiency (Gebauer & Sagebiel, 2015).

14.2.2 Sustainable Business

Sustainable business has been widely researched in management studies literature. Most often, businesses use the triple-bottom-line approach to sustainability, managing their financial, social, and environmental risks, while fulfilling obligations such as legal compliance (Elkington, 1999). The focus is largely on how business-as-usual practices can become *more* sustainable and how inducing sustainability initiatives and measures could enhance competitive advantage (Porter and Kramer, 2019). Although there is growing awareness within businesses and emerging government legislations to hold businesses accountable for negative impacts and to own up to social responsibility, there is a major disconnect between the incremental, micro-level progress in sustainability initiatives of businesses, and the ever-increasing severity of macro-level problems such as climate change, inequality, hunger and poverty (Dyllick & Muff, 2016). Thus, in the context of this paper the idea of a “truly sustainable business” presented by (Dyllick & Muff, 2016), is referred to. They explain that Sustainable Businesses (SBs) focus on *creating* positive social and environmental impacts and shift from merely reducing negative impacts, to becoming a force for good by using their resources and competencies to address global challenges. They align with Peter Drucker’s idea that every pressing global issue is an opportunity for business in disguise (Drucker Institute, 2011). SBs transcend individual/group interests for the greater good of people and the planet and actively engage in shaping policy and changing consumer behavior to address global issues effectively.

14.3 Scaling Impacts

In business literature, “scaling” is used interchangeably with “growth”, further catering to the hegemonic ideas of conventional growth (Jansen et al., 2023). The scalability of a business (and potential impacts) is closely linked to its ability to

grow profitably (Nielsen & Lund, 2017) i.e., conventional businesses argue that organizational growth enables the scaling of their business impacts. This is also true in social enterprise literature, where growing the organizational size and ecosystem are considered the main strategies to scale impacts (Islam, 2022).

Scaling impacts is a key objective for many social change practitioners, driven by the need to address the extensive nature of social and environmental challenges. Transition studies literature discusses the interactions between innovations at different scales, giving rise to the ideas of deepening, broadening, and scaling up of initiatives (Geels, 2002; Van den Bosch & Rotmans, 2008). Along similar lines, researchers have studied scaling of organizational impacts in the not-for-profit sector, generally identifying 3 strategies—scaling out, up, and deep, aimed at influencing large system change (Westley et al., 2014; Moore et al., 2015). However, it is observed that the knowledge on scaling is fragmented, and the terminology used by various researchers is inconsistent.

(Lam et al., 2020) analyzes several scaling processes derived by many of the researchers mentioned above, consolidate common ideas, and present a typology of amplifying impacts of sustainability initiatives. This consists of 8 strategies, namely, *stabilizing*, *speeding up*, *replicating*, *growing*, *transferring*, *spreading*, *scaling up*, and *scaling deep*, (refer to Table 14.1 for an explanation). Although this typology is not specifically business-centric and has been built by considering sustainability initiatives of different types of organizations, it provides a wide coverage of the most prevalent strategies and aims to bring consistency to the terminology used in previous studies. It is well suited to be applied to post-growth organizations, especially to GASBs, considering their inherent motivation to create impact. Hence, Table 14.1 also serves as an analytical framework in the synthesis of the results of this study, to map, group, and explain strategies used by the GASBs.

Table 14.1 Analytical Framework of Scaling Strategies (Lam et al., 2020)

Category	Strategy	Meaning
Scaling Within	Stabilizing	Increasing duration of impact and resilience to pressures
	Speeding Up	Increasing the pace of delivering impact
Scaling Out	Growing	Increasing the range of impact; similar context
	Replicating	Re-creating a similar dependent initiative; dissimilar, context
	Transferring	Starting a similar independent initiative in a new location; similar context
	Spreading	Disseminating core values, ideas, and models to
Scaling Beyond	Scaling Up	Creating impact on higher organizational levels, influencing policy, changing rules
	Scaling Deep	Creating impact on societal values and behaviors, breaking taboos, showing new ways of doing things

Post-growth literature portrays scaling to achieve broader prosperity and make a significant impact by improving the well-being of humans and ecosystems, fulfilling societal needs, and driving systemic changes (Pansera & Fressoli, 2021; Colombo et al., 2023). Post-growth organizations tend to reproduce their models instead of growing, i.e., they aim to replicate their successful program's results rather than recreate all its features (Pansera & Fressoli, 2021). There are scarce empirical studies done specifically on scaling impacts in post-growth business, the exception being a study on Social Agricultural Cooperatives (SACs) in Italy (Colombo et al., 2023). They studied 3 SACs on their growth strategy and scaling of impacts and identified 9 scaling routes that the SACs had used—scaling up (inwards and outwards), scaling out (inwards and outwards), scaling deep (Inwards and outwards), scaling with (inwards and outwards), and scaling down. It was noted that SACs use a synergistic approach by using a bunch of to-scale impacts. This paper has initiated academic discussion on post-growth scaling, urging more empirical research to be done on the same. However, only one kind of post-growth organization was examined in the study (cooperatives) and they did not necessarily have sustainability-oriented values. Thus, this study aims to further contribute to the findings, by exploring scaling strategies of a larger sample of businesses, representing various business types, and from various countries and socio-economic contexts.

14.4 Methodology

This study is based on a qualitative research approach involving mixed methods (using both primary and secondary data) to gain insights into the strategies that GASBs operationalize to scale their socio-environmental impacts. This approach was favorable because it helps explore phenomena about which there is limited existing research (Aurini et al., 2022; Denzin & Lincoln, 2017).

14.4.1 Methods

A desk-based review of existing academic literature (theoretical and review articles), grey literature (agency reports, white papers, conference proceedings), company websites, sustainability/impact reports, blog posts, recorded interviews and podcasts was conducted to identify a list of GASBs. Purposive sampling technique was used to obtain a range of different businesses, that would help explore the phenomenon of scaling impacts in GASBs, and the search was guided by the criterion mentioned in Table 14.2, which ensured that the sample included businesses that exhibit the above-mentioned phenomenon (Patton, 2022; Suri, 2011). While Google was the main search engine, other web platforms such as LinkedIn, YouTube, Spotify, X, etc. were also used. The list of businesses was further filtered based on extensive data availability, and the businesses that most closely aligned with the criterion below

Table 14.2 Criteria to identify and filter GASBs

Category	Criterion	Demonstrated by
Sustainability	Strong commitment to sustainability	• Credible claims for positive social or environmental impacts • Transparent about negative social or environmental impacts
Impact Scaling	Has scaled its positive social or environmental impacts	• Significant positive social or environmental impact at scale (indicating scaling has happened) • Convincing activities/attempts to maximize impacts
Growth Orientation	Rejects conventional growth norms	• Public statements about conventional growth strategies • Critical of their own growth • Not publicly listed (indicating that shareholder profit maximization is not a priority)
Organizational Form	A variety of alternative business organizations are represented	• Forms such as Non-Profits, Member/Worker Cooperatives, Social Businesses/Social Entrepreneurship Organizations
Data Availability	Sufficient data available on company websites, reports, and external sources	• Publicly accessible reports, detailing the impacts and scaling initiatives • Interviews with external organizations on growth plans and scaling impacts • Independent agency reports/media coverage

were selected as a “business pool”. Further data collection was done on the mission, values, purpose, history, sustainability commitments and initiatives, and demonstrated scaling of impacts.

Out of the pool of businesses, the founders/directors of 3 businesses were invited to participate in individual in-depth interviews (details in Table 14.3). These interviews were conducted virtually and were recorded, aiming to obtain detailed insights of their history and values, their sustainability commitments, socio-environmental impacts, scaling strategies, enablers, and barriers, complementary to secondary data

Table 14.3 Details of interviewees and business cases

Name of Interviewee	Designation	Company, Location
Harshad Barde	Executive Director	SWaCH Cooperative, Pune, India
Tammi Jonas	Co-Custodian	Jonai Farms and Meatsmiths, Victoria, Australia
Oscar Boatfield	Co-Founder	Wildish (formerly known as “BearMade”), Harrowgate, United Kingdom

collected from step 1. The interviews were semi-structured to allow for standardized, yet free-flowing, open-ended conversations, the questions asked being structured around the research question (Aurini et al., 2022). The 3 businesses were selected based on sufficient data availability that indicated scaling of impact using a range of scaling strategies that needed further exploration. Interviewees held positions of founder/director and were associated with the business since its inception, ascertaining their experience and competence to answer the interview questions and provide first-hand, detailed information about the business.

14.4.2 Analysis and Synthesis

Raw data collected from recorded semi-structured interviews (transcripts) was analyzed using QDA Miner Lite qualitative analysis software. The grounded theory approach was used as it allows the creation of theory based on empirically collected and analyzed data. Using the GT approach allowed for themes to emerge naturally or inductively (Chun Tie et al., 2019; Charmaz, 2006). These themes were then mapped to an analytical framework derived from (Lam et al., 2020) (Refer to Table 14.1). Constant comparative analysis during the coding of interview data was done to create meaningful connections between the case businesses and find differences and commonalities (Charmaz, K., 2006; Chun Tie et al., 2019).

Secondary data on businesses related to their outlook on growth, socio-environmental impacts, and scaling strategies were analyzed to find mentions and examples of the above, and these chunks of information were recorded in spreadsheets. Themes were generated to describe the information concisely, and these were then analyzed using the analytical framework (Table 14.1) to ascertain the scaling strategies exemplified. The results were synthesized, by applying the scaling strategies to a business context using the analytical framework (Table 14.1), illustrating which GASBs exemplified them and how the strategies were operationalized by the business.

14.5 Results

14.5.1 Business Pool

Table 14.4 presents the list of GASBs that was generated after conducting a desk-based review, as detailed in the section above. The business pool showcases a range of businesses, from 8 countries and various sectors, represents a wide range of ownership types, and maps the scaling strategies that were exemplified by them. Table 14.4 is only a summary table prepared from a more extensive spreadsheet, refer to appendix 1.2 for detailed information.

Table 14.4 Business pool of GASBs

Name	Location	Highlights	Scaling Strategies
Patagonia	USA	Durable, sustainable clothing and outdoor gear. Educate customers on becoming conscious consumers.	Scaling Up, Scaling Deep
Riverford Organics	UK	Organic Food, low footprint deliveries, support biodiversity conservation and rewilding efforts	Growing, Stabilizing, Scaling Deep
Purpose Economy	Denmark	Transformed 100 + business to steward ownership	Spreading, Scaling Deep
Ecosia	Germany	Planted 100 million + trees	Stabilizing, Speeding Upscaling Deep
NonProfit Ventures	Netherlands	Transform businesses into non-profits, educate on post-growth entrepreneurship	Spreading, Scaling Deep
Triodos Bank	Netherlands	Pioneered ethical & sustainable banking; transparent investments	Scaling Up, Scaling Deep
Unicorn Grocery	UK	Organic Grocery, locally sourced at competitive prices	Transferring, Spreading
Liberation Foods	UK	Fairtrade, Vegan produce—shared ownership with smallholder farmers	Stabilizing, Growing
Timbaktu Collective—Dharani Cooperative	India	Livelihood for 2000 + smallholder farmers; organic food	Stabilizing, Spreading
Brewgooder	UK	Provided 200 million liters of water in 15 developing countries	Growing, Speeding Up
Grameen Bank—Yunus Social Business	Bangladesh/ Germany	Impacted 17 million + people through social businesses	Spreading, Scaling Deep
SWaCH Cooperative	India	Empowered 3500 + waste pickers with dignified work, health benefits, and diverts 350 + tonnes waste away from landfill, everyday	Scaling Deep, Scaling Up, Stabilizing
Wildish (BearMade)	UK	Produce durable organic cotton bags, lifetime guarantee, repairs, open-source info, and fund a 200 + member outdoor club	Replicating, Scaling Deep, Right-sizing
Jonai Farms and Meatsmiths	Australia	Family run farm, models food sovereignty and agroecology, raising heritage animals sustainably	Scaling Deep, Scaling Up, Aggregation, Downscaling

All the businesses portrayed the use of at least one or more scaling strategies laid out by (Lam et al., 2020). The most widely used strategies by the GASBs were *scaling deep*, *spreading*, and *stabilizing*.

14.6 Scaling Strategies

14.6.1 *Scaling Up*

This strategy creates an impact on higher institutional levels, by influencing change in policy through advocacy, lobbying, activism, or supporting radical ideas (Lam et al., 2020). This was exemplified by Triodos Bank, through the publication of several white papers on key issues such as finance, fast fashion, regenerative business etc., providing policy recommendations on these issues and showing a new, radically transparent, and sustainable way of banking (Triodos Bank, 2023a).

14.6.2 *Scaling Deep*

This entails changing values, societal norms and mindsets, by breaking taboos, promoting new norms and showing new ways of doing things (Lam et al. 2020). In a business context, this applies to demonstrating alternatives to business-as-usual, influencing societal culture towards systemic changes (Moore et al., 2015; Colombo et al., 2023). For instance, Triodos Bank has radically transformed banking norms by financing only socially and environmentally positive ventures. Their vision “Finance change. Change finance.” aptly reflects this strategy to influence the banking sector to “become more transparent, diverse and sustainable” (Triodos Bank, 2023b). Similarly, Yunus Social Business (YSB) promotes the idea of a “social business” having an unconventional approach to equity investment—essentially blocking infinite profit extraction and fostering social and environmental impact. Nonprofit Ventures drives change by facilitating a post-growth entrepreneurship ecosystem, promoting the idea of non-extractive enterprises, through various services and educational initiatives (Nonprofit Ventures, 2023; Impossible Podcast, 2023).

14.6.3 *Growing*

Growing refers to increasing the “range” of an impact by covering a larger area, engaging with more communities or starting similar affiliate programs, which are dependent on the parent initiative, and are in a similar socio-economic context (Lam et al., 2020) In businesses, this could mean offering

the company's products/services/initiatives to a wider audience/area within the same region/country or opening franchisees. This strategy was exemplified by Riverford Organics, which started off with its own farm and went organic in 1987, over the years with increasing demand has grown to three sister farms across the UK (and a fourth one in France), all following organic farming practices pioneered by Riverford (Riverford Organic Farmers, 2023a). Additionally, the items they don't grow on the sister farms are sourced from 40+ small-scale "growers and makers" that agree to respect their supplier charter. This led to increasing Riverford's customers from 30 families a week in the early years, to around 90,000 a week today, successfully scaling the impact of organic farming and providing nutritious food to its customers (Riverford Organics Farmer, 2023b).

14.6.4 Replicating

This entails duplicating an initiative in a dissimilar socio-economic context, with the new initiative/business being dependent on the parent (Lam et al., 2020). Although none of the businesses in the pool showcased this strategy, one of the business cases mentioned in the next section exemplifies it, read more in "4.3.3".

14.6.5 Transferring

Transferring involves starting a similar initiative/business, independent of the parent one, in new locations operating in a similar socio-economic context (Lam et al., 2020). For instance, Unicorn Grocery employs a transferring strategy focused on catalyzing the establishment of similar but independent worker-owned grocers in other cities in the UK, fostering cooperative principles. Their "Grow a Grocery" guide, openly sharing operational insights, suppliers, pricing, HR resources, and stakeholder contacts, demonstrates their commitment to supporting the growth and replication of cooperative grocery stores, effectively transferring their successful model to other cities in the UK, and beyond (Unicorn Grocery, 2017).

14.6.6 Spreading

Spreading involves propagating the core principles and methods to other regions, in dissimilar contexts (Lam et al., 2020). In business, this would mean seeding new independent organization(s) in dissimilar contexts but spreading its core values and principles (Colombo et al., 2023). This was exemplified by Purpose Economy and YSB, in spreading the idea of steward ownership and social business, respectively,

to countries beyond their initial portfolios in Europe and Bangladesh. Purpose Economy has supported businesses in North America and Latin America, having transformed or financed 100+ companies so far (Purpose Economy, 2023a) and YSB has spread principles of social business to over 10 countries (Yunus Social Business, 2023).

14.6.7 *Stabilizing*

This strategy involves strengthening the impact by building resilience to external pressures/changes so that the duration of the impact is prolonged (Lam et al., 2020). In a business context, it would mean changing ownership or governance structures, diversifying offerings, and building capacity, to safeguard the values, initiatives and impact. For instance, after a decade of growth, Ecosia faced the challenge of preserving its mission and values while ensuring continuity beyond its founding members. By choosing a “steward-ownership” model in 2018, they secured their mission and entrepreneurial freedom. Under this model, a “Golden Share” held with a foundation safeguards the use of profits towards tree plantations and preserves independence by prohibiting the sale of shares and maintaining control within those actively engaged in its goals (Purpose Economy, 2023b). Similarly, Patagonia’s founder, Yvon Chouinard, transferred ownership to a nonprofit dedicated to environmental action, binding the distribution of profits as climate-crisis dividends, and realigning ownership with their planet-saving purpose (Patagonia, 2023a). Likewise, Guy Singh Watson’s sale of family shares in Riverford Organics transformed it into a fully employee-owned entity, protecting its foundational values and legacy against external influences, while allowing the business to thrive in its intended direction (Riverford Organic Farmers, 2020).

Amongst the cooperatives in the pool, Dharani Cooperative (DC) and Liberation Foods (LF) also demonstrated efforts to *stabilize* their impact. LF bolstered Brazil nut co-operatives against challenges by promoting transparent communication and facilitating training, enabling them to navigate market fluctuations and adverse conditions more effectively, resulting in improved performance and resilience (Fairtrade UK, 2020). Whereas, DC, diversified its product offerings to further provide income support and generate more livelihoods to smallholder farmers and women collectives, in their efforts towards “creating stable, alternative institutions” that thrive and last long (Kothari, 2014).

14.6.8 *Speeding Up*

Current socio-environmental challenges require fast and instant action, and speeding up refers to accelerating the delivery of impact to solve pressing global issues (Lam et al., 2020). This could be done through increasing the efficiency of the implementation of

sustainability initiatives, gained through experience, or by setting new ambitious goals and targets. This was demonstrated by two businesses from the sample, Brewgooder and Ecosia, both impact-driven startups with young founders. Brewgooder in 2021 committed to a “100x impact model” to provide 100 L of clean water per liter of beer sold (Brewgooder, 2023), and Ecosia’s revised KPIs for employees directed towards planting as many trees as quickly as possible, underlines their urgency in generating rapid, meaningful impact (Impact First Podcast, 2023).

14.6.9 Business Case Studies

A more detailed analysis was done of three case study businesses, via semi-structured interviews with their owners/directors to gain deeper insights on their scaling strategies, barriers, and enablers to scaling impact. A brief background of the 3 businesses along with the findings are presented in the following section.

14.6.10 SWaCH Cooperative, Pune, India

“If you’re a profit-oriented organization, you *have* to make profits in order to survive. We’d love to make a profit, but the profit is not really for the organization. The profit, for us, is when the waste picker’s income goes from Rs. 10,000 to 10,500, that’s our profit.” (Harshad Barde)

Unique among India’s worker-owned cooperatives, established in 2008, SWaCH comprises 3,500+ self-employed waste pickers. It provides front-end solid waste management services for a major city, covering 70% of the area. Rooted in a trade union since 1993, SWaCH has been actively involved in endeavors to create, preserve and protect the livelihoods of waste pickers in the city. This marked a pioneering step in acknowledging waste pickers’ role in urban waste management, granting them official authorization, identity cards, and additional benefits like medical insurance. Collaborating with the city, SWaCH handles 2,000+ Metric Tons (MT) of waste daily, recovering 350+ MT of recyclables.

14.6.11 Scaling Strategies

SWaCH exemplifies 4 of the 8 scaling strategies by (Lam et al., 2020) namely, Stabilizing, Scaling Up, Scaling Deep, and Spreading. Out of the 4, *Stabilizing* was observed to be used in several instances of SWaCH’s journey. As also seen in Riverford Organics, Ecosia, and Patagonia, SWaCH initially a trade-union, adopted a new ownership and governance model, in 2008, becoming India’s first

waste picker-owned worker cooperative. This was done to further institutionalize the efforts of waste pickers in urban waste management and to be able to get into an agreement with the local government to authorize their work. Because of their history as a vocal trade union, SWaCH has shown that the waste pickers can use the power of collective mobilization, to prevent attempts to derail their ecosystem and maintain their impact on the lives of waste pickers. When private players offered the government supposedly “turnkey, efficient, low-cost and instant” solutions to the waste management problem, disregarding the social implications and the livelihoods of thousands who depend on the current model, the waste pickers mobilized to keep their contract with the city. Over the years, it also diversified its services from door-to-door waste collection to awareness campaigns, thrift shops, donation drives, and waste management at events, to be in a better position in India’s fast-growing waste management industry and competing to create its own fit in the city. Based on its track record and demonstration of a unique and successful model, SWaCH was invited to government-led committees and discussions on policy changes, where it exemplified the use of *scaling up* as a strategy. It advised the local government in the formation of bylaws on imposition of fines related to waste segregation at source, which many other cities picked up on later. SWaCH was a member of the Drafting Committee of India’s Solid Waste Management Rules 2016 and played a vital role in the inclusion of provisions for promoting and preserving waste picker’s livelihoods, their formal registration, issuing ID cards, providing personal protective equipment, investing in their training, etc., taking their impacts from a city to a national (higher) level.

SWaCH played a vital role in influencing a societal shift towards the image of informal sector waste pickers, from one of indignity and discrimination to recognition and respect, portraying the *scaling deep* strategy. Their advocacy and activism led to formal recognition of informal sector waste pickers as “workers” and a designation of waste collection as legitimate “work”, by the city corporation. Harshad hopes to see more such independent worker-owned cooperatives of waste pickers in other cities of India, but pointed out challenges such as building an ecosystem, fighting competition and mobilizing waste pickers, which are essential to replicate the model and hence, there is still no other cooperative of the same kind in the country. However, SWaCH has propagated ideas and certain core elements of their model, such as decentralized processing units, women collectives, etc., to various cities via trainings, workshops, and engaging with other local governments, thus also exemplifying *spreading* as a strategy.

14.6.12 Jonai Farms and Meatsmiths, Victoria, Australia

“... trying to spread my (*our*) impact so that others can also share these voices and we actually get the same messages around the problems of capitalist economies and the promise of degrowth economies, and the promise of sharing land.” (Tammi Jonas)

Established in 2011, Jonai Farms is a 69-acre family-owned farm and butchery in rural southeast Victoria, Australia. It raises heritage black pigs, cattle, and crops, selling them through a community-supported agriculture (CSA) model in which members get a weekly/monthly share of whatever is produced on the farm (Cone & Myhre, 2000). Although meat consumption is a debated topic for its associated environmental and ethical issues, Jonai Farms demonstrates how enacting a food sovereignty approach (Patel & Edit, 2009), respecting the capacities of land, and conforming to principles of agroecology can transform food systems. They believe in the values of “fairness and “enoughness” (sufficiency), being fair to the animals, the people they feed, the people who work with them, and having enough to feed themselves, their animals, and the soil. A 20-year CSA waitlist highlights its popularity, both locally and in nearby urban areas.

14.6.13 Scaling Strategies

Jonai Farms has demonstrated 3 scaling strategies from (Lam et al., 2020), namely, *Scaling Up*, *Scaling Deep*, and *Spreading*. Like Triodos Bank, Jonai Farms is also involved in influencing policy, demonstrating *scaling up*, but using advocacy and activism as a tool. Tammi Jonas is the president of the Australian Food Sovereignty Alliance (AFSA), which works towards “socially just and ecologically sound” food and agriculture systems (AFSA, 2022). Through AFSA, public consultation, training, workshops are conducted to transform practices in other farms, and legal reforms are advocated for and recommended to the government. Jonai Farms has also used the *scaling deep* strategy to influence people’s thinking on capitalism, agriculture, and degrowth, and Tammi does that through writing blogs and book chapters, speaking at conferences and interviews, and contributing to academic research on agroecology.

Jonai Farms also demonstrates *spreading* as they claim to have trained over 100 farmers in ethical and regenerative agriculture. Many of these are local, but some are from different countries. Over the years through workshops, residencies, and training, they believe to have propagated bits and pieces of their model to most of their neighboring farms, in a way embedding Jonai Farms’ values into them and transforming their earlier models.

14.6.14 Wildish (Formerly Known as BearMade), Harrowgate, United Kingdom

“If we can’t do it (*business*) in a way that is, let’s say, net positive, there’s no point in having a business! It just benefitting us financially, for me, is not a reason to have a business.” (Oscar Boatfield, Founded as a fly-fishing initiative in 2019,

Wildish transformed into a bag business. Their organic cotton bags are completely made in the UK and come with a lifetime guarantee, free repairs, and a buy-back program for the end of life. Oscar believes that Wildish exists “to challenge what it means to be a sustainable business”, the main feature being its self-imposed production limit of 25 bags per week. Oscar claims they do not have any plans of growing beyond the set production capacity, as they believe in the notion of sufficiency and acknowledge the negative consequences of running an apparel business that involves transnational operations and is of large scale.

Oscar also strongly believes in the power of shared ownership and claims to shift to a shared ownership/steward ownership model in the future once they have achieved full production capacity.

14.6.15 Scaling Strategies

Wildish helps fund a charity organization that aims to get people outdoors and create a community of outdoor enthusiasts to meet each other and make connections. Wildish spreads knowledge on sustainability, climate action and other issues by organizing outdoor events and delivering talks. Their blog also documents their journey, its highs and lows, and informative pieces on circularity, plastics, fossil fuels, climate change etc. educating their audience about these pressing issues and demonstrating the *scaling deep* strategy.

Though they are critical about their business growth in terms of sales and profits beyond a set limit, they encourage other small businesses to emulate and set up similar businesses in their countries, through a somewhat ethical franchising mode. The brand name, product design and, would be of Wildish where most of the decision-making powers and profits lie with the new business. Although this has not been implemented by Wildish yet, they see this as a possible means of future expansion, to support their vision of “getting people outdoors”.

14.6.16 Other Strategies

Jonai Farms exemplified two other strategies, namely *Downscaling* and *Aggregation*, that do not strictly align with any of the scaling strategies laid out by (Lam et al., 2020). *Downscaling* means the company becomes smaller, in terms of operations, assets, revenues, or employees (Colombo et al., 2023). Jonai Farms started off with 14 sows (mother pigs), and as they got more efficient in their practices, and managed to arrange low-cost waste stream feed, they reduced their scale to 9 sows. Tammi claims this did not reduce their income in any way due to their saved costs in increased efficiencies and they took the decision because it was not good for the land to have too many animals and they respect its capacity to provide for them. Another example of *downscaling* can be seen in Patagonia,

which on several occasions, *downscaled* its product offerings or materials on accounts of the negative impacts they had, for instance, pitons that damaged rocks, use of cotton, and harmful chemicals. In a 2022 interview, following the ownership transfer, the CEO openly discussed the company's future and the necessary steps to mitigate negative impacts. He recognized the possibility of discontinuing new product sales and increasing the focus on reuse and repair initiatives, exemplifying a readiness to downscale production (Aratani, 2023).

Aggregation refers to building relationships with other existing businesses and developing a network of businesses that further bolsters the parent business' values and principles (Colombo et al. 2023). Jonai Farms demonstrated this strategy by building long-term relationships with other small farmers in its vicinity, who initially viewed Jonai Farms as their competitors. Tammi pointed out that she combatted this competitive mindset from peers by offering them opportunities for collaboration. Today, a network operates in tandem where all farms around Jonai Farms emulate many of the sustainable and ethical practices, share resources such as waste feed, and even share customers in times of high demand. Liberation Foods is another company that exemplifies the aggregation strategy, when it collaborated with smallholder farmers in various countries, setting new standards in fair-trade. Scaling their impact on the livelihoods of smallholder farmers by not just buying from their cooperatives and offering them fair prices, but also building long-term relationships with them, by enabling them to have a say in decision-making and distributing financial returns of the company, empowering the cooperatives significantly (Gaskell, 2023). Starting with 44% of ownership of the company with farmer cooperatives who supplied LF's nuts, today it is majority-owned (over 50% shares) by farmer cooperatives in Malawi, Nicaragua, Bolivia, and India.

Wildish exhibited another interesting strategy, a self-imposed production cap of 25 bags per week. This indicates their commitment to sufficiency and Oscar claims that it generates enough profit for the business to thrive, source sustainable materials, and pay well to their employees and suppliers, whilst also supporting social causes. Oscar believes that the production cap spurred discussion and gave them media attention, which is a means of spreading their story and impact in a much wider community. In this context, this strategy can be named "*limiting*", where a business restrains its operations/production/sales to enact sufficiency and to stay within social and environmental limits.

14.6.17 Enablers and Barriers to Scaling Impacts

The 3 business cases also gave some valuable insights on the enablers that help continue scaling impact, and the barriers that hinder scaling, which are elaborated in the section below.

14.6.18 SWaCH Cooperative

The major barrier for SWaCH was competing with new-age tech-driven startups and agencies that offered so-called “fast” and “turnkey” solutions to the city’s waste management system, and they often found themselves mobilizing to *stabilize* their business which is based on a complex social construct of waste picker’s livelihoods. Since the city government pays for the administrative costs of the cooperative, continued financial support is a major enabler for SWaCH to continue operating and creating impact. However, Harshad acknowledged that with rising technological advancements and competition, they would need to re-mold the business to also run self-sufficiently, further exemplifying the intent to *stabilize* impact. Community support and SWaCH’s local identity is also seen as a pillar of strength.

14.6.19 Jonai Farms

Tammi views patriarchal mindsets and misogyny as a significant barrier to spreading the word about their radical way of doing agriculture and butchery, which are traditionally considered to be male-dominant fields. She occasionally encounters situations where the conversations she tries to spur are just too “radical” for people in her fraternity. Competition has also been a significant barrier, but this is often from other farms who view Jonai Farms as a competitor, and not vice versa. Tammi points out that since they are a very small-scale farm, they aren’t really competitors to any of the medium or large-scale farms, in terms of capturing their market. Rather she considers Jonai Farms to be a competition to industrial farms’ “social license” to operate. “I’m happy to be eroding their social license.” she says.

14.6.20 Wildish (Bearmade)

Oscar noted finance as a major barrier, in that they were not running at the full envisioned capacity of 25 bags per week. Also, Oscar does not consider other small manufacturers as competitors but acknowledges that the vice versa isn’t true. While they are committed to the idea of manufacturing locally, they find doing business in the UK to be very difficult, owing to the government’s regulations and unproductive local workforce. Testimony to their local grounding, Oscar believes that the community and its support at various levels is a major enabler for them to keep going. It was also implied that Wildish’s growth-agnostic values also guide a lot of the decision-making and enable the team to continue scaling their impact.

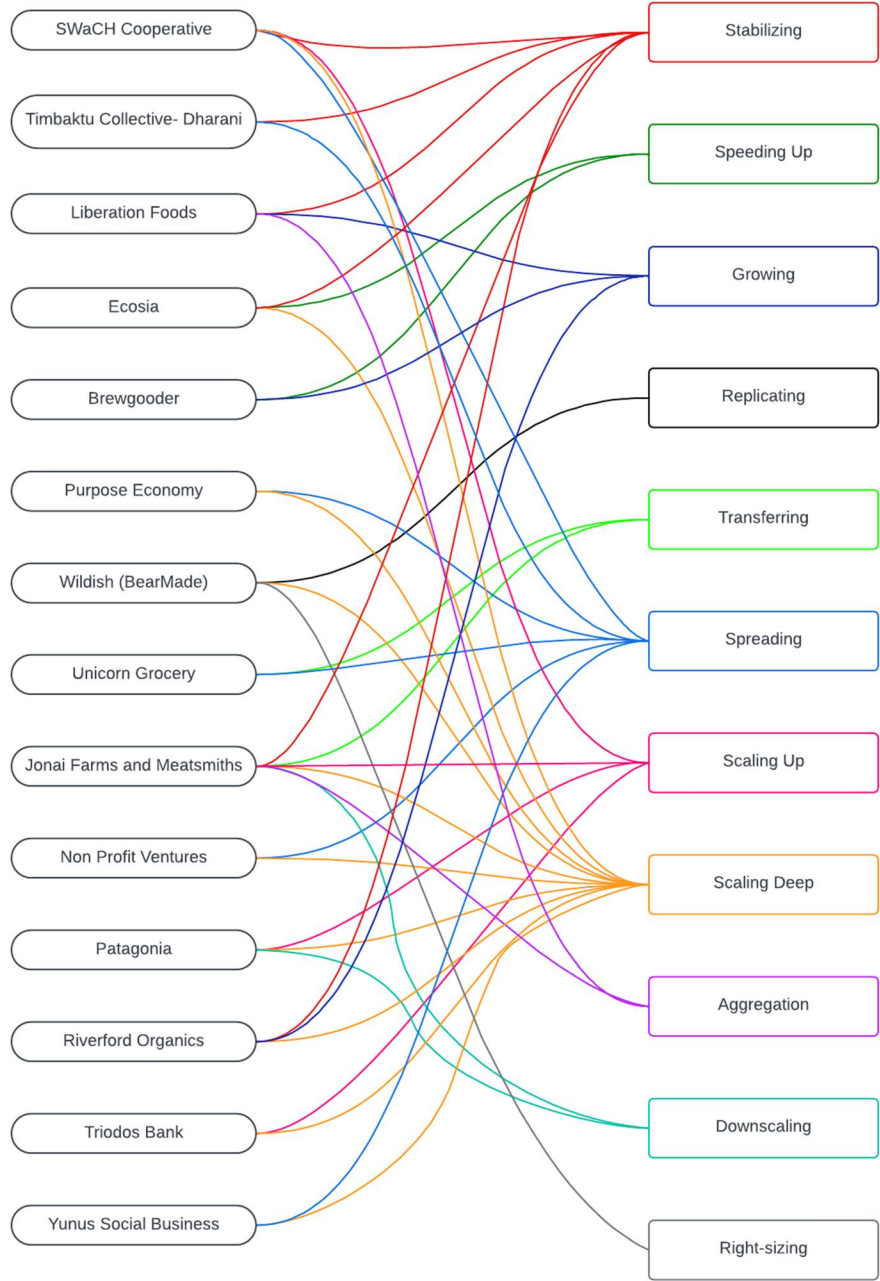


Fig. 14.1 Scaling Strategies demonstrated by GASBs and their synergistic interactions

14.7 Discussions

14.7.1 *GASBs Use a Wide Range of Strategies to Scale Their Impacts*

Of the 12 businesses in the pool and 3 case studies, it was observed that every business used one or more of the 8 strategies laid out by (Lam et al., 2020) viz. *Scaling Up*, *Scaling Deep*, *Spreading*, *Growing*, *Transferring*, *Replicating*, *Stabilizing* and *Speeding Up*. Apart from these, 3 more strategies were identified, namely, *aggregating*, *downscaling*, and *right-sizing*, demonstrating that GASBs use a wide array of strategies to scale their positive socio-environmental impacts, beyond the strategies laid out by (Lam et al., 2020). This indicates the need to create a robust framework to analyze and evaluate strategies that GASBs use. However, it can also be deduced that these strategies are constantly evolving, and new strategies could emerge as more empirical work is done on this topic. The results also show that there is a synergistic interaction between different strategies used, and at different stages of the business' development, like the observations done by (Colombo et al., 2023). The Fig. 14.1 illustrates the synergy in scaling strategies used by the 15 businesses, both within the business, by portraying a range of strategies and outside, where similar organizations used a similar set of

14.7.2 *GASBs Use Different Strategies at Different Stages of Organizational Development.*

In the initial years of reaching optimum size and scale, GASBs seek growth in the conventional sense, i.e. growth in sales, employees, size, etc. as in the case of Wildish, Riverford Organics, Timbaktu Collective, and Patagonia. But as the business gains efficiency and maturity, it moves towards employing other strategies to scale its impact. New-age businesses such as Brewgooder and Ecosia which are in business to solve complex environmental and social issues such as deforestation and drinking water scarcity, realized that their impact needs to be multiplied several folds to be able to meaningfully contribute towards solving these issues and that they need to accelerate the delivery of their impact to address the urgency of these problems. GASBs that have initially grown and reached a "sufficient" or optimum size, and strictly do not aspire to grow further, use strategies such as scaling up, *spreading*, and *transferring* to propagate their model of creating impact, as seen in the case of Unicorn Grocery, SWaCH, Jonai Farms and Wildish. SWaCH and Jonai Farms are actively involved in reforming policy through advocacy and activism and see this as their principal mode of creating further impact. This also reinforces the findings of many post-growth researchers that scaling impact does not necessarily always require organizational growth (Colombo et al., 2023; Pansera and Fressoli, 2021).

14.7.3 GASBs Exhibit Radical Ways of Doing Business as a Force for Good, Using Radical Impact Scaling Strategies.

Most capitalist businesses reinvest savings from efficiencies back into increasing production and sales, or share buy-backs/ paying out shareholders (Lazonick, 2014). One of the most significant findings of this study was the *downscaling* strategy exemplified by Jonai Farms where it presents a radically different approach by reducing its operations owing to gains in efficiencies but continuing to reap more-or-less similar profit as earlier. This approach practically reverses the Jevons Paradox—the idea that improvements in efficiency often increase overall resource use because they lower costs and stimulate greater consumption (Alcott, 2005). This stands in contrast to reductions in organizational size in conventional businesses, for example in the case of demergers, which are typically linked to increased profitability (Kirchmaier, 2003). Cases of non-growing SMEs having efficiency gains were also observed by (Gebauer & Sagebiel, 2015), indicating the importance of *downscaling* as a strategy in post-growth business and the need for it to be included in scaling frameworks.

Purpose Economy, NPV, and YSB demonstrate through the *spreading* and *scaling deep* strategies how consulting and training can prove to be a mode of radically transforming businesses for creating greater impact, by promoting and investing in the ideas of steward ownership, non-extractive, and social businesses. This is at a time when the management and sustainability consulting sector has been held accountable for only doing lip service to global challenges, practicing greenwashing, and using incremental approaches such as the UN SDGs, ESG, and sustainability reporting, to operationalize sustainability in their clients (Mazzucato & Collington, 2023). Whereas, if used to radically transform extractive business practices and strategies, the consulting sector has immense scope to contribute to solving global challenges.

14.7.4 The Inherent Motivation of Founders/Owners Is Key to Scale Impact.

4 businesses from the sample, namely Patagonia, SWaCH, Riverford Organics and Ecosia, transformed their ownership model or governance structures in order to protect the mission that they were established for and to safeguard from being bought off by external agents. All except SWaCH, exhibit the inherent motivation of founding members in executing this change, perhaps indicating that founders/owners of GASBs look way beyond their personal gains from the business and rather want to leave a legacy behind, that continues to create an impact on the environment and society. Even when they had an opportunity to sell their business at attractive valuations, such as in the case of Riverford Organics and Patagonia, they chose alternative options which ensured their business was, “in the right hands” (Riverford Organic Farmers 2020, Patagonia 2023a).

14.7.5 Competition Is a Major Barrier to Scaling Impact.

All three interviewees from the business cases said to have faced competition as a major barrier in continuing to scale their impact. This perhaps reinforces the notion that the global economic system is made for competitive businesses that strive to achieve exponential growth curves, in the process decimating small-scale businesses that could potentially compete with them. The regulatory landscape, for instance, competition laws and tax liabilities, is also not fair on GASBs, as pointed out by Oscar. More research is needed to propose constructive reforms in policy that will enable GASBs to thrive in the market and remove barriers such as competition laws and stringent regulations that inhibit scaling of impacts, as also noted by (Hinton, [2023](#)).

14.8 Limitations

The sample size of businesses used for data collection (3 for primary data through interviews and 11 for secondary data) is not a representative number to draw concrete conclusions and generalize the results. Purposive sampling of businesses may have induced the researcher's unconscious bias.

Although the study presents a wide array of strategies on how GASBs scale impacts, it is beyond the scope of the study to draw conclusions on whether they are in a better position than growth-oriented sustainable businesses in terms of scaling impacts.

Limited work on typologies of scaling impacts, specifically from a business perspective might have restricted the analysis of data. The emergence of other strategies points towards the need to create a robust analytical framework for assessing scaling strategies of sustainable business. There was limited data to provide concrete details on the enablers and barriers to scaling impact in GASBs, and this can be further studied by researchers.

The authentication of sustainability claims made by businesses was at a superficial level and no quantitative analysis of figures such as sales and profit growth were done, as it was beyond the scope of the study.

14.9 Conclusion

This study has presented 11 scaling strategies, which provide strategic insights including examples of operationalizing these strategies, which other GASBs can use. It indicates that post-growth businesses, specifically GASBs, employ a synergistic approach of using various strategies, and using different strategies at different stages of their journey, to scale socio-environmental impacts. 3 Other strategies,

apart from the analytical framework identified, namely, *downscaling*, *limiting* and *aggregation*, indicating that more empirical research is needed to identify other strategies used by post-growth businesses. This also sheds light on the reform needed in pre-established impact scaling frameworks, or the creation of a more robust framework to evaluate and analyze scaling strategies used by GASBs. The study strengthens previous findings that initial growth is a means to achieve optimum size and scale necessary to become self-sufficient and create impact, and that a business need not grow continuously to scale its impact. Rather, GASBs were found to use other strategies to *stabilize*, *speed up*, or *spread their* impacts instead of pursuing organizational growth to amplify impacts. Competition is a major barrier to scaling impacts, perhaps pointing towards reform required in the socio-economic systems and policies that businesses operate in, which are built around competition and capitalism.

GASBs show potential to transform business-as-usual, showing new ways of doing business as a force for good, propagating values of sufficiency, sharing, collaboration, transparency, and prosperity. Although this area is new, there is immense scope to build on the findings of this study, by using a larger sample of businesses and identifying new strategies, doing a deeper study of the enablers and barriers to scaling impact, and comparing conventional sustainable business with GASBs to ascertain which are more effective in creating and scaling positive socio-environmental impacts.

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