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Transformation of Governance for Sustainable Development



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Dedication

This edited volume is lovingly dedicated to the family members of the editors, whose unwavering encouragement, patience, and sacrifices have been the silent strength behind this academic endeavour. The journey of conceptualizing, compiling, reviewing, and completing this work demanded immense dedication, time, and perseverance, and throughout this process, our families stood beside us as constant pillars of support. Their understanding during long hours of research, discussions, editing, and coordination provided the emotional foundation necessary for the successful completion of this volume. We recognize that every scholarly contribution is deeply intertwined with the personal support systems that nurture intellectual growth, inspire resilience, and sustain commitment toward academic excellence. This volume is therefore not merely a professional accomplishment, but also a reflection of the love, trust, and encouragement extended by our families at every stage of this journey.

We also dedicate this volume with profound respect and gratitude to Prof. Y. Pardhasaradhi, Former Professor of Osmania University, Hyderabad, whose scholarly vision, academic wisdom, and enduring contribution to the field continue to inspire generations of students, researchers, and academicians. His commitment to intellectual inquiry, academic integrity, and the advancement of knowledge has left a lasting impact on the discipline and on all those privileged to learn from his guidance and mentorship. The values he embodied—dedication to education, critical thinking, and service to society—remain a source of inspiration for this collective scholarly effort. Through this volume, we humbly acknowledge his remarkable legacy and express our sincere admiration for his invaluable contribution to academia. It is our earnest hope that this work reflects, in some measure, the spirit of academic excellence and social commitment that Prof. Y. Pardhasaradhi consistently championed throughout his distinguished career.

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About the Editors

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Foreword

The contemporary world is undergoing rapid and unprecedented transformations in political, economic, technological, environmental, and social spheres. Nations across the globe are increasingly confronted with complex developmental challenges such as climate change, economic inequality, rapid urbanization, technological disruptions, public health crises, and institutional inefficiencies. In such a dynamic environment, governance systems can no longer remain confined to traditional administrative structures and approaches. There is an urgent need for governance frameworks that are participatory, adaptive, inclusive, transparent, and capable of fostering sustainable development. It is within this broader context that *Transformation of Governance for Sustainable Development* emerges as a timely and significant scholarly contribution.

This edited volume provides a thoughtful and interdisciplinary exploration of governance transformation, particularly within the context of BRICS+ nations. The book introduces and advances the concept of “integrative governance,” emphasizing the importance of linking governance reforms with social welfare, environmental sustainability, technological innovation, and economic progress. Unlike many existing works that examine governance either through administrative efficiency, digital governance, or geopolitical perspectives alone, this volume adopts a more comprehensive and development-oriented approach, highlighting how governance can serve as a catalyst for sustainable and inclusive development while addressing the unique socio-economic realities of emerging economies.

One of the major strengths of this book lies in its thematic diversity and practical relevance. The contributors critically engage with issues such as participatory governance, public policy reforms, human capital development, macroeconomic stability, urban local governance, digital transformation, environmental sustainability, and technological advancement in governance systems. By focusing on the experiences, opportunities, and challenges of BRICS+ countries, the volume provides valuable insights into how rapidly developing nations can design governance mechanisms that balance growth with equity and sustainability. The discussions presented in the book not only enrich academic debates but also contribute to policy thinking and institutional innovation.

This book will serve as an important resource for academicians, researchers, policymakers, development practitioners, administrators, and students interested in governance and sustainable development studies. Its evidence-based perspectives, interdisciplinary orientation, and policy relevance make it highly valuable for understanding the evolving relationship between governance transformation and sustainable development goals in the Global South.

I congratulate the editors and contributors for their dedicated efforts in bringing together this important body of scholarly work. Their collective contribution has resulted in a volume that is both intellectually enriching and practically significant. I am confident that this book will stimulate meaningful discussions, encourage future research, and contribute to shaping more responsive and sustainable governance frameworks across nations.

Kedibone Phago, *Professor, Dean of Economics, Development and Business Faculty, University of Mpumalanga, Mbombela, South Africa*

Preface

The growing complexity of governance challenges in the twenty-first century has created an urgent need to rethink the manner in which institutions, policies, and administrative systems respond to developmental concerns. Across the world, societies are confronted with issues such as climate change, socio-economic inequality, rapid urbanization, technological disruption, public health crises, environmental degradation, and governance deficits. These challenges are particularly significant for emerging economies and BRICS+ nations, where the demands of economic growth must be balanced with sustainability, social justice, and institutional accountability. The motivation behind this edited volume, *Transformation of Governance for Sustainable Development*, emerged from the recognition that conventional governance approaches are often inadequate for addressing these interconnected challenges. This book therefore seeks to explore how transformative and integrative governance frameworks can contribute to achieving sustainable development in rapidly evolving socio-political and economic contexts.

This volume advances the argument that governance should not merely be understood as an administrative or managerial process, but rather as an inclusive, adaptive, participatory, and development-oriented mechanism capable of promoting long-term sustainability. The book highlights the importance of integrative governance in strengthening institutional capacity, improving public service delivery, fostering innovation, and ensuring equitable socio-economic progress. The chapters included in this volume examine transformative governance through a diverse range of contemporary policy, institutional, economic, technological, social, and international perspectives. The volume begins by establishing a theoretical and analytical foundation for understanding transformative governance and subsequently explores its application across critical areas such as water resource management, financial literacy and governance, digital transformation, security and artificial intelligence, public health and elderly care, international trade, and global justice. It also critically engages with the evolving role of BRICS in addressing contemporary governance challenges and in developing alternative approaches to international cooperation and multilateral governance, particularly from the perspective of the Global South.

Several chapters focus specifically on the experiences, opportunities, and challenges of BRICS nations. These include an examination of financial literacy and governance mechanisms in BRICS economies, the development of inclusive and adaptive digital governance frameworks, the implications of artificial intelligence for security governance and India–China relations, and the vulnerabilities and reform requirements associated with anti-dumping policies within the BRICS framework. The volume further extends the discussion of governance beyond national institutions by examining questions of international justice and critically interrogating dominant conceptions of “good governance” through the lens of integrative governance and multilateral organizations in the Global South.

The contributions in this volume adopt an interdisciplinary approach and draw upon a range of theoretical, analytical, and methodological perspectives. The chapters employ approaches including conceptual and theoretical analysis, policy analysis and review, literature-based research, case study methods, comparative analysis, and empirical and evidence-based inquiry. Together, these diverse approaches enable the

volume to bridge theoretical debates on transformative governance with practical policy challenges and institutional realities.

Collectively, the chapters demonstrate that transformative governance is not confined to a single sector or institutional framework. Rather, it requires the integration of inclusive policymaking, adaptive institutions, technological innovation, effective regulatory mechanisms, international cooperation, and context-sensitive approaches to development. By bringing together diverse perspectives from India, the BRICS countries, and the broader Global South, this volume seeks to contribute to a deeper understanding of how governance systems can be transformed to address the increasingly complex challenges of the twenty-first century. The editors adopted a collaborative “call for papers” approach to bring together academicians, researchers, practitioners, and policy experts working in the fields of governance, public administration, public policy, and sustainable development. This approach enabled the inclusion of diverse scholarly perspectives and contemporary debates surrounding governance transformation and sustainability. Every effort has been made to ensure academic rigor, thematic coherence, and relevance to both theoretical discourse and practical policymaking. This book is intended to serve as a valuable resource for researchers, academicians, policymakers, development practitioners, administrators, and students interested in governance and sustainable development studies. The editors sincerely hope that this volume will encourage critical reflection, stimulate future research, and contribute meaningfully to policy discussions on creating more resilient, inclusive, and sustainable governance systems for the future.

Nirmala Dorasamy, Sriram Divi, and Abhishikt Chauhan

Editors

Acknowledgments

The successful completion of the edited volume *Transformation of Governance for Sustainable Development* would not have been possible without the encouragement, guidance, and support of numerous individuals and institutions whose contributions have been invaluable throughout this academic journey. As editors, we express our sincere gratitude to all those who directly and indirectly contributed to the conceptualization, development, and completion of this volume.

We extend our deepest appreciation to Prof. Y. Pardhasaradhi for his constant inspiration, scholarly guidance, and unwavering encouragement toward advancing critical discourse in governance and sustainable development studies. His academic vision, intellectual mentorship, and lifelong commitment to public administration and policy scholarship have been a source of motivation throughout the development of this volume.

We are grateful to Prof. Fulufhelo Netswera and Prof. Phago for their academic insights, support, and encouragement, which greatly enriched the intellectual direction of this volume.

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We also acknowledge with gratitude the encouragement and guidance received from Dr. Dinesh Dasa, Member, Union Public Service Commission (UPSC); Mr. J. P. Gupta (Retd. IAS); Prof. Dhananjay Singh, Member Secretary, ICSSR and Mr. Pankaj Kotak, Head—Western Division, K. Raheja Corporation, for their continued support and inspiration.

We also extend our gratitude to our friends and colleagues, particularly Dr. Venkat Ram Reddy, Dr. Harmik Vaishnav, and Prof. Pradip Malik for their valuable suggestions, professional encouragement, and continuous academic support during the preparation of this volume, and Dr. Richa Sharma, Deputy Director, ICSSR, for her continuous professional encouragement during the preparation of this volume.

Finally, we would like to acknowledge the dedicated efforts of Dr. Divi's Research Team, especially Mr. Kartikeya Shah, Ms. Disha Saroj, and Ms. Harsha Gulabani, for their assistance, coordination, and support throughout the editorial process. Their commitment and teamwork contributed significantly to the successful completion of this volume. We also extend our gratitude to Mr. Jay Raval for his external support.

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Introduction

Sriram Divi, Nirmala Dorasamy and Abhishikt Chauhan

Abstract: This chapter is the Introduction to the volume which provides contemporary discourse on the concept of transformative governance in the context of BRICS nations. This chapter delves into the conceptual clarity of the concepts and their significance in relation to developing economies. Further, it sets the thematic tone of the current volume of this book by outlining how these emerging powers are engaging in governance experimentation. It previews the book's interdisciplinary chapters, which examine digital governance, financial literacy, and international justice across BRICS countries. The chapter also introduces the concept of integrative multilateral governance as an alternative to Western-centric models, advocating for culturally grounded and context-specific governance norms. Ultimately, this Introduction establishes the rationale behind and urgency of reimagining governance in a world marked by inequality, demographic transitions, technological disruption, and environmental crisis. It positions this book as a timely and policy-relevant contribution aimed at scholars, practitioners, and policymakers committed to inclusive, sustainable, and participatory governance reform.

1. Introduction

The term “transformation” is often used loosely to signify any form of change, yet in governance discourse, it carries a much deeper implication. Rather than denoting incremental or superficial adjustments, transformation refers to a fundamental, systemic, and often irreversible shift in the way institutions, policies, and power structures function. The theoretical framework of transformative governance (TG) in the public sector offers a critical framework to address the growing expectations of stakeholders, including citizens, civil society, and development partners. These expectations increasingly demand greater accountability, inclusiveness, and responsiveness from government institutions, particularly in relation to the governance dimension of the ESG (Environmental, Social, and Governance) framework. TG transcends traditional bureaucratic practices by embedding the principles of ethical conduct, transparency, and participatory decision-making into the core functioning of public institutions (UN Global Compact, 2021). The concept of TG is not a new legal doctrine but is a principles-based approach that urges public institutions to act not only within the boundaries of legality but also within the bounds of what is ethically and socially just. Further, this means that TG fosters a culture where integrity, fairness, and inclusion are prioritized in public service delivery and institutional operations. In doing so, TG strengthens the legitimacy and performance of public sector institutions while aligning them with the values of democratic governance and citizen trust (OECD, 2020). The central idea of TG in the public sector is the commitment to Sustainable Development Goal 16 (SDG 16), which promotes peace, justice, and strong institutions. Despite being one of the

most complex and least understood SDGs in public discourse, SDG 16 is fundamental to achieving broader development outcomes. It underscores the need for effective, accountable, and inclusive institutions at all levels of governance. For the public sector, this implies a shift from compliance-oriented administration to performance-oriented governance that binds governments more closely to the communities they serve (United Nations, 2015). Thus, it enables the public sector to become more agile, ethical, and community-anchored. It calls for a rethinking of how institutions are designed, how laws are enforced, and how decisions are made to ensure that governance systems are not only efficient but also just and equitable.

It is to be noted that a fundamental change through transformation of governance requires a comprehensive reorganization of the drivers impacting local and global challenges. More so, this becomes accentuated when governance approaches are fragmented and are immersed in complex tensions within intersecting demands. While the debate on TG is still in its infancy, and vested interests may contest, hinder, or downscale transformation of governance and its desired direction for sustainable development, there is an imperative to discuss the catalysts and potential frameworks underpinning transformation of governance. Ultimately, TG must embody empowerment for change and sustainable development; learning and monitoring; and the recognition of diverse knowledge systems.

This revolutionary concept holds immense promise for accelerating the growth trajectories of developing economies by placing them on a sustainable and inclusive path toward becoming global powerhouses. Unlike traditional governance models that often prioritize compliance and bureaucratic control, TG emphasizes ethical leadership, transparency, participatory policymaking, and institutional adaptability (Schwab & Zahidi, 2020). These attributes are critical for unlocking the latent potential of developing nations. Many countries that exhibit only gradual economic growth often suffer from weak institutional structures, poor governance mechanisms, and inadequate policy implementation. These governance deficits hinder their ability to formulate and execute long-term development strategies, thereby constraining innovation, limiting investment, and exacerbating social inequality (Kaufmann & Kraay, 2021). Without a robust governance foundation, such nations are frequently unable to convert economic opportunities into sustained prosperity. As a result, they remain underdeveloped or stagnant, with vast human and resource potential left untapped. By embedding the principles of TG such as inclusion, responsiveness, and rule of law into national governance frameworks, developing countries can overcome systemic inertia, foster citizen trust, and enable dynamic policy environments. This not only improves state capacity but also catalyzes economic transformation in alignment with global development goals.

2. Governance and Development in BRICS Nations

Governance has commonly been identified as a mitigating factor for development in developing countries. In Africa, Fosu (2018) observed that a study commissioned by the Bretton Woods Institutions, titled *Accelerated Development in Sub-Saharan Africa: An Agenda for Action*, revealed that poor governance was highlighted as a major contributor to Africa's poor state of economic health. The importance of governance on development was further reinforced in a study by the African Economic Research Consortium titled "Explaining African Economic Growth" (the Growth Project). Results from the AERC study revealed that governance was at the core of

the growth record of Sub-Saharan Africa (SSA), implying that poor governance led to growth-inhibiting “policy syndromes”, while improved governance resulted in a greater prevalence of growth-enhancing “syndrome-free” regimes.

Further, 1978 marked the prelude to China’s reform and opening-up policy, that is, a paradigm shift in the country’s economic governance framework (Shen, 2018). Since then, the world has witnessed an overhaul in China’s economic growth. China’s real growth rate of gross domestic product (GDP) averaged around 10 percent for thirty consecutive years and 9 percent for forty years (Shen, 2018). Likewise, China’s global GDP share increased from 2.5 percent in 1978 to over 18.4 percent in 2021. Chinese experience, together with other Asian tigers, that is, Singapore, Taiwan and South Korea, builds a strong case for the causal link between good governance and economic development.

Meanwhile in India, post-independence transformations in urban governance and institutional design reflect evolving notions of democratic, equitable governance. National values such as democracy, secularism, and non-alignment have reshaped governance frameworks and administrative culture. However, planned urbanization remains underpowered, constrained by infrastructure gaps and limited devolution of authority, which undermines service delivery and citizen well-being. Furthermore, structural adjustment programs (SAPs) advanced by the World Bank and IMF in the 1980s and 1990s further illustrate the interplay between economic governance and development outcomes. SAP policies, market liberalization, privatization of SOEs, and strict fiscal discipline often triggered unintended consequences: slowed growth, deindustrialization, weakened public services, and macroeconomic volatility across nations (Fosu, 2018).

Such contrasting trajectories from governance-led growth in East Asia to governance-challenged development in Sub-Saharan Africa set the stage for an in-depth investigation of transformative governance in BRICS nations. Each BRICS country exhibits unique governance dynamics shaped by data systems, multilateral engagement, urban policy, digital inclusion, and institutional reform. By examining how networks, decentralization, multilateral diplomacy, and financial technological innovation reshape governance, this volume offers a comparative perspective on how these nations and their partners under BRICS Plus should navigate the path toward inclusive and sustainable development. These include water resource management, public health and elderly care, digital governance, international institutions, judicial governance, democracy, international justice, security, trade and anti-dumping policies, financial literacy, and the theoretical foundations of transformative governance. Each chapter provides a distinct analytical perspective on how governance frameworks can be strengthened to address contemporary socio-economic, environmental, technological, and geopolitical challenges. Collectively, the contributions demonstrate that effective governance requires adaptive institutions, evidence-informed policymaking, technological innovation, and collaborative international engagement. By integrating theoretical insights with practical policy experiences from the Global South, particularly the BRICS nations, this volume aims to equip policymakers, researchers, practitioners, and students with a comprehensive understanding of governance transformation and its critical role in advancing inclusive, resilient, and sustainable development.

3. Thematic Overview of Chapters

This book starts with an introductory chapter that elaborates on the significance of governance transformation in addressing contemporary development challenges and advancing sustainable development across the BRICS and BRICS Plus countries. The volume unfolds through thematically organized chapters that reflect the multidimensional nature of governance transformation, encompassing issues of institutional reform, natural resource management, digital transformation, financial inclusion, health governance, international trade, security, justice, and multilateral cooperation.

The next chapter lays the conceptual foundation for the entire volume by introducing the theoretical and analytical dimensions of transformative governance. It elaborates on the evolving nature of governance systems and highlights key principles such as institutional adaptability, resilience, innovation, collaboration, and ethical public administration. The chapter positions transformative governance as a forward-looking governance model capable of addressing the complex and interconnected challenges faced by BRICS nations in the twenty-first century.

Building on this foundation, the third chapter explores governance frameworks for one of the most vital and contested natural resources: water. Focusing on the dryland regions of Maharashtra, India, this chapter emphasizes policy coordination, ecological sustainability, decentralized planning, and community participation in managing water resources. It highlights how integrated governance approaches can strengthen resilience in environmentally vulnerable and water-stressed regions.

The discussion then transitions to the financial domain in the fourth chapter. This chapter examines the relationship between financial literacy, digital finance, and governance mechanisms within the Indian context. It links financial awareness and digital payment systems with public accountability, institutional transparency, and citizen empowerment. This chapter argues that financial literacy is not merely an economic competency but also an essential public good that contributes to inclusive development and participatory governance.

The fifth chapter focuses on digital governance across BRICS nations. It critically examines the opportunities and challenges associated with digital transformation, including issues of digital inclusion, technological sovereignty, public service delivery, and institutional preparedness. Drawing upon experiences from BRICS countries, this chapter proposes a strategic framework for fostering inclusive, adaptive, and sustainable digital governance ecosystems.

The sixth chapter explores the growing role of artificial intelligence in shaping security governance within the BRICS framework. Paying particular attention to the India–China relationship, this chapter analyses emerging debates surrounding AI governance, cybersecurity, digital sovereignty, and technological competition. It further examines the potential of BRICS as a platform for developing cooperative approaches and global norms for responsible AI governance.

Health governance is addressed in the seventh chapter through a detailed examination of elderly care systems in Kerala, India. This chapter highlights the policy and governance barriers that hinder the achievement of Universal Health Coverage for ageing populations. It underscores the need for inclusive, integrated, and responsive health systems that strengthen stakeholder coordination, improve service delivery, and ensure equitable access to healthcare.

In a shift toward international economic policy, the eighth chapter analyses anti-dumping policies and trade defence mechanisms employed by BRICS nations. This chapter examines how member countries seek to protect domestic industries while simultaneously adhering to the principles and obligations of the global trading system. It further evaluates intra-BRICS trade vulnerabilities and identifies opportunities for policy reform and greater economic cooperation.

The ninth chapter moves into the realm of international law and global justice by critically assessing the engagement of BRICS countries with international judicial institutions and legal frameworks. Through an examination of issues such as sovereignty, non-intervention, humanitarian intervention, and the International Criminal Court, this chapter highlights the complexities and contradictions that shape BRICS perspectives on international justice and global governance.

The volume concludes by challenging dominant Western-centric governance narratives and introducing the concept of integrative governance within multilateral organizations of the Global South. The final chapter advocates for context-sensitive, culturally relevant, and pluralistic governance frameworks that better reflect the realities and aspirations of emerging economies. It emphasizes the growing importance of regional cooperation, South–South dialogue, and multilateral institutions in fostering inclusive governance, diplomatic engagement, and sustainable development in an increasingly multipolar world.

Collectively, the chapters in this volume demonstrate the diverse pathways through which transformative governance can contribute to sustainable development within BRICS and BRICS Plus nations. By integrating theoretical insights with empirical case studies and policy perspectives, the volume provides a comprehensive understanding of the governance transformations required to address contemporary global challenges while promoting equity, resilience, and sustainability.

4. Conclusions

Thus, these chapters provide a rich, comparative, and interdisciplinary understanding of how governance is being transformed in practice. Further, curated chapters offer a comprehensive and multidisciplinary perspective on the evolving nature of governance in BRICS and BRICS Plus nations. The volume bridges theory and applied research, offering readers insights into urban development, digital infrastructure, legal reform, economic policy, and social service delivery. With a strong emphasis on Sustainable Development Goals (SDGs), public sector innovation, and equitable development, this book aspires to guide scholars, policymakers, and practitioners in designing and implementing governance systems fit for the complexities of the 21st century.

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Transformative Governance Model: A Theoretical and Analytical Perspective

Abhishikt Chauhan, Sriram Divi and Nirmala Dorasamy

Abstract: In the contemporary era, the governance landscape is undergoing a profound transformation driven by rapid technological advancements, intensifying geopolitical uncertainties, escalating environmental crises, and widening socio-economic inequalities. Traditional governance models, historically characterized by hierarchical structures, rule-bound procedures, and rigid bureaucratic systems, are becoming increasingly inadequate in addressing the complexity, dynamism, and interdependence of 21st-century challenges. This limitation is particularly evident in emerging economies such as India, China, Brazil, and South Africa, within the BRICS+ framework, where governments face the dual challenge of managing global disruptions while ensuring responsive, inclusive, and forward-looking public administration. Against this backdrop, this chapter advances the concept of transformative governance (TG) as a paradigmatic shift beyond incremental reform or administrative modernization. It provides a comprehensive conceptual foundation by examining the intersections between TG, public policy, and public administration, and by positioning TG as a system-level approach to governance transformation. This chapter develops a structured TG framework comprising three interrelated dimensions: core principles, structural pillars, and functional mechanisms. The core principles emphasize reflexivity, inclusivity and participation, systematic integration, normative commitment, accountability and transparency, ethical and rights-based approaches, and anti-corruption. These principles are operationalized through structural pillars, including institutional transformation; policy coherence and integration; collaborative networks; digital and data governance; adaptive organizational learning; and ethics, accountability, and equity. These, in turn, are enabled by functional mechanisms such as transition management, multi-level coordination, participatory systems, and anticipatory scenario planning. Together, these dimensions provide a dynamic and integrative framework for guiding governance transformation. By grounding the framework in interdisciplinary scholarship and illustrating it through empirical insights from BRICS+ contexts, this chapter demonstrates how TG fosters resilient, adaptive, and future-ready governance systems. It highlights the role of anticipatory policymaking, multi-actor engagement, and values-driven institutional redesign in addressing complex socio-economic and techno-environmental transitions. Overall, this chapter contributes to the governance scholarship by offering a coherent, integrative, and normatively grounded model of transformative governance. It provides both analytical clarity and practical relevance, positioning TG as an essential framework for navigating the uncertainties and systemic challenges of the 21st century.

1. Introduction

In the 21st century, governance has undergone significant transformation, which is driven by rapid advancement in technology, escalating environment crises, geopolitical shifts, and socio-economic inequalities. These dynamic and interrelated pressures have fundamentally changed the context in which governments operate. Such pressures requires the current form of governance models to be more responsive, adaptive, and integrative in nature. Historically, traditional governance models (TGMs) were rooted in classical public administration models, such as the Weberian bureaucracy, and the scientific management framework. They played a critical role in building administrative capacity, ensuring uniformity, and institutionalizing predictability in state functioning, particularly during the early to mid-20th century (Weber, 1978; Raadschelders, 2011). Scientific management further contributed to administrative efficiency through standardization, task specialization, and rationalization of processes, thereby shaping bureaucratic systems across the globe (Taylor, 2017; Walker et al., 2011). They provided structural coherence, legal-rational authority, and organizational discipline, allowing states to deliver mass public services and maintain social order in complex administrative environments (Bevir, 2013, p. 45).

However, despite their foundational contributions, these models exhibit inherent limitations in addressing the complexities of the contemporary governance. Their rigid, rule-bound nature restrict flexibility, hindering innovative ideas and creating organizational path dependencies that restrict organizational adaptability (Pollitt & Bouckaert, 2017, pp. 31–45). These TGMs tend to assume environmental stability and linear problem-solving, making them poorly suited for contexts involving cross-sectoral interactions, uncertainty, and non-linear transformations (Kettunen, 2015; Christensen & Lægreid, 2007). So, TGMs are reliant on top-down approaches and procedural orthodoxy, providing limited opportunities for citizen participation, co-creation, and reflexivity in dynamic and risky situations (Ansell & Gash, 2008). This makes the traditional governance framework vulnerable.

The scholarly literature further highlights that governance models require forward-looking, integrative, and adaptive capabilities in the governance mechanism. So, these have become requirements and guiding forces for contemporary societies during turbulent periods (Boyd & Folke, 2012). The loopholes of TGMs demand that modern governance frameworks incorporate diverse perspectives such as iterative feedback loops and integrate emerging knowledge systems (Meadowcroft, 2009). Such a shift is essential to enable governments to effectively navigate complex socio-economic, technological, and environmental transitions in the 21st century.

The foregoing discussion underscores the need for a more flexible, adaptive, and transformative governance framework (TGF) capable of addressing the complexities of the 21st century. In response, this chapter proposes a conceptual framework of governance that is designed to guide systemic change through adaptive, reflexive, and integrative approaches. Moving beyond the conventional emphasis on administrative efficiency and institutional stability, the proposed framework seeks to actively reshape socio-technical systems in a manner that is responsive to evolving societal, environmental, and technological challenges.

Furthermore, the chapter provides a comprehensive overview of the emerging paradigm shift in governance, emphasizing the transition from hierarchical and rule-bound structures to more collaborative, anticipatory, and value-driven models. It highlights the importance of anticipatory policymaking, multi-actor engagement,

and institutional redesign grounded in normative principles as essential components for addressing complex and interdependent challenges of the contemporary era. Also, the chapter tries to answer the following research questions:

1. What are the key limitations of TGMs in addressing 21st-century challenges?
2. How have contemporary socio-economic, technological, and environmental changes reshaped governance models?
3. What constitutes a TGF in theory and practice?
4. How can adaptive, reflexive, and integrative approaches enhance governance effectiveness in complex systems?
5. What role do anticipatory policymaking and multi-actor collaboration play in enabling systemic TGF?

2. Theoretical Foundation of Transformational Governance

2.1. Evolution of Transformational Governance

The concept of ‘Reinventing Government’, developed by Osborne and Gaebler, gained prominence during the 1990s (Osborne & Gaebler, 1992). The concept advocated for entrepreneurial governance models and managerial innovations that improve efficiency and effectiveness in the governance model. It was rooted in the principles of New Public Management (NPM), which emphasized decentralization, citizen-friendliness, competition, key performance indicators (KPIs), and market-driven mechanisms. This reform agenda laid the groundwork for shifts toward digitalization and citizen-friendly governance frameworks (Denhardt & Denhardt, 2000).

With this, the concept of innovative government (IG) emerged as scholars and practitioners recognized the need for continuous learning, experimentation, and adaptation within public institutions. IG refers not only to technological modernization but also refers to new institutional arrangements, which includes co-creation systems with stakeholders (Borins, 2001; Sørensen & Torfing, 2011). The rise of IG reflected increasing awareness and governance problems that are complex, dynamic, and resistant to linear policymaking approaches.

Further, as digital technologies transformed governance, this was termed ‘e-governance’ (e-gov). This became a central tool of governance during the 1990s and early 2000s. However, scholars and practitioners of governance argued that simply using e-gov for public services was insufficient. It required a holistic institutional transformation. This phenomena led to the development of the TGF paradigm. The TGF emphasizes integrated e-gov, IG, citizen-centric design, and NPM (Irani et al., 2007; Weerakkody et al., 2011).

TGF as a concept is not only an expansion of e-gov’s scope but also an inclusion of IG framework. And it is aligned closely with NPM principles. TGF further deepened this transition by proposing a government transformation enabled by e-gov, inter-organizational integration, and strategic management reforms. Thus, it involves reconfiguring institutional architectures to deliver seamless, efficient, and citizen-centric services while promoting transparency and accountability (Stephen et al., 2003; Janssen et al., 2007). Further, it emphasizes inter-governance and cross-border coordination links closely with network governance (NG) and collaborative governance (CG) theories.

As the concept of TGF developed, in parallel, the concept of 'citizen-centric government' (CCG) gained traction as governments sought to prioritize citizen needs, expectations, and experiences in service design and delivery. This approach aligns closely with public value theory, which views citizens not merely as service recipients but as co-creators of value and legitimate actors in the governance process (Symes, 1999; Bryson et al., 2014). Citizen-centric governance requires the redesigning of institutions to enable participation, transparency, and empowerment, which further reinforces the TGF.

Thus, all of the above discourse has led to evolution of transformative governance (TG) from managerial reinvention, IG, e-gov, and CCG. Though these models differ in their emphasis, they collectively reflect a shift in the governance approach towards a more accountable, participative, agile, and integrative governance model of TG, which has the capability to deal with the complexities of governance in the 21st century.

Defining Transformative Governance

Although there is no globally recognized definition in the scholarly literature for the TGF, the UN Global Compact conceptualizes TG as a governance mode that embeds human rights protection, anti-corruption safeguards, environmental stewardship, and stakeholder participation into the core functioning of public institutions (Taylor, 2017). These pillars of governance identified by UN Global Compact align with earlier literature viewing TG as a deliberation of the reconfiguration of institutional arrangements, policy frameworks, and decision-making processes to address complex, cross-sectoral challenges through collaborative and sustainability-driven approaches (Meadowcroft, 2009). Thus, this refers to a governance mode that is designed to cause systemic and long-term societal change. TG could help in enabling institutions, policies, and decision-making processes become adaptive, reflexive, inclusive, and sustainability-oriented (Patterson et al., 2017; Boyd & Folke, 2012).

The model of governance slightly differs from related concepts such as good governance (GG), e-gov, and IG. While GG focuses on normative principles such as accountability, transparency, and rule of law (Grindle, 2004), TG extends beyond administrative integrity to actively reshape socio-technical systems. E-gov centers on digital tools and service efficiency (Janssen et al., 2007), whereas TG embeds digital innovation within broader institutional and societal transformation. IG is concerned with organizational innovation and ethical conduct, and is primarily oriented toward firm-level governance rather than societal transitions (Aguilera & Jackson, 2003).

With this advance, TGF is not merely an extension of governance reforms but is also a paradigmatic shift which positions governments across the globe and their societies to be able to guide a transition in response to their environmental, technological, economic, and societal needs. Thus, government can be reshaped towards more shared transformative goals, particularly those related to sustainability, resilience, and social equity.

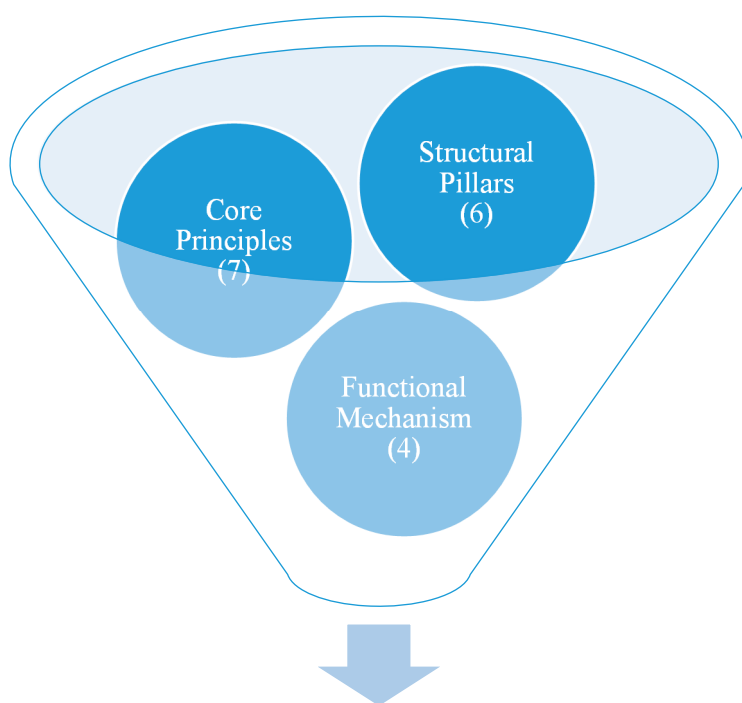
Thus, concepts such as trust, reinventing government, TG, IG, CCG, and e-gov are used interchangeably by academicians and political executives (Bannister & Connolly, 2011). This is because they share a common intellectual lineage focused on rethinking the role, structure, and functioning of the state in response to changing societal demands. Although these terms emerged in different historical and disciplinary

contexts, they converge around the broader objective of enhancing government responsiveness, efficiency, legitimacy, and public value creation.

3. Transformative Governance Framework: Components and Processes

According to the above section, there is no basic definition of TG, and the concept of TG remains merely administrative innovation or digital optimization. So, building upon the intellectual trajectory, it becomes necessary to articulate a structured framework that captures the essence of TG. Here, we will try to translate TG as a abstract reform structure into a systematic analytical structure. Further, we explain how TG can be operationalized across various institutional and societal layers.

TG does not transcend incremental improvement and focuses on embodying in-depth transition processes that reshape governance norms, relations, and outcomes (Meadowcroft, 2009). We explicate a multilayered form of TG, which begins with its foundational principles, followed by its structural pillars and functional mechanisms (Figure 1). Thus, we reposition TG away from a mere rhetorical aspiration and towards a theoretically grounded and practically applicable governance paradigm capable of enabling long-term systemic change.



Transformational Governance Model

Figure 1. Core, structure, function, and outcome of transformational governance.
Source: Figure by authors.

3.1. Core Principles of TG

TG wants the governance ecosystem to be more anticipatory, participatory, and adaptive to complex societal demands (Patterson et al., 2017; Chaffin et al., 2014). The foundational principles of TG provide both normative and operational direction for managing complex societal demand systematically. Broadly, from the literature underpinning TG, the following are the core principles that will help in enabling long-term and systemic transitions in the governance framework (Figure 2).

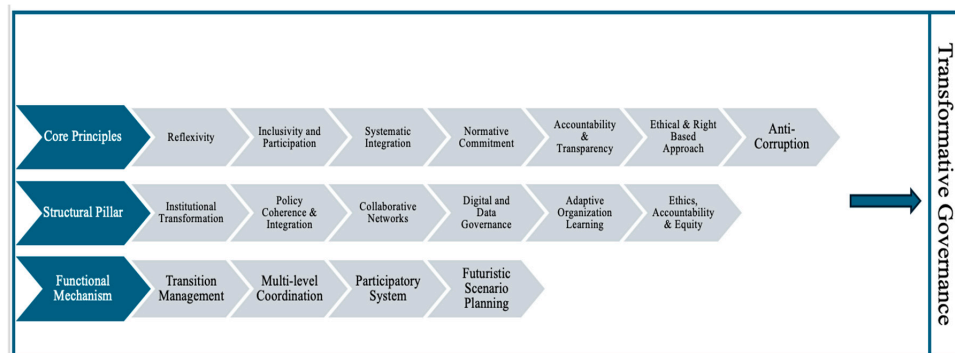


Figure 2. Transformative governance framework. Source: Figure by authors.

3.1.1. Reflexivity

Reflexivity, as a core principle of TG, refers to the capacity of institutions to learn continuously, assimilate feedback, and correct policy errors. Further, it involves realigning transformational strategies in response to evolving realities. Additionally, it focuses on incorporating learning loop processes, performing policy experimentation, and making institutions adaptive to change. So, it makes governance models more evidence-based in their decision-making processes (Patterson et al., 2017).

Reflectivity, rather than assuming the stability of institutional environments, recognizes uncertainty and dynamism as inherent features of modern governance. It suggests that learning occurs through continuous feedback mechanisms, constant stakeholder engagement, and timely internal evaluation systems (Boyd & Folke, 2012). By doing this, it activates a transformation loop that avoids rigid, path-dependent arrangements and remains responsive to emerging challenges such as climate disruptions, technological shifts, and socio-economic inequalities. So, this principle is characterized by learning loops, feedback loops, regular experimentation, and continuous adaptation (Patterson et al., 2017).

This principle of TG is clearly demonstrated in the participatory budgeting mechanism employed in Porto Alegre, Brazil. Under this system, citizens actively provide structured and periodic feedback on municipal investment decisions and service delivery performance. The municipal administration subsequently reassesses and reallocates budgetary priorities based on these participatory inputs, thereby institutionalizing iterative learning, accountability, and adaptive policy modification (Abers, 2003; Wampler & Avritzer, 2004). In this way, participatory budgeting in Porto Alegre exemplifies reflexivity, where citizen engagement serves as a continuous evaluative mechanism enabling policy corrections and dynamic realignment of public expenditure priorities (Baiocchi & Ganuza, 2014).

3.1.2. Inclusivity and Participation

In the TG model, one of its cornerstones is inclusivity. This principle is operationalized through participatory governance processes in multivariate stakeholders. Here, stakeholders include civil society, scientific communities, marginalized groups, and private organizations. As transitions in governance processes are complex, unilateral policymaking is ineffective. This principle creates space for TG, which deals with collaborative and consensus-building practices. Such forms of governance enhance policy legitimacy and implementation feasibility (Ansell & Gash, 2008). Thus, models of CF such as co-production, commissioning, contracting out, and co-management increase inclusivity and participation of multiple stakeholders in governance (Kekez et al., 2019). Thus, the implication of this principle is that it enriches knowledge bases and fosters social acceptance of TG (Chaffin et al., 2014). So, the inclusion of major stakeholders in governance processes reduces resistance to structural reforms and increases accountability.

In the Indian context, this is exemplified by the institutionalization of the Right to Education Act, 2009 (RTE), which mandates the formation of School Management Committees (SMCs) in all government and government-aided elementary schools. SMCs include members such as parents, guardians, teachers, local authority representatives, and communities. Such institutionalization fosters participatory decision-making and stakeholder inclusion across both rural and urban contexts. Further, this decentralized policy framework supports community participation and shared accountability in school governance in India (Dubish & Mishra, 2024, pp. 355–370).

3.1.3. Systemic Integration

The integrated principle has been heralded as a cross-cutting approach applied across the stages of public policy. This principle is used largely to build integrative capacity in governance systems to solve the complex problems. Similarly, the TG framework rejects fragmented and isolated decision-making in governance. The principle of systemic integration (SyI) in TG requires the coordination of policies across sectors (e.g., environment, economy, technology, urban development), scales (local, state, national, international), and knowledge systems including scientific, administrative, community ones. Integration strengthens coherence, avoids contradictory policies, and enhances institutional alignment in transformation pathways (Meadowcroft, 2009). Effectively, SyI thus requires multi-level governance structures, cross-sectoral plans, and institutional networks that facilitate long-term systemic change and then isolated project-based interventions. In modern governance, initiatives that are linked to the modernization of industries include e-gov, data governance, sustainability, and social inclusion across multiple sectors and scales.

China's Ecological Civilization Policy and Brazil's Low-Carbon Agriculture Plan align under shared objectives of sustainable urbanization and climate resilience (Zhang et al., 2022; Strassburg et al., 2014). These policies are a good example of how national priorities with transnational cooperation promote coherence between economic growth, environmental protection, and technological innovation within TG architectures (Meadowcroft, 2009; Kanie & Biermann, 2017; Sharma & Singh, 2023).

3.1.4. Normative Commitment

The principle of normative commitment (NC) refers to the foundational moral and ethical values embedded within TG. As per (Chaffin et al., 2014), the core normative anchors include the following:

- ⇒ Social equity: economic, social, and ecological.
- ⇒ Sustainability: long term commitment for future generation.
- ⇒ Environmental justice: protection of vulnerable population, climate change, access to environmental benefits.
- ⇒ Human rights: dignity, freedom, and fundamental entitlement that are accountable and lawful.

Unlike classical approaches that primarily focus on performance and legality, the NC emphasizes substantive outcomes, which include fairness, distributive justice, protection of vulnerable groups, and intergenerational equity (Dryzek & Pickering, 2019). It implies that decision-making in governance should not be assessed merely on the basis of efficiency or economy. It should be based on the long-term well-being of society and ecological systems. So, NC principles lend direction and integrity to policy agendas, leading to institutional reforms. Thus, this principle anchors governance models towards broader ethical responsibilities to society, the environment, and future generations (Chaffin et al., 2014; Meadowcroft, 2009).

The first dimension (social equity) of NC is to recognize that governance efforts promote social inclusion and equal access to opportunities for all. For instance, governance frameworks in many developing contexts have policies in which priority is given to addressing governance challenges such as poverty alleviation, infrastructure equity, and accessible public services. This aligns with the larger agenda of TG that seeks to alter various structural inequalities rather than manage surface-level symptoms (Patterson et al., 2017).

Environmental stewardship is the second dimension, which emphasizes safeguarding ecological resilience and reducing climate and biodiversity risks. Meadowcroft (2009) argues that such transformations depend on a moral commitment to protecting environmental commons. It further highlights that governance failures often arise not from a lack of technical feasibility but from weak normative anchors.

The third dimension looks into the commitment for future generations. It expands more towards administrative accountability for the next generation. Many reforms in energy, urban planning, water, sanitation, and many more exemplify such transformative shifts that consider the long-term validity. Such reformative steps promote long-term systematic transitions that resist populist political expectations and focus more on giving back to future generations.

3.1.5. Accountability and Transparency

Accountability and transparency are the core principles of TG as per the UN Global Compact. These principles can help shape the integrity, legitimacy, and effectiveness of any governance system. Accountability strengthens public trust by ensuring that institutions assume responsibility for their actions, decisions, and outcomes, while transparency helps in enabling clarity, openness, and accessible communication between the government and citizens. As TG reduces informational asymmetries and provides visibility in decision-making processes, the factor of transparency advances

democratic quality, facilitates scrutiny, and enhances institutional responsiveness (Bryson et al., 2014). Thus, both of these principles become dynamic enablers of reflexivity, equity, and systemic learning, making them essential for TG models.

3.1.6. Ethical and Rights-Based Governance

In earlier governance models, the principle of ethics was in the periphery. But in TG, it is situated at the center of decision-making process. Along with rights-based governance, this principle emphasizes that TG models must protect civil liberties, safeguard procedural fairness, promote distributive justice, and ensure equitable access to services and opportunities (Rhodes, 2007; Pierre, 2016). The inclusion of this principle in the model signifies that decision-making in governance should include transparency and moral values, especially when the decision affects society (Kooiman, 2003). Further, rights-based approach discourse states that public authority is not merely about having administrative power but is responsible for upholding individual freedoms and protecting the most vulnerable from coercion, discrimination, or exclusion (Ansell & Torfing, 2021). During times of uncertainty in the governance system, these ethical values provide reasoning that guides fairness in trade-offs that are proportional in enforcement and prioritizes socially beneficial outcomes (Dryzek & Pickering, 2019). So, both of these principles ensure value-driven institutional modernization, making it indispensable for legitimacy and sustainability.

Further, by recognizing human rights as a core principle, these principles ensure governance transformation. They enhance dignity, equity, and justice rather than amplifying exclusion or institutional dominance. Rights-based approaches frame governance reform as a democratic imperative rather than merely administrative modernization (Rhodes, 2007). Ethical governance ensures distributional fairness, responsible use of authority, procedural justice, and protection of vulnerable groups (Meadowcroft, 2009).

3.1.7. Anti-Corruption

It is known that in governance systems, corruption undermines citizen trust, distorts policy agendas, intensifies inequality, and, thus, weakens institutional capacity. In TG models, anti-corruption thus becomes not just a compliance requirement but also an enabling mechanism. Further, this principle aligns with systemic integrity, democratic accountability, and sustainable outcomes (Grindle, 2004). It focuses on preventive institutional design rather than punitive institutional design (Andrews et al., 2017). This principle is more effective when governance systems embed ethical behavioral norms, structured oversight institutions, and citizen-accessible transparency tools (Bryson et al., 2014). Therefore, in TG frameworks, empowering various stakeholders helps in scrutinizing policy decision processes and creates an accountability mechanism. It also reduces informational asymmetries and administrative opportunism. Ultimately, anti-corruption within the TG model represents a future-oriented governance logic that safeguards public value and ensures equitable pathway transitions (Patterson et al., 2017).

So, from the above discussion, it is clear that the primary goal of the discussed core principles is to translate transformative intent into governance capacity. They ensure that governance transformation is grounded in democratic legitimacy, justice, and long-term sustainability. Even though these principles provide value anchoring to guide institutional behavior, they alone cannot transform the governance system.

They must be reinforced by operational structural backing capable of translating transformative intent into sustained institutional performance.

3.2. Structural Pillars of the Framework

As discussed in the above section, the structural pillars serve as the backbone of TG by shaping institutional behaviors, policy processes, and system-level interactions. Further, these pillars show that the purpose of governance capacity is to ensure that institutions are structurally equipped to undertake long-term societal transitions (Table 1).

Table 1. Key structural pillars of transformative governance along with brief descriptions of their roles in enhancing institutional capacity, coordination, and accountability.

Sr. No.	Structural Pillar	Details
1.	Institutional Transformation	Reconfiguration of governance structures and administrative behavior to enhance resilience and responsiveness
2.	Policy Coherence and Integration	Alignment of sectoral policies to manage cross-cutting societal challenges
3.	Collaborative Networks	Multi-actor governance that spans public, private, and civic sectors
4.	Digital and Data-Enabled Governance	Utilization of AI, platforms, interoperability infrastructure, and transparent data
5.	Adaptive Organizational Learning	Iterative learning cycles, policy experimentation, and feedback-driven decisions
6.	Ethics, Accountability, and Equity	Anchoring governance in rights, integrity, anti-corruption standards, and inclusion

Source: Table by authors.

First, the structural pillars institutionalize transformation by embedding adaptive and innovative practices into formal governance arrangements. This ensures that transformation is not episodic or personality-driven but structurally grounded across administrative processes, organizational cultures, oversight mechanisms, and decision-making architectures. Institutional transformation, for instance, alters how public organizations operate, coordinate, and respond to emerging risks, shifting them from rigid rule-bound systems to dynamic and reflexive institutions. This was demonstrated by India, when it gradually shifted toward a platform-based state through institutions such as the Unique Identification Authority of India (UIDAI) and Digital Public Infrastructure (DPI). It illustrated institutional transformation that was aligned with reflexive and accountable governance. Thus, administrative mandates were restructured to integrate real-time feedback, grievance redressal, and auditability, enabling institutions to learn, adapt, and correct exclusionary outcomes.

Further, such TG demonstrates how reflexivity and accountability are embedded structurally through redesigned institutional roles rather than merely ad hoc reforms.

Second, the pillars foster policy coherence and integration, enabling governments to address multidimensional problems such as climate change, inequality, digitalization, and public health not in isolated sectors but through coordinated, cross-governmental strategies. By reducing fragmentation, these pillars strengthen the state's capacity to work across boundaries and align policies with broader transformative goals. Here, an example could be the integration of climate goals into national development planning, particularly through China's Five-Year Plans, which demonstrate policy coherence in action. The Chinese government aligned their environmental targets with their industrial, energy, and urban policies. This alignment helped in translating the principle of systemic integration into coordinated governance practice. Such coherence enables sustainability and environmental responsibility to be pursued across policy domains rather than through isolated regulatory instruments.

Third, structural pillars expand the governance ecosystem through collaborative networks. Transformative change cannot be delivered by the state alone; it requires the participation of markets, communities, civil society, and knowledge institutions. Through networked governance arrangements, these pillars enhance co-production, shared ownership, and collective problem-solving, key conditions for tackling complex, systemic challenges. This has been demonstrated in Brazil's local government budget, especially in Porto Alegre, where collaborative networks of citizens, civil society, and local government officials deliberate on their budgetary requirements. This promotes democratic and sustained practices rather than mere consultation, as described in the 'ladder participation' model proposed by Sherry Arnstein.

Fourth, digital and data-enabled governance pillars enhance analytical, predictive, and delivery capacity. They allow institutions to leverage real-time data, artificial intelligence, and interoperable platforms to improve decision-making, transparency, and responsiveness. In TG, digital systems are not merely tools but structural enablers of innovation, participation, and accountability. The open digital government platforms created by India (data.gov.in) and SA (MyMzansi) promote a unified government. These TG systems enable the public to access information easily. The real-time monitoring and data-driven policy data encourages data-driven policy decisions. The availability of data further enhances reflexivity by allowing governments to revise policies based on usage patterns, service gaps, and citizen feedback.

Fifth, adaptive organizational learning pillars play a critical role in embedding reflexivity within governance. They institutionalize mechanisms for iterative learning, policy experimentation, and corrective feedback, enabling governments to revise strategies based on evaluation, uncertainty, and new evidence. This transforms governance into a continuously evolving system rather than a fixed bureaucratic structure. Such adaptive organization was reflected in SA's evolution of HIV/AIDS governance. Initial SA health policy failures guided the government towards institutional learning driven by scientific evidence, civil society pressure, and global health partnerships. These TG structures were redesigned to incorporate continuous evaluation, feedback loops, and decentralized service delivery. This case demonstrates how reflexivity becomes institutionalized through adaptive learning mechanisms.

Finally, the ethical, accountability, and equity pillars ensure that transformation is socially legitimate, morally grounded, and democratically justifiable. They prevent governance transitions from reinforcing inequalities or benefitting narrow groups by

embedding rights-based approaches, anti-corruption safeguards, and distributive justice considerations into structural design. These pillars maintain the normative coherence of TG and ensure that transformation aligns with public values. The public procurement system reforms in India (GEM portal) and Russia (Zakupki.gov.ru) illustrate how ethical and accountability principles are structurally embedded to reduce discretion and corruption risks. Though challenges remain, the use of transparent digital procedures reflects an effort to institutionalize integrity and equity safeguards within governance structures.

Taken together, these structural pillars act as the operational backbone of TG, converting high-level principles into durable institutional capabilities. They ensure that TG becomes a systemic development rather than an incremental one, participatory rather than technocratic, ethical rather than purely instrumental, and future-oriented rather than reactive. Without these structural pillars and core foundation principles, TG would remain an aspirational framework lacking governance soul. With them, governance becomes a more robust, adaptive system capable of steering societies through periods of uncertainty, transition, and complexity.

3.3. Functional Mechanism of TG

The functional mechanisms of TG include transition management, multi-level coordination, participatory systems, and foresight and scenario planning. These functions contribute to the adaptive and future-oriented nature of TG.

3.3.1. Transition Management (TM)

TM constitutes a central functional mechanism of TG, focusing on the deliberate steering of long-term, structural transformations in key sectors such as energy, mobility, urban development, and climate governance. It emphasizes coordinated policy pathways, experimentation, learning by doing, and iterative adjustment rather than linear planning or short-term interventions (Meadowcroft, 2009). TM enables governments to balance stability with innovation by combining strategic long-term visions with flexible short-term actions. Through pilot projects, niche innovations, and continuous evaluation, transition management allows governance systems to progressively realign institutions and policies toward sustainability and resilience (Loorbach, 2010).

3.3.2. Multi-Level Coordination (MLC)

MLC is essential for TG because transformative challenges transcend administrative boundaries and policy jurisdictions. This function ensures alignment across central governments, subnational authorities, local governments, and global or regional governance frameworks. Effective TG requires vertical integration of policy objectives and implementation responsibilities, particularly where global norms such as sustainable development goal (SDG) commitments or human rights standards must be localized within national and subnational governance systems (Hooghe & Marks, 2003). By facilitating coherence across governance levels, multi-level coordination reduces fragmentation, enhances policy consistency, and strengthens collective capacity to address cross-scale challenges.

3.3.3. Participatory Systems (PSs)

PSs function as a key mechanism for co-producing public value within TG. Rather than positioning citizens as passive recipients of policy outcomes, the concept of TG aims for citizen participation. This is done through deliberative forums, collaborative platforms, and crowdsourced governance arrangements (Ansell & Gash, 2008). Such systems enhance legitimacy, improve policy relevance, and expand the knowledge base available to decision-makers. Participatory mechanisms also reinforce reflexivity by integrating stakeholder feedback into policy evaluation and redesign processes, ensuring that governance remains socially responsive and inclusive (Bryson et al., 2014).

3.3.4. Futuristic and Scenario Planning (FSP)

FSP enables anticipatory governance in a country's institutions by equipping them with better preparedness for uncertainties. These mechanisms involve future modeling, risk assessment, resilience planning, and crisis simulations to identify emerging threats and opportunities before they materialize (Muiderman et al., 2020). In TG, foresight is not a one-time exercise but a continuous process. It guides governance mechanisms towards strategic decision-making, supports adaptive learning, and strengthens institutional preparedness. By integrating foresight into governance routines, TG reduces reactive policymaking and enhances long-term strategic capacity.

Thus, the TG framework can therefore be summarized as follows: core principles define the values and direction of transformation, structural pillars embed these values into governance architecture, and functional mechanisms activate transformation through coordinated action and learning processes. These structural interactions among various layers are recursive and mutually reinforcing, allowing governance systems to evolve continuously while remaining normatively grounded. This summative model highlights that transformative governance is neither purely institutional nor solely procedural, but instead a comprehensive framework capable of guiding societies through complex transitions toward sustainable, equitable, and resilient futures. The transition of TGMs to a TGF of digital infrastructure is exemplified in Box 1 and Figure 3 through a case study of toll collection transitioning from manual to digital integration.

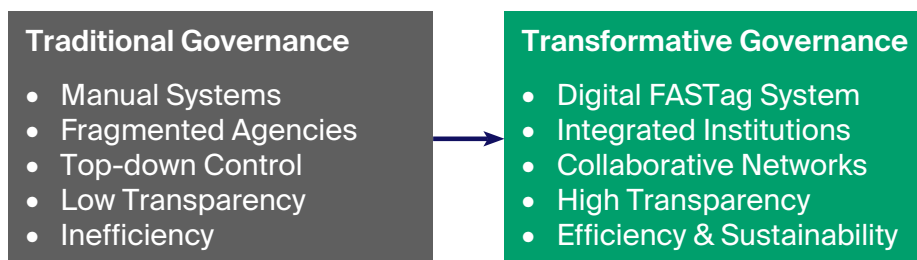


Figure 3. Depiction of FASTag transformational shift from traditional governance models (TGM) to transformative governance framework (TGF). Source: Figure by authors.

Box 1. Case study of FASTag integrating transformative governance framework (TGF).

The implementation of Faster Electronic Toll Collection (FASTag) in India represents a significant shift from a traditional governance model to a more transformative governance approach in the transport sector.

Previously, toll collection was based on manual systems. These systems were slow and prone to delays, leakages, and lack of transparency. The process reflected features of traditional governance such as rigid procedures, limited accountability, and weak integration across agencies.

The introduction of FASTag, under the National Electronic Toll Collection program, marked a transition towards a more adaptive and technology-driven system. It was supported by the National Highways Authority of India and enabled through digital payment platforms linked to the National Payments Corporation of India. This system uses RFID technology to enable automatic toll deduction.

At the level of structural pillars, FASTag demonstrates institutional transformation by integrating transport and digital finance systems.

The functional mechanisms are equally important. The system supports transition management by gradually replacing manual tolling. It enables multi-level coordination between central authorities, banks, and toll operators. It also reflects participatory systems, as users actively engage with digital payment platforms.

Overall, FASTag illustrates how governance can move from rigid and fragmented systems to integrated, adaptive, and technology-enabled frameworks. It aligns with the principles of transformative governance by promoting efficiency, transparency, and systemic change.

4. Integration of TG Model into Public Policy, Administrative Structures, and Sustainability

From the above sections of this chapter, it is clear that TG is a sequential yet interdependent model that integrates core principles, structural pillars, and functional mechanisms to enable long-term, systemic societal change. Thus, as a comprehensive framework, it facilitates the transition of public policies towards more sustainable and future-oriented ones. Let us further examine how the TG model supports the integration of public policy, administrative structure, and sustainable development through systemic, value-driven, and future-oriented governance models.

Unlike conventional governance approaches that prioritize sectoral efficiency or administrative control, TG reshapes the entire policy-administration nexus by embedding reflexivity, inclusiveness, policy coherence, and ethical accountability into governance design (Patterson et al., 2017; Chaffin et al., 2014). This integration is particularly relevant for emerging economies such as the BRICS+, where governance systems must simultaneously manage development pressures, institutional reforms, and global sustainability commitments.

In the domain of public policy, TG reshapes policy formulation by promoting anticipatory, collaborative, and evidence-based models. Policies are increasingly designed through foresight exercises, stakeholder engagement, and cross-sectoral coordination rather than linear, ministry-centric processes (Meadowcroft, 2009). Policy coherence plays a central role in aligning health, energy, urban, digital, and environmental policies with long-term transformation goals, particularly the

Sustainable Development Goals (SDGs). This coherence reduces fragmentation and enables integrated responses to complex challenges such as climate change, digital inclusion, and inequality (Nilsson et al., 2012).

TG also introduces transformative policy instruments, including meta-governance frameworks, adaptive regulation, innovation-oriented budgeting, public-private partnerships, and digital policy tools. These instruments enable governments to steer transitions while retaining flexibility and learning capacity (Loorbach, 2010). Behavioral insights and co-production tools further enhance public value creation by embedding citizen participation into policy implementation (Bryson et al., 2014). The experiences of BRICS include India's Digital Public Infrastructure, China's state-led innovation governance, and Brazil's participatory budgeting, and illustrate how these tools operationalize TG principles in diverse institutional contexts. At the level of administration structures, TG necessitates a fundamental reorientation of bureaucratic structures and capacities. Traditional hierarchies are increasingly complemented by networked bureaucracies, whole-of-government coordination mechanisms, and agile administrative systems capable of experimentation and learning (Rhodes, 2007; Pierre & Peters, 2018, pp. 43–57). Capacity building under TG emphasizes interdisciplinary competencies, including digital literacy, climate governance expertise, ethical reasoning, and collaborative leadership. Technology plays a transformative role by enabling data-driven decision-making, AI-assisted governance, interoperable platforms, and smart policy administration (Janssen et al., 2007). Ethical and accountable administration remains central to TG. Anti-corruption mechanisms, transparency platforms, and human-rights-based approaches ensure that transformation processes remain legitimate, equitable, and socially inclusive (Grindle, 2004). These administrative reforms directly support sustainable development by strengthening institutional trust and ensuring equitable distribution of transformation benefits. Linking TG to sustainable development, governance emerges as a critical SDG enabler, particularly SDG 16, on institutions, justice, and peace. TG enables integrated governance of energy transitions, climate adaptation, digital transformation, and urban mobility by aligning policy, administration, and societal participation across scales (Pahl-Wostl, 2009). In BRICS contexts, this integration is vital for reducing inequality, supporting rural-urban transformation, and building economic resilience. Collectively, these elements converge in an integrative-transformative governance model, where values guide institutions, institutions shape policies, policies reconfigure administration, and governance outcomes advance sustainable development. This model underscores TG as a dynamic, multi-layered framework capable of steering complex transitions over the coming decade.

5. Conclusions

This chapter has provided an advanced overview of a TG model that is an integrative and future-oriented framework capable of addressing the complex, interconnected challenges confronting contemporary governance systems, particularly within the BRICS+ context. It has been conceptualized as a layered governance model in which normative principles, structural pillars, and functional mechanisms interact dynamically to enable long-term societal transformation. The preceding sections of this chapter collectively demonstrated that governance transformation is neither purely institutional nor exclusively procedural. It is a

systemic process rooted in values, operationalized through institutions, and activated through adaptive governance practices.

If this model is seen from an analytical perspective, the BRICS+ experience reveals the practical relevance of the TG model for other emerging and transitional economies. BRICS countries operate under conditions of rapid economic change, deep social diversity, institutional asymmetries, and heightened global interdependence. The TG model developed in this chapter comprises a values layer (ethics, transparency, and human rights), an institutional layer (multi-actor and networked governance), a policy layer (coherence and integration), an administrative layer (capacity, learning, and leadership), a technological layer (digital and data infrastructure), and an outcome layer (sustainable development, social welfare, and resilience). Thus, it provides a structured lens through which these governance realities can be understood and navigated.

Some of the empirical illustrations from BRICS countries underscore that transformative outcomes emerge where governance principles are embedded structurally and activated functionally. India's digital public infrastructure demonstrates how reflexivity, accountability, and technology-enabled governance can be institutionalized. China's transition governance highlights the importance of policy coherence and state capacity in steering long-term transformations. Brazil's participatory budgeting illustrates how inclusivity and reflexive learning can be sustained through collaborative networks. South Africa's public health governance and Russia's procurement reforms further reveal that adaptive learning, ethics, and anti-corruption mechanisms are critical for maintaining legitimacy during periods of change. These cases affirm that TG in BRICS contexts is not a uniform template but a context-sensitive, adaptive model shaped by institutional histories and socio-political conditions.

Additionally, this chapter also foregrounds governance as a central enabler of sustainable development. By aligning TG with the Sustainable Development Goals, especially with SDG 16, on institutions, justice, and peace, this analysis reinforces that effective governance is not merely a supporting condition but a foundational driver of social equity, economic resilience, and environmental sustainability. The integration of policy domains such as energy, climate, urban development, digital transformation, and social welfare illustrates how TG enables coordinated transition pathways rather than isolated policy responses.

Looking forward, the future of TG will be shaped by the capacity of states and societies to anticipate change, manage uncertainty, and uphold ethical responsibility. Emerging trends such as artificial intelligence governance, cyber ethics, green public administration, and community-centered governance will demand stronger foresight capacities, policy experimentation, and institutional learning. For BRICS+ nations, the challenge lies not only in adopting new technologies or administrative reforms, but in cultivating governance cultures that value transparency, participation, accountability, and long-term thinking.

In conclusion, this model offers more than a theoretical framework; it also provides a pragmatic and humane governance vision, one that recognizes uncertainty, values inclusion, prioritizes justice, and embraces learning. By integrating analytical rigor with normative commitment, the TG model presented in this chapter offers policymakers, public administrators, and scholars a coherent pathway for steering governance systems toward sustainable, equitable, and resilient futures in the BRICS+ world and beyond.

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Water Resource Management Policy and Governance

Sandhya Sreekumar, Sheetal Walvekar, Gireesan Krishnapisharoti and Ganesh Deshmukh

Abstract: Maharashtra's dryland districts face persistent water stress and declining agroecological resilience. This study examines how water resource governance interfaces with sustainable agricultural practices, particularly organic farming, in arid and semi-arid regions. A qualitative design was adopted across twelve villages in Pune, Satara, and Solapur, drawing on fifty semi-structured interviews with farmers, Farmer Producer Organisation (FPO) leaders, and institutional actors, supported by field observations. Thematic analysis reveals a gradual shift towards rainwater harvesting, mulching, native seeds, and crop diversification, yet widespread constraints remain. Weak extension services, limited institutional coordination, fragmented policies, and constrained markets restrict adoption. Women's participation, local planning, and community trust emerge as enabling factors. This study argues that strengthening decentralised governance, aligning agricultural incentives with ecological objectives, and improving institutional capacities are central to building resilience in Maharashtra's water-scarce farming systems.

1. Introduction

Water underpins human well-being, economic productivity, and ecological resilience. In India, managing this finite resource has become increasingly complex due to rapid urbanisation, agricultural intensification, and climate variability. With only 4% of the world's freshwater resources sustaining 18% of its population, India faces a dual crisis—groundwater depletion and inefficient rainwater utilisation—driven largely by institutional fragmentation and outdated legal frameworks. The Central Water Commission (2018) estimates that only 60% of India's total water potential is usable, of which nearly two-fifths depends on groundwater already under severe stress.

Agriculture is strongly linked to India's water crisis. Even in arid and semi-arid regions like Punjab, Maharashtra, and Uttar Pradesh, paddy and sugarcane are grown (Gulati & Mohan, 2018). In total, 89% of extracted groundwater is used for irrigation (CGWB, 2019). The Marathwada and Vidarbha drylands of Maharashtra demonstrate the limitations of water-intensive agriculture. Over-extraction of groundwater, variable rainfall, and shallow soils have caused soil deterioration, desertification, and recurrent droughts (Ahamad et al., 2023; Todmal, 2023).

India's water governance is constrained by legal and institutional inertia. The colonial-era Easement Act (1882) grants private ownership of groundwater, excluding the landless and undermining collective stewardship (Narain, 2000). Although later reforms—such as the Model Groundwater (Sustainable Management) Bill,

2016—sought to integrate community-based management, implementation has been hindered by bureaucratic overlaps and limited devolution of authority (Cullet & Koonan, 2018). The persistence of top-down, scheme-based approaches often limits responsiveness to local ecological and socio-economic contexts.

Many states and towns have shown the promise of integrated water governance at the grassroots level. The Neeru-Chettu and Dobha schemes in Andhra Pradesh and Jharkhand demonstrate how decentralised water harvesting and aquifer recharging may restore groundwater (Ministry of Water Resources [MoWR], 2018; R. B. Kale et al., 2024). Civil society-led models like Self-Employed Women's Association (SEWA's) rooftop Rain Water Harvesting (RWH) systems have provided scaled home and agricultural water solutions in parched Gujarat. These experiences suggest that sustainable water governance in India cannot rely solely on centralised policy reform; rather, it must integrate legal coherence with community-driven management and participatory planning.

Sustainable farming methods and water governance are becoming essential for mitigating climate change and strengthening water-stressed ecosystems. Due to diminishing water tables and crop failures, Maharashtra's dryland farmers have been adopting ecosystem-based methods including organic farming, crop diversification, and agroforestry. These practises conserve water, limit external inputs, and increase soil health, promoting long-term sustainability. Field research shows that bio-mulching, vermicomposting, and native seed usage can cut water consumption by 50% and increase productivity and resilience (Beltagi et al., 2022; Gnanaprakasam & Vanisree, 2022).

However, switching to organic farming is difficult. Farmers struggle to get accreditation, markets, and technical advice. Organic farming technologies are often unsupported by Krishi Vigyan Kendras (KVKs), and workforce shortages and socio-economic uncertainty make implementation difficult. Farmers face challenges in certification, market access, and technical support, while existing subsidy structures continue to privilege water-intensive conventional systems.

This study argues that sustainable water management requires governance models that bridge national policy frameworks with local ecological realities. The tension between centralised policy coherence and decentralised implementation forms the conceptual core of this analysis. The paper does not advocate a purely top-down approach; rather, it calls for multi-scalar governance—where coherent policy direction at higher levels aligns with bottom-up, participatory mechanisms such as Farmer Producer Organisations (FPOs) and Panchayati Raj Institutions (PRIs). This perspective responds to global debates on the balance between institutional design, ecological governance, and local autonomy.

The originality of this research lies in integrating water governance with agroecological transitions to demonstrate how institutional integrity—or its erosion—shapes ecological and livelihood outcomes in dryland systems. Unlike existing studies that examine these domains separately, this paper brings them into a unified analytical frame, linking governance failures with ecological fragility and exploring pathways for institutional coherence. By combining an assessment of rainwater-harvesting regulations across India with qualitative fieldwork on organic and ecosystem-based farming in Maharashtra, this study contributes to global scholarship on water resilience by highlighting context-specific governance challenges in the Global South and offering a grounded perspective on sustainable transitions.

In this study, we adopt established definitions to maintain conceptual clarity. Transformation is understood as a systemic, long-term reconfiguration of institutions, practices, and resource-use patterns (Pelling, 2011). Resilience refers to the capacity of socio-ecological systems to absorb shocks, adapt, and reorganise while retaining essential functions and structures (Folke et al., 2010). Sustainability is defined as the ability to maintain ecological integrity and human well-being over time (World Commission on Environment and Development [WCED], 1987). These definitions guide our analytical framing and are applied consistently across the findings and discussion.

Research Questions

- How do existing institutional and legal frameworks enable or constrain the widespread adoption of rainwater harvesting and aquifer recharge in India?
- In what specific ways do agroecological practices—such as organic farming and crop diversification—enhance water resilience in Maharashtra’s dryland regions?
- What governance and policy mechanisms can effectively align water management with sustainable agriculture through decentralised, community-led models?

2. Study Area

This study was conducted in Maharashtra, a state in western and central India that spans a range of agro-climatic zones, from coastal humid belts to interior semi-arid and arid regions. Maharashtra experiences a tropical monsoon climate, with hot summers from March to May and monsoon rains beginning in June. Rainfall varies significantly, from over 400 mm in the Sahyadri ranges to as little as 70 mm in western plateau regions (Government of Maharashtra, 2017). While the Marathwada and Vidarbha regions receive marginally more precipitation, they remain acutely vulnerable to water scarcity due to erratic monsoons and climate variability (Dash et al., 2022; Dound et al., 2018). Agriculture is the backbone of the rural economy, but disparities in irrigation access, infrastructure, and institutional support remain persistent challenges.

The study focused on three representative districts—Pune, Satara, and Solapur—which span Maharashtra’s arid and semi-arid agroecological zones. These districts include over 3000 villages dependent on a combination of rainfed and irrigated farming systems. Undulating terrain and semi-arid environment in Pune render agricultural productivity dependent on monsoonal rainfall, causing cropping fluctuations (CRIDA, 2011a). Due to its proximity to the Western Ghats, Satara’s western section receives more rain, whereas the eastern portion grows cereals and pulses using irrigation and dryland methods (CRIDA, 2011b). In extreme desert Solapur, sugarcane growing requires irrigation, while rainfed farming uses resistant crops like sorghum and millets (CRIDA, 2011c). These districts were selected for their ecological diversity and the coexistence of conventional and sustainable farming models, making them suitable for assessing water governance, organic transitions, and institutional mechanisms.

3. Literature Review

3.1. *Groundwater Regulation and the Limits of Legal Reform*

India's groundwater crisis is not merely the result of physical scarcity but also reflects institutional gaps and regulatory inertia. Groundwater serves over 60% of irrigated agriculture and nearly 85% of rural drinking needs (CGWB, 2019). Yet its extraction remains largely unregulated due to the persistence of archaic property laws like the Easement Act of 1882, which treats groundwater as an appendage to land ownership. This legal framing enables wealthier landowners to extract groundwater without restriction, while marginal and landless users are excluded.

While the Model Groundwater (Sustainable Management) Bill, 2016, proposes progressive reforms—including aquifer-level management and the public trust doctrine—it lacks statutory enforceability and has not been widely adopted by states. The bill's emphasis on participatory planning remains aspirational without institutional mechanisms to support data generation, community engagement, or decentralised oversight (Ministry of Water Resources, 2016).

Insights from dryland Maharashtra—particularly in drought-prone districts like Solapur and Beed—highlight that groundwater planning is virtually absent at the farm level. Farmers are unaware of aquifer health, and there is limited access to hydrogeological information. In the absence of aquifer mapping and recharge estimation, extraction continues unchecked. Even where the CGWA has designated overexploited blocks, local cropping decisions rarely reflect these constraints. Sugarcane and banana cultivation continue despite severe depletion.

This points to a key governance gap: a disconnect between legal reform and field-level operationalisation. While regulatory instruments exist, they are rendered ineffective without community water rights, clear enforcement mandates, and linkage to agricultural planning. Moreover, state-level groundwater authorities often lack the technical manpower and budgetary resources to perform monitoring and enforcement functions.

One of the limitations imposed by the law is the absence of a unified water law in numerous nations, such as India, where water is considered a state subject according to the Constitution. The effect of this is that different legal methods for groundwater regulation and rainfall collection have emerged, each of which is inconsistent with the others. Despite the fact that a number of states, such as Tamil Nadu and Karnataka, have included RWH in their building bylaws, enforcement mechanisms continue to be inadequate.

In addition, the legal system frequently places a higher priority on extraction than on recharge. The Easement Act of 1882, for instance, grants landowners free access to groundwater, which makes it impossible to regulate the water supply. There has been a lack of widespread adoption of the Model Groundwater Bill that was suggested by the central government, which indicates that there is resistance at the state level (Ministry of Water Resources [MoWR], 2018).

3.2. *Decentralised Rainwater Harvesting: Rights, Access and Custodianship*

RWH offers a viable decentralised response to India's water stress, particularly in rainfed farming areas. Yet, despite widespread public investment and policy mandates, implementation suffers from two interrelated challenges: the absence of

legal clarity on ownership and custodianship, and weak institutional integration within broader water and agricultural governance frameworks.

Government schemes such as Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) and the Pradhan Mantri Krishi Sinchai Yojana (PMKSY) have funded thousands of farm ponds, check dams, and recharge wells. However, field evidence from Maharashtra's semi-arid zones reveals that these structures are frequently abandoned or underused. This failure is not merely technical—it is institutional. In most villages, there is no explicit legal framework defining the ownership, user rights, or maintenance obligations for harvested water. In multi-household contexts, disputes often emerge over water sharing, as custodianship remains socially ambiguous and legally undefined (Chinnasamy & Gupta, 2024).

Furthermore, RWH structures are frequently implemented as discrete, project-driven interventions rather than as components of integrated watershed or aquifer systems. Agricultural departments tend to operate independently of water resource agencies, resulting in poor alignment between cropping patterns, irrigation demand, and water harvesting capacity. The absence of coordinated planning also limits the potential for linking RWH with climate-resilient agricultural practices or local groundwater recharge strategies.

This institutional fragmentation highlights a deeper governance gap: decentralised water infrastructure cannot succeed without corresponding decentralisation of decision-making and accountability. Establishing clear custodianship norms—whether through user associations, Gram Panchayat bylaws, or community water charters—is essential to ensure long-term maintenance and equitable access. Integrating RWH within watershed and groundwater governance frameworks would not only improve technical efficiency but also embed principles of collective ownership and ecological stewardship in rural water management.

3.3. Dryland Farming and the Agroecological Transition in Maharashtra

Maharashtra's dryland regions—particularly Vidarbha, Marathwada, and parts of Western Maharashtra—have long faced ecological stress due to erratic rainfall, poor soils, and over-extraction of groundwater. The spatial distribution of drylands in Maharashtra is depicted on the map below (Figure 1). This map depicts semi-arid (AI 0.2–0.5) and dry sub-humid (AI 0.5–0.65) zones across Maharashtra, highlighting the concentration of drylands in the central and western districts such as Ahmednagar, Solapur, Pune, Satara, and Sangli. These regions exhibit chronic water stress and high rainfall variability, which shape local agricultural practices and groundwater dependence. Data are derived from the Global Aridity Index v3, with district boundaries sourced from the Government of Maharashtra datasets.

The prevalence of water-intensive crops such as sugarcane and soybean has exacerbated vulnerability. Against this backdrop, several farmers have begun transitioning toward agroecological practices that are less dependent on external inputs and more attuned to local ecological constraints.

Organic farming, crop diversification, and vermicomposting have been locally adapted to include mulching using native biomass, use of local seed varieties, and integration of livestock to create closed-loop nutrient cycles. Farmers adopting these techniques report lower water usage (up to 40–50% savings), improved soil moisture retention, and reduced input costs (Paradkar et al., 2023).

However, the transition remains uneven due to institutional, market, and gendered constraints. Agricultural extension systems, including KVKs, continue to prioritise chemical-input models under centrally designed packages. Organic certification processes remain costly and bureaucratic, deterring smallholders from participation. Moreover, market structures and public procurement mechanisms (e.g., the MSP system) largely exclude diversified or indigenous crops, restricting economic viability.

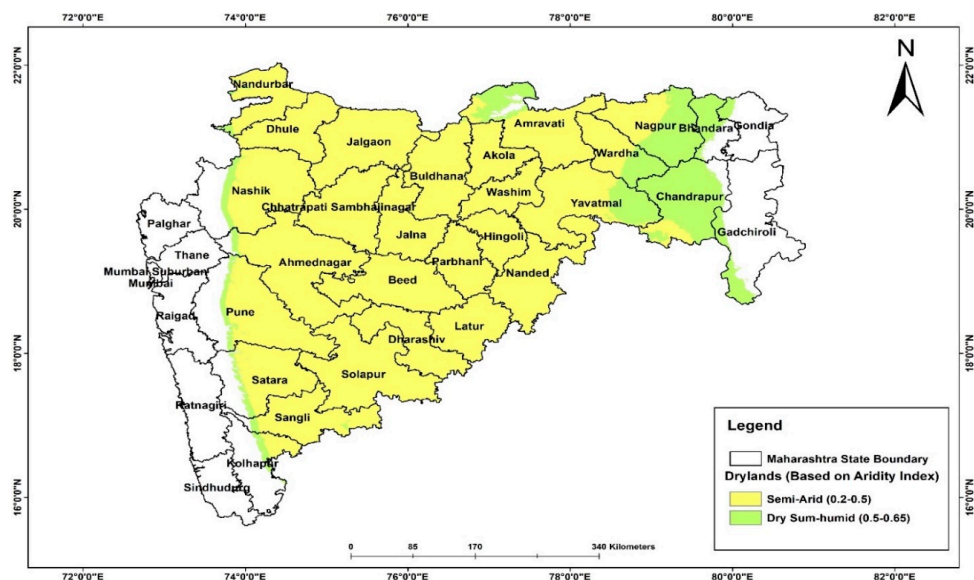


Figure 1. Spatial distribution of drylands in Maharashtra based on Global Aridity Index v3. Source: Authors' compilation based on data from Zomer et al. (2022), used with permission.

Tenure insecurity also constrains long-term investment in agroecological farming. Tenant cultivators—prevalent in drought-prone regions—are hesitant to adopt soil- and water-conserving practices when lease terms are informal or short-term. Simultaneously, women's contributions to agroecological labour—particularly in composting, seed saving, and water management—are undervalued and underrepresented in both extension networks and FPOs. This gender gap weakens community-level custodianship and knowledge transmission.

The arid areas of Maharashtra, specifically in Vidarbha and Marathwada, experience recurrent droughts, unpredictable precipitation, and suboptimal soil fertility. These limitations significantly restrict crop selection and yield (Vaidyanathan, 2006). Soil degradation resulting from erosion and insufficient organic matter exacerbates the issue (Pathak et al., 2011).

Past state initiatives, such as the Integrated Watershed Management Programme (IWMP) and the National Mission for Sustainable Agriculture (NMSA), have attempted to address dryland stress through watershed development and soil–water conservation (Government of India, 2014). Yet, these programmes have often been top-down and technology-centric, with limited local participation or adaptive learning (Pretty & Bharucha, 2014). As a result, they have improved infrastructure without necessarily strengthening farmers' resilience or institutional capacity.

The emerging policy shift under Maharashtra's State Action Plan on Climate Change (SAPCC) offers a partial course correction by recognising agroecology as a pillar of climate resilience. Integrating these bottom-up transitions with decentralised water governance and inclusive extension systems could enable a more equitable and ecologically grounded transformation of dryland agriculture in the state.

3.4. Institutional Gaps and the Missing Middle in Water–Agriculture Integration

While multiple ministries and schemes address water and agriculture separately, policy incoherence at the implementation level remains a major bottleneck. The ministries of Agriculture, Water Resources, and Rural Development run parallel programmes without joint planning or budgeting. As a result, conservation programmes under watershed missions often coexist with subsidy-driven promotion of water-intensive crops in the same regions.

The role of FPOs is often cited as a bridging mechanism, but field assessments reveal that most FPOs are aligned with high-input value chains (like fertilisers and pesticides) and lack autonomy to support ecological transitions. Organic or sustainable FPOs are relatively rare, and those that do exist face challenges in accessing capital, markets, and technical knowledge.

Even where RWH infrastructure or tank rehabilitation is implemented, it is rarely paired with water budgeting or cropping pattern rationalisation. This is a missed opportunity, especially in dryland contexts where water is the primary production constraint. Institutional models that integrate water planning with crop advisories—using local data and participatory processes—are urgently needed.

Some innovative pilots—such as village water budgeting in Maharashtra's Jal Yukta Shivar programme—have shown potential. However, these often remain time-bound, externally driven projects rather than institutionalised systems. Sustainable integration requires building permanent convergence platforms at the district and block levels, with shared data systems, joint planning cells, and co-financing mechanisms.

E. Kale et al. (2022) argue that strengthening local institutions through participatory water governance and joint planning mechanisms is essential for achieving coherence between agricultural and water policies. They emphasise the need for decentralised data sharing, capacity building of local bodies, and integration of watershed and irrigation missions to address systemic fragmentation. Similarly, Shah et al. (2008) assert that India's water policies predominantly focus on supply and engineering, whilst agricultural policies prioritise food security and subsidy frameworks. This results in contradictory incentives; for instance, complimentary electricity for irrigation encourages excessive groundwater extraction.

3.5. Social Differentiation and Uneven Access to Sustainable Practices

Access to sustainable agricultural and water management practices in India is deeply socially stratified. Field studies indicate that adoption of rainwater harvesting, organic farming, and agroforestry is higher among farmers with land security, access to information, and networks with NGOs or civil society (Tapase et al., 2022; Pande et al., 2023).

In contrast, tenant farmers and smallholders, who often operate under insecure arrangements or shared plots, lack the confidence or capital to invest in long-term ecological practices. These farmers are typically excluded from subsidy schemes or

credit due to a lack of formal land titles. These constraints discourage long-term ecological investments such as soil regeneration or tree planting, perpetuating a cycle of both social and ecological vulnerability.

However, while smallholders are often portrayed as stewards of sustainable farming, this assumption warrants nuance. In regions facing chronic water scarcity, fragmented holdings and uncoordinated water use can exacerbate aquifer depletion and reduce the ecological efficiency of water management (FAO, 2022). Sustainable transition, therefore, must balance equity with scale efficiency through collective governance models such as water-user associations, cluster-based irrigation planning, and cooperative agroecological initiatives that optimise resource sharing.

Gender dynamics further skew access. Women play critical roles in maintaining soil health, managing household-level water resources, and preserving indigenous seeds. Yet they are underrepresented in producer groups, extension programmes, and training schemes. For instance, most KVK programmes continue to target male farmers and high-input commercial crops, leaving women's experiential knowledge in composting, mulching, and water-efficient cropping undervalued (Kumar et al., 2023).

A comparative lens also highlights India's institutional lag in integrating social equity with ecological reform. For instance, Republic of South Africa's National Water Act (Republic of South Africa, 1998) explicitly defines water as a public resource and establishes community water management institutions to promote equity and sustainability. Likewise, Australia's Murray–Darling Basin Plan (Commonwealth of Australia, 2012) links agricultural water allocations with basin-level ecological targets, ensuring coordinated resource governance. India's fragmented institutional architecture—split between state and central agencies—stands in contrast, lacking such integrated, basin-based approaches.

Addressing these inequities thus requires a dual focus: empowering marginal and tenant farmers through tenure-responsive and gender-inclusive support, while fostering cooperative frameworks that enhance the ecological viability of smallholder systems. This balance between distributive justice and environmental sustainability is central to an effective agroecological transition.

4. Water Resource Management Policy and Governance in Maharashtra's Drylands

4.1. Water Stress and Dryland Formation in Maharashtra

Maharashtra's semi-arid and arid regions, particularly in Vidarbha and Marathwada, have been experiencing intensifying water stress driven by both climatic and anthropogenic factors. High summer temperatures often exceeding 40 °C, combined with delayed, erratic rainfall and frequent droughts, characterise the climatic profile of these areas (Sarkar & Baswas, 1980). These climatic shifts are amplified by changing monsoon patterns and increasing evapotranspiration rates, resulting in progressive desiccation (Todmal, 2023).

Topographical and geological factors further constrain water availability. Much of the region comprises hard, rocky terrain and shallow soils with poor water-holding capacity. These soils, combined with minimal vegetative cover, cannot retain moisture or facilitate natural recharge. Shifts in the Aridity Index (AI) due to global warming have contributed to soil degradation, salinisation, and desertification, significantly reducing agricultural viability (Todmal, 2023; Ahamad et al., 2023).

However, the crisis is not merely climatic. Anthropogenic practices—such as deforestation, over-extraction of groundwater, and the spread of water-intensive

crops like sugarcane—have intensified desiccation and disturbed hydrological balance (Singh et al., 2022). Infrastructure expansion and urban encroachment on tanks and drainage channels further disrupt local hydrological flows, reducing resilience to both droughts and floods (Srivastava & Chinnasamy, 2021).

Institutional and policy factors have deepened these stresses. Despite numerous watershed and irrigation missions, policies often remain fragmented across ministries and rely on top-down engineering solutions. This orientation prioritises infrastructure creation over ecosystem regeneration, with limited space for local adaptation or knowledge integration. In contrast, bottom-up water stewardship initiatives—such as village-level water budgeting under *Jal Yukta Shivar*—illustrate how participatory governance can enhance adaptive capacity when supported by state facilitation rather than centralised control (E. Kale & Kulkarni, 2022).

Hence, Maharashtra's water stress must be viewed as a product of intertwined climatic variability, ecological fragility, and policy incoherence rather than institutional failure alone. Addressing it requires a hybrid governance model—where decentralised, community-led management aligns with enabling state frameworks—to restore hydrological balance and advance the agroecological transition.

4.2. Organic Farming and Its Role in Water Governance

Organic farming has gained prominence as a long-term solution for building climate and water resilience. By minimising synthetic inputs, organic farming enhances soil fertility, reduces runoff, and improves the soil's ability to retain moisture. Studies show that bio-mulching and vermicomposting can reduce water demand by up to 50%—a critical adaptation in water-scarce regions (Beltagi et al., 2022; Gnanaprakasam & Vanisree, 2022). The integration of cover crops, agroforestry, and natural fertilisers further strengthens biodiversity, carbon sequestration, and water governance (Thawale et al., 2021; Nautiyal et al., 2010).

From an economic and institutional perspective, organic farming reduces dependency on external markets for high-cost inputs by promoting the use of locally available compost, neem-based biopesticides, and green manure (Pawar et al., 2024). Such practices foster autonomy and resilience among smallholders, particularly where irrigation and fertiliser subsidies disproportionately benefit large farmers. Moreover, polyculture systems based on native crop varieties increase resistance to climate-induced yield fluctuations and price shocks, aligning ecological sustainability with livelihood security.

Nonetheless, the transition towards organic farming faces persistent institutional and knowledge barriers. Limited access to training, weak extension linkages, and high certification costs deter widespread adoption. A recent global study highlights that farmers' education and targeted capacity-building interventions significantly enhance the diffusion of sustainable agricultural technologies (Zhang et al., 2024). Strengthening integrated extension services, promoting participatory certification models, and recognising farm-level innovations can bridge these gaps. Embedding organic practices within broader water governance frameworks—through watershed missions, participatory irrigation management, and ecological subsidy design—could create synergistic benefits for both water conservation and rural livelihoods.

5. Materials and Methods

Data Collection and Analysis

A qualitative research design was employed to examine water governance, dryland agriculture, market access, organic farming, and FPOs. Fieldwork was conducted in twelve villages with diverse agroecological and institutional contexts from May to August 2024. The selection of villages utilised a deliberate, criterion-based sample technique informed by irrigation dependency, level of FPO engagement, and access to state water-related programmes. Initial scouting visits and discussions with agricultural officials and community leaders guaranteed ecological and institutional diversity. This methodology corresponds with maximum variance sampling, facilitating comparison across divergent agricultural and governance environments. The sample size of 50 interviews was established by iterative field assessment and thematic saturation, guaranteeing sufficient depth and representativeness among stakeholder groups at the point where no new insights arose.

Primary data were collected through 50 semi-structured interviews with organic farmers and stakeholders involved in sustainable agriculture. The sample included thirty-five individual farmers (organic, chemical and transitioning), seven FPO representatives, four KVK officials, and four members of local governance bodies such as panchayat leaders and water-user associations. Interview topics included challenges in adopting and sustaining organic practices, perceptions of government interventions, market access issues, financial and institutional support, and the effectiveness of FPO governance structures. The semi-structured format allowed flexibility in exploring key themes while maintaining comparability across responses. Interviews were complemented by field observations focusing on irrigation infrastructure, cropping patterns, use of organic inputs, and community-level resource management.

All interviews were recorded with prior consent, transcribed verbatim, and anonymised to ensure confidentiality. To ensure reliability and analytical depth, triangulation was employed through the integration of interview data, field observations, and the secondary literature—including policy documents and official reports—to enhance interpretive validity. Member checking was conducted with a subset of participants to validate the findings and interpretations drawn from the data.

This study employs a governance–mechanism–ecology framework to transcend mere descriptive data. Governance failures—characterised by institutional fragmentation, inadequate extension systems, ambiguous custodianship, and incentives favouring water-intensive crops—trigger processes such as skewed incentives, insufficient maintenance, limited learning, and weak enforcement. These dynamics result in ecological consequences like groundwater depletion, diminished soil moisture, neglected rainwater-harvesting systems, and inconsistent agroecological implementation. The paths are influenced by tenure security, gendered labour, FPO capacity, and market access, including feedback loops in which ecological degradation further undermines institutional capacity. This concept allows qualitative evidence to be interpreted as elucidating the mechanisms by which governance systems produce ecological results, rather than as merely confirmatory observations.

Governance failures influence the methods by which farmers engage with water and land, resulting in ecological consequences such as groundwater depletion and diminished soil moisture. Tenure security, gendered labour relations, market

access, and FPO capability influence these paths. Figure 2 illustrates a reinforcing feedback loop that connects ecological decline to governance, as resource degradation diminishes institutional capacity via outmigration and less collective action.

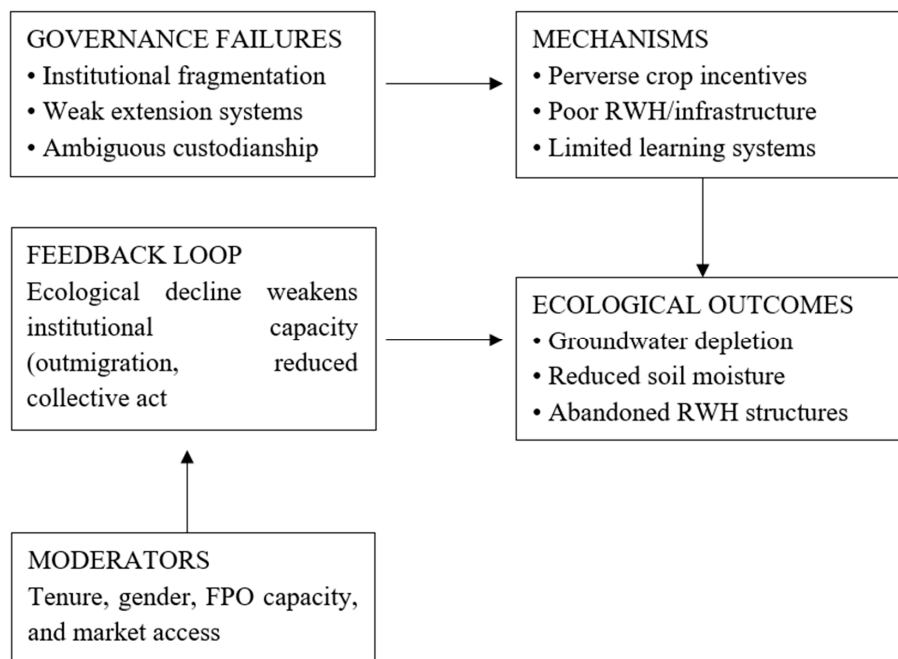


Figure 2. Conceptual framework linking governance failures, mechanisms and ecological outcomes with feedback loops. Source: Figure by authors.

The qualitative data were analysed using thematic analysis, guided by Creswell’s (2015) hand-coding methodology and refined through Saldaña’s (2021) multi-cycle coding process. Transcripts were first reviewed for familiarisation, followed by open coding to identify recurring ideas. These were grouped into broader conceptual categories such as governance bottlenecks, institutional access, FPO functionality, and environmental adaptation. Two researchers independently coded a subset of transcripts to assess inter-coder reliability, and discrepancies were resolved through discussion to refine the coding schema. The iterative coding helped trace links between farmer experiences, water management strategies, and policy implementation outcomes.

The resulting themes provided a grounded understanding of how water governance intersects with agricultural decision-making and institutional engagement in dryland Maharashtra. Special attention was given to understanding how gender, tenancy, and market structures influence access to water and sustainable farming resources. These insights were used to draw broader conclusions about the role of governance in shaping ecological resilience and sustainable agriculture in water-scarce regions.

6. Results and Discussion

6.1. Sustainable Farming Practices and Ecological Water Use

In Maharashtra's dryland districts, sustainable and ecosystem-based farming practices have emerged as critical responses to water scarcity, declining soil fertility, and environmental degradation. Interviewed farmers emphasised the use of natural fertilisers such as potash made from Bael fruit, jaggery, and water, underscoring a return to traditional knowledge systems that are both cost-effective and eco-friendly. These practices reduce dependency on chemical inputs, support biodiversity, and increase long-term soil moisture retention—key to sustaining agriculture in regions facing erratic rainfall and deep-water tables.

This change to agroecological farming shows a move away from relying on chemicals and towards community-based experimentation in how to manage resources. Using Ostrom's (1990) idea of common-pool resources, these methods can be seen as new ways for local governments to work together with, rather than replace, formal institutions. Farmers work together to decide on crop rotations, irrigation schedules, and how to use inputs, which sets up informal guidelines for stewardship.

Field evidence revealed a growing preference for native seeds and diversified cropping systems over genetically modified (GM) varieties, particularly soybeans, which have been associated with soil nutrient depletion and increased water demand. Farmers reported that native varieties improved soil structure and retained more moisture, thus reducing irrigation frequency and enhancing climate resilience. Nevertheless, institutional frameworks have not yet integrated hydrological performance measurements, such as water footprint analysis, which is widely acknowledged as a technique for incorporating water-use efficiency into agricultural planning (Mizyed, 2026). Mizyed (2025) creates a strategic governance framework for using partially treated wastewater in agriculture. This shows how planning for water reuse and institutional design can help with freshwater stress while also making sure that the system works and lasts. Integrating these methodologies into local water budgeting could enhance evidence-based governance.

6.2. Economic Viability, Risk, and Water-Efficient Crops

While sustainable farming practices offer environmental advantages, economic challenges remain a major deterrent to wider adoption. High-input costs, certification fees, and uncertain returns create barriers for farmers considering organic and water-efficient systems. Interviewees expressed concern over profitability, citing initial financial losses and limited access to reliable markets. One farmer, for instance, recounted selling a portion of land and taking loans due to early losses, despite later realising input cost savings through organic practices (interview with farmer, August 2024).

Crop selection was strongly influenced by both water availability and market access. Farmers compared pulses such as moong—requiring less water and offering higher net returns—to soybeans, which remain water-intensive and input-heavy. This strategic crop switching aligns with principles of risk diversification under climatic stress. The literature suggests that proximity to urban markets and farm size also influence the economic viability of organic farming (Läpple & Kelley, 2015; Chatzimichael et al., 2014; Läpple & Van Rensburg, 2011). These dynamics confirm emerging evidence that climate-induced shifts in irrigation demand require

governance structures capable of anticipating and managing new water-use patterns, rather than merely reacting to scarcity (Hedden-Nicely & Kaiser, 2024).

6.3. Labour, Water Stress, and Adaptive Innovation

Labour shortages emerged as a recurring theme, particularly in the cultivation of high-maintenance fruit crops like figs and pomegranates, which require constant irrigation and manual care. Farmers reported switching to low-maintenance options like mango or bamboo, which are less water-dependent and require fewer labour inputs. This shift reflects a pragmatic adaptation to both demographic and climatic change—rural outmigration reduces labour availability, while prolonged droughts increase irrigation costs.

Gender disparities in agricultural labour, particularly unequal wages and a lack of recognition of women's work in composting and seed conservation, were also noted. These structural issues underscore the need for water-smart mechanisation and gender-inclusive innovation policies tailored to dryland agriculture.

6.4. Policy Disconnect and Institutional Fragmentation

A significant gap exists between government schemes and farmers' needs, especially in water-scarce zones. Farmers expressed frustration with input subsidies that favour chemical-intensive farming while offering minimal support for organic transitions. Many government officers and KVK staff were perceived as lacking training in sustainable practices and remained biased toward conventional input packages.

Despite the existence of various water-related schemes, their implementation remains fragmented. Interview data pointed to the failure of top-down policies to account for local agroecological conditions. Farmers stressed the need for decentralised, demand-driven policy models that prioritise participatory planning, convergence across departments, and localised extension support. Studies confirm that joining community-based groups increases the likelihood of adopting sustainable water-use practices (Wollni et al., 2010; Zhang et al., 2024).

Farmers often characterised government activities as “top-down and paperwork-driven”, indicating a disconnect with local agroecological conditions. The shortcomings of centralised approaches underscore the significance of polycentric governance models (Pahl-Wostl, 2017), wherein decision-making authority is allocated among local organisations. Decentralised initiatives, shown as Jal Yukta Shivar's village-level water budgeting, demonstrate how community engagement, bolstered by governmental facilitation, improves adaptive ability. To make policy integration work, there needs to be convergence platforms that connect the work of different departments with local knowledge systems and planning that everyone can take part in. This strengthens the overarching understanding that water governance needs to transition from inflexible, hierarchical programmatic frameworks to flexible governance structures that promote learning, enhance cross-level coordination, and facilitate ecosystem-based adaptation (Akamani, 2023).

6.5. Knowledge Gaps, Resistance to Change, and Farmer Education

A lack of knowledge is still a major obstacle to long-term water management. A lot of farmers were not sure if mulching, crop diversity, or biofertilisers were good

for their crops because they had not had enough training or exposure. Extension services, which are often connected to corporate input chains, do not often share information about ecological practices. This gap in knowledge keeps people from trying new things and makes them rely on outside sources. From the perspective of the governance–mechanism–ecology framework, farmers’ implementation of mulching, crop rotation, and water conservation techniques serves as an adaptive strategy to address governance deficiencies, including ineffective extension services and inconsistent irrigation systems. Consequently, these practices indicate the mechanisms—insufficient learning support and inadequate state provisioning—by which governance failures influence ecological outcomes rather than merely isolated behavioural modifications.

These patterns show how contextual variables, like the availability of workers, gendered labour burdens, and market limitations, affect the links between governance structures and ecological performance. Within this approach, knowledge deficiencies and labour limitations are not distinct issues but rather mechanisms that exacerbate the ecological consequences of institutional deficiencies.

There are also cultural and behavioural impediments to adoption. People do not want to take risks, they want to fit in with others, and they do not believe in non-chemical farming. Studies on adaptive learning show how important it is for farmers and extension systems to keep working together and building trust. Creating farmer education programmes that include native knowledge, peer-led demonstrations, and tools for budgeting water will help close this gap and expedite changes in behaviour.

6.6. Community Organisation, Trust, and Institutional Voids

The role of community-led institutions—such as FPOs, Self Help Group (SHGs), and farmer cooperatives—emerged as a critical success factor for water resource governance. However, most farmer organisations remain aligned with chemical farming value chains, while organic FPOs face liquidity constraints and weak market integration. Interviews revealed that successful community efforts often depended on trust-based networks, charismatic leadership, and shared learning.

Farmers highlighted the importance of trust in both peer networks and formal institutions as a determinant of willingness to experiment with alternative practices. Initiatives led by grassroots leaders who formed new FPOs to address organic marketing gaps exemplify how local empowerment can foster innovation in water and soil management (interview with farmer, July 2024).

Institutional fragmentation and ineffective custodianship are fundamental governance problems that lead to poor coordination, inadequate maintenance, and misguided incentives. This explains why rainwater-harvesting systems do not operate as well as they should, even though they have a lot of technical potential. The ecological consequences—groundwater stress, neglected RWH infrastructure, and inconsistent agroecological adoption—directly result from these governance-induced processes.

These grassroots developments reflect Ostrom’s concept of collective action, wherein collaboration is maintained through mutual accountability rather than external enforcement. However, scalability is still limited by a lack of institutional backing, a lack of financial services for smallholders, and the fact that women and tenant farmers are not allowed to lead. Targeted capacity-building and access to

revolving funding could help community-based institutions empower communities, which could lead to bottom-up resilience in water governance.

6.7. Water Conservation Techniques and Infrastructure

Water efficiency was not only a necessity but also a catalyst for adaptive innovation. Farmers emphasised that organic methods reduce irrigation needs by improving soil texture and water retention. Practices such as mulching, vermicomposting, and earthworm integration were reported to reduce water use by up to 50%, which is particularly valuable during summer droughts (Beltagi et al., 2022; Demo & Asefa Bogale, 2024).

Infrastructure interventions, such as the use of gravity-fed irrigation systems, rainwater storage tanks, and farm ponds, were identified as effective water management solutions. One farmer cited the use of a 1 crore-litre tank to manage water needs through the dry season, while others used mulching to conserve soil moisture (interview with farmer, July 2024). Reliance on tanker water in peak drought periods also underscores the urgency of institutionalising efficient water harvesting and distribution systems. The challenge lies in institutionalising micro-level water harvesting within larger watershed and cropping plans. Integrating the water footprint approach (Mizyed, 2025) into rural planning could help quantify the hydrological efficiency of farming systems, linking field practices to basin-scale governance.

7. Conclusions

Maharashtra's dryland regions—particularly Vidarbha, Marathwada, and parts of Western Maharashtra—are increasingly threatened by the compounding effects of climate variability, declining groundwater tables, and unsustainable agricultural practices. Frequent droughts, erratic monsoon patterns, and overdependence on water-intensive crops like sugarcane have created a cycle of ecological degradation and socio-economic vulnerability (Todmal, 2023; Ahamad et al., 2023). However, field evidence from this study indicates that farmers are innovating within constraints, adopting sustainable farming systems rooted in traditional knowledge, local resource management, and organic principles.

Ecological practices such as mulching, rainwater harvesting, vermicomposting, and the use of native seeds have shown promising impacts on soil health, water conservation, and climate resilience (Beltagi et al., 2022; Gnanaprakasam & Vanisree, 2022). However, their wider adoption is obstructed by fragmented governance, certification barriers, and market asymmetries that privilege chemical-intensive farming. These findings highlight that Maharashtra's water crisis is fundamentally institutional rather than technical, arising from the disjuncture between policy design and local ecological realities.

Theoretically, the study advances debates on adaptive water governance and common-pool resource management (Ostrom, 1990; Pahl-Wostl, 2017) by illustrating how governance failures translate directly into ecological outcomes. It conceptualises resilience not as an external condition but as an emergent property of institutional coherence, social learning, and trust. Methodologically, the integration of farmer narratives with a governance lens provides a grounded understanding of how fragmented institutions, subsidy regimes, and weak extension networks perpetuate

unsustainable practices. This approach offers a transferable analytical model for other semi-arid regions.

At the policy level, this study underscores the need to move from sectoral schemes to integrated, community-anchored governance. Recent global scholarship also emphasises the value of Adaptive Resilience Planning, which integrates hydrological, infrastructural, and socio-institutional dimensions to design flexible, future-oriented water systems capable of responding to climatic uncertainty (Mijic et al., 2024). Programmes such as MGNREGS, PMKSY, and organic farming missions operate in isolation, with overlapping objectives but minimal coordination (Cullet & Koonan, 2018; Srivastava & Chinnasamy, 2021). Legal reforms should reposition groundwater and harvested rainwater as common-pool resources governed under the public trust doctrine (Iyer, 2007). Comparative experiences from South Africa's National Water Act and Australia's Murray–Darling Basin reforms illustrate the importance of basin-level planning, transparent allocation, and participatory governance mechanisms in balancing equity with sustainability.

A paradigm shift is required—from sectoral interventions to integrated, community-based water–agriculture governance. Legal reforms must treat groundwater and rainwater as common-pool resources governed under the public trust doctrine (Iyer, 2007). Community rights over water, supported by policy and law, can ensure more equitable and sustainable resource use. Scaling decentralised rainwater harvesting through performance-linked financing, as well as linking such systems to agricultural incentives and infrastructure (e.g., through MGNREGS and PMKSY), is vital.

To operationalise this transition, performance-linked financing and targeted incentives should prioritise rainwater harvesting, soil regeneration, and organic conversion. Redirecting subsidies from water-intensive crops to low-water, high-value alternatives—supported by insurance, local procurement, and ecosystem service payments—can reorient agrarian markets towards ecological efficiency (Gulati & Mohan, 2018; Wollni et al., 2010). Empowering Gram Panchayats, FPOs, and women's self-help groups with data, financial autonomy, and multi-sectoral coordination capacity is critical to this process.

Finally, integrated water–agriculture monitoring systems that combine hydrological, climatic, and socio-economic data must underpin governance frameworks. This will allow timely and informed decision-making, improve adaptive capacity, and enhance local accountability (World Bank, 2017).

Ultimately, sustainable water governance in Maharashtra's drylands demands a paradigmatic shift—from infrastructure-led interventions to institutional learning and community empowerment. It requires embedding local knowledge within policy frameworks, redistributing decision-making power, and aligning ecological objectives with social equity. The state's experience reflects a broader lesson for the Global South: climate adaptation in agriculture must rest on ecological integrity, institutional coherence, and participatory governance. Only through such convergence can dryland regions evolve towards a resilient and regenerative water future.

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Informed Consent Statement: After explaining the study's objective, that participation was optional, and how their information would be kept private, all participants gave their informed consent. No personal information that could be used to identify someone was made public, and respondents were free to withdraw at any stage.

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Evaluating Financial Literacy and Governance Mechanisms in BRICS Economies: An In-Depth Case Study of India

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Abstract: Financial literacy is a foundational pillar of economic empowerment, enhancing governance and fostering inclusive economic growth. In India, a socio-economically diverse country with significant regional disparities, financial literacy serves as a tool for personal financial well-being and an enabler of participatory governance. Existing studies highlight that financial literacy is improving but remains critically low and uneven across states and demographics. This underscores regional and gender disparities, particularly in the India context, driven by variations in early interventions and differential levels of digital penetrations. But despite remarkable initiatives in financial inclusion, digital banking, online payment systems, and financial reforms, the financial literacy rate remains low, hovering around 27%. It is to be noted that financial literacy is not automatically gained through education or income. Various studies have also highlighted that even educated urban youth populations lack basic financial understanding, suggesting that formal education alone is insufficient. This chapter explores how government initiatives related to financial literacy programmes and digital payment systems like the Unified Payment Interface (UPI) influence governance outcomes in India by enhancing transparency, fostering trust in institutions, and promoting inclusive development. The study is carried out by using secondary data from government initiatives for financial literacy and digital payments. It also critically analyses existing frameworks of online payment mechanisms. The study evaluates India's efforts to achieve financial literacy relative to those of other Brazil, Russia, India, China, and South Africa (BRICS) nations. The study concludes that in India's context, financial literacy is a personal economic competency and a public good, and that it is vital for fostering participatory governance, enhancing transparency, and promoting sustainable development.

1. Introduction

Financial literacy (FL) refers to the knowledge, skills and attitudes and behaviours required to make informed financial decisions related to saving, investing, borrowing and managing risks. It extends beyond basic financial knowledge and includes the ability to apply such knowledge in real-life contexts, thus improving individual and socio-economic well-being. The scholarly literature defines FL as a multi-dimensional construct encompassing financial knowledge, financial behaviour, and financial attitudes, with these factors contributing towards long-term financial stability and development at both an individual and societal level (Nogueira, 2025). In the contemporary world, financial literacy has become an essential life skill, especially

when economies are characterized by complexed financial products and digital financial systems.

1.1. Relevance of FL

For the new block of BRICS plus nations (BRICS+), the importance of FL is due to their status as emerging markets characterized by widening socio-economic disparities, rapid financial deepening, and evolving digital financial ecosystems (Lusardi, 2019; Morgan & Long, 2020). FL plays a crucial role in enhancing financial inclusion, which has emerged as a key policy priority across BRICS countries in recent years (Ozili, 2021; Demirgüç-Kunt et al., 2018). Further, FL, when complemented by digital access and institutional support, significantly contributes to inclusive economic growth, household welfare, and small and medium enterprise (SME) development in BRICS economies (Dasari & Prasad, 2023; Lyons & Kass-Hanna, 2021). It is also closely linked to financial stability. The scholarly literature highlights that BRICS countries are associated with a nonlinear relationship between financial inclusion and financial stability, implying that while increased access to financial services is beneficial, inadequate FL initially generate risks such as over-indebtedness, poor credit decisions, and vulnerability to financial shocks (Talbi et al., 2025; Sahay et al., 2020). Thus, in this context, FL acts as a critical mediating factor, enabling individuals and firms to utilize financial products effectively and responsibly, thereby strengthening the resilience of financial systems (Grohmann et al., 2018; Morgan et al., 2019). At any country's level, FL supports broader developmental objectives such as poverty reduction, entrepreneurship promotion, and economic resilience. In BRICS + countries such as India and South Africa, where a significant proportion of the population remains financially excluded or exhibits low levels of financial capability, enhancing FL improves the effectiveness of public welfare schemes, digital payment systems, and direct benefit transfers (Abel et al., 2018; Bongomin et al., 2017). Furthermore, structural disparities in income, education, and institutional quality across BRICS nations necessitate context FL interventions, which are tailored to local socio-economic conditions and financial behaviours (Nogueira, 2025; Morgan & Trinh, 2019).

1.2. Global FL Framework

In the above section, we have highlighted the relevance of the FL and, similarly, FL frameworks have emerged as critical in enhancing country's financial capability in the globalized era. One of the most critical FL frameworks was developed by the Organization for Economic Cooperation and Development (OECD) through its International Networks on Financial Education (INFE). This framework is widely recognized and is the financial foundation of the FL among various economies (Atkinson & Messy, 2019). This framework conceptualized FL as an integration of financial knowledge, behaviour and attitudes that collectively shapes the financial decisions as listed in Table 1 (Lusardi, 2019; Grohmann et al., 2018). This multi-disciplinary framework has influenced both developed and developing economies and has been embedded into various policy designs and implementations (Atkinson & Messy, 2019).

Table 1. Organization for Economic Cooperation and Development (OECD) and International Networks on Financial Education (INFE) financial literacy framework.

Component/Factor	Description	Key Elements	Supporting Literature (In-Text Citations)
Financial Knowledge	Understanding of fundamental financial concepts required for informed decision-making.	- Interest rates and compounding - Inflation - Risk diversification - Financial products	(Lusardi, 2019; Atkinson & Messy, 2019; Grohmann et al., 2018)
Financial Behaviour	Actual financial practices adopted by individuals in managing financial resources.	- Budgeting - Saving habits - Timely payments - Debt management	(Grohmann et al., 2018; Lyons & Kass-Hanna, 2021; Morgan & Trinh, 2019)
Financial Attitudes	Psychological tendencies influencing financial decisions and long-term planning.	- Risk tolerance - Future orientation - Spending vs. saving preferences	(Lusardi, 2019; Atkinson & Messy, 2019)
Financial Inclusion Linkage	Integration of financial literacy with access to formal financial services.	- Bank accounts - Credit access - Insurance usage	(Grohmann et al., 2018; Morgan & Trinh, 2019; Lyons & Kass-Hanna, 2021)
Digital Financial Literacy	Ability to use digital financial tools and platforms safely and effectively.	- Mobile banking - Digital payments - Cybersecurity awareness	(Morgan et al., 2019; Lyons & Kass-Hanna, 2021)
Life-Cycle Approach	Financial education across different stages of life.	- School education - Workplace training - Retirement planning	(Atkinson & Messy, 2019; Lusardi, 2019)
Measurement and Assessment (OECD/INFE Toolkit)	Standardized tools for measuring financial literacy across countries.	- Survey instruments - Knowledge-behaviour-attitude scoring - Cross-country comparison	(OECD, 2020; Atkinson & Messy, 2019)

Source: Table by authors.

1.3. FL Frameworks in BRICS Nations

FL frameworks in BRICS countries are shaped by the global model of the OECD/INFE framework which is described in the above section. These countries have adapted as per their diverse socio-economic, institutional, and technological contexts (Lusardi, 2019; Grohmann et al., 2018). All these BRICS nations have included three core dimensions—financial knowledge, behaviour, and access—as given by OECD/INFE framework by integrating digital financial competencies (Lyons & Kass-Hanna, 2021; Morgan & Trinh, 2019). The following is the FL policy brief among the BRICS nations.

1.3.1. Brazil

Brazil institutionalizes financial literacy through its National Strategy for Financial Education (ENEF), focusing on school-based financial education, behavioural change, and long-term financial planning. The framework emphasizes early financial education as a means of improving long-term financial outcomes (Grohmann et al., 2018; Lusardi, 2019).

1.3.2. China

China's financial literacy framework is closely linked with its rapidly expanding fintech ecosystem. Policies emphasize digital payments, consumer protection, and financial risk awareness, reflecting a technology-driven approach to financial capability development (Lyons & Kass-Hanna, 2021; Sahay et al., 2020). The integration of digital finance necessitates higher levels of digital financial literacy among users.

1.3.3. India

India adopts a multi-stakeholder approach led by the Reserve Bank of India (RBI) and the National Centre for Financial Education (NCFE), emphasizing life-cycle financial education, rural outreach, and digital inclusion. The integration of financial literacy with initiatives such as financial inclusion programmes and digital payments reflects a development-oriented model aimed at improving financial capability and inclusion (Bongomin et al., 2017; Sahay et al., 2020).

1.3.4. Russia

Russia's framework is policy-driven and supported by international organizations, focusing on household financial decision-making, pension literacy, and consumer protection. It emphasizes financial resilience and risk management in response to economic uncertainties (Morgan & Trinh, 2019; Sahay et al., 2020).

1.3.5. South Africa

South Africa (SA) adopts an inclusion-centric framework addressing socio-economic inequalities and financial vulnerability. Financial literacy initiatives target low-income populations, emphasizing budgeting, savings, and responsible borrowing to promote financial inclusion and social equity (Bongomin et al., 2017; Lyons & Kass-Hanna, 2021).

The above FL policies highlight the growing need for digital financial literacy in BRICS economies. This includes fintech expansion, mobile banking, and digital payments. This shift reflects the evolution of traditional FL models towards incorporating digital competencies by the BRICS nations. These digital competencies are often accompanied by challenges such as cyber fraud (Morgan et al., 2019), digital financial inequality (Lyons & Kass-Hanna, 2021), lack of trust in financial systems (Sahay et al., 2020), and institutional and regulatory issues (Sahay et al., 2020), cognitive biases (Lyons & Kass-Hanna, 2021), and many more.

This chapter delves into this evolving landscape of financial literacy in India and emphasizes its interlinkages with governance structures, institutional frameworks, key government policies, and digital financial infrastructure. Further, it critically examines the persistent gaps and emerging opportunities for integrating financial literacy into broader economic planning and governance reforms.

It provides an in-depth analysis using mixed methods, in which a qualitative case study method will be used to develop the construct of the best practices among the BRICS nations. Further, it will provide insights from which other BRICS nations could learn and provide strategies for them to implement in their context along with the global OECD/INFE framework. The quantitative analysis will provide support for the case study of why India has the best practices among these nations. The basic

objective of this chapter is to show the transformative governance framework used by India and how its actionable insights are valuable for other BRICS nations.

This chapter seeks to understand how best practices can be contextualized and scaled. The chapter addresses the following research questions:

1. What are the key components of FL frameworks in BRICS nations?
2. How does India's financial literacy model operate in terms of institutional design and policy implementation?
3. What best practices from India can be adapted by other BRICS countries?
4. How can FL frameworks enhance financial inclusion and stability in emerging economies?

1.4. Literature Review

1.4.1. Financial Literacy and BRICS+

According to OECD (2013) and Bhushan and Medury (2013), a financially literate population is more likely to participate in formal financial systems and make informed and responsible financial decisions. Further, Garg and Singh (2018) highlight that developing economies like India and BRICS + emerging economies face challenges like poverty, illiteracy, and a pronounced rural–urban divide that continue to impede the goals of financial inclusion and equitable growth.

In most of the BRICS+, the financial landscape is undergoing rapid transformation due to the introduction of digital financial platforms. These platforms have not only transformed the financial landscape in these nations but have also reshaped the financial governance across these nations. Financial governance includes the financial frameworks, regulatory mechanism, and other monitoring systems which helps in a developing stable and transparent economy of the nation. These efforts led to the establishment of a resilient governance strategy for developing the nation (Zetzsche et al., 2020).

1.4.2. Digitalization and FL

The BRICS+ alliance has recognized digital platforms not only as a mere technological innovation, but as a strategic governance tool for fostering economic resilience, reducing inequality, and promoting sustainable development (Demirgüç-Kunt et al., 2018). Digital platforms include mobile wallets, online lending services, digital banks, and fintech innovation. There has been an unprecedented surge in adoption of these platforms due to the rise of smartphone prevalence, supportive regulatory reforms, and large underbanked populations eager for convenient financial solutions, among many more contributing factors (Demirgüç-Kunt et al., 2018; Chen et al., 2019). This unprecedented growth can be observed from the following empirical data:

- In India, the Unified Payments Interface (UPI) processed over 10 billion (bn) transactions monthly by June 2023. This has accounted for more than half of the country's retail digital payments (Dasari & Prasad, 2023).
- Similarly, in China, the amount of money spent in mobile financial transactions reached over ¥527 trillion (tn) (approximately \$77 tn USD) in 2022. This surge was dominated by platforms like Alipay and WeChat Pay and many more. This reflects the deep integration of digital finance into everyday life (Chen et al., 2019).
- Brazil has led as Latin America's fintech leader, with Nubank boasting over 85 million (mn) customers in the financial year 2023–2024. It has contributed

- to a growth of 70% in digital financial adoption in the past few years (Arner et al., 2017).
- Meanwhile, in spite of having issues with national security, financial sovereignty and geopolitical pressures, Russia has developed the indigenous MIR payment system. This payment system has surpassed 125 million cards issued by 2023, reflecting both domestic financial innovation and geopolitical necessity (Vasilyeva et al., 2020).
 - SA, on the other hand, has seen a significant leapfrog into financial inclusion, with mobile money users exceeding 24 mn and the rural digital financial ecosystem rising by over 40% since 2019 (Ozili, 2018).

1.4.3. Challenges of Financial Literacy in BRICS+

Financial literacy in BRICS+ nations Brazil, Russia, India, China, and SA and others—reveals deep disparities shaped by income, education, gender, and geography. In Brazil, high household indebtedness (78% of families) and limited financial resilience have prompted regulatory mandates, such as Joint Resolution No. 8 (2023), for financial education. However, gaps persist, especially among youth and low-income groups, with financial knowledge often disconnected from behaviour (She et al., 2022).

China shows significant urban–rural divides; while urban students show positive attitudes, rural households correctly answer only 33% of basic FL questions (Zhao et al., 2024). The need for tailored interventions and curricular reforms remains urgent (Choudhary & Jain, 2023).

Russia has institutionalized literacy through the Financial Education and Financial Literacy (FEFL) Project (2011–2020), yet deep mistrust, behavioural gaps, and low retirement planning prevail (World Bank, 2021). In Russia, despite a \$220 million investment being made via the FEFL Project, challenges persist due to low trust, weak behaviour, and urban–rural inequality (World Bank, 2021).

South Africa (SA) faces high indebtedness and uneven FL levels; only 24% of the population plan for retirement, with persistent gender and racial gaps (Dhlembeu et al., 2022). Further, SA records a literacy index of 48.4/100, yet struggles with retirement planning (24% active), debt stress, and fragmented education (Nanziri & Leibbrandt, 2018).

In Brazil, rising household debt (affecting 78% of families) has triggered regulatory actions, such as Joint Resolution No. 8 (2023). However, 65% of families lack financial resilience, particularly Gen Z and low-income groups (Central Bank of Brazil, 2023). China faces rural–urban divides, with only 33% rural households answering basic FL questions correctly and college students showing higher behavioural skills than knowledge (Tan et al., 2024).

In India, the FL rate remains under 35%, with significant gender and regional gaps. Despite robust initiatives such as Pradhan Mantri Jan Dhan Yojana (PMJDY) and NSFE 2020–2025, rural populations and women continue to be underserved (Dash & Ranjan, 2023). The integration of various digital platforms and products such as UPI, digital wallets, online trading platforms, and government-led direct benefit transfers (DBTs) requires a thorough understanding of financial literacy. Thus, financial literacy in India must evolve to include not only traditional concepts, but also the skills necessary to utilize emerging financial technologies effectively and securely.

Also, among the new BRICS entrants, Egypt, Ethiopia, and Iran show low FL due to informal finance reliance and structural deficits, while Saudi Arabia and UAE improve via fintech-led youth initiatives (OECD, 2020; SAMA, 2022, p. 68; Central Bank of UAE, 2021, p.62). Overall, digital outreach and policy reform remain key to building financial capability. Thus, the requirement for citizens to navigate a complex and digitized financial ecosystem has become essential. Financial literacy goes beyond basic arithmetic or financial awareness.

1.4.4. Relevance of Financial Literacy in India

India, as one of the world's fastest-growing economies, faces a unique set of challenges with regard to financial literacy. While significant progress has been made in expanding financial inclusion through policy initiatives and technological advancements, a large portion of the population, particularly in rural and underprivileged areas, continues to remain outside the ambit of formal financial systems. Financial literacy serves as a critical lever to bridge this gap and ensure meaningful participation of every citizen in the formal economy.

The importance of financial literacy in the Indian context can be understood through the following dimensions:

Empowering the Rural Population: With over 65% of India's population residing in rural areas, many households still depend on informal financial mechanisms such as moneylenders. Financial literacy equips rural citizens with the knowledge and confidence to access and use formal banking, insurance, and credit services, thereby enhancing their economic resilience and financial autonomy.

Enhancing Savings and Investment Behaviour: Financially literate individuals are more likely to adopt disciplined saving habits and invest in long-term, wealth-generating instruments such as mutual funds, fixed deposits, and pension schemes. This not only promotes household financial stability but also mobilizes domestic capital for national economic development.

Facilitating Financial Inclusion: FL is a foundational pillar of financial inclusion, enabling individuals to understand and utilize a range of financial products and services. As citizens become more comfortable navigating banking systems, mobile wallets, and digital payments, overall economic participation and productivity improve.

Reducing Reliance on Informal Credit: In the absence of financial knowledge, many individuals, especially in rural regions, fall prey to informal credit sources that often charge exploitative interest rates. Financial literacy enables individuals to evaluate credit options, understand interest calculations, and seek fair, regulated lending solutions.

Fostering Entrepreneurship and Self-Reliance: A financially literate population is better equipped to manage business operations, assess financial risks, secure institutional funding, and make strategic financial decisions. This is particularly important for nurturing India's vibrant micro, small, and medium enterprise (MSME) sector and promoting grassroots entrepreneurship.

The essence of the literature review highlights that FL is not merely a personal competence but a national developmental imperative. It empowers individuals, strengthens communities, and serves as a catalyst for inclusive and sustainable economic growth.

2. Materials and Methods

This chapter adopts an embedded mixed-methods research design to examine financial literacy frameworks in BRICS nations. In this design, one methodological strand dominates while the other plays a supportive role. This approach enables a comprehensive understanding of complex policy phenomena by integrating qualitative depth with quantitative support (Creswell & Plano Clark, 2018; Schoonenboom & Johnson, 2017). It is particularly suitable for studies that seek contextual explanation alongside empirical validation.

The dominant component of this study is qualitative. It is based on a case study of India's financial literacy framework. The case study method allows an in-depth exploration of institutional structures, policy mechanisms, and implementation strategies within real-life settings (Yin, 2018). It is appropriate for understanding how financial literacy initiatives operate across diverse socio-economic conditions. The qualitative analysis draws on policy documents, institutional reports, and secondary literature. It examines initiatives led by regulatory bodies and financial institutions. It also analyses programmes related to digital financial inclusion and rural outreach. This approach provides a nuanced understanding of best practices and governance arrangements (Stake, 2010; Creswell & Poth, 2018).

The quantitative component plays a supporting role in this embedded design. It is used to reinforce and validate insights derived from the qualitative case study. Quantitative evidence includes secondary datasets and survey-based indicators related to financial literacy, financial inclusion, and digital financial usage. These indicators help with the identification of trends and patterns across BRICS nations. They also provide comparative support for the qualitative findings. The integration of quantitative data enhances the robustness and credibility of the analysis (Johnson et al., 2016; Fetter et al., 2013).

The embedded design ensures methodological complementarity. The qualitative findings guide the interpretation of quantitative results. At the same time, quantitative evidence supports the generalizability of the identified best practices. This approach strengthens the explanatory power of the study. It also aligns with recent research that emphasizes mixed methods for policy and development studies (Creswell & Plano Clark, 2018; Schoonenboom & Johnson, 2017). Overall, the methodology enables a detailed and context-sensitive analysis of financial literacy frameworks. It highlights India's model as a case study while situating it within the broader BRICS context.

3. Results

3.1. Case Study of India

3.1.1. Framework of Financial Literacy in India

India's financial literacy framework represents a multi-institutional and policy-driven model that aligns closely with the core dimensions of OECD/INFE. This includes the following:

1. **Financial Knowledge:** This dimension focuses on building awareness of basic financial concepts such as savings, interest rates, inflation, credit, insurance, and investment products. Educational content is disseminated through school curricula, public campaigns, and digital platforms (Lusardi, 2019).
2. **Financial Behaviour:** This framework promotes responsible financial practices such as budgeting, regular saving, prudent borrowing, and timely repayment.

Programmes like Financial Literacy Centres (FLCs) and community outreach initiatives encourage behavioural change among individuals (Grohmann et al., 2018).

3. Financial Attitudes: Emphasis is placed on developing long-term financial planning, risk awareness, and a savings-oriented mindset. These attitudes are crucial for sustainable financial well-being and resilience (Atkinson & Messy, 2019).

Furthermore, India's framework is characterized by strong institutional coordination which includes the Reserve Bank of India, National Centre for Financial Education, Securities and Exchange Board of India, and Insurance Regulatory and Development Authority of India, which together provide a comprehensive institutional structure for financial education and awareness. It emphasizes building foundational financial knowledge related to savings, credit, insurance, and investment, while simultaneously promoting responsible financial behaviour such as budgeting, saving, and prudent borrowing (Lusardi, 2019; Grohmann et al., 2018).

3.1.2. Integration of FL Initiatives in India

A distinctive feature of India's framework is its integration with large-scale financial inclusion programmes such as PMJDY and Digital India Pradhan Mantri Mudra Yojana. These initiatives link financial literacy with access to banking, credit, insurance, and digital payment systems, thereby enhancing practical financial capability (Lyons & Kass-Hanna, 2021; Sahay et al., 2020).

Also, India's framework strongly emphasizes digital financial literacy. With the expansion of mobile banking, UPI payments, and fintech services, programmes are placing increasing emphasis on digital skills, cybersecurity awareness, and safe transaction practices (Morgan et al., 2019). This reflects the shift toward a technology-enabled literacy model. The details of each of the FL initiatives in India are provided below:

National Strategy for Financial Education (NSFE)

The Financial Stability and Development Council (FSDC) has initiated a scheme to create a financially aware and empowered India by integrating financial education into school curricula, vocational training, and mass media campaigns. The core pillars are as follows: Content, Capacity, Community, Communication, and Collaboration (5Cs).

Pradhan Mantri Jan Dhan Yojana (PMJDY)

PMJDY was launched in 2014 by the Ministry of Finance. The scheme's objective was universal access to banking facilities, financial literacy, insurance, and pensions. Impact: Over 50 crore bank accounts were opened with a zero-balance facility and a RuPay debit card. Financial literacy camps are part of the outreach strategy under PMJDY.

State-Wise Number of Beneficiaries in Rural, Semi-Urban, and Urban Areas Under PMJDY

The PMJDY beneficiary data is shown in Table 2. There are total of 55.64 crore beneficiaries across India, with around 37.12 crore in rural and semi-urban areas and 18.52 crore in urban and metro regions, reflecting a strong rural outreach.

Uttar Pradesh tops the list with over 9.91 crore beneficiaries, followed by Bihar (6.43 crore) and West Bengal (5.39 crore). States like Maharashtra, Madhya Pradesh, and Rajasthan also show high enrolment. Southern states such as Tamil Nadu and Karnataka demonstrate balanced rural–urban inclusion. Smaller states and Union Territories contribute modestly. Overall, PMJDY has achieved widespread penetration, especially among low-income and rural populations.

Table 2. State-wise of beneficiaries in rural, semi-urban, and urban areas under Pradhan Mantri Jan Dhan Yojana (PMJDY).

Sr. No.	State Name	Beneficiaries at Rural/Semi-Urban Centre Bank Branches (in '000)	Beneficiaries at Urban/Metro Centre Bank Branches (in '000)	Total Beneficiaries (in '000)
1	Andaman and Nicobar	43.40	18.88	62.28
2	Andhra Pradesh	8493.03	7554.79	16,047.82
3	Arunachal Pradesh	344.24	125.82	470.06
4	Assam	19,513.15	5382.94	24,896.09
5	Bihar	46,533.70	17,740.40	64,274.10
6	Chandigarh	47.21	288.71	335.92
7	Chhattisgarh	12,830.99	5435.55	18,266.54
8	Delhi	633.77	6149.92	6783.69
9	Goa	179.07	38.44	217.51
10	Gujarat	11,544.27	7807.94	19,352.21
11	Haryana	5350.43	5306.06	10,656.48
12	Himachal Pradesh	1832.03	168.06	2000.09
13	Jammu and Kashmir	1804.40	434.74	2239.14
14	Jharkhand	16,385.39	3351.25	19,736.64
15	Karnataka	12,038.94	8602.89	20,641.83
16	Kerala	4208.22	2773.58	6981.80
17	Ladakh	14.44	4.81	19.25
18	Lakshadweep	8.15	2.00	10.15
19	Madhya Pradesh	27,665.31	17,794.21	45,459.51
20	Maharashtra	20,038.83	16,493.52	36,532.34
21	Manipur	672.66	410.41	1083.06
22	Meghalaya	774.19	88.55	862.74
23	Mizoram	248.22	168.80	417.02
24	Nagaland	194.44	214.73	409.17
25	Odisha	18,188.45	4952.56	23,141.01
26	Puducherry	131.17	126.23	257.40

Table 2. Cont.

Sr. No.	State Name	Beneficiaries at Rural/Semi-Urban Centre Bank Branches (in '000)	Beneficiaries at Urban/Metro Centre Bank Branches (in '000)	Total Beneficiaries (in '000)
27	Punjab	5355.17	4158.34	9513.51
28	Rajasthan	23,887.01	13,198.63	37,085.64
29	Sikkim	65.68	29.94	95.62
30	Tamil Nadu	9150.98	8409.88	17,560.86
31	Telangana	7351.69	5386.98	12,738.67
32	Dadra and Nagar Haveli and Daman and Diu	212.10	28.92	241.02
33	Tripura	894.02	228.93	1122.96
34	Uttar Pradesh	72,092.31	27,028.65	99,120.96
35	Uttarakhand	2599.98	1286.94	3886.92
36	West Bengal	39,886.93	13,973.57	53,860.51
Total		371,213.93	185,166.56	556,380.49

Source: Authors' compilation based on data from PMJDY (n.d.).

The state-wise data as given in Table 3 on PMJDY reveals Uttar Pradesh as the leading contributor, with over ₹ 53,000 crore in account balances and the highest RuPay card issuance at 6.71 crore, reflecting deep financial inclusion in India's most populous state. Bihar and West Bengal follow closely, highlighting the scheme's success in eastern India. States like Rajasthan and Maharashtra also show significant participation. In contrast, Union Territories and smaller states such as Lakshadweep, Ladakh, and Sikkim report low balances and card numbers due to smaller populations. Overall, the data underscores PMJDY's strong rural and semi-urban reach, particularly in demographically dense and economically weaker regions.

The PMJDY account data from March 2015 to August 2025 as given in Figure 1 reveals a steady and significant increase in financial inclusion across India. Starting with 14.72 crore accounts in 2015, the scheme witnessed consistent annual growth, reaching 56.16 crore by August 2025—indicating nearly a fourfold rise over nine years. This expansion reflects the government's persistent efforts to bring the unbanked population into the formal financial system, especially in rural and low-income segments. Major growth phases align with policy pushes, digital infrastructure expansion, and public awareness campaigns. The data underscores PMJDY's success as a transformative initiative for inclusive economic participation and financial empowerment.

The PMJDY data in Table 4 highlights that Public Sector Banks (PSBs) play a dominant role in financial inclusion, accounting for 43.16 crore beneficiaries and over ₹ 2.02 lakh crore in deposits. Regional Rural Banks (RRBs) follow with 10.47 crore beneficiaries and ₹ 50,450 crore in deposits, indicating strong rural outreach. Private Sector Banks contribute modestly with 1.82 crore accounts, while Rural Cooperative Banks show minimal involvement. Rural and semi-urban centres host 37.12 crore beneficiaries, and urban metros host 18.52 crore, with 31.03 crore female beneficiaries

overall. The issuance of 38.34 crore RuPay cards further reflects the scheme's emphasis on digital access and financial empowerment.

Table 3. State-wise account balance and Rupay Cards issued to beneficiaries under PMJDY.

Sr. No.	State Name	Balance in Beneficiary Accounts (in crore)	Number of RuPay Cards Issued to Beneficiaries
1	Andaman and Nicobar	41.44	37,678
2	Andhra Pradesh	5412.59	103,08,867
3	Arunachal Pradesh	259.98	3,16,188
4	Assam	6617.85	146,89,156
5	Bihar	24,932.48	465,29,523
6	Chandigarh	192.67	2,14,801
7	Chhattisgarh	8723.04	1,10,96,618
8	Delhi	3239.52	52,21,956
9	Goa	192.3	1,53,609
10	Gujarat	10,584.86	147,24,465
11	Haryana	7055.85	73,11,523
12	Himachal Pradesh	1432.35	13,18,563
13	Jammu and Kashmir	1658.62	18,04,042
14	Jharkhand	10,286.17	134,78,344
15	Karnataka	10,982.80	128,60,375
16	Kerala	3291.55	37,93,962
17	Ladakh	24.18	14,334
18	Lakshadweep	17.93	7786
19	Madhya Pradesh	16,654.31	339,27,713
20	Maharashtra	17,833.43	257,92,183
21	Manipur	307.8	6,95,288
22	Meghalaya	471	5,19,992
23	Mizoram	200.46	1,88,537
24	Nagaland	135.43	3,07,947
25	Odisha	11,215.07	165,33,457
26	Puducherry	113.92	1,63,403

Table 3. Cont.

Sr. No.	State Name	Balance in Beneficiary Accounts (in crore)	Number of RuPay Cards Issued to Beneficiaries
27	Punjab	4454.57	67,76,736
28	Rajasthan	21,021.70	275,74,500
29	Sikkim	54.35	67,611
30	Tamil Nadu	6042.37	1,27,28,708
31	Telangana	5367.04	88,05,272
32	Dadra and Nagar Haveli and Daman and Diu	168.99	1,69,131
33	Tripura	626.7	6,01,510
34	Uttar Pradesh	53,083.33	671,33,278
35	Uttarakhand	2601.24	26,24,288
36	West Bengal	25,263.96	3,49,05,112
Total		260,561.88	3,833,96,456

Source: Authors' compilation based on data from PIB (2024).

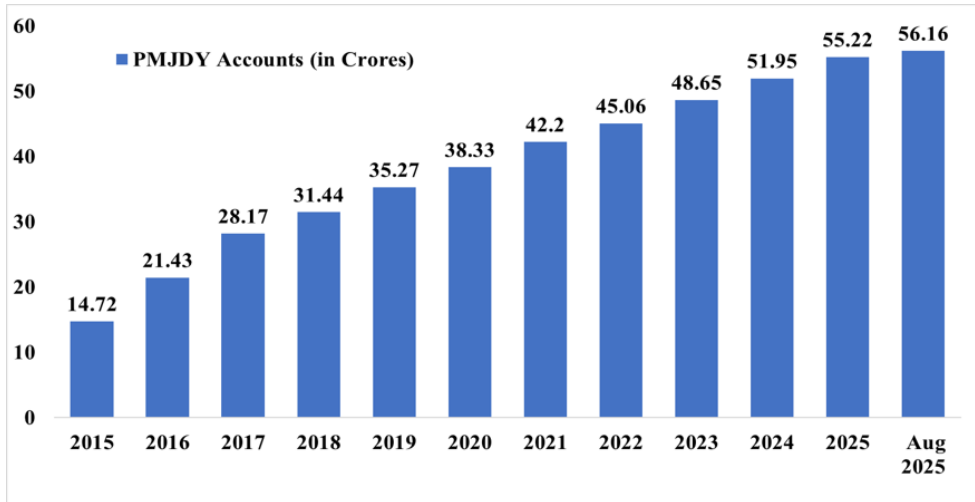


Figure 1. The PMJDY account data from March 2015 to August 2025. Source: Authors' compilation based on data from PIB (2024, 2025).

Table 4. Bank Category-wise beneficiaries of PMJDY since its inception.

Category of Banks	No. of Beneficiaries at Rural/Semi-Urban Centre (in Crore)	No. of Beneficiaries at Urban Metro Centre (in Crore)	No. of Rural-Urban Female Beneficiaries (in Crore)	Number of Total Beneficiaries	Deposits in Accounts (in Crore)	No. of Rupay Debit Cards Issued
Public Sector Banks	27.16	16.00	23.82	43.16	202,491.39	33.06
Regional Rural Banks	9.00	1.47	6.10	10.47	50,450.35	3.81
Private Sector Banks	0.77	1.05	1.02	1.82	7620.13	1.48
Rural Cooperative Banks	0.19	-	0.10	0.19	0.01	-
Total	37.12	18.52	31.03	55.64	260,561.88	38.34

Source: Authors' compilation based on data from PMJDY (n.d.).

National Centre for Financial Education (NCFE)

The RBI, Securities and Exchange Board of India (SEBI), Insurance Regulatory and Development Authority of India (IRDAI), and Pension Fund Regulatory and Development Authority (PFRDA) set up NCFE. It was set up to implement financial education programmes across schools, colleges, working adults, and rural India. Key Programmes: FLiP (Financial Literacy Program), MoneySmart for Schools, NCCMP (National Financial Literacy Assessment Test).

The following are the workshops conducted by the NCFE.

The data in Table 5 reveals that a total of 32,180 financial literacy workshops were conducted across Indian states, benefiting over 11.10 lakh individuals. Uttar Pradesh leads with 10,660 workshops and 3.59 lakh beneficiaries, showcasing deep outreach. High beneficiary counts are also seen in Odisha, Madhya Pradesh, and Uttarakhand, indicating strong participation in northern and eastern regions. States like Bihar, Haryana, and Jammu and Kashmir also report significant figures. In contrast, smaller states and UTs like Tripura, Nagaland, and Puducherry show minimal activity. Overall, the data highlights concentrated efforts in populous and underserved regions to promote financial literacy and empower citizens economically.

As stated in Table 6, between 2020 and 2025, a total of 32,180 financial literacy workshops were conducted, reaching over 11.10 lakh beneficiaries across India. The number of workshops steadily increased from 2196 in 2020 to a peak of 8844 in 2023, reflecting growing momentum and outreach. Correspondingly, beneficiary numbers rose, with the highest impact seen in 2023 (3.14 lakh beneficiaries). A decline in both workshops and participation is observed in 2024 and 2025, possibly due to saturation or shifting strategies. Overall, the data indicates significant efforts made by the NCFE to enhance financial awareness, with strong outcomes—particularly in the post-pandemic recovery period.

Table 5. National Centre for Financial Education (NCFE) workshops and beneficiaries (October 2020 to April 2025).

	Workshops	Beneficiaries
Andhra Pradesh	364	13,808
Arunachal Pradesh	77	2256
Assam	710	25,741
Bihar	1808	62,353
Chandigarh	7	498
Chhattisgarh	67	1952
Delhi	149	4759
Gujarat	949	35,379
Haryana	1941	60,134
Himachal Pradesh	245	9077
Jammu and Kashmir	1984	66,677
Jharkhand	1320	45,101
Karnataka	211	7854
Kerala	296	11,610
Madhya Pradesh	1960	70,749
Maharashtra	1067	35,769
Nagaland	5	227
Odisha	2365	79,739
Puducherry	11	453
Punjab	670	21,897
Rajasthan	1074	43,620
Tamil Nadu	1065	42,101
Telangana	11	869
Tripura	1	27
Uttar Pradesh	10,660	359,050
Uttarakhand	2072	70,115
West Bengal	1091	38,600
Total	32,180	1,110,415

Source: Authors' compilation based on data from NCFE (n.d.a).

Table 6. Year-wise NCFE workshops (October 2020 to April 2025).

Year	Workshops	Beneficiaries
2020	2196	72,948
2021	6188	208,100
2022	7440	249,133
2023	8844	314,615
2024	5358	195,572
2025	2154	70,047
Total	32,180	1,110,415

Source: Authors' compilation based on data from NCFE (n.d.a).

The gender-wise distribution of beneficiaries from financial literacy workshops given in Table 7 reveals a significant female majority. Out of the total 11.10 lakh participants, approximately 7.22 lakh (65%) were female, while 3.89 lakh (35%) were male. This skew highlights targeted efforts to empower women through financial education, especially in rural and low-income segments where financial inclusion for women has traditionally lagged behind. The data underscores the success of NCFE's gender-sensitive outreach initiatives, contributing to greater financial autonomy, decision-making capacity, and participation of women in formal financial systems—aligning with broader goals of inclusive growth and gender equity in financial literacy campaigns.

Table 7. Gender-wise participation in NCFE workshops (October 2020 to April 2025).

Gender	Beneficiaries
Male Participants	388,645
Female Participants	721,770
Total	1,110,415

Source: Authors' compilation based on data from NCFE (n.d.a).

SEBI's Financial Education Initiatives Workshops and Seminars

For investors, students, homemakers, and self-help groups, the SMART (Securities Market Awareness) Campaign is available in regional languages. Investor Education and Protection Fund (IEPF): Funds used for nationwide investor awareness programmes.

SEBI Financial Education Initiatives Workshops (2022–2025)

The data in Table 8 reveals that a total of 40,967 financial literacy workshops were conducted across Indian states, with Maharashtra (7297) and Uttar Pradesh (6242) leading in outreach, followed by Madhya Pradesh, Gujarat, Tamil Nadu, and Rajasthan. These figures indicate a strategic focus on high-population and economically diverse regions. States like Bihar, Odisha, and Karnataka also show

active engagement, while smaller and northeastern states such as Mizoram, Sikkim, and Ladakh report fewer workshops due to their limited populations. The overall distribution reflects concentrated efforts to promote financial awareness nationwide, with particular emphasis on regions with larger unbanked populations and financial inclusion challenges.

Table 8. Securities and Exchange Board of India (SEBI) financial education initiatives workshops (2022–2025).

Sr. No.	Name of State	Workshops
1	Andaman and Nicobar	1
2	Andhra Pradesh	1152
3	Arunachal Pradesh	81
4	Assam	637
5	Bihar	1635
6	Chandigarh	62
7	Chhattisgarh	456
8	Delhi	698
9	Goa	137
10	Gujarat	2789
11	Haryana	1256
12	Himachal Pradesh	715
13	Jammu and Kashmir	775
14	Jharkhand	969
15	Karnataka	1489
16	Kerala	1111
17	Ladakh	13
18	Madhya Pradesh	3399
19	Maharashtra	7297
20	Manipur	13
21	Meghalaya	27
22	Mizoram	16
23	Nagaland	65
24	Odisha	1815

Table 8. Cont.

Sr. No.	Name of State	Workshops
25	Puducherry	11
26	Punjab	609
27	Rajasthan	2350
28	Sikkim	37
29	Tamil Nadu	2317
30	Telangana	439
31	Tripura	49
32	Uttar Pradesh	6242
33	Uttarakhand	789
34	West Bengal	1516
Total		40,967

Source: Authors' compilation based on data from NCFE (n.d.a).

RBI's Project Financial Literacy Target Group

This target group includes school and college students, women, the rural and urban poor, and senior citizens. Delivery: Online modules, comic books, and awareness drives are conducted in collaboration with banks. RBI also mandates banks to conduct Financial Literacy Camps through Financial Literacy Centres (FLCs).

PFRDA

PFRDA's National Pension System (NPS) and Atal Pension Yojana (APY) Literacy Programmes focus on raising awareness about the NPS and APY. They also conduct outreach programmes, especially for informal sector workers.

PFRDA Workshops on NPS and APY (2022–2024)

According to Table 9, 436 financial literacy workshops were conducted across 18 Indian states. Uttar Pradesh led with 128 workshops, followed by Madhya Pradesh (78), Gujarat (67), and Rajasthan (42), indicating targeted outreach in high-population and economically varied regions. States like Bihar, West Bengal, and Uttarakhand also reported moderate activity. Surprisingly, larger states such as Maharashtra, Karnataka, and Tamil Nadu showed low participation, possibly due to a strategic shift or reporting delays. Limited workshop numbers in smaller states and Union Territories highlight the need for broader efforts to ensure equitable and inclusive access to financial literacy nationwide.

The data shown in Table 10 reveals a sharp increase in the number of financial literacy workshops conducted by NCFE in recent years. From just five workshops in 2022 and 44 in 2023, the number surged dramatically to 387 in 2024, highlighting a strategic intensification of outreach efforts. No data has been reported for 2025 thus far, possibly due to ongoing activities or pending updates. This exponential rise reflects renewed emphasis on financial education, particularly post-pandemic,

to strengthen financial inclusion and digital literacy. The concentrated push in 2024 suggests alignment with policy goals and possibly targeted campaigns in underserved areas to bridge financial knowledge gaps across the country.

Table 9. Pension Fund Regulatory and Development Authority (PFRDA) workshops on National Pension System (NPS) and Atal Pension Yojana (2022–2024).

Sr. No.	Name of State	Workshops
1	Andhra Pradesh	15
2	Bihar	16
3	Chhattisgarh	1
4	Delhi	4
5	Gujarat	67
6	Haryana	26
7	Jammu and Kashmir	2
8	Jharkhand	12
9	Karnataka	2
10	Kerala	2
11	Madhya Pradesh	78
12	Maharashtra	7
13	Punjab	2
14	Rajasthan	42
15	Tamil Nadu	1
16	Uttar Pradesh	128
17	Uttarakhand	15
18	West Bengal	16
Total		436

Source: Authors' compilation based on data from NCFE (n.d.a).

Table 10. Year-wise PFRDA workshops on NPS and APY (2022–2024).

Sr. No.	Year	Workshops
1	2022	5
2	2023	44
3	2024	387
4	2025	-
Total		436

Source: Authors' compilation based on data from NCFE (n.d.a).

Unified Payments Interface (UPI)

UPI is a real-time payment system developed by the National Payments Corporation of India (NPCI) under the guidance of the RBI. It was launched on 11 April 2016 and made available to the public on 25 August 2016, with 21 participating banks. UPI enables instant money (24 × 7) transfers between bank accounts using a mobile device through a Virtual Payment Address (VPA) without needing bank details. It supports peer-to-peer and merchant payments, QR code transactions, bill payments, and AutoPay features. UPI has revolutionized India's digital payment landscape, promoting financial inclusion and cashless transactions nationwide.

The UPI ecosystem has witnessed exponential growth since its inception in 2016, starting with just 35 banks, a transaction volume of 0.03 crore, and a value of ₹ 893 crore. By 2024, over 640 banks were live on UPI, facilitating 1722 crore transactions worth ₹ 246.83 lakh crore (Table 11). This surge reflects increased digital adoption, smartphone penetration, and government-backed financial inclusion initiatives. Notably, in May 2025 alone, UPI processed 880 crore transactions valued at ₹ 119.31 lakh crore. The sharp year-on-year rise in both volume and value underscores UPI's transformation into India's most preferred, inclusive, and scalable real-time digital payments platform.

Table 11. United Payment Interface (UPI) transactions (volume and value) from 2016 to May 2025.

Year	Number of Banks Live on UPI	Volume (in Crore)	Value (in Crore)
2016	35	0.03	893.07
2017	67	4.19	57,020.87
2018	129	37.46	585,710.45
2019	143	107.88	1,836,638.18
2020	207	188.81	3,387,744.72
2021	282	387.45	7,159,285.80
2022	382	740.44	12,595,077.87
2023	522	1176.41	18,292,795.21
2024	641	1722.08	24,682,520.78
May 2025	673	879.75	11,930,963.30

Source: Authors' compilation based on data from NCFE (n.d.b).

4. Discussion

The series of tables reviewed provides a multi-dimensional perspective on the progress and challenges in India's financial literacy ecosystem, underpinned by strong governance mechanisms. The expansion of Jan Dhan accounts from 14.72 crore in 2015 to 53.13 crore by August 2024 demonstrates a governance-led success in financial inclusion, reaching deep into rural and semi-urban areas. Public Sector Banks remain central to this mission, handling over 43 crore beneficiaries and issuing over 33 crore RuPay cards, indicating state-led efforts to bring marginalized populations into the formal financial system. The UPI, launched in 2016, further exemplifies the synergy between technology and governance. The exponential rise in UPI transactions from just ₹ 893 crore in 2016 to ₹ 246.8 lakh crore in 2024 shows the population's growing comfort with digital finance,

a result of well-governed digital infrastructure and regulatory confidence by the RBI and NPCI. Data from NCFE's Financial Literacy Dashboard adds depth to this narrative. A total of 40,967 workshops have been conducted so far, with over 11 lakh beneficiaries, who are predominantly female (65%), reflecting gender-sensitive financial governance. The state-wise data shows targeted efforts in populous and underserved regions like Uttar Pradesh, Maharashtra, Madhya Pradesh, and Odisha.

The yearly breakdown reveals peak activity in 2023 and 2024, indicating post-pandemic acceleration and realignment with national financial literacy strategies. However, discrepancies remain. States like Tripura, Nagaland, and Ladakh show limited workshop penetration, and certain large states have reported very few workshops in recent years. Furthermore, the absence of 2025 data in some segments reflects a need for more timely reporting and monitoring.

In conclusion, the data reflect that India's governance-led financial literacy model is yielding strong outcomes, especially in terms of rural empowerment, women's financial participation, and digital adoption. However, for truly inclusive growth, ongoing governance reforms must focus on equitable state-wise outreach, real-time data transparency, and contextualized content delivery, especially for low-literacy regions and vulnerable communities.

Cross-Country Learning from the India's Case Study

The case of India shows that financial literacy can be strengthened through strong governance and institutional coordination. The expansion of financial inclusion through bank accounts and digital systems reflects a policy-driven approach that links literacy with access and usage (Grohmann et al., 2018; Lyons & Kass-Hanna, 2021). The rapid growth of digital payments also indicates rising financial capability and trust in formal systems (Sahay et al., 2020). The emphasis on women's participation highlights the role of inclusive and gender-sensitive financial education (Bongomin et al., 2017). However, regional disparities and data gaps suggest the need for continuous monitoring and localized strategies (Morgan et al., 2019).

For Brazil, the Indian model offers lessons in integrating financial literacy with large-scale inclusion programmes. Brazil can strengthen outreach by linking school-based education with digital financial ecosystems (Lusardi, 2019). This can enhance behavioural outcomes and long-term planning.

For Russia, India demonstrates the importance of combining financial literacy with digital infrastructure and regulatory trust. Russia can adopt similar approaches to improve financial resilience and expand digital adoption (Sahay et al., 2020; Morgan et al., 2019). For China, the relevance lies in balancing rapid fintech expansion with user education. India's focus on awareness and safe usage provides a model for reducing digital financial risks (Lyons & Kass-Hanna, 2021).

For SA, India offers insights into inclusion-focused strategies. Targeted outreach to rural and vulnerable groups can improve financial capability and reduce inequality (Bongomin et al., 2017).

For other BRICS+ nations, the key lesson is the need for an integrated framework. Financial literacy should be linked with inclusion, digital systems, and governance. It should also adopt a life-cycle approach and localized content delivery (Atkinson & Messy, 2019).

We conclude that India's model shows that financial literacy is most effective when supported by strong institutions, digital innovation, and inclusive policies.

5. Conclusions

India's journey toward financial literacy and inclusive governance reflects a significant transformation driven by coordinated policy efforts and institutional mechanisms. The expansion of financial inclusion through initiatives such as Pradhan Mantri Jan Dhan Yojana and the widespread adoption of digital payment systems demonstrates the effectiveness of a governance-led model. The growth in account ownership and digital transactions indicates improved access and usage of formal financial services. It also reflects increasing trust in financial systems and digital infrastructure (Grohmann et al., 2018; Sahay et al., 2020). However, access alone does not ensure financial capability. Gaps in financial knowledge, behaviour, and confidence remain across regions and socio-economic groups (Lusardi, 2019; Lyons & Kass-Hanna, 2021).

This chapter contributes to the literature by reinforcing the multi-dimensional nature of financial literacy. It highlights the interaction between knowledge, behaviour, and access within a governance framework. The findings support the argument that financial literacy is closely linked to financial inclusion and financial stability in emerging economies (Grohmann et al., 2018). It also extends existing frameworks by integrating digital financial literacy and governance dimensions.

This chapter provides important policy insights for India and other BRICS+ nations. It suggests that financial literacy should be embedded within financial inclusion strategies. There is a need to focus on behavioural outcomes rather than only access indicators. Policies should promote localized and vernacular content to address regional disparities. Strengthening coordination between regulators, financial institutions, and educational systems is essential for long-term impact (Sahay et al., 2020; Morgan et al., 2019).

This chapter is based on secondary data and a qualitative case study approach. This limits the ability to generalize the findings across all contexts. Data gaps and inconsistencies across regions also affect the depth of analysis. The quantitative component plays a supporting role and does not provide causal inference.

Further research on FL should incorporate primary data and longitudinal analysis to assess behavioural change over time. Comparative studies across BRICS nations can provide deeper insights into contextual differences. There is also a need to develop standardized indicators for digital financial literacy. It should explore the impact of financial literacy on financial well-being and economic resilience (Lyons & Kass-Hanna, 2021). In conclusion, India's model demonstrates that financial literacy must move beyond access toward empowerment. A strong governance framework, digital integration, and inclusive policies are essential to achieve sustainable financial capability.

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Inclusive and Adaptive Digital Governance in BRICS: Toward a Strategic Framework for Sustainable Transformation

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Abstract: Digital governance has become a defining feature of contemporary public administration, yet much of the existing scholarship and policy practice continues to reflect Western-centric institutional experiences and OECD (Organisation for Economic Co-operation and Development) frameworks. This chapter addresses a theoretical puzzle: how do sovereignty-maximizing states achieve digital cooperation when existing models predict that such configurations should fail? Building on these insights, the chapter proposes an integrative digital governance framework grounded in sovereign autonomy, interoperable digital public infrastructure, and inclusive development. This framework offers BRICS (Brazil, Russia, India, China, South Africa) and other Global South nations an empirically validated alternative pathway to digital transformation that reconciles sovereignty with cooperation, development with innovation, and autonomy with integration. Our contribution is threefold. Theoretically, we extend developmental state theory into the digital age by conceptualizing how states govern platforms as strategic infrastructures while navigating platform power—a configuration that the existing theory does not address. Empirically, we explain how sovereignty–cooperation coexistence occurs through infrastructural integration mechanisms that existing frameworks do not predict, resolving a paradox in the digital governance literature. Normatively, we demonstrate how this framework advances sustainable development outcomes (Sustainable Development Goal (SDG) 9, 16, 17) by enabling institutional capacity, inclusive innovation, and South–South cooperation without requiring sovereignty surrender or adoption of Western institutional models. Through qualitative comparative analysis of 60 policy documents, institutional reports, and scholarly publications across BRICS nations, we identify an emergent governance model characterized by three interrelated dynamics: infrastructural sovereignty (control over digital platforms, data centers, and payment systems), modular interoperability (technical compatibility without regulatory harmonization), and developmental digital public infrastructure deployment.

1. Introduction

The Theoretical Puzzle: Why Existing Frameworks Fail to Explain BRICS? Digital technologies have become central to contemporary public governance, reshaping how states deliver services, manage administrative processes, and engage citizens in policy processes. Research on digital governance demonstrates that information and communication technologies (Information and Communication Technology (ICT)s) can enhance administrative efficiency, transparency, and public value creation when

supported by appropriate institutional arrangements and governance capabilities (Criado & Gil-Garcia, 2019; Kettunen & Kallio, 2019). The evolution of the digital government has consequently moved beyond basic online service provision toward integrated data ecosystems, interoperability frameworks, and platform-enabled governance approaches that facilitate policy coordination and service innovation across sectors (OECD, 2020; World Bank, 2022).

Despite these advances, much of the dominant digital governance literature reflects institutional experiences primarily drawn from the Organisation for Economic Co-operation and Development (OECD) economies, where digital transformation typically assumes relatively mature regulatory environments, strong private sector technological ecosystems, and stable governance infrastructures (OECD, 2019; Lips, 2019). Such assumptions do not fully capture the trajectories of emerging economies, where digital transformation is often closely intertwined with developmental priorities, infrastructural expansion, and broader state capacity-building efforts. Increasingly, scholars emphasize that digital transformation in public administration must be understood within wider political economy contexts, including technological sovereignty, institutional resilience, and evolving global digital power configurations (Castells, 2010; Pohle & Thiel, 2020).

Within this evolving landscape, several emerging economies have begun experimenting with alternative digital governance models that combine infrastructural investment, institutional reform, and digital capability development. Studies on digital public administration highlight the growing importance of interoperability, data governance, and digital skills development as critical enablers of effective governance transformation (Burtscher et al., 2024; OECD, 2021). These developments suggest that digital transformation is not merely technological modernization but also an institutional restructuring process affecting administrative capacity, policy implementation, and public service delivery.

The BRICS grouping—Brazil, Russia, India, China, and South Africa—offers a particularly significant context for examining these dynamics. These countries collectively represent large populations, rapidly expanding digital markets, and diverse institutional configurations. Their digital governance initiatives frequently emphasize infrastructure-led transformation, public sector modernization, and strategic technological autonomy alongside economic development objectives. However, scholarly research has largely examined these countries individually rather than as a collective governance formation, leaving limited comparative understanding of whether these trajectories represent convergent governance patterns or parallel national developments.

The analytical value of examining digital governance through a BRICS lens therefore lies not simply in regional comparison but in identifying emerging governance trajectories that challenge assumptions of regulatory convergence and platform-dominated transformation. Evidence increasingly points toward infrastructure-centered governance, selective interoperability without full regulatory harmonization, and institutional experimentation shaped by developmental priorities (Cordella & Paletti, 2018; Oldman, 2025). These patterns raise important questions about whether digital governance is entering a more pluralistic and multipolar phase in which different institutional models coexist rather than converge.

This chapter addresses these questions by developing an empirically informed perspective on digital governance across BRICS contexts. Drawing on comparative analysis of policy documents, institutional reports, and scholarly literature, it

examines how these countries conceptualize digital transformation, what shared challenges and divergences emerge, and how these experiences contribute to broader debates on digital governance, sovereignty, and institutional transformation. By positioning BRICS as a site of theoretical reflection rather than merely empirical observation, the chapter contributes to public administration scholarship through a comparative framework that foregrounds institutional diversity, developmental priorities, and evolving forms of global digital governance cooperation.

2. Review of Literature

2.1. Digital Governance: Concepts, Evolution, and Institutional Logics

The study of digital governance has evolved considerably over the past two decades, moving beyond the transactional orientation of early e-government initiatives toward more complex models characterized by platformization, data-driven decision-making, and digitally mediated forms of public participation and service delivery. Early e-government scholarship largely emphasized administrative efficiency, transparency, and modernization, positioning information and communication technologies (ICTs) primarily as instruments for improving existing bureaucratic functions (Heeks, 2020). Subsequent research, however, has increasingly focused on interoperable platforms, integrated administrative systems, and multi-stakeholder policy processes that reflect broader transformations in public administration, governance networks, and state capacity (Gil-Garcia, 2012; Kettunen & Kallio, 2021).

A central theme in the contemporary digital governance literature concerns the institutional dimensions of digital transformation. Scholars consistently emphasize that technological innovation alone does not determine governance outcomes; rather, regulatory regimes, organizational structures, and administrative cultures shape how digital systems are implemented, coordinated, and sustained (Cordella & Paletti, 2019). From this perspective, digital governance is understood as both a technological and institutional field involving challenges of interoperability, data governance, standard-setting, and cross-sectoral coordination (UN DESA, 2022; OECD, 2019). This broader institutional framing has shifted the analytical focus from technology adoption to governance capacity and institutional readiness.

More recently, the emergence of platform-oriented governance models has attracted significant scholarly attention. Governments increasingly deploy digital platforms as foundational infrastructures through which public services are coordinated, policy ecosystems are regulated, and interactions among citizens, firms, and public agencies are mediated (Gil-Garcia et al., 2023). Platform governance scholarship conceptualizes such platforms not merely as technological artifacts but as socio-technical systems that reshape power relations, administrative processes, and policy implementation mechanisms (Williamson, 2022). In this sense, digital platforms increasingly function as public infrastructures that embed governance norms, regulatory standards, and institutional priorities within technical architectures themselves (Cordella, 2020; Janssen & Estevez, 2023).

Alongside these institutional transformations, scholars have identified multiple governance rationalities shaping digital transformation trajectories. One rationality emphasizes efficiency and cost reduction, reflecting New Public Management influences and administrative modernization agendas (Heeks, 2020). A second highlights transparency, accountability, and citizen participation, consistent with

democratic governance frameworks (UN DESA, 2022). A third rationality focuses on digital inclusion and equitable access, particularly in developing contexts where digital capabilities remain unevenly distributed (Zheng & Walsham, 2021). More recently, a fourth rationality has gained prominence: digital sovereignty, encompassing concerns about autonomy, control over digital infrastructures, data governance, and technological dependence (Pohle & Thiel, 2020). These overlapping rationalities illustrate that digital governance is shaped by competing normative priorities rather than a single dominant paradigm.

Institutional capacity remains a critical enabling factor in digital governance. OECD analyses emphasize that successful digital transformation requires governance systems capable of coordinating legal, organizational, technical, and ethical dimensions simultaneously (OECD, 2024). Similarly, UN DESA (2022) highlights institutional readiness, regulatory capacity, and inter-agency coordination as key determinants of digital government effectiveness. In emerging economy contexts, the state capacity literature further underscores how digital transformation intersects with developmental state strategies, industrial policy, and technological capability-building (P. Evans & Heller, 2023). This intersection is particularly relevant for BRICS countries, where state-led modernization has historically been associated with broader economic development, industrial upgrading, and global competitiveness.

These unresolved tensions motivate our focus on BRICS as a context where standard assumptions may not hold.

Critical Assessment and Tensions

Despite the comprehensive evolution of digital governance scholarship, several tensions remain unresolved:

Tension 1—Efficiency vs. Participation: While international frameworks emphasize participatory governance, policy practice often prioritizes efficiency and service delivery. These goals can conflict when citizen engagement slows administrative modernization. The literature offers no clear resolution to this trade-off.

Tension 2—Technology-Centric vs. Institution-Centric: Platform governance scholars emphasize technical architectures, while institutional scholars foreground organizational capacity. This creates ambiguity about whether digital transformation failures result from technical inadequacy or institutional weakness.

Tension 3—Universal Models vs. Contextual Adaptation: OECD frameworks assume transferability across contexts, yet comparative studies show divergent trajectories. The literature lacks systematic theory about when models transfer and when they fail.

Comparative studies of digital governance further suggest that national trajectories are shaped by political systems, administrative traditions, and institutional histories. Kettunen and Kallio (2021) note that networked governance approaches vary significantly across political regimes, indicating that digital transformation does not follow a uniform or linear pathway. This insight is especially pertinent for analyzing BRICS countries, whose institutional diversity, state-market relations, and governance logics differ substantially from OECD contexts. Taken together, contemporary scholarship positions digital governance as a multidimensional field shaped by technological infrastructures, institutional capacities, normative priorities, and geopolitical considerations—an analytical framing that provides the basis for examining BRICS digital governance trajectories in the subsequent sections.

2.2. Digital Sovereignty: Competing Paradigms and Governance Models

Parallel to broader digital governance debates, the concept of digital sovereignty has gained increasing prominence as scholars and policymakers grapple with the implications of datafication, platform consolidation, and dependencies on global digital infrastructures. Digital sovereignty is generally understood as the capacity of states, regions, or political communities to exercise authority over digital infrastructures, data flows, and technological ecosystems within their jurisdiction (Couture & Toupin, 2019; Pohle & Thiel, 2020). However, the concept remains analytically heterogeneous, reflecting diverse normative priorities, institutional traditions, and geopolitical considerations across different governance contexts.

The contemporary literature identifies several broad sovereignty paradigms. A rights-based regulatory paradigm, most visibly associated with European digital governance approaches, emphasizes data protection, privacy, and regulatory oversight as mechanisms for asserting sovereignty through legal frameworks and institutional safeguards (Floridi, 2020). A market-oriented paradigm, often associated with the United States, prioritizes innovation, competition, and private sector leadership in shaping digital ecosystems, typically favoring lighter regulatory interventions. In contrast, a state-centric paradigm—often discussed in relation to China—positions the state as a central actor in orchestrating digital infrastructures, platforms, and data governance, linking technological development with national security, industrial policy, and broader governance objectives (Jin, 2022; Huang, 2023).

More recent scholarship highlights the emergence of a developmental sovereignty paradigm in parts of the Global South. This perspective conceptualizes digital sovereignty not merely as regulatory control or market facilitation, but as a strategic instrument for advancing economic development, technological capability-building, and institutional autonomy (P. Evans & Heller, 2023; UNCTAD, 2023). In this framing, investments in digital public infrastructure, industrial policy, and indigenous innovation become central to reducing technological dependence and enhancing national competitiveness. Several BRICS countries have contributed significantly to this discourse through policies emphasizing domestic digital ecosystems, data governance autonomy, and infrastructure sovereignty (CyberBRICS, 2023).

Debates on digital geopolitics further underscore how asymmetries in digital infrastructure ownership, platform dominance, and technological standards generate new forms of dependency and strategic vulnerability. Scholars argue that digital networks increasingly constitute arenas of geopolitical contestation, where states seek to secure infrastructure ownership, regulate cross-border data flows, and mitigate reliance on foreign platforms (DeNardis, 2020; Basu, 2023). The rapid expansion of cloud computing, artificial intelligence ecosystems, and transnational platform firms has intensified these concerns, prompting renewed attention to standards governance, hardware supply chains, and national digital infrastructure strategies (Huang, 2023).

Recent work also links digital sovereignty to broader technological and industrial transformation agendas. Studies on Industry 4.0 and Industry 5.0 suggest that control over data, algorithms, and digital infrastructures increasingly shapes innovation ecosystems, advanced manufacturing capabilities, and technological competitiveness (Horváth & Eimontas, 2025). Sovereignty in this sense extends beyond legal authority to encompass technological capacity, knowledge production, and institutional resilience.

These debates have direct implications for BRICS contexts. While OECD-centric discussions often prioritize privacy regulation, competition policy, and consumer protection, BRICS policy discourse tends to emphasize technological autonomy, strategic independence, and developmental state objectives. Comparative analyses highlight diverse national approaches within BRICS—from state-coordinated platform ecosystems to public digital infrastructure models and data governance frameworks—yet common concerns about platform dependency, digital inequality, and infrastructure sovereignty remain evident (CyberBRICS, 2023).

Overall, digital sovereignty debates demonstrate that digital governance is not merely a technical or administrative issue but a domain shaped by geopolitical competition, institutional diversity, and normative contestation (Chakravartty & Sarikakis, 2020). This literature underscores the importance of comparative analysis that examines how sovereignty, developmental priorities, and geopolitical positioning influence digital governance trajectories in emerging economies. Such comparative work remains relatively limited, indicating a clear opportunity for theory-building that moves beyond Western-centric frameworks and engages more directly with the political economies of digital transformation in multipolar contexts (UNCTAD, 2023).

2.3. Digital Public Infrastructure (DPI), Interoperability, and Inclusion

An increasingly influential body of scholarship examines digital transformation through the lens of digital public infrastructure (DPI), a concept that conceptualizes digital platforms not merely as technological tools but as foundational infrastructures enabling identity systems, digital payments, data exchange, and public service delivery (Plantin et al., 2018). While early digital governance research largely treated ICTs as administrative support mechanisms, the DPI literature advances a more infrastructural understanding in which digital systems function as enabling layers that structure interactions among citizens, firms, and state agencies (World Bank, 2021; OECD, 2024). This shift reflects a broader recognition that digital governance increasingly depends on shared infrastructural ecosystems rather than isolated technological applications.

Interoperability has emerged as a defining feature within DPI scholarship. It encompasses not only technical compatibility among systems but also legal, organizational, and institutional coordination that allows diverse public and private actors to operate within common digital ecosystems (OECD, 2019). From this perspective, DPI embeds administrative logic within digital architectures, institutionalizing standards, norms, and governance rules directly into technological infrastructures (Gil-Garcia et al., 2023). Consequently, DPI can be understood as a form of state capacity oriented toward orchestrating complex networks of actors, resources, and services through digital means.

DPI research also intersects closely with debates on development and digital inclusion. Scholars emphasize that digital inequalities stem not only from differential access to connectivity or devices but from broader socio-economic, cultural, and institutional factors that shape individuals' ability to participate meaningfully in digital ecosystems (Zheng & Walsham, 2021). Institutional reports similarly stress that digital inclusion requires coordinated investments in infrastructure, literacy, accessibility, and governance design (UN DESA, 2022). This perspective has gained particular traction in Global South contexts, where DPI is increasingly viewed

as a mechanism for advancing financial inclusion, social protection delivery, and administrative efficiency at scale (World Bank, 2021; UNCTAD, 2023).

India has become a prominent empirical reference in DPI scholarship due to the development of the “India Stack” ecosystem, which includes digital identity infrastructure, interoperable payment platforms, data exchange protocols, and open digital interfaces (iSPIRT Foundation, 2022). Scholars interpret this model as an example of public platform governance in which the state orchestrates shared digital infrastructures that enable innovation by private and civic actors while supporting public service delivery (Basu, 2023). At the same time, DPI scholarship recognizes potential risks associated with data governance, privacy, exclusion, and administrative control, highlighting that platform infrastructures can reshape power relations and institutional authority (Haque, 2024). These debates illustrate that DPI represents both a developmental opportunity and a politically contested governance domain.

BRICS countries have adopted diverse approaches to DPI development. China’s digital ecosystem reflects a hybrid configuration in which state-led infrastructure development coexists with strong domestic platform firms performing quasi-public functions in payments, identity verification, and logistics (Huang, 2023). Brazil has advanced digital infrastructure components in taxation, financial services, and social protection, particularly during the COVID-19 pandemic when digital transfers were deployed at scale (P. Evans & Heller, 2023). South Africa’s trajectory remains more fragmented but shows gradual progress in digital identity initiatives, financial inclusion efforts, and public service digitization (UNCTAD, 2023). Russia’s digital modernization strategy emphasizes data sovereignty, cybersecurity resilience, and state coordination, although geopolitical factors have influenced the evolution of its digital ecosystem in recent years.

A key distinguishing feature of DPI compared with earlier e-government models is its ecosystem orientation. Rather than positioning the state solely as a service provider, DPI frameworks conceptualize governments as orchestrators of digital ecosystems that enable participation by multiple actors. This perspective aligns with the broader platform economy literature that views digital infrastructures as multi-actor systems structured by regulatory frameworks, incentives, and technical standards (Williamson, 2022). DPI thus functions simultaneously as a governance capability and a strategic geopolitical resource, shaping how participation, value creation, and access are organized within digital economies.

The literature also highlights a persistent tension between interoperability and sovereignty. Interoperability facilitates cross-border cooperation, federated digital architectures, and data exchange, whereas sovereignty emphasizes national control over infrastructure, data, and technological standards. In OECD contexts, interoperability is often framed in regulatory or market coordination terms; in BRICS contexts, it is more closely intertwined with developmental objectives, geopolitical autonomy, and industrial strategy considerations. This tension represents a central yet still under-theorized dimension of contemporary digital governance.

Finally, DPI scholarship underscores that digital inclusion must be situated within broader socio-technical and institutional contexts. As Zheng and Walsham (2021) note, digital divides reflect structural inequalities, institutional design choices, and political priorities as much as technological access. For BRICS countries, this insight is particularly salient because digital inclusion intersects directly with development policy, welfare provision, and state capacity-building—dimensions less emphasized

in Western digital governance models focused primarily on consumer protection or market competition.

2.3.1. Critical Assessment: What Sustainable Development Literature Fails to Explain

This intersection between digital governance and sustainable development creates unique analytical terrain that BRICS cases illuminate. How do sovereignty-maximizing developmental states design digital governance frameworks that advance sustainable development without surrendering autonomy or adopting Western institutional models? The existing literature does not adequately answer this question, motivating our focus on BRICS as empirical context where these dynamics converge.

Despite valuable contributions, sustainable development scholarship on digital governance exhibits limitations when applied to BRICS contexts:

Gap 1: The literature emphasizes rights-based approaches (privacy, consent, participation) suitable for liberal democratic contexts but provides limited guidance for developmental states with different governance logics prioritizing collective welfare over individual autonomy.

Gap 2: Scholarship focuses predominantly on SDG outcomes within existing governance frameworks rather than theorizing how alternative governance models (developmental states, post-colonial sovereignty projects) might achieve sustainable development through different institutional pathways.

Gap 3: Most empirical research derives from OECD economies or isolated Global South case studies; comparative analysis across emerging economies with shared developmental orientations but institutional diversity remains limited.

Gap 4: The literature inadequately theorizes the relationship between digital sovereignty and sustainable development. Is sovereignty compatible with SDG partnerships (SDG 17)? Can technology autonomy advance innovation (SDG 9) or does it risk isolation? These questions remain unresolved.

2.3.2. BRICS Context: Dual Imperatives of Transformation and Sustainability

For BRICS nations, digital governance operates within dual imperatives: rapid digital transformation to achieve economic competitiveness while ensuring such transformation advances rather than undermines sustainable development goals. This creates distinctive governance challenges:

Platform capitalism vs. public welfare: Commercial digital platforms provide scale and innovation but extract rents and data; developmental states must govern platforms to advance public welfare (SDGs 1, 2, 3) while enabling innovation (SDG 9).

Rapid digitalization vs. inclusive development: Speed of digital transformation risks leaving behind populations lacking access, skills, or agency, requiring governance deliberately prioritizing SDG 10 (inequality reduction) alongside efficiency.

Technological sovereignty vs. international cooperation: BRICS nations seek technology autonomy (SDG 9 innovation) while needing international partnerships (SDG 17) for knowledge exchange and capacity building.

Economic growth vs. environmental sustainability: Digital industrialization (data centers, digital manufacturing, cryptocurrency mining) carries significant energy and environmental costs requiring governance frameworks balancing innovation with ecological sustainability (SDG 13) (Schroeder & Anggraeni, 2021).

These tensions distinguish BRICS digital governance from OECD contexts where debates center on regulating already-established digital economies. BRICS nations

simultaneously build digital infrastructures while governing them for sustainable development—a dual challenge requiring governance frameworks that conventional models do not address.

2.3.3. Empirical Evidence: Digital Governance Advancing SDG Outcomes

However, sustainability scholars emphasize that digital governance must be explicitly designed for sustainable outcomes rather than assuming technology automatically produces positive development effects. Market-led digital transformation often prioritizes efficiency and profit over equity and sustainability, necessitating governance frameworks that embed developmental objectives within digital infrastructure design.

Empirical research demonstrates concrete pathways through which digital governance contributes to sustainable development. Digital platforms have enabled environmental monitoring and climate action (SDGs 13–15) through remote sensing, data analytics, and citizen science initiatives. E-governance systems improve health service delivery (SDG 3) through telemedicine, health information systems, and supply chain management. Digital financial inclusion advances poverty reduction (SDG 1) by providing previously unbanked populations access to savings, credit, and insurance mechanisms.

2.3.4. Theoretical Linkages: Digital Governance as SDG Infrastructure

Scholarship establishes several mechanisms through which digital governance advances sustainable development outcomes (Sachs et al., 2019). First, digital public services strengthen institutional capacity by improving transparency, accountability, and administrative effectiveness—core components of SDG 16 (Peace, Justice, and Strong Institutions) (UN DESA, 2020). Digital identity systems, online service delivery platforms, and e-governance mechanisms reduce corruption, enhance citizen participation, and improve public sector efficiency.

Second, digital infrastructure enables inclusive innovation aligned with SDG 9 (Industry, Innovation, and Infrastructure). Open digital public infrastructure, interoperability frameworks, and platform ecosystems create environments for indigenous technological innovation without requiring replication of proprietary Western systems. This is particularly relevant for emerging economies seeking technology autonomy while advancing industrialization.

Third, digital governance directly addresses inequality reduction (SDG 10) when designed with inclusion as a foundational principle rather than *ex post* consideration. Financial inclusion through digital payments, rural connectivity programs, digital literacy initiatives, and accessible e-services extend opportunities to marginalized populations. However, the literature warns that poorly designed digital governance can exacerbate existing inequalities through digital divides in access, skills, and agency.

Fourth, digital cooperation frameworks exemplify SDG 17 (Partnerships for the Goals) by enabling knowledge exchange, technology transfer, and collaborative governance among nations—particularly through South–South cooperation modalities (UNCTAD, 2023). Digital governance becomes a domain where emerging economies can build alternative partnership structures not dependent on North–South aid relationships.

2.4. Digital Governance and Sustainable Development: Linkages and Imperatives

The relationship between digital governance and sustainable development has gained increasing scholarly and policy attention as digital infrastructures become recognized as critical enablers of the United Nations Sustainable Development Goals (SDGs) (Sachs et al., 2023; UN, 2015). Digital governance is no longer understood solely as administrative modernization but as foundational infrastructure for achieving institutional capacity (SDG 16), innovation and industrialization (SDG 9), reduced inequalities (SDG 10), and partnerships for development (SDG 17).

2.5. BRICS: Multipolar Digital Governance, South–South Cooperation, and Developmental Statecraft

In recent years, scholars and policy analysts have increasingly examined BRICS (Brazil, Russia, India, China, South Africa) as a site of experimentation in alternative governance models—both digital and developmental. BRICS has long been framed as a geopolitical and economic formation that challenges unipolar or Western-dominated institutional orders, emphasizing multipolarity, South–South cooperation, and structural reform of global governance institutions (Thakur, 2020). While this literature traditionally centered on economic and diplomatic cooperation, emerging work highlights the digital dimension of BRICS cooperation as an important domain of institutional and strategic interaction (CyberBRICS, 2023).

Digital governance trajectories within BRICS reflect diverse political economies and developmental priorities. China’s digital transformation is frequently conceptualized through the lens of a digital developmental state, wherein the state coordinates platforms, infrastructures, and industrial policy to advance national strategic goals (Huang, 2023). India’s trajectory emphasizes digital public infrastructure for inclusion and service delivery, extending digital pathways into welfare, payments, and financial participation (Basu, 2023). Russia’s approach foregrounds sovereignty, cybersecurity, and data localization, shaped by geopolitical alignments and security concerns (UNCTAD, 2023). Brazil has demonstrated hybrid governance combining regulatory reform, public digital service expansion, and selective industrial digital policies, while South Africa’s initiatives focus on digital inclusion and service modernization but face capacity constraints (P. Evans & Heller, 2023).

CyberBRICS (2023) argues that despite institutional diversity, BRICS nations share strategic interests in reducing dependence on foreign digital infrastructures, enhancing sovereignty over data and platforms, and advancing indigenous innovation. These themes align with broader Global South debates on technological autonomy, digital industrialization, and state capacity building (UNCTAD, 2023). Moreover, digital governance intersects with geopolitical strategies, as BRICS nations navigate a contested global digital order characterized by competing standards, infrastructural dependencies, and technological spheres of influence (Basu, 2023; Huang, 2023).

Scholarly work on BRICS also identifies limits to cooperation. Unlike the European Union, BRICS does not constitute a supranational regulatory framework; instead, cooperation is intergovernmental and decentralized, often taking the form of working groups, ministerial forums, and knowledge platforms (Thakur, 2020). Institutional asymmetries—particularly China and India’s scale advantages—shape cooperation dynamics, while geopolitical tensions constrain deeper coordination. Nonetheless, recent developments such as the New Development Bank and BRICS digital economy

cooperation frameworks indicate growing institutionalization of digital cooperation agendas (Ayodele & Petla, 2024).

Digital governance is thus situated within a broader politics of development. P. Evans and Heller (2023) emphasize that digital transformation in emerging economies must be understood through the lens of developmental statecraft, wherein the state assumes a central role in shaping markets, orchestrating resources, and expanding capabilities. This resonates with BRICS contexts where historical developmental logics continue to inform industrial strategy, innovation policy, and welfare provisioning. DPI, sovereignty, and South–South cooperation can therefore be interpreted not merely as technical solutions or geopolitical tactics, but as components of a broader developmental project aimed at reshaping participation in the global digital economy.

Taken together, this literature suggests that BRICS offers an analytically rich setting for studying digital governance as both an institutional and geopolitical phenomenon. However, existing research remains fragmented across sovereignty debates, digital public infrastructure analyses, and development studies, with limited synthesis across these domains.

2.6. Extracting Gaps from the Literature

Although scholarship on digital governance, digital sovereignty, and BRICS has expanded considerably, a number of interrelated gaps remain that justify a systematic comparative inquiry into BRICS digital governance trajectories.

First, a theoretical gap concerns the conceptualization of BRICS as a governance formation. Most studies examine BRICS nations individually, treating them as discrete national cases rather than as components of a potential comparative governance ecosystem. As a result, efforts to synthesize national trajectories into shared institutional patterns or conceptual models remain limited, constraining broader theory development around alternative digital governance paradigms.

Second, a conceptual gap emerges from the divergence between Western-centric digital governance frameworks and BRICS governance logics. OECD-oriented frameworks typically emphasize regulatory harmonization, competition policy, consumer rights, and market governance. In contrast, BRICS scholarship often foregrounds sovereignty, autonomy, developmental state priorities, and infrastructural capacity-building. Yet relatively few studies explicitly theorize how these distinct normative and institutional orientations may generate alternative digital governance models rather than simply representing contextual variations in existing frameworks.

Third, an empirical gap lies in the limited cross-country comparative analysis of digital sovereignty, digital public infrastructure (DPI), and digital inclusion within BRICS contexts. Existing research frequently examines one dimension at a time—for example, China’s platform state configuration or India’s DPI ecosystem—without integrating sovereignty, infrastructure, and inclusion into a systematic comparative framework. This fragmentation restricts the ability to identify convergent or divergent governance patterns across the bloc.

Fourth, a normative and policy gap persists in relation to interoperability and cooperation. Although BRICS forums regularly discuss digital collaboration, few analytical frameworks address how interoperability, shared standards, or cross-border digital infrastructures might coexist with strong commitments to sovereignty and

national autonomy. The relationship between autonomy and cooperation therefore remains under-theorized.

Fifth, a methodological gap is evident in the predominance of descriptive reports, policy commentaries, and single-case analyses within the BRICS digital governance literature. Systematic comparative studies employing explicit methodological criteria remain relatively scarce, limiting analytical robustness and theoretical generalizability.

Sixth, a cooperation gap concerns the limited scholarly attention to institutional mechanisms that could operationalize BRICS digital collaboration beyond high-level declarations and expert dialogs. The concrete modalities of South–South digital governance—such as knowledge-sharing frameworks, interoperable infrastructures, or coordinated standards—remain insufficiently explored.

Seventh, a development gap persists in understanding how digital governance intersects with welfare provision, inclusion, and sustainable development objectives within BRICS nations. While development rhetoric frequently accompanies digital transformation initiatives, systematic analysis linking digital governance to inclusion and broader developmental outcomes remains limited.

Collectively, these gaps indicate that digital governance in BRICS contexts remains under-theorized, empirically fragmented, and analytically under-integrated across domains of sovereignty, digital public infrastructure, and inclusion. Existing scholarship has largely treated BRICS nations as independent cases, thereby obscuring opportunities for comparative synthesis and theory-building around multipolar digital governance models. Moreover, frameworks rooted in OECD policy traditions do not sufficiently account for the developmental, sovereignty-oriented, and geopolitical logics shaping digital transformation in BRICS contexts.

To address these limitations, this chapter advances the following research questions:

RQ1: How do BRICS nations conceptualize and operationalize digital governance, and what institutional, infrastructural, and developmental logics underpin their digital transformation trajectories?

RQ2: What convergences and divergences exist across BRICS nations with respect to digital sovereignty, digital public infrastructure (DPI), and digital inclusion, and how do these similarities and differences reflect broader governance and political economy dynamics?

RQ3: Can an empirically informed framework for BRICS digital governance be developed that reconciles national autonomy and sovereignty with opportunities for cross-border interoperability, cooperation, and indigenous digital innovation?

These research questions integrate three analytical dimensions often examined separately in the literature: (a) sovereignty and geopolitical autonomy; (b) DPI, interoperability, and platform governance; and (c) inclusion and developmental welfare logics. By bringing these dimensions together, the chapter positions BRICS as an empirical site for examining digital governance beyond Western-centric paradigms and toward a more plural and multipolar understanding of digital statecraft.

Accordingly, the chapter pursues the following objectives:

1. To examine national digital governance trajectories across Brazil, Russia, India, China, and South Africa through qualitative comparative analysis of policy documents, institutional reports, and scholarly literature.
2. To identify areas of convergence and divergence across BRICS in relation to sovereignty-oriented strategies, digital public infrastructure deployments, and inclusion-driven governance priorities.

3. To analyze how political economy structures, institutional capacity, and developmental state traditions shape digital governance in BRICS contexts.
4. To construct an empirically grounded conceptual framework that balances autonomy and sovereignty with interoperability, cooperation, and indigenous digital innovation.
5. To contribute to scholarly debates on digital governance by foregrounding BRICS as a site of theoretical and framework development that extends beyond OECD-centric models.

3. Methodology and Research Design

This study adopts a qualitative comparative research design to examine digital governance trajectories across BRICS nations. Qualitative comparison is well suited for analyzing institutional, political, and developmental phenomena that are not easily reducible to quantitative indicators, and where conceptual heterogeneity and contextual conditions are analytically significant (George & Bennett, 2005; Yin, 2018). Digital governance in BRICS contexts reflects such characteristics, involving variations in state capacity, sovereignty logics, public infrastructure development, and welfare priorities that require interpretive and contextual analysis.

3.1. *Comparative Logic and Case Selection*

The research employs a most-different-systems comparative logic in which cases (Brazil, Russia, India, China, and South Africa) exhibit significant political, institutional, and socio-economic variation but share strategic interests in digital modernization, technological autonomy, and multipolar cooperation (Przeworski & Teune, 1970; Ragin, 2014). BRICS nations are selected because:

- (a) They represent major emerging economies shaping global digital governance debates;
- (b) They exhibit diverse institutional configurations and developmental trajectories;
- (c) They articulate sovereignty-oriented digital strategies distinct from OECD-centric models.

These characteristics make BRICS an analytically compelling unit for examining alternative digital governance pathways (Gerring, 2017; Seawright & Gerring, 2008). The unit of analysis for this study is the nation-state, as digital governance strategies in BRICS are formulated primarily at the national level through policy frameworks, regulatory instruments, and infrastructural deployments. Subnational and regional variations exist, but are outside the analytical scope of the present study.

3.2. *Data Sources and Sampling: Summary Overview*

The study draws on three categories of secondary data.

1. **Policy Documents and Government Reports**
These include national digital strategies, digital economy policies, DPI initiatives, cybersecurity frameworks, and ministry-level program documents.
2. **Institutional and Multilateral Reports**
These include United Nations Department of Economic and Social Affairs (UN DESA) E-Government Surveys, OECD Digital Government Studies, World Bank

- Digital Economy assessments, and United Nations Conference on Trade and Development (UNCTAD) Digital Economy Reports.
3. Scholarly Literature and Academic Publications
- These include peer-reviewed articles, edited volumes, and academic analyses of digital governance, sovereignty, DPI, and BRICS cooperation.

These sources enable triangulation across institutional, policy, and scholarly discourses.

A purposive sampling strategy was used to identify documents relevant to the three analytical dimensions derived from the literature review: (a) digital sovereignty; (b) digital public infrastructure (DPI) and interoperability; and (c) digital inclusion and developmental welfare. Inclusion criteria required that documents (i) explicitly address digital governance; (ii) originate from BRICS countries or major international bodies; and (iii) be published between 2015 and 2025 to ensure contemporary relevance.

Based on these criteria, a corpus of 60 documents was assembled, consisting of:

- 24 policy and government documents;
- 18 institutional and multilateral reports;
- 18 peer-reviewed scholarly publications.

To ensure methodological transparency and replicability, we employed a systematic four-step document selection protocol. The corpus provides sufficient breadth for cross-case comparison while maintaining analytical coherence.

Step 1—Initial Corpus Identification: We searched Google Scholar, UN databases, government portals, and institutional repositories using the following keywords: “BRICS digital governance” OR “BRICS digital sovereignty” OR “BRICS digital infrastructure” OR “[Country name] digital policy”. Time filter: 2015–2025. Language: English or official English translations. Result: 247 potentially relevant documents identified.

Step 2—Inclusion/Exclusion Criteria Application: Inclusion criteria: (a) document explicitly addresses digital governance, sovereignty, OR infrastructure; (b) covers at least one BRICS country as primary focus; (c) published by government, international organization, OR peer-reviewed venue; (d) full-text available (open access or institutional access); (e) minimum 5 pages to exclude brief news items. Exclusion criteria: (a) opinion pieces without empirical or conceptual content; (b) documents behind paywalls without institutional access; (c) duplicate versions; (d) conference abstracts without full papers; (e) documents focused solely on technical specifications without governance analysis.

Step 3—Quality Assessment: Policy documents were checked for official government/ministry authorization. Academic papers were verified for peer-review status via journal indexing (Scopus, Web of Science). Institutional reports were confirmed for organizational attribution (UN, OECD, World Bank, etc.).

Step 4—Final Corpus Compilation: After applying criteria, 60 documents were selected. Breakdown: 24 policy documents, 18 institutional reports, 18 academic papers. Documents drawn upon directly in the analysis appear in the reference list; the full corpus inventory is available from the authors on request. This protocol ensures other researchers can replicate document selection using identical criteria.

3.3. *Analytical Framework: Summary Overview*

The analysis employed thematic coding informed by both deductive and inductive logics (Miles et al., 2020). Deductive coding drew from three analytical dimensions identified in the literature review:

- (1) Sovereignty and autonomy;
- (2) Digital public infrastructure and interoperability;
- (3) Inclusion and welfare.

Inductive coding captured emergent themes such as cybersecurity, data localization, platform–industrial policy, and South–South cooperation. Coding proceeded iteratively, with themes refined through repeated engagement with the corpus.

3.3.1. South Africa: Inclusion-Oriented Digital Governance Facing Capacity Constraints

Causal Explanation: Why This Model? Three factors explain trajectory: (1) post-apartheid inequality creating political imperative for inclusive digital development; (2) state capacity constraints from limited technical expertise, corruption, and fiscal limitations preventing implementation of ambitious policies; (3) civil society pressure for rights-based approach to data protection and digital governance creating progressive legal frameworks. Model reflects inclusion-oriented democratic state with capacity implementation gaps.

Developmental Logic: Policy explicitly prioritizes digital inclusion for previously marginalized populations, job creation through digital economy, and township connectivity. However, persistent inequality, infrastructure gaps (electricity, broadband), and limited state capacity constrain achievement of developmental objectives. Digital governance ambitions exceed implementation capacity.

DPI Architecture: Digital infrastructure initiatives exist but remain fragmented and incomplete. No unified digital identity system comparable to Aadhaar. E-government services deployed but adoption limited by connectivity gaps and digital literacy constraints (Gillwald et al., 2023). Mobile money services provided primarily by commercial providers (MTN, Vodacom) rather than public infrastructure.

Sovereignty Mechanisms: South Africa's sovereignty approach is aspirational rather than operational. Republic of South Africa (2013) established the Protection of Personal Information Act (POPIA) as the national data protection framework. Digital economy strategy references technological sovereignty and data localization. However, enforcement limited by capacity constraints. South Africa remains dependent on foreign platforms, cloud infrastructure, and technology with limited domestic alternatives.

Governance Orientation: Department of Communications and Digital Technologies (DCDT) (2020) coordinates digital policy. Digital economy strategy emphasizes inclusion, job creation, and bridging digital divide (Department of Planning, 2020). Policy frameworks comprehensive and progressive, reflecting post-apartheid commitment to redressing inequality. However, implementation capacity significantly constrained.

South Africa articulates ambitious digital inclusion objectives but faces significant implementation challenges from state capacity limitations.

3.3.2. Brazil: Market-Led Digital Governance with Social Welfare Overlay

Causal Explanation: Why This Model? Federal democracy with strong market orientation shapes approach: (1) democratic institutions limiting comprehensive state control over digital economy; (2) market economy tradition prioritizing private sector leadership; (3) social welfare commitments requiring state intervention for inclusion; (4) regional inequality creating political pressure for digitally enabled welfare. Model reflects democratic capitalism with social welfare state characteristics.

Developmental Logic: Digital governance serves dual objectives: economic competitiveness and social inclusion. During the COVID-19 pandemic, digital infrastructure enabled emergency welfare distribution (*Auxílio Emergencial*), reaching 68 million people (Ferreira & Santos, 2025). E-government initiatives aim to improve public service efficiency and transparency. Market provides innovation; state corrects market failures and ensures inclusion.

DPI Architecture: Brazil's PIX (*Pagamentos Instantâneos*—Brazil's instant payment system) instant payment system exemplifies its DPI approach. Launched 2020 by Central Bank, PIX provides free person-to-person payments, challenging commercial payment systems (Banco Central do Brasil, 2021). Within two years, achieved 70%+ adult population adoption (Machado & Pamplona, 2022). Unlike India's Unified Payments Interface (UPI), PIX coexists with rather than replaces commercial systems. Government provides infrastructure competing with market where market fails on inclusion.

Sovereignty Mechanisms: Brazil pursues selective sovereignty in specific domains: data protection through LGPD (*Lei Geral de Proteção de Dados*—Brazil's General Data Protection Law) inspired by General Data Protection Regulation (GDPR), protecting citizen privacy; regulation of digital payments ensuring domestic control; taxation of digital services from foreign platforms. However, Brazil remains open to foreign platforms and technology, lacking China or Russia's comprehensive sovereignty approach. Sovereignty is instrumental and sector-specific rather than ideological.

Governance Orientation: Brazil's digital governance reflects liberal democratic framework with strong market orientation. Central Bank of Brazil (BCB) leads financial digitalization. Brazilian National Data Protection Authority (ANPD) (2021) enforces privacy rights. Regulatory agencies operate with autonomy from executive political control. Governance emphasizes creating enabling environment for private sector innovation while addressing market failures.

Brazil demonstrates market-oriented approach with selective state intervention for welfare and regulatory objectives.

3.3.3. Russia: Security-First Digital Sovereignty Under Geopolitical Pressure

Causal Explanation: Why This Model? Three factors dominate: (1) geopolitical isolation under sanctions creating imperative for technological self-reliance; (2) security state orientation viewing digital domain as national security issue requiring control; (3) authoritarian governance enabling comprehensive surveillance without democratic constraints. Model reflects authoritarian sovereignty under external pressure prioritizing security over inclusion or innovation.

Developmental Logic: Digital governance in Russia links to broader technological autonomy objectives. Import substitution in IT seeks to reduce Western technology dependency exposed by sanctions. Digital economy initiatives aim to diversify

economy beyond resource extraction. However, implementation faces challenges from limited state capacity, corruption, and brain drain of tech talent.

DPI Approach: Russia's DPI development remains more limited than China or India. Digital identity systems exist but lack integration and coverage of Aadhaar. Payment systems (Mir cards) developed primarily as sanctions-resilience measures after Visa/Mastercard restrictions. State digital services exist but adoption remains constrained by trust deficits and bureaucratic inertia. DPI serves security and sovereignty objectives more than developmental inclusion.

Sovereignty Mechanisms: Russia pursues comprehensive digital sovereignty through (a) extensive data localization laws (Federal Law No. 242-FZ, 2015) requiring personal data of Russian citizens stored domestically; (b) sovereign internet capabilities enabling isolation from global internet during crises (Soldatov & Borogan, 2021); (c) restrictions on foreign platforms and promotion of domestic alternatives (Yandex, VK); (d) cybersecurity emphasis reflecting threat perceptions from Western cyber operations.

Governance Orientation and Institutional Architecture: Roskomnadzor (Federal Service for Supervision of Communications) exercises regulatory authority over internet and media (Roskomnadzor, 2022). Ministry of Digital Development coordinates infrastructure initiatives. Security services play substantial role given threat perceptions. Governance logic: digital space as domain of geopolitical competition requiring state control.

Russia's digital governance prioritizes cybersecurity and geopolitical autonomy in response to Western sanctions and security concerns.

3.3.4. India: Public Digital Public Infrastructure for Inclusive Development

Causal Explanation: Why This Model? Three factors shape India's approach: (1) democratic accountability requiring transparent, inclusive governance—comprehensive surveillance politically infeasible unlike China; (2) inequality reduction imperatives making inclusion central developmental objective; (3) entrepreneurial state capacity in infrastructure provision but limited capacity for comprehensive market control, necessitating public-private collaboration. Model reflects democratic developmental state balancing state capacity with market dynamism.

Developmental Logic: DPI explicitly targets inclusion and welfare delivery. JAM Trinity (Jan Dhan banking, Aadhaar identity, Mobile connectivity) enables direct benefit transfers eliminating middleman leakage in welfare programs (World Bank, 2023). UPI drives financial inclusion by reducing transaction costs to near-zero. Digital India program aims to transform India into digitally empowered society and knowledge economy (MeitY, 2022). Inclusion is foundational design principle, not ex post addition.

DPI Architecture: India's DPI model emphasizes openness and interoperability. Aadhaar provides foundational digital identity (1.3 billion users); UPI creates open payment infrastructure enabling any bank or fintech to participate; ONDC (Open Network for Digital Commerce) seeks to democratize e-commerce (Kelkar et al., 2022). Key principle: public infrastructure with open Application Programming Interface (API) enabling private innovation (Kelkar, 2019). Government maintains control over rails, not trains.

Sovereignty Mechanisms: India pursues "strategic autonomy" rather than comprehensive sovereignty—selective data localization requirements targeting

sensitive sectors; promotion of indigenous alternatives to Chinese apps and Western platforms; investment in domestic tech capacity (semiconductors, AI, space); participation in democratic alliances (Quad) for technology cooperation. Sovereignty serves developmental autonomy without isolation.

Governance Orientation and Institutional Architecture: India's model operates through specialized public institutions: the Unique Identification Authority of India (UIDAI) managing Aadhaar digital identity (Aadhaar Authority, 2023); the National Payments Corporation of India (NPCI) operating UPI payment infrastructure (NPCI, 2023); and the Ministry of Electronics and IT (MeitY) providing strategic coordination (MeitY, 2023). Unlike China's vertical integration, India's architecture separates infrastructure (public) from applications (private).

India's approach centers on state-built open digital public infrastructure enabling private sector innovation while maintaining public control over foundational layers.

3.3.5. China: State–Platform Fusion and Techno-Developmental Sovereignty

Causal Explanation: Why This Model? Three factors explain China's governance trajectory: (1) Communist Party legitimacy requirements necessitating comprehensive social stability mechanisms, creating incentives for extensive digital surveillance and control; (2) scale advantages enabling autonomous domestic digital ecosystems without reliance on external platforms; (3) developmental state tradition from manufacturing era extending into digital domain, treating platforms as strategic industries requiring state guidance. The model prioritizes state capacity and developmental objectives over individual privacy and market autonomy.

Developmental Logic and Industrial Strategy: Digital governance in China explicitly serves industrial policy objectives. The "Made in China 2025" initiative positions digital technologies as strategic industries. Platforms are instruments for financial inclusion (mobile payments extending to rural areas), poverty alleviation (e-commerce enabling rural entrepreneurship), and technological catch-up (indigenous innovation in AI, 5G, quantum computing). Digital sovereignty enables developmental experimentation unconstrained by external regulatory frameworks.

Digital Public Infrastructure Architecture: China's DPI model is distinctive for its hybrid public–private character. Major platforms (Alipay, WeChat Pay) function as quasi-public infrastructure for payments, identity verification, and service delivery while remaining nominally private. The social credit system integrates data across commercial and governmental domains (Creemers, 2022). Health code systems deployed during the COVID-19 pandemic demonstrated state capacity to rapidly mobilize platform infrastructure for public health governance (Yang, 2023).

Sovereignty Mechanisms: China employs the most extensive digital sovereignty architecture globally, combining (a) comprehensive data localization through the People's Republic of China (2017, 2021) requiring critical data storage within national borders; (b) platform regulation through antitrust enforcement and party committee embedding within major tech companies; (c) technological self-sufficiency initiatives in semiconductors, AI, and quantum computing reducing dependency on Western technology (WIPO, 2024); (d) alternative internet infrastructure through the Great Firewall and domestic protocols.

Governance Orientation and Institutional Architecture: China's digital governance operates through coordinated action among three institutional pillars: the Cyberspace

Administration of China (CAC) providing strategic oversight, the Ministry of Industry and Information Technology (MIIT) managing infrastructure deployment, and major platform companies (Alibaba, Tencent, Baidu) functioning as quasi-state actors enrolled in developmental projects. This tripartite structure enables rapid policy implementation while maintaining comprehensive state control (State Council of the People's Republic of China, 2022).

China's digital governance model represents the most comprehensive state-led approach among BRICS nations, characterized by vertical integration between state institutions and major platform companies creating a hybrid governance ecosystem.

3.4. Within-Case Analysis: National Digital Governance Trajectories

The following subsections present detailed analysis of each BRICS nation's digital governance trajectory, examining governance orientation, key institutions, sovereignty mechanisms, DPI architecture, and developmental logics. Each case analysis identifies causal factors explaining why particular governance models emerged (Collier, 2011).

3.4.1. Methodological Limitations and Boundary Conditions

Several limitations shape the scope and claims of this study:

Limitation 1—Secondary Data Dependency: Reliance on published documents excludes insider perspectives, confidential policy deliberations, and implementation challenges. Mitigated through triangulation across document types (policy + academic + institutional).

Limitation 2—National-Level Focus: Analysis centers on national digital governance strategies. Subnational variation (state/provincial policies) and urban–rural implementation differences not examined. Justified by research questions targeting national frameworks, not local implementation.

Limitation 3—Temporal Snapshot: Analysis covers 2015–2025 period. Rapid policy evolution means findings represent time-bound snapshot. Policies announced after early 2025 not included. Mitigated by focusing on persistent patterns rather than ephemeral initiatives.

Limitation 4—Language Constraints: Documents analyzed in English (original or official translation). May miss nuances in original Russian, Chinese, Portuguese documents. Mitigated by use of official translations from government sources.

Limitation 5—No Primary Empirical Validation: Framework derived from document analysis, not tested through fieldwork. Cannot validate whether frameworks operate as documented. Future research needed: primary data collection, interviews, ethnography to validate findings.

These limitations do not invalidate findings but establish boundary conditions for claims. The framework represents an empirically informed theoretical model requiring further validation through primary research.

3.4.2. Coding Procedures (Ensuring Transparency)

We employed a systematic five-phase coding process:

Phase 1—Deductive Code Development: Based on literature review, we developed an initial codebook with three main themes: digital sovereignty (subcodes: data localization, cybersecurity, platform policy); digital public infrastructure (subcodes:

identity systems, payment systems, interoperability); digital inclusion (subcodes: access gaps, literacy, equity).

Phase 2—Inductive Code Emergence: First-pass reading of 10 randomly selected documents revealed additional themes not anticipated in the literature: South–South cooperation mechanisms, post-colonial technology autonomy narratives, instrumental platform governance. These were added to the codebook.

Phase 3—Coding Application: Each document was coded using systematic paragraph-level analysis. Coding unit: Paragraph (for policy documents) and Section (for academic papers). All coding decisions were documented in research memos with justifications.

Phase 4—Code Refinement: After coding 30 documents, codes were reviewed and consolidated. Some subcodes were merged (e.g., “data sovereignty” and “data localization” collapsed into single code). Final codebook: 3 main codes, 12 sub codes.

Phase 5—Comparative Analysis: Country-specific matrices were created showing code frequency and exemplary quotes. Cross-case comparison identified patterns of convergence (sovereignty emphasis) and divergence (implementation mechanisms).

Cross-case synthesis involved two steps:

- (a) Within-case analysis of national digital governance trajectories;
- (b) Cross-case comparison to identify convergences, divergences, and shared patterns. This structure aligns directly with RQ1 and RQ2, enabling systematic comparison across heterogeneous cases.

3.5. Reliability and Validity: Summary Overview

Reliability was strengthened through structured coding procedures and cross-source validation, wherein claims identified in policy documents were corroborated by institutional and scholarly sources. While qualitative research does not pursue validity in the statistical sense, construct validity was addressed by grounding core analytical dimensions in the well-established scholarly literature.

The study acknowledges some limitations. First, reliance on secondary data excludes ethnographic, citizen-level, or internal administrative perspectives. Second, national-level focus may overlook subnational variation in digital implementation. Third, geopolitical dynamics are evolving, and the analysis reflects a snapshot of BRICS trajectories up to early 2025.

Despite these limitations, the methodology is sufficient for the chapter’s analytical aim: to examine BRICS digital governance comparatively and derive an empirically informed framework for digital sovereignty, DPI, and cooperative interoperability.

4. Findings

4.1. Country-Wise Analytical Expansion

4.1.1. Brazil: Hybrid Financial Digital Governance Model

Brazil represents a significant case of digital financial governance innovation within the BRICS grouping, particularly through the development of the PIX instant payment system introduced by the Central Bank of Brazil. Comparative studies on digital public infrastructure suggest that PIX has substantially expanded financial inclusion, accelerated digital transaction adoption, and improved interoperability across banking institutions and fintech platforms (World Bank, 2025; OECD,

2020). The system's design reflects a coordinated regulatory approach in which public authorities facilitate infrastructure development while enabling private sector participation and innovation.

More broadly, Brazil's digital governance trajectory reflects a hybrid institutional model that combines regulatory modernization with market-driven digital ecosystem development. National digital economy policies emphasize telecommunications infrastructure expansion, regulatory reform in financial services, and digital public service delivery initiatives aimed at improving administrative efficiency and citizen access. At the same time, Brazil's federal governance structure introduces institutional fragmentation across national, state, and municipal levels, which can affect policy coherence and implementation consistency.

From a comparative perspective, Brazil illustrates how digital public infrastructure can evolve through collaborative state-market arrangements rather than purely state-led or purely market-driven models. The PIX ecosystem demonstrates how regulatory coordination, financial sector innovation, and infrastructural interoperability can collectively support inclusion and economic participation while maintaining institutional flexibility. However, persistent regional inequalities, infrastructural disparities, and governance coordination challenges continue to shape the limits of digital transformation outcomes.

Overall, Brazil's experience highlights a hybrid digital governance pathway within the BRICS context—one characterized by regulatory facilitation, market engagement, and incremental infrastructural development. This model contributes to the broader comparative findings of the chapter by illustrating how financial digital infrastructure can support inclusion and innovation while navigating institutional complexity and developmental constraints.

4.1.2. Russia: Strategic Digital Sovereignty Orientation

Russia's digital governance trajectory is strongly shaped by strategic concerns related to cybersecurity, technological independence, and data sovereignty. Within the BRICS context, Russia has pursued policies emphasizing data localization, development of national digital infrastructure, and enhanced cybersecurity resilience, reflecting efforts to reduce dependence on external technological ecosystems and mitigate perceived geopolitical vulnerabilities (Jiang & Belli, 2024). These initiatives position digital governance as an extension of national security and economic strategy rather than solely an administrative modernization agenda.

This sovereignty-oriented approach has influenced regulatory frameworks governing data flows, digital platforms, and infrastructure development. Policies promoting domestic technological capacity, national data storage requirements, and cybersecurity oversight illustrate how digital governance can become closely aligned with geopolitical positioning and strategic autonomy objectives. While such measures can strengthen national control over digital assets, they may also introduce tensions with cross-border interoperability, global platform integration, and international digital cooperation.

From a comparative perspective, Russia represents a governance pathway in which digital sovereignty considerations are particularly prominent relative to inclusion-oriented or market-driven digital transformation strategies. This emphasis highlights how geopolitical pressures, security priorities, and technological dependencies can shape digital governance trajectories in emerging economies. At the

same time, Russia's experience underscores the broader analytical theme identified in this chapter: the ongoing negotiation between national autonomy and international digital connectivity within an increasingly multipolar digital order.

Overall, Russia's case contributes to the comparative framework by illustrating how sovereignty-driven digital governance can strengthen strategic autonomy while simultaneously complicating interoperability, cooperation, and integration within global digital ecosystems.

4.1.3. India: Infrastructure-Led Developmental Digital Governance

India represents one of the most prominent examples of digital public infrastructure (DPI) development among emerging economies. Initiatives such as the Aadhaar digital identity system and the Unified Payments Interface (UPI) have enabled large-scale digital service delivery, expanded financial inclusion, and improved administrative coordination across public and private sectors. Analyses by the World Bank and related institutional studies indicate that these infrastructures function increasingly as foundational public utilities that support governance innovation, economic participation, and digitally mediated service delivery at scale (World Bank, 2024; Sankritik, 2025).

India's digital governance trajectory reflects a distinctive infrastructure-led developmental approach in which the state actively orchestrates interoperable identity, payment, and data-sharing platforms while enabling participation by private firms and civil society actors. This model illustrates how digital public infrastructure can enhance state capacity, streamline welfare delivery, and facilitate market innovation simultaneously. From a comparative perspective, it represents a hybrid configuration that combines public infrastructure leadership with ecosystem-based innovation rather than relying exclusively on either state control or market-driven platforms.

At the same time, India's experience highlights persistent governance challenges. Digital literacy disparities, uneven regional connectivity, privacy concerns, and questions regarding data governance remain significant policy issues. These challenges underscore that infrastructure deployment alone does not guarantee equitable digital participation and that institutional safeguards, regulatory frameworks, and capacity-building measures remain critical components of digital governance.

Overall, India's case illustrates how infrastructure-centric digital governance can accelerate developmental outcomes while simultaneously generating new regulatory, inclusion, and governance questions. Within the broader BRICS comparison, it exemplifies how digital public infrastructure can serve as a strategic developmental instrument while navigating tensions between innovation, inclusion, and sovereignty considerations in an evolving multipolar digital order.

4.1.4. China: State-Centric Sovereign Digital Governance

China's digital governance trajectory is widely characterized by strong state coordination, regulatory oversight of digital platforms, and strategic emphasis on technological self-reliance. Digital initiatives such as the central bank digital currency (CBDC) pilot for the digital yuan illustrate how digital financial innovation is integrated with broader monetary governance and state-led technological development strategies (Goodell & Al-Nakib, 2021). More broadly, China's digital transformation is closely embedded within national industrial policy, cybersecurity

strategy, and geopolitical positioning, reflecting a governance approach in which digital infrastructure is treated as a strategic national asset.

This state-centric model has facilitated rapid expansion of digital infrastructure, platform ecosystems, and digitally enabled public services. Government coordination has enabled scaling of digital payment systems, e-commerce integration, smart city initiatives, and AI-driven governance applications. At the same time, the central role of the state in digital ecosystem regulation has generated ongoing academic debates concerning regulatory centralization, data governance practices, and the balance between technological innovation and individual privacy considerations.

From a comparative perspective, China represents a sovereignty-driven digital governance pathway in which technological development, industrial strategy, and national security objectives are closely intertwined. This contrasts with predominantly market-led digital governance models often observed in Western economies, while also differing from infrastructure-led inclusion models seen in some other BRICS contexts. China's experience therefore highlights how strong state coordination can accelerate digital transformation while simultaneously shaping institutional norms around data governance, platform regulation, and technological autonomy.

Within the broader BRICS comparison, China's case underscores the significance of sovereignty, industrial policy, and infrastructural capacity in shaping digital governance trajectories. It illustrates how digital transformation can function simultaneously as an economic modernization strategy, a governance reform mechanism, and a geopolitical instrument within an evolving multipolar digital order.

4.1.5. South Africa: Developmental Digital Governance with Inclusion Challenges

South Africa's digital governance trajectory highlights the complexities of digital transformation in contexts characterized by significant socio-economic inequality, infrastructural disparities, and uneven institutional capacity. Analyses of digital transformation across BRICS countries indicate persistent digital divides in South Africa related to connectivity access, digital literacy, affordability, and institutional coordination constraints (GSMA, 2023; ITC, 2022). These structural conditions shape both the pace and outcomes of digital governance initiatives.

National policy frameworks in South Africa emphasize digital inclusion, e-governance expansion, and digital economic development as components of broader socio-economic transformation strategies. Initiatives aimed at expanding broadband connectivity, promoting digital skills, and modernizing public service delivery reflect an explicit developmental orientation in digital governance. However, implementation outcomes remain uneven due to infrastructural gaps, institutional coordination challenges, and broader socio-economic inequalities.

From a comparative perspective, South Africa illustrates how digital governance in emerging economies cannot be understood solely through technological infrastructure expansion. Rather, effective digital transformation requires alignment with broader development policies, institutional capacity-building, and social inclusion initiatives. This case therefore highlights the limitations of infrastructure-centric approaches when socio-economic conditions and institutional readiness vary substantially.

Within the broader BRICS comparison, South Africa's experience underscores the inclusion dimension of digital governance, demonstrating that digital transformation is closely intertwined with developmental statecraft, welfare provision, and socio-economic equity considerations. It contributes to the chapter's comparative

findings by illustrating how digital governance outcomes depend not only on technological investment but also on institutional capacity, policy coherence, and broader development trajectories.

The comparative analysis of digital governance trajectories across BRICS countries (Table 1) reveals distinct yet interrelated patterns in infrastructure development, sovereignty orientation, and inclusion outcomes. These patterns reinforce the argument that digital governance in emerging economies reflects diverse institutional pathways rather than convergence toward a single global model.

India’s experience illustrates an infrastructure-led developmental governance model in which digital public infrastructure functions as a foundational public utility enabling welfare delivery, financial inclusion, and administrative coordination. China represents a state-centric sovereign governance pathway characterized by strong regulatory coordination, platform oversight, and integration of digital transformation with industrial and geopolitical strategy. Brazil demonstrates a hybrid governance configuration combining regulatory facilitation with market innovation, particularly in financial digital infrastructure, while navigating institutional fragmentation across governance levels. Russia’s trajectory reflects a sovereignty-oriented approach emphasizing cybersecurity, technological independence, and national infrastructure control, often shaped by geopolitical considerations. South Africa highlights the developmental inclusion dimension of digital governance, illustrating how socio-economic inequality and institutional capacity constraints shape the effectiveness of digital transformation initiatives.

Taken together, these country experiences suggest that digital governance in BRICS contexts is shaped by three overarching dynamics: infrastructure-centered digital transformation, sovereignty-oriented policy frameworks, and persistent inclusion challenges. These findings provide empirical grounding for the integrative governance framework proposed in this chapter, which conceptualizes digital governance as a negotiated balance between autonomy, interoperability, and inclusive development within an evolving multipolar digital order.

Table 1. Digital governance trajectories in BRICS countries. OECD—Organization for Economic Co-operation and Development; ITC- International Trade Center.

Country	Key Digital Governance Infrastructure	Governance Orientation	Inclusion and Policy Implications	Indicative Sources
India	Aadhaar digital identity, Unified Payments Interface (UPI), India Stack digital public infrastructure ecosystem	Infrastructure-led developmental digital governance with strong public infrastructure orchestration	Expanded financial inclusion, improved welfare delivery, but ongoing digital literacy, privacy, and regional connectivity challenges	World Bank digital public infrastructure reports; academic DPI analyses

Table 1. Cont.

Country	Key Digital Governance Infrastructure	Governance Orientation	Inclusion and Policy Implications	Indicative Sources
China	State-coordinated digital platforms, central bank digital currency (CBDC) pilot, data governance and cybersecurity regulations	State-centric sovereign digital governance integrating industrial policy, infrastructure development, and regulatory coordination	Rapid digital infrastructure expansion and service innovation alongside debates on regulatory centralization, data governance, and privacy	Digital currency governance research; platform governance literature
Brazil	PIX instant payment infrastructure, digital economy regulatory reforms, telecommunications modernization initiatives	Hybrid governance model combining regulatory coordination with market-led innovation	Financial inclusion gains and digital transaction expansion, tempered by institutional fragmentation across governance levels	OECD digital governance reviews; World Bank financial inclusion studies
Russia	National Digital Economy Program, data localization policies, cybersecurity infrastructure initiatives	Sovereignty-oriented digital governance emphasizing technological autonomy and national security	Strengthened infrastructure autonomy but potential constraints on interoperability and cross-border digital cooperation	Digital sovereignty scholarship; BRICS digital governance studies
South Africa	Digital inclusion policies, broadband expansion initiatives, e-government modernization programs	Development-oriented digital governance constrained by institutional capacity and socio-economic inequality	Persistent digital divide challenges despite policy emphasis on inclusion and service modernization	ITC digital economy reports; BRICS digital inclusion studies

Source: Table by authors.

4.2. Framework Contributions to Sustainable Development Outcomes

The framework represents sustainable digital governance model distinct from OECD approaches: long-term infrastructure investment over short-term market solutions; inclusive development over efficiency alone; sovereignty enabling cooperation over dependence; and indigenous innovation over technology transfer.

The post-colonial developmental platform state framework contributes directly to sustainable development through four mechanisms:

Mechanism 1—Institutional Capacity for SDG 16: Digital sovereignty strengthens institutional capacity by enabling contextual policy design, transparency through open architecture, and reduced corruption through digital trails. Evidence from India's Jan Dhan-Aadhaar-Mobile Trinity (JAM) Trinity shows significant reduction in welfare subsidy leakage through direct benefit transfers.

Mechanism 2—Infrastructure and Innovation for SDG 9: Sovereign digital public infrastructure creates innovation platforms enabling indigenous innovation without dependency. India's ONDC exemplifies infrastructure enabling local e-commerce

innovation. BRICS cooperation on technical standards creates larger innovation ecosystems.

Mechanism 3—Inclusive Development for SDG 10: DPI extends services to marginalized populations. Universal digital identity (Aadhaar), last-mile connectivity, and accessible payment systems (UPI, PIX) extend financial services to previously excluded populations. Public infrastructure reduces cost barriers unlike commercial platforms extracting rents.

Mechanism 4—South–South Cooperation for SDG 17: BRICS digital cooperation exemplifies alternative partnership models. Cooperation proceeds among developmental peers without donor–recipient dynamics. Technology sharing over Intellectual Property (IP) extraction. Collective bargaining power in global digital governance forums.

4.2.1. What Is Genuinely New: Explanatory, Theoretical, Predictive, and Normative Value

Our framework offers four forms of novel contribution:

Normative value: It demonstrates that effective digital governance does not require supranational regulatory authority, market-led approaches, or liberal democratic institutions. Alternative pathways exist grounded in different institutional logics.

Predictive value: It identifies scope conditions under which sovereignty–cooperation configurations become viable: (a) shared historical experience of technological dependency; (b) developmental state orientations prioritizing public infrastructure; (c) geopolitical incentives for multipolarity.

Theoretical value: It extends developmental state theory into the digital age, showing how states govern platforms differently than they governed manufacturing industries. Platforms are neither traditional public goods nor pure market commodities—they are strategic infrastructures requiring novel governance logics.

Explanatory value: It explains how sovereignty-maximizing states achieve digital cooperation through mechanisms that existing theories do not predict. BRICS cooperation should fail according to EU/US/China models—but it persists. Our framework explains why.

4.2.2. The Post-Colonial Developmental Platform State: A Unified Framework

This is not OECD digital governance adapted to BRICS contexts. It is an alternative paradigm grounded in different historical trajectories (post-colonial state-building), political economies (developmental statecraft), and geopolitical positions (multipolar order construction).

By integrating these three domains, we theorize a governance model wherein states use digital platforms instrumentally for developmental purposes (extending developmental state theory); digital sovereignty addresses historical and contemporary infrastructural dependency (positioning digital governance as post-colonial project); and cooperation occurs through infrastructural interfaces without regulatory convergence (resolving sovereignty–cooperation paradox through modular interoperability).

4.2.3. Theoretical Integration: Three Synthesized Domains

Foundation 1—Developmental State Theory (P. B. Evans, 1995; Wade, 1990; Amsden, 2001): Core insight—States can strategically coordinate industrial transformation through selective intervention and embedded autonomy. Limitation for digital age—Developed for manufacturing; does not account for platform dynamics or digital infrastructures. Our extension—We theorize how developmental states govern platforms as strategic infrastructures while navigating platform power. The concept of “instrumental platform state” explains how BRICS nations enroll platforms in developmental projects while maintaining infrastructural sovereignty.

Foundation 2—Post-Colonial State-Building (Ndlovu-Gatsheni, 2013; Bhambra, 2014): Core insight—Formerly colonized states pursue sovereignty as continuation of decolonization; dependency persists in new forms. Limitation for digital age—Focused on economic/political dependency; digital infrastructural dependency not theorized. Our extension—We theorize digital sovereignty as “infrastructural decolonization”—building alternatives to dependency on Western platforms, protocols, payment systems. This connects digital governance to post-colonial trajectories.

Foundation 3—Platform Governance and Interoperability (Gillespie, 2018; OECD, 2019): Core insight—Platforms are governance architectures; interoperability requires standards alignment. Limitation for Global South—Assumes liberal market contexts; does not explain state-led platform governance or sovereignty-compatible cooperation. Our extension—We theorize modular interoperability wherein cooperation occurs through infrastructural interfaces without policy harmonization, explaining how sovereignty-maximizing states cooperate digitally.

The Post-Colonial Developmental Platform State framework rests on a synthesis of three bodies of theory that, taken individually, cannot account for the full complexity of digital governance in BRICS contexts. Developmental state theory—as articulated by P. B. Evans (1995), Wade (1990), and Amsden (2001)—provides the foundational insight that states can strategically coordinate technological transformation through embedded autonomy and selective institutional intervention. Post-colonial theory extends this by situating digital infrastructure within longer histories of technological dependence, structural asymmetry, and the ongoing pursuit of self-determination beyond formal political independence. Platform governance scholarship, in turn, illuminates how states navigate the tension between enrolling powerful private platforms in public developmental missions and maintaining sovereign control over the digital rails on which economic and social life increasingly depends. The theoretical contribution of this framework lies in integrating these three domains into a unified analytical lens: one that treats digital governance not as a technical administrative function but as a site of post-colonial state-building, developmental strategy, and geopolitical positioning—simultaneously infrastructural, institutional, and normative in character.

4.3. *Four Empirical Patterns in BRICS Digital Governance*

The comparative analysis reveals that BRICS digital governance cannot be understood as an adaptation of OECD frameworks to different contexts. Instead, BRICS nations are constructing an alternative governance paradigm grounded in infrastructural sovereignty, developmental platform logics, and cooperative autonomy. This framework emerges from four persistent empirical patterns across the document corpus.

4.3.1. Pattern 1: Infrastructural Sovereignty

BRICS nations prioritize ownership and control of digital infrastructure—platforms, data centers, payment systems, identity systems—more intensely than regulatory harmonization with external frameworks. Evidence includes India’s sovereign ownership of digital public infrastructure (Aadhaar, UPI, ONDC); China’s cultivation of domestic platform ecosystem as alternatives to Western platforms; Russia’s data localization infrastructure and sovereign internet capabilities; Brazil’s PIX payment system providing autonomous domestic infrastructure; and South Africa’s aspirational frameworks for digital infrastructure sovereignty despite implementation challenges. This pattern demonstrates sovereignty-by-infrastructure rather than sovereignty-by-regulation alone.

This distinguishes BRICS digital governance from frameworks that equate sovereignty primarily with regulatory authority. Across the five countries, the locus of sovereign assertion sits at the infrastructure layer—who owns, operates, and controls the rails on which digital transactions, identity verification, and data flows occur—rather than at the level of harmonized rules governing market conduct. This is evident in the comparative emphasis each country places on building or retaining sovereign control over core digital rails even where their regulatory regimes diverge sharply, from China’s state-integrated platform architecture to Brazil’s more market-permissive but infrastructurally autonomous payment system. The pattern suggests that for BRICS states, infrastructural control functions as the primary sovereignty-preserving mechanism, with regulation operating as a secondary, often looser, layer built on top of that infrastructural base.

4.3.2. Pattern 2: Instrumental Platform State

Unlike OECD contexts where platforms are regulated *ex post* (antitrust after market dominance; data protection after privacy harms), BRICS states instrumentalize platforms for developmental goals from inception. Evidence includes India’s UPI architecture designed explicitly for financial inclusion, enrolling private fintech platforms in public developmental mission; China’s integration of Alipay and WeChat Pay into social welfare delivery and poverty alleviation programs (People’s Bank of China, 2022); Brazil’s use of digital platforms during the COVID-19 pandemic for emergency welfare distribution; and South Africa’s aspirations to leverage platforms for digital skills development. This pattern shows platforms treated not as autonomous market actors to be regulated but as strategic infrastructures to be enrolled in state-led development.

4.3.3. Pattern 3: Cooperation Despite Policy Divergence

BRICS explores payment integration (BRICS Pay), digital currency cooperation (mBridge project), and technology sharing initiatives without pursuing regulatory convergence characteristic of EU integration. Evidence includes BRICS Payment Task Force exploring cross-border settlement while maintaining divergent national regulations (BRICS Business Council, 2024); mBridge project demonstrating technical interoperability without monetary union or regulatory harmonization (Bank for International Settlements (BIS), 2024); and BRICS Digital Economy Working Group facilitating technology transfer while respecting regulatory sovereignty; bilateral digital cooperation nested within BRICS framework proceeding without

supranational authority. This pattern demonstrates cooperation at the infrastructure layer while maintaining autonomy at the policy layer.

4.3.4. Pattern 4: Post-Colonial Technological Autonomy

BRICS documents explicitly frame digital sovereignty as a continuation of post-colonial state-building and technological self-determination. Evidence includes explicit statements in BRICS summit declarations linking digital sovereignty to “technological independence” (BRICS Johannesburg II Declaration, 2023); policy documents framing alternatives to the Society for Worldwide Interbank Financial Telecommunication (SWIFT), Western cloud infrastructure, and US-controlled internet governance as addressing structural dependency; and scholarly analyses positioning BRICS digital governance within broader Global South technology autonomy movements.

These four empirical patterns cannot be explained by existing frameworks individually. Our contribution lies in synthesizing three bodies of scholarship typically examined separately.

5. Empirical Integration of the Integrative Digital Governance Framework in BRICS Contexts

The integrative digital governance framework advanced in this chapter is derived from systematic comparative analysis of digital governance trajectories across BRICS countries rather than from purely theoretical extrapolation. The country-level evidence demonstrates recurring structural patterns that cut across institutional and political differences. Specifically, three interrelated dynamics—digital public infrastructure expansion, sovereignty-oriented governance strategies, and persistent inclusion constraints—emerge consistently across cases. These patterns collectively inform the framework’s core pillars and illustrate that digital governance in emerging multipolar contexts reflects institutional diversity, developmental priorities, and geopolitical positioning rather than convergence toward a single global governance template.

5.1. *Infrastructure-Centric Governance as a Foundational Pillar*

Across BRICS countries, digital public infrastructure has emerged as a primary instrument of governance transformation. India’s integrated digital identity, payment, and data-sharing systems illustrate how infrastructure can enable large-scale welfare delivery, financial inclusion, and administrative coordination. Brazil’s PIX instant payment system demonstrates how interoperable digital infrastructures can enhance financial participation while improving regulatory oversight and systemic efficiency. China’s extensive digital ecosystem further underscores how infrastructure development can be embedded within broader industrial and technological modernization strategies. Even in contexts where implementation remains uneven, such as South Africa, digital infrastructure expansion is framed as central to governance modernization.

Collectively, these cases indicate that digital public infrastructure functions not merely as a technological upgrade but as an institutional foundation for state capacity-building and economic participation. Accordingly, the framework positions interoperable digital public infrastructure as its foundational pillar, recognizing

infrastructure governance as a defining characteristic of digital transformation in emerging economies.

5.2. Sovereignty-Oriented Governance and Strategic Autonomy

A second recurring pattern concerns the growing centrality of digital sovereignty in national governance strategies. Russia's emphasis on data localization and cybersecurity resilience, China's regulatory coordination of digital platforms, and India's evolving data governance and digital regulatory frameworks all reflect heightened sensitivity to technological dependence, cross-border data flows, and geopolitical competition. These developments demonstrate that digital infrastructures are increasingly conceptualized as strategic national assets rather than neutral technical systems.

The framework therefore incorporates digital sovereignty as a structural dimension of governance capacity. Importantly, sovereignty is not equated with isolationism; rather, it is understood as the institutional ability to make strategic choices regarding data governance, technological partnerships, regulatory oversight, and infrastructure development. This empirical pattern supports the framework's proposition that emerging economies seek calibrated autonomy within an interconnected global digital environment.

5.3. Inclusion and Institutional Capacity Constraints

The comparative evidence also highlights persistent inclusion challenges that complicate digital transformation outcomes. South Africa's connectivity disparities, regional digital divides within India, and coordination constraints in Brazil illustrate that infrastructure expansion alone does not ensure equitable digital participation. Even in technologically advanced contexts, disparities in literacy, affordability, and institutional capacity shape the distributional impact of digital governance initiatives.

These findings reinforce the framework's emphasis on inclusive digital development as an essential governance objective. Digital transformation must therefore be conceptualized as a socio-institutional process requiring complementary investments in education, accessibility, regulatory safeguards, and institutional coordination. Inclusion, in this sense, is not a peripheral outcome but a structural determinant of governance effectiveness.

5.4. Multipolar Governance and Selective Interoperability

A final empirical insight concerns the evolving character of digital governance cooperation among BRICS countries. Although BRICS does not operate as a supranational regulatory entity, member states increasingly engage in knowledge exchange, policy coordination, and discussions on digital infrastructure collaboration. However, such cooperation does not entail regulatory harmonization or institutional convergence. Instead, it reflects a model of selective interoperability in which national autonomy is preserved while enabling pragmatic forms of collaboration.

This pattern contrasts with more integrated regulatory regimes observed in some Western contexts and supports the framework's emphasis on plural institutional pathways rather than universal convergence. The BRICS experience thus illustrates how digital governance can evolve within a multipolar order characterized by negotiated coordination rather than hierarchical integration.

5.5. Synthesis: Empirically Grounded Framework Contribution

Taken together, the comparative evidence indicates that digital governance trajectories across BRICS countries reflect a distinctive institutional configuration characterized by infrastructure-led developmental governance, sovereignty-oriented digital policy strategies, persistent inclusion challenges, and evolving multipolar cooperative arrangements. These patterns suggest that digital transformation in emerging economies is shaped not only by technological adoption but also by institutional capacity, developmental priorities, and geopolitical positioning.

The integrative digital governance framework proposed in this chapter synthesizes these empirical observations into a conceptual model that helps explain how emerging economies navigate digital transformation within an evolving global governance landscape. Rather than offering a prescriptive blueprint, the framework functions as an analytical lens for interpreting digital governance trajectories in contexts where developmental statecraft, institutional diversity, and geopolitical considerations intersect. In doing so, it contributes to digital governance scholarship by situating BRICS experiences within broader debates on multipolar governance, technological sovereignty, and inclusive digital development.

To illustrate the distinctive contribution of this framework, Table 2 provides a systematic comparison across four governance models: the European Union's regulatory harmonization approach, the United States' market-led model, China's state–platform fusion approach, and the BRICS post-colonial developmental platform state framework. This comparison demonstrates that existing models cannot adequately explain the sovereignty–cooperation configuration observed in BRICS contexts. While the EU model requires pooled sovereignty, the US model assumes market-led coordination, and the Chinese model operates through vertical integration, the BRICS framework reveals how sovereignty-maximizing states achieve cooperation through infrastructural integration without regulatory convergence—a mechanism unexplored in current scholarship. The table below demonstrates how the BRICS framework differs fundamentally from existing models in addressing the sovereignty–cooperation paradox.

Table 2. Comparative digital governance frameworks.

Dimension	EU Model	US Model	Chinese Model	BRICS Framework
Core Logic	Regulatory harmonization	Market coordination	State–platform fusion	Post-colonial developmental platform state
Cooperation Mechanism	Supranational regulation	Private sector standards	Vertical integration	Infrastructural interfaces without policy convergence
Sovereignty Approach	Pooled sovereignty	Market sovereignty	Comprehensive state sovereignty	Infrastructural sovereignty + selective coupling
Platform Governance	Ex post regulation	Market-led light-touch	State–platform integration	Instrumental platform state
DPI Model	Fragmented across members	Minimal public DPI	Extensive state-built	Hybrid public–private for development
Inclusion Logic	Rights-based	Market access	State provision	DPI-enabled developmental inclusion
Interoperability	Standards harmonization	Market-driven standards	National standards	Modular interoperability
Theoretical Basis	Regulatory governance	Neoliberal institutionalism	Digital authoritarianism	Developmental state + post-colonial + platform governance
Explains Well	EU integration	US innovation	China ecosystem	BRICS sovereignty–cooperation paradox
Cannot Explain	Developmental sovereignty	State-led development	Cross-border cooperation	—
Empirical Scope	EU members	Market economies	Authoritarian state	Emerging developmental states
Normative Orientation	Rights + integration	Innovation + growth	State capacity + stability	Developmental autonomy + sustainable inclusion

Source: Authors’ compilation based on data from CyberBRICS (2023), European Commission (2020), Huang (2023), and Poulsen (2020). Note: This framework comparison demonstrates that BRICS digital governance represents a distinct configuration that is not adequately theorized in existing models. The BRICS framework resolves the sovereignty–cooperation paradox through mechanisms (infrastructural integration, modular interoperability) that the EU, US, and Chinese models do not employ.

5.6. Cross-Country Analytical Findings (*Linkage with Framework*)

The comparative analysis across BRICS countries reveals several recurring structural patterns that illuminate the evolving character of digital governance

in emerging multipolar contexts. Importantly, these patterns do not indicate convergence toward a single governance model. Instead, they reflect diverse institutional pathways shaped by developmental priorities, geopolitical considerations, and administrative capacities (Davison et al., 2024). Four interrelated themes—digital infrastructure orientation, sovereignty emphasis, inclusion constraints, and multipolar governance dynamics—emerge consistently across cases and collectively inform the proposed integrative governance framework.

5.6.1. Infrastructure Orientation

A defining characteristic across BRICS digital transformation trajectories is the central role of digital public infrastructure as an instrument of governance rather than merely a technological platform for private sector innovation. Digital identity systems, interoperable payment architectures, data exchange frameworks, and digital service platforms increasingly function as foundational components of administrative modernization and economic participation. This infrastructure-centric orientation reflects developmental governance priorities in which digital systems are treated as public utilities supporting welfare delivery, financial inclusion, and institutional coordination. Compared with many OECD contexts—where private digital platforms often dominate service ecosystems—BRICS experiences demonstrate stronger state involvement in infrastructure design, regulatory oversight, and ecosystem orchestration. This pattern reinforces the framework’s positioning of digital public infrastructure as a core pillar of governance transformation in emerging economies.

5.6.2. Sovereignty Emphasis

A second prominent pattern concerns the growing salience of digital sovereignty considerations in national policy strategies. Across BRICS countries, governments increasingly prioritize control over data flows, cybersecurity frameworks, and digital infrastructure governance as part of broader efforts to reduce technological dependence and strengthen strategic autonomy. This emphasis reflects pragmatic concerns related to economic competitiveness, national security, and technological resilience rather than purely isolationist impulses. Although the balance between openness and autonomy varies across countries, sovereignty considerations consistently shape regulatory approaches to digital platforms, cross-border data governance, and infrastructure partnerships. These trends support the framework’s interpretation of digital sovereignty as institutional capacity for strategic choice rather than simply regulatory restriction.

5.6.3. Inclusion Constraints

Despite significant investments in digital infrastructure, persistent inclusion challenges remain evident across BRICS contexts. Digital divides associated with connectivity access, digital literacy, socio-economic inequality, and regional disparities continue to influence governance outcomes. Evidence suggests that infrastructure expansion alone does not guarantee equitable participation; institutional capacity, education systems, affordability, and regulatory coordination play equally critical roles. In several cases, rapid digitalization has produced uneven benefits, highlighting the need for complementary policies addressing literacy,

accessibility, and institutional coherence. These findings underscore the framework's emphasis on inclusive digital development as a structural component of effective digital governance.

5.6.4. Multipolar Governance Patterns

Finally, the analysis points to the emergence of a multipolar digital governance landscape in which diverse institutional models coexist rather than converge toward a uniform global framework. Cooperation among BRICS countries increasingly takes the form of knowledge exchange, technical collaboration, and pragmatic policy alignment rather than formal regulatory harmonization. This pattern contrasts with supranational integration models observed in some Western contexts and reflects the institutional diversity, political systems, and developmental priorities within the BRICS grouping. The resulting governance architecture can be characterized as selectively interoperable yet institutionally pluralistic. Recognizing this multipolar dynamic is essential for understanding contemporary digital governance beyond Western-centric assumptions and provides a central justification for the integrative framework advanced in this chapter.

6. Summary

This chapter examined digital governance trajectories across BRICS nations through a comparative qualitative framework integrating digital sovereignty, digital public infrastructure (DPI), and inclusive developmental governance. By situating BRICS within broader global digital governance debates, the study demonstrates that emerging economies are not merely adapting established Western governance models but are increasingly shaping alternative institutional pathways grounded in developmental priorities, strategic autonomy, and evolving forms of multipolar cooperation. In this sense, BRICS emerges not simply as a geopolitical grouping but as an analytically significant context for understanding contemporary transformations in global digital governance.

The comparative analysis identifies four interrelated structural dynamics shaping digital governance across BRICS contexts. First, digital public infrastructure has emerged as a central instrument of governance transformation. State-supported infrastructures—including digital identity systems, interoperable payment platforms, data exchange frameworks, and public service portals—are increasingly treated as foundational governance capabilities. These infrastructures extend beyond technological modernization to support administrative capacity expansion, welfare delivery, economic participation, and institutional coordination.

Second, digital sovereignty has become a prominent organizing principle in national digital strategies. Concerns related to data governance autonomy, cybersecurity resilience, technological dependence, and regulatory authority increasingly shape policy decisions. Importantly, these sovereignty-oriented strategies are not solely defensive; they are closely linked to developmental objectives such as economic modernization, industrial policy, and public sector innovation. This finding reinforces the need to conceptualize digital sovereignty as institutional capacity for strategic choice rather than as simple regulatory restriction.

Third, persistent digital inclusion challenges remain evident despite significant infrastructure expansion. Connectivity disparities, digital literacy gaps, socio-economic inequalities, and uneven institutional capacity continue to

influence the effectiveness of digital governance initiatives. The analysis suggests that infrastructure development alone does not guarantee equitable digital participation; complementary investments in institutional capacity, education, affordability, and regulatory coordination remain essential. Digital governance, therefore, must be understood as a socio-institutional transformation rather than a purely technological process.

Fourth, the evidence points to an emerging multipolar digital governance landscape characterized by selective interoperability rather than regulatory convergence. BRICS cooperation increasingly involves knowledge exchange, technological collaboration, and pragmatic coordination without supranational harmonization. This pattern reflects institutional diversity, differing development priorities, and geopolitical considerations, challenging assumptions that global digital governance will converge toward a single dominant institutional model.

Building on these empirical insights, the chapter proposes an integrative digital governance framework that balances sovereignty considerations, interoperable digital public infrastructure, and inclusive developmental priorities. The framework is intended not as a prescriptive governance model but as an analytical lens derived from comparative evidence across BRICS contexts. It emphasizes plural institutional pathways, adaptive regulatory approaches, and cooperative yet non-harmonized governance arrangements. This perspective addresses a significant gap in existing scholarship, which has often focused disproportionately on OECD experiences and assumptions of regulatory convergence.

From a policy perspective, several implications follow. Emerging economies may benefit from prioritizing digital public infrastructure as a foundational governance capability while simultaneously investing in digital literacy, institutional capacity-building, and regulatory coherence. Multilateral platforms such as BRICS can facilitate South–South knowledge exchange, technological collaboration, and infrastructure cooperation without requiring rigid regulatory alignment. Policymakers should also recognize that digital sovereignty and interoperability are not mutually exclusive; effective governance increasingly requires calibrated strategies that balance national autonomy with cooperative engagement in global digital ecosystems.

The chapter also contributes to scholarly debates by positioning BRICS as a site of theory development in digital governance research. By integrating insights from public administration, information systems, development studies, and international relations, the study advances understanding of how digital governance evolves in multipolar contexts marked by institutional diversity and developmental priorities. This perspective complements existing OECD-centered frameworks while encouraging more inclusive comparative research across emerging economies.

Several avenues for future research remain. Empirical studies incorporating fieldwork, administrative data, or stakeholder interviews could provide deeper insight into implementation dynamics beyond policy documents. Greater attention to subnational governance, sector-specific digital transformation initiatives—particularly in health, education, and financial inclusion—and institutional experimentation would enrich understanding of digital governance outcomes. Longitudinal research is also needed to assess how geopolitical shifts, technological innovation, and institutional learning shape digital governance trajectories over time. Comparative research involving additional regional groupings, such as ASEAN, the African Union, and Latin American

digital governance initiatives, could further illuminate emerging patterns of multipolar digital governance.

6.1. Limitations and Future Research

This study's reliance on secondary documentary analysis necessitates future empirical validation through primary data collection in BRICS countries testing framework propositions; longitudinal analysis tracking BRICS digital governance evolution 2025–2030; subnational studies examining provincial/state-level variation; comparative expansion testing framework applicability beyond BRICS to other Global South contexts; and outcome evaluation assessing whether BRICS digital governance achieves claimed development outcomes through empirical SDG indicator measurement. These research pathways would strengthen, refine, or potentially challenge our framework.

6.2. Practical Implications

For international organizations: Global South digital governance should not be assessed solely against Western benchmarks. Alternative pathways to digital transformation are emerging and deserve analytical attention. Digital cooperation frameworks should accommodate sovereignty rather than require convergence.

For policymakers in BRICS and beyond: Digital sovereignty and cooperation are compatible through modular interoperability. DPI is a strategic infrastructure that enables developmental autonomy. South–South digital cooperation offers collective bargaining power. Inclusion requires public infrastructure, not just market provision.

6.3. Sustainable Development Implications

The BRICS framework advances sustainable development through institutional capacity for SDG 16, infrastructure for SDG 9, inclusion for SDG 10, and partnerships for SDG 17. Unlike market-led or supranational models, the developmental platform state model links digital transformation directly to equity, autonomy, and cooperation—core sustainable development values. This offers Global South policymakers an empirically grounded alternative to digital transformation that advances sustainability without requiring sovereignty surrender or adoption of OECD institutional frameworks.

6.4. Theoretical Contributions

This study advances digital governance scholarship in three ways.

First, it extends developmental state theory into the digital age, showing how states govern platforms differently than traditional industries. The concept of “instrumental platform state” explains how BRICS nations enroll digital platforms in developmental projects while containing platform power—a governance configuration that the existing theory does not address.

Second, it resolves a theoretical paradox: existing frameworks predict that sovereignty and cooperation are incompatible, yet BRICS demonstrates both. Our framework identifies the mechanism enabling this: infrastructural integration without regulatory harmonization. This contribution challenges assumptions in the interoperability literature that cooperation requires standards convergence.

Third, it positions digital sovereignty as post-colonial state-building rather than mere protectionism, connecting digital governance scholarship to post-colonial studies. Digital infrastructure dependency becomes a contemporary form of dependency addressable through sovereign digital ecosystems.

In conclusion, digital governance in BRICS nations represents a dynamic and evolving domain in which infrastructure development, sovereignty considerations, inclusion challenges, and multipolar cooperation intersect. Recognizing these dynamics is essential for both academic scholarship and policy practice. As digital technologies increasingly shape state capacity, economic development, and global governance relationships, understanding diverse governance trajectories beyond established Western models becomes critical for navigating an increasingly plural digital order.

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Security Governance and Artificial Intelligence: BRICS and the India–China Relationship

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Abstract: With the advent of Artificial Intelligence (henceforth AI), the mandate of BRICS has expanded from traditional security concerns to the technological and digital domain. The first collective articulation on Information and Communication Technology (ICT) security by Brazil, Russia, India, China, South Africa (BRICS) was made in the Goa Declaration of 2016, wherein the emphasis was on regulation of state behaviour in cyberspace through a call for standardized norms, principles and rules. In subsequent summits, AI has emerged as a core concern. The recent summit held in Rio de Janeiro in July 2025 acknowledged the importance of AI in governance and development and endorsed UN-led rules on AI governance. In this context, China and India have emerged as significant actors, with their respective positions on AI shaping the BRICS' stance. India and China have a divergent stance on AI—India lays emphasis on safeguards, transparency and prevention of misuse, whereas China spearheads digital sovereignty and ambitions for leadership in AI and emerging technologies. This paper explores whether BRICS can be a credible platform for global AI governance, or whether its effectiveness will be hamstrung by the India–China rivalry.

1. Introduction

Ever since its formation in 2009, Brazil, Russia, India, China, South Africa (BRICS) has materialized as a robust platform advancing the cause of multipolarity within the international system. In particular, the economic rise of China and India has resulted in BRICS gaining geopolitical heft. The grouping has the unstated objective of resisting the dominance of the West and promoting multipolarity in global governance.

From the theoretical perspective of neorealism, the evolution of BRICS is representative of a collective response to the international system, along with its structural pressures. BRICS functions as a balancing coalition within an asymmetrical global order, seeking to enhance the capabilities of its member nations in the technological and economic domains. The push for Artificial Intelligence (AI) leadership and digital sovereignty is thus reflective of a systemic imperative to reduce dependence on Western-defined governance frameworks and technological architectures (Belli, 2021). Complementing the neorealism paradigm is the English School, which offers a normative and institutional perspective. According to the English School, BRICS can be viewed as an emerging pillar of an international society in evolution, and not merely as a balancing bloc. Through this framework, BRICS advances the norms of pluralism, such as diversity of governance models and respect for sovereignty, while engaging simultaneously in shared rule-making. In this context, BRICS' function has relevance not merely as an economic coalition but as a normative

project which seeks to reshape the global framework of rules, a crucial component of 'emerging power governance' (Narlikar, 2013).

In response to rapid digital transformations, BRICS has progressively expanded its ambit to cover security and strategic dimensions. The Goa Declaration at the 2016 BRICS summit underscored the potential for misuse of Information and Communication Technologies (ICTs) and called upon member states' joint cooperation in this regard. This move was reflective of neorealist concerns, with states perceiving emerging technologies as arenas of vulnerability and competition, while also demonstrating, as emphasized by the English School, norm creation for institutionalizing order among diverse actors in the international system.

The July 2025 summit in Rio de Janeiro, Brazil, brought Artificial Intelligence to centre stage, emerging as a key pillar of the security and governance agenda of BRICS. Over the years, BRICS has steadily positioned itself as a credible platform for setting and shaping the rules of the emerging global digital order. The 8th BRICS summit in Goa in 2016 explicitly acknowledged ICTs as double-edged swords—while ICTs can play a vital role in the area of sustainable development, they are susceptible to exploitation by criminal and terrorist elements. The Goa Declaration stressed the need for cooperative efforts to enhance ICT security, combat misuse and boost cooperation across relevant domains in a manner consistent with universally accepted principles and norms similar to those enshrined in the United Nations Charter (BRICS, 2016).

Building upon the Goa Declaration, the 10th BRICS summit in Johannesburg, South Africa, reinforced the significance of ICTs in promoting development. The BRICS members pledged to work in close coordination for orderly and secure use of ICTs through equal participation by all member states (BRICS, 2018). With technological advancements in the development of Artificial Intelligence, Big Data and Internet of Things (IoT), the strategic implications of these technologies were recognized, along with the need to address them. India's National Security Advisor Mr. Ajit Doval, speaking at the 'Friends of BRICS' meeting in Johannesburg in July 2023, flagged the risks of disruptive technologies affecting cybersecurity. This was among the earliest articulations of the risks posed by misuse of emerging technologies like AI, reflecting a shift from concerns driven by ICT misuse to addressing AI-driven threats and challenges (Hindustan Times, 2023). The BRICS Foreign Ministers' meeting in Rio de Janeiro in April 2025 upgraded AI governance to a collective priority, calling for the creation of national regulatory frameworks and their alignment with international governance principles, a clear indicator that AI was acknowledged as a strategic challenge and not merely an opportunity (BRICS, 2025b). Two months later, at the 17th BRICS summit in Rio de Janeiro in July 2025, the trajectory was extended further. The summit stressed the need to establish AI governance mechanisms rooted in trust and collaboration and aligned with international norms, placing the United Nations at its core (BRICS, 2025a). Moreover, the BRICS' Leaders' Statement on Global Governance of Artificial Intelligence reaffirmed the sovereign rights of countries to harness emerging technologies like AI in a responsible manner through establishment of regulatory frameworks and to foster research and innovation in AI, along with concerns like enhancement of digital infrastructure and protection of citizens from risks posed by misuse of AI (ibid). In particular, Indian Prime Minister Mr. Narendra Modi buttressed the need for 'Responsible AI' and the need to address concerns over AI governance (Chaudhury, 2025). This gradual progression from ICTs in 2016 to AI in 2025 has placed BRICS at the forefront of the emerging global digital order. With the expansion of BRICS' concerns along with its global footprint, the bloc's position

on digital governance is likely to influence rules, norms and principles on security, governance and technology.

BRICS' emerging stance on AI governance, however, cannot be understood in isolation. It has to be seen within the context of a broader global governance ecosystem which is contested. For instance, the United Nations, through initiatives such as the Group of Governmental Experts (GGE) on Lethal Autonomous Weapons Systems, has attempted to establish normative frameworks which place emphasis on transparency, safety and human-centric AI development (United Nations, 2024). Similarly, the OECD, via its AI principles, has sought the same (OECD, 2024). The European Union has operationalized the above-mentioned principles into legally binding regulations with its AI act, establishing a model which prioritizes protection of fundamental rights and risk management (European Union, 2024). In contrast, the USA balances national security imperatives with economic competitiveness, focusing on innovation-led governance (White House, 2025). Thus, within this context, BRICS presents an alternative that attempts to harmonize responsible AI deployment with developmental imperatives, while at the same time advocating multipolar governance and respect for sovereignty.

A key risk for BRICS, however, is the India–China dynamic, which threatens to derail the bloc's consensus around AI and emerging technologies. China and India have divergent stances on the development and role of AI, and their bilateral relationship is characterized by strategic mistrust rooted in historical and contemporary concerns. This paper thus explores whether BRICS can speak in one voice with regard to AI governance, or whether its effectiveness will be limited due to intra-BRICS rivalry. The following are the broad objectives of the study:

- Outline the evolution of BRICS' approach to security governance, from ICTs to AI;
- Analyze the areas of convergence and divergence between China and India and their implications for BRICS' collective stance on AI governance;
- Understand the implications of BRICS' AI governance agenda for multipolarity.

2. Methodology

This paper adopts a qualitative and analytical approach to study the evolution of BRICS' participation in AI governance and its implications for intra-bloc dynamics, in particular the India–China relationship. The following components are part of the methodology:

- Theoretical framework:

The theoretical frameworks employed in this study include neorealism and the English School of International Relations. Structural realism is important for understanding the strategic interests of BRICS members and their relative power positions and calculations in the context of AI. The English School, on the other hand, helps provide insight into the institutional and normative dimensions of BRICS and how the bloc seeks to influence the status quo on international order and rules. The combination of these two theoretical frameworks allows for comprehensive interpretation of BRICS' AI governance agenda.

- Policy and document analysis:

The study relies on primary documents, which include summit declarations from BRICS, statements of leaders, foreign ministers' communiques, and national AI

policy frameworks of member nations. These sources are analysed for the purpose of tracing the trajectory and transition of BRICS from Information and Communication Technology (ICT) security to contemporary AI governance. Principles of digital sovereignty, calls for global cooperation and normative imperatives are given attention through nuanced readings of the primary sources.

- Comparative analysis:

The paper undertakes a comparative analysis of the respective AI strategies of India and China, and their stances within BRICS. The analysis highlights the points of convergence as well as divergence. This approach helps throw light on the intra-bloc dynamics which may constrain or facilitate consensus on global AI governance.

- Contextualization within multipolarity:

The study places BRICS' AI governance agenda within the broader discourse of multipolarity in global governance. The paper evaluates how BRICS' position may shape institutional structures, norms and standards in the emerging digital order.

3. BRICS and Evolution of Security Governance

The growing importance of digital technologies is reflected in the successive declarations made at BRICS summits, from the Goa Declaration of 2016 to the recently concluded summit in Rio de Janeiro in July 2025. One of the major points of the 2016 BRICS summit held in Goa, India, was the growing importance of Information and Communication Technologies (henceforth ICTs), their potential misuse by criminal and terrorist entities, and the need for "joint efforts to enhance security in the use of ICTs..." (BRICS, 2016). This was once again reinforced at the 10th BRICS summit in Johannesburg in July 2018. The Johannesburg summit declaration stated, "We embrace the undeniable benefits and new opportunities brought about by the advances in ICTs, especially in the context of the 4th industrial revolution. However, these advances also bring with them new challenges and threats resultant from the growing misuse of ICTs for criminal activities, the increasing malicious use of ICTs by state and non-state actors. In this regard, we stress the importance of international cooperation against terrorist and criminal use of ICTs and therefore reiterate the need to develop a universal regulatory binding instrument on combatting the criminal use of ICTs within the UN. We acknowledge the progress made in promoting cooperation according to the BRICS Roadmap of Practical Cooperation on Ensuring Security in the Use of ICTs or any other mutually agreed mechanism. We also acknowledge the importance to establish a framework of cooperation among BRICS member States on ensuring security in the Use of ICTs and, in this regard, BRICS member States will work towards consideration and elaboration of a BRICS intergovernmental agreement on cooperation on this matter" (BRICS, 2018). Similarly, the 2022 BRICS declaration at the 14th BRICS summit in China touched upon the need for cooperation on ICTs, and the subsequent summit in Johannesburg in 2023 flagged the potential for misuse of ICTs and the willingness of BRICS to engage in addressing the issue.

In a similar vein, the role of AI in global governance garnered attention at the 'Friends of BRICS' meet in Johannesburg, South Africa, in July 2023. Speaking at the meet, India's National Security Advisor Mr. Ajit Doval "highlighted that the gravity of cyber risks will increase exponentially with the advent of disruptive technologies such as Artificial Intelligence, Big Data and Internet of Things" (Hindustan Times, 2023).

Mr. Doval underscored the need for collective action in combatting the challenges emanating from cybersecurity. This was, in effect, the first explicit articulation of AI and its risks to BRICS security. In April 2025, at the BRICS Foreign Ministers' meeting in Rio de Janeiro, AI governance was elevated to the level of collective priority for BRICS members, with the emphasis being on developing AI systems on the basis of national regulatory frameworks and international principles. Furthermore, the 'Rio de Janeiro Declaration' of the 17th BRICS summit in July 2025 declared, "A collective global effort is needed to establish AI governance that represents our shared values, mitigates risks, builds trust, and ensures broad and inclusive international collaboration and access, including capacity-building for developing countries, with the United Nations at its centre" (BRICS, 2025a). The summit stressed the importance of the United Nations with reference to global governance in AI: "We must strengthen international AI governance through the United Nations system, as a fully inclusive and representative international framework. We must promote the meaningful participation and role of emerging markets and developing countries and the Global South in decision-making processes within UN initiatives, while recognizing the complementary roles of multi-stakeholders, and encourage policy exchange and dialogue on AI, with the aim of stimulating innovation and fostering economic growth" (ibid.).

From its inception as a primarily economic grouping, BRICS has gradually acquired geopolitical overtones, as evinced by the gradual infusion of security-related agreements and the growing significance of emerging technologies, particularly ICT and AI. As outlined above, it can be seen from the Goa Declaration of 2016, which referred to the potential for ICT misuse and the need for cooperation, to the declaration on the importance of AI for global governance at the July 2025 summit in Rio de Janeiro, that the agenda of BRICS is no longer simply economic in nature. Technology-related concerns are now central to its programme, and security governance has emerged as a key area for potential cooperation. Furthermore, it is clear that BRICS is attempting to emerge as a credible voice for the Global South, seeking to avoid Western hegemony in the realm of security governance through proposals for an inclusive, equitable framework that takes into account the concerns of the developing world and advocates their perspectives.

4. Artificial Intelligence as a Security Frontier

Artificial Intelligence is a broad term which describes the ability of machines to perform a wide variety of tasks attributable to human intelligence. The Oxford dictionary defines Artificial Intelligence as "the capacity of computers or other machines to exhibit or simulate human behaviour". Artificial Intelligence, or AI, is a versatile technology, capable of being deployed in diverse sectors ranging from education and healthcare to agriculture, climate, commerce and national security. The adoption and use of AI have grown tremendously in recent years. Research into Artificial Intelligence has grown stupendously over the past decade, with the number of publications on AI having tripled from approximately 88,000 in 2010 to more than 240,000 in 2022 (Maslej et al., 2024).

The rise of Artificial Intelligence in recent years presents both opportunities and threats for nations. AI has gradually become deeply integrated into various systems and has myriad applications, ranging from education and healthcare to defence and national security. The dual-use nature of AI means that the same algorithms

and systems that power civilian use could be deployed for military purposes. As a consequence, regulation of AI has become a strategic imperative for governments and nations worldwide. There is thus an urgent need for norms, principles and institutions governing AI so as to ensure development and use that is beneficial to all (Dafoe, 2018).

AI is being rapidly integrated into the military domain. From cybersecurity and disinformation to autonomous weapons and surveillance systems, AI is all set to radically change the nature of future warfare. This is observed most tellingly in the manner in which Unmanned Aerial Vehicles (UAVs), commonly known as drones, are being used on the frontlines of combat, from the Russia–Ukraine war to the Iran–Israel conflict and the recently concluded 4-day war between India and Pakistan in May 2025. Global spending on Research & Development (R&D) for autonomous systems is increasing year-on-year, with nations seeking to leverage groundbreaking technologies. The disruptive nature of AI necessitates the creation of a robust governance framework in order to regulate and strengthen oversight mechanisms for the use of AI. It is incumbent upon nation-states to develop strategies on the design and use of AI in a responsible manner. Subsequently, through a multilateral process, rules, norms and principles may be created around the design, development and use of military applications of AI, simultaneously ensuring engagement with multiple stakeholders from academia, industry and civil society (United Nations, 2023).

The emergence of AI as an enabler of innovation and economic competitiveness has compelled nations to invest in AI-driven research ecosystems. The potential of AI in driving productivity, service delivery and governance has been acknowledged by nations worldwide. This rapid expansion, however, is not bereft of risks. Technological dependency, inequality and monopolization of AI by advanced economies and large corporations are real, pressing concerns. Developing nations, with their talent gaps, limited infrastructure and inadequate regulatory frameworks, face the challenge of vulnerabilities, despite the numerous opportunities of AI. Given this context, it is imperative that AI governance takes into account responsible innovation, equitable access and capacity-building so as to bridge the digital divide, as well as addressing security concerns. There has, therefore, been a shift in narrative—from whether AI should be regulated, to how best to govern it. This is where national regulatory frameworks, regional mechanisms and global institutions come into play, for ensuring inclusivity, trust and security in an AI-driven world.

5. AI Development and Security: Comparing China and India

India and China have adopted digital technologies on a massive scale over the past several years in various fields. Technology now powers key areas of governmental, commercial, industrial and social functioning. With technological advancement, several new emerging technologies such as Artificial Intelligence (AI), Robotics, Unmanned Aerial Vehicles (UAVs) and 5G telecommunications technology, among others, are being deployed for strategic purposes. Considering the complex and often tense relationship between the two nations, it is no surprise that both China and India are deploying these critical technologies to secure their frontiers. In particular, the use of Unmanned Aerial Vehicles (UAVs) has seen a marked increase. Both nations have deployed UAVs in their border areas for defensive and offensive tasks. With respect to the development and use of AI, however, China and India have vastly different approaches.

China has a top-down approach to the development of AI. The state closely monitors AI development and has set a clear national plan. Focusing on military–civilian integration, China aims to “establish mechanisms to normalize communication and coordination among scientific research institutes, universities, enterprises and military industry units, and promote military–civilian two-way transformation of AI technology” (Webster et al., 2017). The other key focus areas are the development of an intelligent infrastructure system incorporating transmission, storage, computing and processing by optimizing network infrastructure and research; creation of big data information databases; and strengthening high-performance computing infrastructure (*ibid.*).

On the other hand, India’s approach is largely partnership-driven, with the government setting the broad agenda and execution taking place through collaboration with private companies and start-ups. The primary focus is on harnessing AI to cater to the needs of the education, healthcare, agriculture, smart cities and infrastructure, and smart mobility and transportation sectors (NITI Aayog, 2018). India’s policy, like China’s, lays stress on cooperation between academia and industry and advocates close collaboration between research organizations.

The countries’ bilateral relationship, although intensive, has been characterized by strategic mistrust. China’s proximity to Pakistan is a thorn for India. China’s continued military support of Pakistan, the close strategic ties between the two nations, Beijing’s investment in Pakistan via the China–Pakistan Economic Corridor (CPEC), and its blocking UNSC resolutions seeking to list Pakistan-based terrorists within the UN sanctions regime, are cited as ample evidence of a geostrategic threat to New Delhi. At the same time, the growing engagement of the USA–India partnership is seen by Beijing as a threat to its interests in the region. India’s military cooperation with the USA in terms of buying defence weaponry, conducting joint military exercises, and increasing synergy with respect to interoperability of forces has brought the two nations closer together in a joint endeavour to limit the influence of China in the Indo-Pacific region. India’s membership of the Quadrilateral Security Dialogue (QUAD) along with USA, Japan and Australia, India’s recent sale of Brahmos missiles to the Philippines, the relationship between Vietnam and India, and India’s quest to maintain dominance in the Indian Ocean Region owing to greater Chinese presence have culminated in a geopolitical alignment which places India and China at loggerheads with each other, increasing the complexity of their relationship. Moreover, the lingering boundary dispute in the Eastern and Western sectors, China’s wariness of India’s role in the Tibetan movement, China’s growing economic and military footprint in India’s neighbourhood, the economic rivalry ensuing from the China plus one strategy, and competition for energy sources are all factors underpinning the India–China relationship.

UAVs were deployed by China along the Ladakh border following the tension between China and India after the Galwan valley clash in June 2020. Likewise, India too is reported to have deployed drones along its border for defensive as well as offensive purposes (Negi, 2021). On 12 October 2020, a massive power outage crippled large parts of Mumbai City and Thane District in Maharashtra. The energy minister of Maharashtra called the outage ‘an act of sabotage’ (Press Trust of India, 2021). Later, in March 2021, a news report stated that the power outage of 12 October 2020 was likely the handiwork of unknown Chinese entities, who had targeted the country’s electrical infrastructure through malware in a possible warning to India against the backdrop of the border crisis in Eastern Ladakh (Sanger & Schmall, 2021) which

resulted in a deadly clash between Indian and Chinese troops, leading to numerous casualties on both sides. While the official involvement of Chinese authorities in the power outage could not be proven, the incident served as yet another reminder of the significance of securing critical infrastructure against cyberattacks.

Thus, while China and India are BRICS members seeking to cooperate across multiple sectors, including AI, the dynamic of their bilateral relationship makes the BRICS platform a complicated exercise, becoming a platform for dialogue as well as a site for contestation. As outlined above, China's state-driven approach seeks centralization and rapid integration of AI across sectors, including the military domain. In contrast, India's decentralized, participatory approach emphasizes inclusivity, economic development and democratic values. This divergence contributes to strategic anxiety, especially given China's heavy investments in autonomous systems, surveillance technologies and AI-enabled command structures, which are likely to tilt the balance of power. India, meanwhile, faces the dual challenge of harnessing AI for developmental goals and at the same time investing in strategic and military applications. Notwithstanding the rhetorical support of AI governance frameworks, the divergent approaches and strategic mistrust between China and India act as an obstacle to meaningful and effective collaboration. The future of BRICS' security governance thus hinges to a great extent on the India–China dynamic and their respective approaches to AI and emerging technologies.

6. China and India: Convergence and Divergence

India and China, despite their different political systems and capability gap, exhibit convergences in their approach to AI governance. Both India and China acknowledge AI's strategic significance for economic growth, national development and international competitiveness. The two nations are also in agreement on the necessity of international cooperation for the purpose of managing cross-border risks associated with AI, which include cybersecurity risks and the misuse of emerging technologies. Furthermore, India and China are on the same page on the issue of shaping global norms on AI in a manner that reflects the interests and concerns of emerging powers, thereby challenging Western-dominated frameworks.

Despite these convergences, significant divergences can be noticed. As outlined above, China prioritizes digital sovereignty and asserts centrality of state control in the sphere of technological development. China also aims to lead the global AI landscape through innovation and investments. India, on the other hand, advocates transparency, ethical safeguards and prevention of misuse, arguing for responsible development of AI. These divergences are reflective of deeper strategic imperatives and orientations—India's approach is cooperative and normative, aligned with international principles, whereas China's approach is driven by technological leadership and state-centric power projection. These differences present a challenge to the ability of BRICS to craft a unified stance on AI governance, illustrating the tension between bilateral strategic competition and collective normative goals.

7. BRICS as a Space for Collaboration on AI and Security

The BRICS Science, Technology and Innovation (STI) framework programme was initiated in 2015 with the signing of the Memorandum of Understanding (MoU) on cooperation in the areas of science, technology and innovation. The guiding

principles of the STI framework were equality, mutual benefit, reciprocity and voluntary participation, focusing on the sharing of information on STI policies and strategies (BRICS, 2025c). The STI governance architecture encompassed four pillars of cooperation among the BRICS members—innovation, sustainability, research collaboration and research infrastructures. The BRICS STI issue note of 2025 declared, “Since the creation of the Framework Programme, six calls for projects have been conducted, resulting in over 1500 project submissions, of which 157 have received funding”.

Moreover, the issue note explicitly calls for a strategic partnership among the BRICS members for scientific and technical cooperation in key areas of Artificial Intelligence, which include GPUs, CPUs, semiconductors, Large Language Models (LLMs), high-performance computing (HPC) infrastructures and disruptive AI technologies, as well as cooperation in the fields of Quantum Computing, Quantum Communications and Quantum Sensing (*ibid.*). With the stated objective of promoting technological autonomy and reducing external dependencies, the STI framework promises to be a robust platform for collaboration on emerging technologies, notably AI and Quantum technologies, through sharing of knowledge and best practices, ensuring access to key technologies and resources, and establishing meaningful partnerships with global centres of excellence. In addition, at the 10th BRICS Leaders’ meeting in Johannesburg in July 2018, there was unanimous approval of the establishment of the BRICS New Industrial Revolution Partnership, with the objective of deepening cooperation in the fields of digitalization, industrialization, innovation, inclusiveness, and investment among BRICS countries. (BRICS PartNIR Innovation Center, n.d.). With the BRICS members being at similar stages of economic development, the partnership seeks to be a win-win formula through sharing of information and best practices, promotion of technological research and development and industrial innovation, and setting up of innovation centres and technology enterprise incubators (*ibid.*).

Notwithstanding the creation of frameworks for cooperation on science and technology, the key question is whether BRICS can emerge as an effective platform for cooperation, or whether it will be limited by intra-group dynamics, notably the India–China bilateral relationship. BRICS’ potential as a collaborative platform for security governance and AI will ultimately depend on its ability to balance divergent national agendas and common interests. There is broad consensus among BRICS members on the need to reduce technological dependency on the West and foster Global South perspectives through inclusive governance norms. At the same time, divergent regulatory frameworks and approaches, trust deficits and intra-BRICS competition for technological leadership could prevent BRICS from rising above rhetoric. The emphasis on multilateralism, capacity-building and South–South cooperation, however, presents a stellar opportunity to devise alternative frameworks for AI governance.

8. BRICS as a Space of Contestation

The India–China bilateral relationship is characterized by mistrust, rooted in historical and contemporary concerns. India’s decision to grant asylum to the Dalai Lama in 1959 and the unresolved border dispute between the two nations has cast a shadow on their bilateral relationship. Moreover, the China–Pakistan relationship is viewed by India with suspicion. This mutual suspicion and mistrust limits both

bilateral cooperation and cooperation within organizations like BRICS, wherein India and China have divergent views. This is compounded by the sensitive nature of emerging technologies like AI, where the potential for misuse is imminent. Despite the complexities surrounding the India–China relationship, both nations have showcased the ability to manage their differences and work together on issues of common concern. This dynamic is akin to a ‘managed rivalry’ (TV Paul, 2018), which partly explains why the two nations have not entered a full-blown conflict despite periodic border skirmishes. The advent of AI presents an entirely new dimension to the India–China relationship. As outlined above, India views China’s rapid advances in AI with suspicion. India has accused China of cyber intrusions and is wary of China’s AI surveillance capabilities and systems. Against this backdrop, cooperation in the field of AI and related technologies is bound to be restricted, despite the consensus within BRICS on cooperation and collaboration.

In addition to the India–China dynamic, there is broad alignment between Russia and China over digital governance and digital sovereignty. The term ‘digital sovereignty’ has been defined as including control over data, software, standards, processes and protocols, hardware, services, and infrastructure (Floridi, 2020). Both China and Russia are in favour of promoting centralized, state-led models of AI and digital governance prioritizing information control, internet censorship, data localization and nationalization of digital infrastructure. China lays great emphasis on digital sovereignty, seeing it as a pushback against the digital hegemony of the USA. In a similar vein, Russia has emphasized what it calls the ‘sovereign internet’ (Thumfart, 2024). Viewed through the prism of geopolitics, China and Russia’s position on digital sovereignty likely stems from their efforts to resist US hegemony in this field. In contrast, India has chosen to hedge its position—it is in favour of a multi-stakeholder approach to digital infrastructure, forging partnerships with Western nations while it simultaneously shares concerns about data security and sovereignty (Jiang, 2024). This is not unexpected. India is keen to position itself as a democratic alternative to Chinese techno-authoritarianism. The divergences in the respective positions of China and India and their competing narratives on digital sovereignty and infrastructure prevent a unified BRICS stance on AI governance, making it an area of contestation more than cooperation.

This contestation is reflective of a larger, broader struggle within BRICS, seeking to reconcile competition with collective aspirations. The BRICS declarations may emphasize cooperation and inclusivity, but underlying divergences could restrict the bloc’s ability to carve out unified norms and rules on AI governance. BRICS thus faces the challenge of forging meaningful cooperation given these differences. The credibility of the grouping with regard to shaping digital governance ultimately depends on whether the BRICS nations overcome their differences or are paralyzed by them.

9. AI Policy and Strategic Implications

Within BRICS, AI governance has significant strategic and policy implications, not just for the grouping but for India, China and the global order. An AI code of conduct focusing on accountability, transparency and human rights could be the starting point of consensus within BRICS. An AI governance policy which is consistent with international humanitarian laws is a *sine qua non*, keeping in view the risks and dangers posed by weaponization of AI (United Nations, 2019). This

would help carve a distinctive position which is normative and inclusive. There is a need for Confidence-Building Measures (CBMs) in the AI domain, which would prioritize protocols for incident reporting, information-sharing mechanisms for best practices and establishment of norms for responsible use of AI, thus minimizing the potential for risks. The 2019 UN GGE report on Lethal Autonomous Weapons Systems (LAWS) categorically states that “International Humanitarian Law continues to apply fully to all weapons systems, including the potential development and use of lethal autonomous weapons systems”. In addition, it emphasizes that “human responsibility for decisions on the use of weapons systems must be retained since accountability cannot be transferred to machines”, and that such responsibility must be upheld “across the entire life cycle of the weapons system” (ibid.).

Despite the strategic rivalry between China and India, BRICS as a multilateral forum offers the opportunity to work in close collaboration to build confidence and trust, particularly with respect to AI weaponization. Sustained dialogue would help in preventing AI from becoming an unregulated domain of competition (Carnegie India, 2020). The BRICS forum could be utilized by the two countries for launching joint humanitarian AI projects like pandemic forecasting and disaster relief. This would help build consensus while simultaneously avoiding the more contentious issues of AI weaponization and its implications. Mutual trust could also be enhanced through discussion on issues like an AI-enabled border monitoring system which would help prevent or minimize unwanted, accidental escalations.

Drawing inspiration from its historical role as a voice for the Global South, the BRICS grouping could position itself as a credible platform for ‘AI non-alignment’ (Chaturvedi & Fues, 2016). This would help carve out a third path focusing on inclusivity (customizing AI for multi-contextual and multilingual environments), equity (placing developmental needs at the centre) and developmental priorities while at the same time rejecting the Western-led liberal model of AI governance and the Chinese model of state-driven digital authoritarianism. This would help prevent monopolization of the AI governance debate by advanced economies.

Taken together, these measures would not only enhance BRICS’ relevance in shaping the emerging global AI order but would also help foster trust among nations within the grouping. BRICS can serve as a bridge between the Global North and the Global South by fostering South–South cooperation over AI and emerging technologies. Establishment of dedicated research centres, financing of collaborative projects and facilitation of technological transfers can help address concerns over monopolization of AI by the West and democratize access to AI. Simultaneously, it is imperative for member states to engage with academia, industry and civil society to ensure that AI development, rather than purely catering to strategic and commercial imperatives, reflects the needs of society.

10. BRICS: Cooperation and Competition in AI Governance

The rapid rise of Artificial Intelligence has been taken note of by BRICS. Several significant initiatives on AI have been launched by the grouping. This includes, most notably, the formation of an AI study group, and the adoption of the BRICS AI Governance Declaration at the Rio de Janeiro summit in July 2025 with the objective of establishing governance frameworks centred on inclusivity, equity and development. At the summit, BRICS leaders called for protections against the unauthorized use of AI to avoid excessive data collection (Reuters, 2025a). In a bid to address the

fragmentation of global AI governance and the risk of monopolization of technologies and ensuing restrictions, China recently proposed the creation of a global organization in this regard (Reuters, 2025b). The Chinese foreign ministry also published a 13-point plan for global AI governance, calling for a multi-stakeholder approach to AI which fosters collaboration and cooperation in specific domains and scenarios, promoting innovative development, advancing AI empowerment across industries, accelerating digital infrastructure creation and promoting common understanding on norms and standards, among other goals (Ministry of Foreign Affairs of the People's Republic of China, 2025). In July 2025, Indian Prime Minister Mr. Narendra Modi suggested that the BRICS should 'work for responsible AI while addressing concerns of AI governance', calling for the creation of global standards for verifying the authenticity of digital content (Chaudhury, 2025).

Despite the encouraging rhetoric on cooperation in AI, the strategic competition between China and India poses challenges for BRICS. In line with its global vision, China argues for collective AI governance and open-source sharing (TV BRICS, 2025). On the other hand, India's vision consists of 'ethical AI integration' which protects cultural diversity. (Press Trust of India, 2025). While this divergence makes consensus on global AI governance complex and difficult, the rivalry and competition between the two nations propels indigenous development of AI and related technologies.

Going ahead, BRICS can either become a robust forum for collaboration and cooperation on AI, or risk being fractured by intra-BRICS rivalries, notably between China and India. If AI is framed as a tool for development, it can help foster local innovation, equitable growth and social inclusion. If BRICS can leverage the complementary capabilities of its member nations, it is likely to emerge as a potent force in geopolitics, helping to shape the narrative and discourse around AI governance. On the other hand, weaponization of AI could lead to geopolitical tensions, fracture consensus, hamper governance efforts and sow mistrust through intensification of strategic alignments. AI could thus lead to either the creation of competitive, fragmented blocs or herald inclusive, institutional development. The creation of viable frameworks like digital sovereignty initiatives and AI charters would propel BRICS towards a credible alternative to Western-centric models on AI governance (Mahrenbach & Papa, 2024). The success of BRICS in this regard hinges on the establishment of coherent governance norms and strategic investments and collaborations. This would allow BRICS to emerge as a viable voice empowering the Global South in shaping the future AI order, while preventing the monopolization of AI discourse by the West.

11. Research Limitations and Future Scope

This paper highlights the evolving stance of BRICS on AI governance, and the India-China dynamic. However, it is subject to certain limitations. First, the analysis may not fully capture behind-the-scenes negotiations or the informal influence of individual member states, since it relies mainly on official summit declarations, statements and secondary sources.

Second, the study focuses on BRICS as a collective actor. This potentially underestimates the disparities among the member states beyond India and China, such as the differing policy priorities or technological abilities of Russia, Brazil and South Africa.

Third, AI technologies and global regulatory frameworks evolve rapidly, meaning that any conclusions drawn need continuous updating.

Research within this realm in the future could adopt an interdisciplinary approach. Insights from international law, computer science and development studies could be integrated. Simultaneously, engaging with multiple stakeholders (civil society, private sector entities, international organizations) to assess effectiveness, ethical implications and real-world implementation of BRICS-led AI governance initiatives could be pursued. This would help contribute to broader debates on multipolarity and global technology governance while enhancing the understanding of the normative potential of BRICS.

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Towards Inclusive Universal Health Coverage: Addressing Policy and Governance Barriers in Elderly Care in Kerala

Krishna Arun and Sheetal Walvekar

Abstract: Numerous policy initiatives targeting Universal Health Coverage (UHC), as outlined in Sustainable Development Goal (SDG) 3.8, have significant implementation shortcomings that endure, especially concerning the requirements of the senior demographic. This research highlights the imperative for a more sophisticated, stakeholder-informed strategy in the implementation of SDG 3.8, focusing on geriatric requirements and promoting integrated local governance. The intricate stakeholder interactions, disjointed governance frameworks, and insufficient on-site coordination are among the contributing causes. This research uses stakeholder mapping methodologies, including Actor-Network Theory (ANT), to analyse the entities and networks affecting the implementation of geriatric health policy in Kerala. Through the utilisation of qualitative methods—interviews with principal stakeholders, field observations, and analysis of programme documents—we identify systematic and inadequately documented obstacles to efficient service delivery for older people. Our research indicates that geriatric-specific challenges include fragmented insurance coverage, insufficient awareness of entitlements under programmes e.g., Pradhan Mantri Vaya Vandana Yojana (PMVVY) and Karunya Benevolent Fund (KBF), and a lack of regional implementation guidelines or updates for decentralised units. The deficiency of awareness regarding rights and the implications of participation in health coverage schemes undermines their intended purpose. Logistical barriers to accessing care are mostly neglected in the existing literature. Furthermore, issues in subnational governance, including inadequate interdepartmental coordination and deficiencies in information transmission, provide a substantial hurdle for the elderly in accessing welfare programmes. The analysis reveals significant deficiencies in policy formulation and implementation, institutional barriers, misreading of policy directives, insufficient community involvement, and an absence of accountability frameworks. This study adopts a qualitative, longitudinal research design combining stakeholder interviews, participant observation, and policy document analysis to examine the implementation of geriatric healthcare schemes in Kerala. Guided by Actor-Network Theory, it analyses interactions between human actors and non-human policy instruments to explain how governance breakdowns and access barriers emerge through failures of policy translation. The study contributes empirically grounded insights into decentralised health governance, highlighting how administrative infrastructures and policy scripts shape inclusion and exclusion in geriatric oncology care.

1. Introduction

Kerala, often hailed as India's health leader, is uniquely poised to localise Sustainable Development Goal (SDG) 3.8, which promises Universal Health Coverage (UHC), including financial risk protection and access to essential healthcare services for all. This chapter examines the geriatric segment of cancer care within this agenda, particularly in Kerala, where over 16.5% of the population is aged 60 and above, and approximately 15% are over 80 (NITI Aayog, 2021). As cancer incidence among the elderly continues to rise, with over 34% of cancer patients being aged 60+, ensuring equitable healthcare becomes both a moral imperative and a policy challenge.

Kerala's senior population is not only medically vulnerable but also economically fragile, with many unable to self-finance health expenditures. Despite the availability of public schemes, persistent out-of-pocket expenditure (OOPE) and equity gaps in coverage threaten the universality of health care delivery.

Geriatric patients, particularly those with cancer, face systemic vulnerabilities: high financial toxicity during the course of the treatment (66.9% experience moderate-to-severe financial stress) (Ranabhat et al., 2023), and limited insurance uptake—only 14.7% reported insurance reliance in elderly cancer patients, with the rest either borrowing, selling assets, or forgoing treatments altogether. Despite Kerala's layered public schemes like PM-JAY (Ayushman Bharat), Karunya Benevolent Fund (KBF), and PM Vaya Vandana Yojana (PMVVY), policy fragmentation and governance challenges often lead to poor scheme utilisation, especially among the most vulnerable, revealing the deep structural gap between policy intent and real-world access.

UHC under Sustainable Development Goal 3.8 has become a central global commitment to the policy framework guiding health system reform. SDG 3.8 explicitly commits states to ensuring access to essential health services and financial risk protection for all; however, comparative evidence in geriatric healthcare shows that the elderly population remains the most systematically excluded group in UHC implementation, failing to address the complex and cumulative needs of older populations in prolonged treatments and social support, exposing the limits of insufficient embedding of UHC in policy design and implementation, particularly in low- and middle-income countries (LMICs) (World Health Organization, 2018; Tangcharoensathien et al., 2020).

This paper explores Kerala's policy architecture and stakeholder networks shaping geriatric cancer care within the decentralised model of governance. It also positions the study within Actor-Network Theory (ANT) to systematically identify both human (e.g., Panchayati Raj Institution/Urban Local Body) and healthcare officials) and non-human (e.g., insurance databases, policy circulars, and scheme eligibility rules) actors affecting UHC for seniors.

2. Literature Review

2.1. *Global Ageing, Geriatric Vulnerability, and UHC Imperative*

The rising grey demographic has risen as one of the most significant transformations of the twenty-first-century population shift with rapid, unprecedented growth, specifically in LMICs (Barasa et al., 2018; Wang et al., 2023). While increased longevity highlights successful advancements in communicable disease control, it simultaneously accelerated the challenge of managing non-communicable diseases, multimorbidity,

and long-term care needs for the elderly populations. The increasing double burden of disease results in a disproportionate pressure on health services. The geriatric population, especially those suffering from chronic illness, face a heightened exposure to financial risk, fragmenting care pathways and weak continuity of healthcare services, leaving them structurally vulnerable within the existing health governance systems.

2.2. Financial Protection and Geriatric Health Coverage in LMICs

Financial protection remains the most fragile pillar of UHC for older adults in LMICs. Despite the expansion of public insurance schemes, older populations continue to experience high out-of-pocket expenditure, treatment discontinuation, and distress financing. Comparative studies from Africa and Southeast Asia illustrate how UHC reforms frequently expand nominal coverage without resolving structural barriers affecting elderly utilisation. Evidence from Kenya highlights how insurance expansion under UHC in decentralised health financing has not translated into effective access for older adults due to fragmented service delivery, weak referral systems, and inadequate geriatric-specific design (Barasa et al., 2018). Despite formal recognition of older adults as priority groups in national health financing frameworks in Bangladesh and Malaysia, empirical studies focused on the regions provide evidence that health financing reforms remain constrained by limited benefit packages, poor scheme awareness, and administrative opacity, furthering the gap between entitlements and effectiveness in access. The findings underscore the critical insight of financial protection under UHC extending beyond coverage expansion to governance capacity, information transmission, and administrative coherence at subnational levels.

2.3. Decentralisation, Regionalisation, and Geriatric Health Governance

Comparative studies from high-income contexts, such as the Netherlands, argue that regions serve as an effective bureaucratic scale for coordinating health and social care, aligning services with population needs, and increasing system responsiveness. The “new regionalism” perspective positions regions as territorially delineated spaces governed by identifiable politico-administrative institutions capable of managing welfare delivery more efficiently than centralised structures.

However, evidence from LMICs complicates this narrative. While decentralisation is frequently promoted as a pathway to responsive and inclusive governance, uneven administrative capacity, fragmented authority, and weak coordination across levels of government often undermine its potential. In geriatric healthcare, where service continuity depends on effective coordination between insurance agencies, local governments, hospitals, and welfare offices, decentralised systems may inadvertently reproduce exclusion unless supported by strong institutional integration and accountability.

2.4. Health System Alignment and Geriatric Care Models

Comparative geriatric health research from the United States demonstrates how system misalignment, rather than resource shortage alone, can marginalise elderly individuals within otherwise advanced healthcare systems. Studies on geriatric clinical service lines (GCSLs) evidence that differential treatment, siloed specialties, and payment models result in short-term interventions failing to accommodate the longitudinal and interdisciplinary nature of geriatric care. (Colenda & Applegate,

2024) These insights resonate across contexts, suggesting that governance design, professional norms, and infrastructural logics play a decisive role in shaping utilisation outcomes for older patients.

Parallel findings from China illustrate how social governance models that integrate community participation, technology, and multi-stakeholder coordination can improve service reach and sustainability in elderly care. However, these models also reveal that innovation without financial protection and administrative clarity risks deepening inequalities, particularly for older adults with limited informational and social capital (Wang et al., 2023).

2.5. Situating Kerala Within the Global Debate

Kerala's population ageing is occurring at a rapid pace, with projections estimating that by 2036, nearly 23% will be over 60 (NITI Aayog, 2023). High dependency ratios, coupled with the rising prevalence of non-communicable diseases. The National Family Health Survey—NFHS-5, 2021 (International Institute for Population Sciences (IIPS) & ICF, 2021) and the Longitudinal Ageing Study in India—LASI, 2020 (International Institute for Population Sciences (IIPS) et al., 2020), confirm that older adults are increasingly burdened by non-communicable diseases, especially cancer, diabetes, and cardiovascular conditions, creating a double burden for the healthcare system. This is compounded by growing reliance on private healthcare providers due to perceived efficiency, despite Kerala's wide network of public hospitals. Studies report that many older patients are forced to borrow or sell assets to afford care, highlighting gaps in financial protection despite formal coverage mechanisms (Ranabhat et al., 2023).

Kerala's reliance on private healthcare—due to perceptions of quality and accessibility—further compounds financial risks. Insurance coverage alone has not guaranteed UHC outcomes. Empirical studies show persistent out-of-pocket expenditures (OOPE) even among insured patients (Adithyan et al., 2024). Empirical data from Ranabhat et al. (2023) shows that more than 66.9% of older cancer patients experience moderate to severe financial toxicity. Meanwhile, only 14.7% are covered under formal health insurance mechanisms, despite several state and central schemes being available. Thus, while UHC is theoretically universal, financial risk protection remains elusive. Against the global and comparative backdrop, the Kerala case offers an empirical illustration of how UHC ambitions intersect with ageing, decentralised governance, and financial protection challenges in an LMIC context. While Kerala is often cited for its advanced health indicators and decentralised planning architecture, emerging qualitative evidence shows that older adults—particularly those with catastrophic illnesses—continue to encounter fragmented insurance coverage, informational asymmetries, and administrative barriers that weaken the promise of SDG 3.8. Rather than treating Kerala as an exceptional case, this study positions it within broader international debates on why UHC reforms frequently fall short for geriatric populations, despite favourable policy environments.

2.6. Stakeholder Mapping and Actor-Network Theory (ANT) in Health Policy

Bruno Latour's Actor-Network Theory (ANT) reframes traditional dichotomies between human and non-human elements, advocating for a flat ontology where all actants (actors)—both people and non-people (documents, policies, technologies,

legal frameworks, cultural norms)—are treated as equally important components in a socio-technical network. Actor–Network Theory (ANT) has emerged as a significant analytical lens for examining the complexity of healthcare systems, particularly where governance, policy implementation, and service integration involve heterogeneous constellations of human and non-human actors (Ryan et al., 2024b). In this study, ANT is applied to the localisation of SDG 3.8 (Universal Health Coverage) through geriatric health policy implementation in Kerala, particularly analysing access, governance, and policy efficacy. Literature emphasises the value of mapping institutional alignment, accountability, and informal networks in understanding policy effectiveness (Consolandi et al., 2018).

ANT extends this by incorporating non-human actants (e.g., insurance databases, policy circulars, hospital forms) into the analysis. Ryan et al. (2024a) show how decentralised electronic systems, databases, IT platforms, and funding norms shape access and service quality in healthcare. ANT theoretical orientation has proven especially valuable for unpacking how formal policies are stabilised—or disrupted—through everyday practices, material artefacts, and institutional arrangements.

Within health systems scholarship, ANT shifts analytical attention away from formal institutional structures toward the processes through which policies are translated, stabilised, and contested in practice, involving professionals, technologies, documents, standards, and administrative routines (Cresswell et al., 2010). Their ANT-informed analysis shows that governance outcomes emerge from ongoing negotiations between clinicians, managers, software systems, standards, and policy mandates, rather than from top-down implementation alone (Cresswell et al., 2010).

ANT has particularly been influential in exposing why centrally designed health technologies often produce uneven outcomes across settings, as local actors reinterpret, resist, or repurpose these technologies in line with contextual constraints and interests (Cresswell et al., 2010).

Studies tracing organisational integration through an ANT lens demonstrate that integration is not a linear structural achievement but a fragile accomplishment dependent on the enrolment and alignment of multiple actor-networks (Altabaibeh et al., 2020). By mapping how organisational integration is enacted through everyday practices, ANT-based studies reveal that governance reforms often fail when key actors—such as frontline professionals or material infrastructures—are weakly enrolled or positioned as intermediaries rather than mediators. This literature underscores ANT’s value in analysing healthcare governance as a process of continual negotiation rather than institutional design (Altabaibeh et al., 2020).

Beyond organisational settings, ANT has been used to trace health policy formation and system-level governance in the Indian context. A notable application is found in the ANT-based analysis of the Orissa Telemedicine Project, which demonstrates how state-led healthcare initiatives emerge through the alignment of political priorities, technological infrastructures, bureaucratic actors, donor agencies, and material devices (Sahay & Walsham, 2006). The case illustrates how health policy networks in India are shaped by decentralised administrative realities, infrastructural constraints, and the agency of non-human actors such as software platforms and connectivity systems.

Applying ANT to Kerala’s geriatric oncology policies enables deeper insight into why beneficiaries encounter friction in claiming entitlement. Actor mapping and the identification of translation stages serve as a starting point, in line with ANT’s emphasis on making complex networks visible before explaining how they function—or fail.

The analysis then traces how non-human elements such as policy circulars, digital Management Information System (MIS), and scheme rules actively shape outcomes by limiting discretion, triggering automatic delinking, and disrupting enrolment processes, leading to failures of translation at multiple points. ANT is used as an explanatory lens for understanding influence and governance breakdown.

2.7. Gaps Identified in the Literature

Despite Kerala's robust health architecture, the literature reveals multiple research and policy gaps:

- Lack of qualitative evidence capturing under documented governance bottlenecks in SDG 3.8 localisation for elderly cancer patients.
- Inadequate analysis of stakeholder divergence and convergence in real-time implementation.
- Minimal use of ANT-driven policy diagnostics and stakeholder mapping frameworks in the Indian geriatric healthcare context—public health discourse.
- Limited documentation of how state-centre misalignment (e.g., in PMVVY rollouts) creates exclusion cycles.
- Focused on dimensions of grievance compensation mechanisms and their effectiveness from the patient's perspective.
- Absence of actionable recommendations grounded in empirical localised fieldwork.

2.8. Case Section

2.8.1. Welfare Architecture: PM-JAY, KBF, and PMVVY

Launched in 2018, PM-JAY promises ₹5 lakh annual coverage per family for secondary and tertiary care, targeting the bottom 40% of India's population. Kerala initially integrated it with its own schemes under the Karunya Arogya Suraksha Padhathi (KASP), expanding hospital empanelment and simplifying claims (National Health Authority, 2023). Complementing this, KBF—a state-level, lottery-funded scheme—offers ₹2–3 lakh to cancer and cardiac patients below a certain income threshold, especially those excluded from PM-JAY. The 2020 integration of KBF into PM-JAY's IT platform aimed to eliminate redundancy and streamline co-financing (SHA Kerala, 2021). PMVVY (Government of India, 2017), while originally a pension scheme for 60+ citizens, was recently expanded to include a healthcare component under Ayushman Vaya Vandana, providing 5 lakh coverage to all above 70 years, irrespective of economic status (Sansad Reports, 2024). However, the literature and policy reports reveal significant implementation contradictions. For example, beneficiaries who registered for PMVVY found their KBF coverage cancelled due to Aadhaar linkage limits, leaving many without access to either scheme until clarified by government circulars (Kerala Kaumudi, 2025).

2.8.2. Decentralisation, Health Governance, and SDG Localisation: Kerala Context

Kerala's decentralisation reforms since 1999 enabled Panchayati Raj Institutions (PRIs) and Urban Local Bodies (ULBs) to manage local healthcare delivery. Empirical evidence confirms that community-based care, infrastructure development, and local health planning have seen notable improvements in certain districts (Varma et al., 2023; Iype, 2024).

However, governance heterogeneity persists. Studies cite overlapping jurisdiction, fragmented accountability, and differential administrative capacities among PRIs (Domorenok et al., 2021). This complexity becomes particularly acute in geriatric cancer care, where service continuity requires coordination among primary care, insurance processing, and specialist centres.

Ardram Mission (Government of Kerala, 2017), Kerala's primary care reform initiative, has improved local involvement and improvement in health infrastructure by upgrading primary healthcare to family health centres, yet many local governments lack the technical or financial capacity to manage advanced health entitlements such as oncology under PM-JAY or integrated KBF or PMVVY systems (SHA Kerala, 2021).

3. Research Objectives

1. To map the key stakeholders involved in the implementation of geriatric health policies in Kerala using Actor-Network Theory (ANT), highlighting their roles, relationships, and influence dynamics.
2. To examine the institutional and governance challenges—including fragmented policy frameworks, interdepartmental silos, and poor coordination—that hinder the effective implementation of Universal Health Coverage (UHC) for the elderly.

H1. *Effective implementation of geriatric health policies is influenced by fragmented governance structures and a lack of interdepartmental coordination.*

3. To identify gaps in awareness, access, and utilisation of geriatric-specific welfare programmes (e.g., PMVVY and Karunya Arogya Suraksha Padhathi (KASP)) among senior citizens, particularly focusing on logistical, informational, and administrative barriers.

H2. *Lack of awareness and logistical barriers influence the limited utilisation of welfare schemes among senior citizens.*

4. To assess how subnational governance structures affect policy coherence and service delivery for older populations, with emphasis on information transmission, accountability, and community engagement.

H3. *Weak information flows and the absence of accountability frameworks at subnational levels are associated with poor geriatric service delivery.*

5. To document underrepresented and systemic obstacles in the delivery of geriatric healthcare services through qualitative insights from stakeholder interviews, field observations, and programme document analysis.
6. To develop stakeholder-informed policy recommendations aimed at improving the inclusivity, responsiveness, and coordination of UHC initiatives tailored to geriatric populations in alignment with SDG 3.8.
7. To contribute to the theoretical and empirical understanding of health governance by integrating stakeholder mapping tools and Actor-Network Theory in the context of ageing populations and local health systems in India.

This research adopted a qualitative methodology grounded in an actor-centric and policy tracing approach to investigate institutional governance, stakeholder dynamics, and service delivery mechanisms in geriatric healthcare coverage implementation

under SDG 3.8 in Kerala. The methodology integrates three core components: semi-structured stakeholder interviews, participant observation, and policy tracing.

4. Materials and Methods

4.1. Stakeholder Interviews

The primary data source consisted of semi-structured qualitative interviews with key stakeholders in the healthcare policy network. These included:

- Geriatric cancer patients (intended beneficiaries);
- Caregivers and family members;
- Welfare officers and ground-level hospital administration;
- State Health Agency officials;
- District Programme Coordinators (DPC);
- Legal professionals providing intervention support;
- Civil society and public policy researchers.

These interviews explored the stakeholders' experiences, roles, challenges, and perceptions regarding the implementation of Pradhan Mantri Jan Arogya Yojana PMJAY, Karunya Benevolent Fund (KBF), and PMVVY. The questions were framed to probe issues around policy awareness, scheme switching, service denial, grievance redress, and actor interactions within the policy ecosystem.

4.1.1. Methodology

This study employed a qualitative, multi-method research design to examine the implementation of geriatric healthcare schemes—PMJAY, KBF, and PMVVY—within Kerala's health governance framework. The research adopted an interpretive and actor-centric approach, enabling an in-depth understanding of policy execution, stakeholder interactions, and implementation gaps.

Primary data were collected through semi-structured qualitative interviews with purposively selected stakeholders, including geriatric cancer patients, caregivers, welfare officers, hospital administrators, State Health Agency officials, District Programme Coordinators, legal professionals, and civil society researchers. The interviews explored policy awareness, scheme access and switching, service denial, grievance redress mechanisms, and inter-actor dynamics within the healthcare policy ecosystem.

To complement interview data, participant observation was conducted at the Regional Cancer Centre (RCC), Thiruvananthapuram. Reflexive field notes documented recurring practices and lived experiences related to financial hardship, institutional navigation challenges, bureaucratic responsiveness, information asymmetries, and the effects of legal intervention. This method enabled the capture of everyday realities that remain underrepresented in formal policy narratives.

The third methodological component involved policy tracing, wherein policy circulars, implementation guidelines, MIS updates, and dissemination timelines were systematically reviewed. This facilitated an examination of the decentralised implementation chain from the National Health Authority (2023) to state and district-level actors, identifying delays, bottlenecks, and structural gaps affecting service delivery.

Data from interviews, observations, and documents were analysed using thematic analysis, with triangulation employed to enhance analytical rigour. This integrated research process enabled an empirically grounded assessment of the interaction between human actors and institutional structures within Kerala's Universal Health Coverage architecture.

4.1.2. Methodological Justification

This study adopts a qualitative research approach to examine the implementation of geriatric healthcare schemes, as the research aims to understand processes, perceptions, and lived experiences rather than measure outcomes alone. Policy implementation in healthcare is shaped by discretionary practices, institutional norms, and power relations that are not adequately captured through quantitative indicators. Qualitative methods enable a nuanced exploration of how policies are interpreted, negotiated, and enacted by multiple actors across administrative and care-delivery settings.

Kerala was selected as the study context due to its advanced health indicators, high institutional delivery rates, and strong welfare orientation, which make it a critical case for examining the functioning of Universal Health Coverage (UHC) frameworks in India. Despite its comparatively robust public health infrastructure, Kerala faces a rapidly ageing population and a rising burden of non-communicable diseases. Studying policy implementation in this context allows for an assessment of whether well-designed welfare systems translate into equitable and accessible healthcare for vulnerable elderly populations.

Geriatric oncology was chosen as the sectoral focus because cancer care represents a high-cost, high-dependency, and administratively complex domain, where policy failures have immediate and severe consequences for beneficiaries. Elderly cancer patients often experience compounded vulnerabilities due to age, comorbidities, financial dependency, and limited capacity to navigate bureaucratic systems. Examining geriatric oncology thus provides a critical lens to assess the effectiveness, responsiveness, and ethical dimensions of healthcare financing schemes, revealing systemic gaps that may remain obscured in lower-intensity care settings.

4.2. *Key Field Insights*

Extensive participant observation complemented the interviews. The researcher maintained reflexive field notes documenting key recurring themes and behaviours observed across the RCC in Thiruvananthapuram. Core observations included:

- Financial hardships faced by geriatric beneficiaries in the absence of scheme coverage;
- Beneficiaries' limited ability to raise or escalate grievances effectively;
- Navigational challenges in accessing healthcare institutions and welfare offices;
- Logistical barriers, particularly in transportation and bureaucratic formalities;
- Differential and sometimes indifferent attitudes displayed by bureaucratic officials;
- Manifestations of financial toxicity among patients reliant on out-of-pocket payments;
- Challenges associated with a high dependency ratio within elderly households;
- Inconsistent and limited information dissemination regarding policy implementation;
- Positive behavioural shifts in welfare officer responsiveness following legal intervention.

These lived experiences provided critical, situated insight into the real-world gaps between policy intention and execution.

4.3. Policy Tracing

The third methodological pillar involved policy tracing to document and evaluate the trajectory, implementation status, and structural embedding of the three geriatric healthcare schemes (PMJAY, KBF, and PMVVY). Policy circulars, official implementation guidelines, scheme MIS updates, and timelines of regional dissemination were reviewed to:

- Identify bottlenecks in policy transmission;
- Understand the decentralised implementation chain from the National Health Authority (NHA) to the State Health Agency (SHA) and decentralised units of geriatric oncology care;
- Assess delays and their effect on field-level service delivery.

This triangulated methodology enabled a comprehensive, empirically grounded evaluation of stakeholder roles, structural gaps, and the critical interplay between human actors and institutional actants within the health governance framework of Kerala's UHC architecture.

4.4. Sampling Strategy and Participant Recruitment

The study employed a purposive sampling strategy to recruit participants with direct involvement in, or experience of, geriatric healthcare scheme implementation in Kerala. A total of 42 participants were interviewed, representing multiple levels of the healthcare governance (Table 1) and service delivery system. These included geriatric cancer patients, caregivers, welfare officers, hospital administrators, State Health Agency officials, District Programme Coordinators, legal professionals, and civil society and public policy researchers.

Inclusion criteria were based on participants' functional relevance to policy implementation, including direct scheme utilisation, administrative responsibility, or engagement with grievance redress and legal processes related to geriatric healthcare financing. Recruitment was facilitated through institutional access at the RCC, Thiruvananthapuram, professional networks, and snowball referrals among policy and legal actors.

Sampling proceeded iteratively, with data collection continuing until thematic saturation was reached, that is, when additional interviews no longer generated substantively new insights relevant to the research questions. The final sample size reflects the diversity of actor perspectives required to analyse policy implementation processes rather than an attempt at statistical generalisation.

Table 1. Mapping of the Actor-Network Theory based on role and key relations. Mapping key actors and actants in a welfare delivery network, including elderly beneficiaries, caregivers, welfare officers, State Health Agency (SHA) officials, Regional Cancer Centre (RCC), NGOs, and digital systems. It outlines their roles, relationships, and influence dynamics, highlighting concepts like gatekeeping, mediation, policy control, and systemic constraints.

Actor/Actant	Type	Role	Key Relations	Influence Dynamics
Elderly Beneficiaries	Human	Recipients of Pradhan Mantri Jan Arogya Yojana (PMJAY), Karunya Benevolent Fund (KBF), and Pradhan Mantri Vaya Vandana Yojana (PMVVY) navigate enrolment, cancellations, and appeals	Dependent on Welfare Officers, Caregivers, legal counsel, Akshaya e-Kendras, informed by the Media and Civil Society	Vulnerable Nodes: Low structural power; their enrolment/appeal actions trigger legal interventions and civil-society advocacy.
Caregivers	Human	Facilitate paperwork in welfare availment, transport, and grievance filings; often the first point of contact for the elderly	Liaise with Welfare Officers, Legal Counsel, Civil Society, and Akshaya e-Kendras	Mediators: High agency in translating patient needs into bureaucratic language; can amplify systemic barriers or successes.
Welfare Officers/Hospital Admin Staff	Human	Gatekeepers of scheme enrolment, cancellation, and appeals processes; interpret circulars and guidelines	Report to District Project Coordinator DPC/SHA; interface with Beneficiaries, Caregivers, Legal Counsel	Gatekeepers with Discretion: Bureaucratic inertia manifests here—decisions (e.g., pre-legal vs. post-legal attitudes) directly affect beneficiaries' access.
State Health Agency Officials/DPC	Human	Issue policy circulars, conduct trainings, and monitor implementation metrics	Issue directives to Welfare Officers and RCC; receive and analyse claim data	Policy Authors: Control non-human actants (circulars, Management Information System MIS); any delay or ambiguity here cascades through the network as bottlenecks and miscommunication.
Regional Cancer Centre (RCC)	Human/Org.	Principal service delivery node for cancer care; implements welfare entitlements	Coordinates with Welfare Office; reports service data to SHA; interacts with Civil Society	Service Hub: Central node where institutional bottlenecks (e.g., approval delays) and infrastructural constraints (equipment, staffing) are materially felt by beneficiaries.
Akshaya e-Kendra Agents	Human	Digital-application facilitators who link Aadhar to schemes	Communicate with Welfare Officers; guide Beneficiaries and Caregivers	Translators: Bridge the technological divide, but can amplify misinformation (e.g., scheme switching) if not aligned with official circulars.
Public Policy Academics/Analysts	Human	Generate evidence, critique policy, and propose reforms	Engage SHA, Civil Society, Legal Counsel; disseminate findings via conferences and publications	Knowledge Brokers: Influence the network's reconfiguration by publishing empirical analyses that spur bureaucratic or legislative change.

Table 1. Cont.

Actor/Actant	Type	Role	Key Relations	Influence Dynamics
Legal Counsel/Judiciary Actors	Human	Advocate for beneficiaries' rights, file petitions, compel administrative compliance	Represent Beneficiaries; interface with Welfare Officers and SHA	Obligatory Passage Points: Legal rulings reshape welfare officers' attitudes, reduce bureaucratic inertia, and instigate circular clarifications.
Civil Society/NGOs	Human/Org.	Conduct awareness campaigns, social audits, and mobilise community grievances	Partner with Legal Counsel; liaise with Media	Watchdogs and Catalysts: Expose systemic failures, apply sustained pressure, and amplify beneficiaries' voices, leading to network adaptations (e.g., new grievance protocols).
External Media	Non-Human	Broadcast policy updates and failures; shape public perception	Source stories from Civil Society and Legal Counsel; inform Beneficiaries	Amplifier: Publicises governance barriers and service breakdowns, increasing institutional responsiveness.
Policy Circulars and Official Guidelines	Non-Human	Codify eligibility rules, procedural steps, and scheme updates	Issued by SHA; interpreted by Welfare Officers and RCC	Scripters: Anchor the network's "rules of the game." Ambiguities or delays here generate misinterpretation, service denials, and cyclical appeals.
Digital Management Information Systems (MIS)	Non-Human	Aadhar-linked databases, claim-processing portals (PMJAY IT, KBF portal)	Used by Welfare Officers and Akshaya Agents to verify and process applications	Actants of Control: Database errors or lack of interoperability create systemic bottlenecks, preventing scheme portability or re-enrolment.
Institutional Bottlenecks	Non-Human	Aggregate term for resource shortages, approval delays, and siloed processes	Manifest at RCC, Welfare Office, SHA	Structural Constraint: Materialises as long waiting times, claim backlogs, and patient distress.
Bureaucratic Inertia	Non-Human	Collective adherence to outdated procedures and resistance to change	Observed in Welfare Offices, the SHA ground-level policy implementation	Cultural Actant: Perpetuates policy–practice gaps, requiring external shocks (legal orders, media expos) to overcome.
Differential Attitudes (Pre- vs. Post-Legal Intervention)	Non-Human	Qualitative shift in welfare officers' willingness to assist following legal or civil society pressure	Observed in Welfare Office interactions	Transformative Actant: Shows network plasticity—positive attitude shifts improve service delivery but depend on sustained oversight.

Source: Table by authors.

5. Data Collection and Analysis

5.1. *Data Collection*

5.1.1. Stakeholders' Interview

Qualitative interviews were conducted between 18 February and 20 May 2025, considering this a longitudinal study that aims at examining access to geriatric health welfare schemes and their implementation. The study began the interviews with beneficiaries and family members to identify the problem, and later, with follow-ups, documenting access, administrative responses, and policy updates were taken during follow-ups. Stakeholder and institutional interviews were conducted from March 2025 to May 2025 to capture evolving policy and implementation changes. Interviews were primarily in person, supplemented by telephone follow-ups and some group discussions at Akshaya e-Kendras and civil society organisations. Stakeholder interviews lasted 1.5–2 h, while beneficiary follow-ups were 15–20 min, which differed from person to person. This design enabled systematic documentation of administrative discretion, documentation requirements, approval barriers, and implementation dynamics over a considerable period of time.

5.1.2. Participant Observation

Participant observation was conducted at the Regional Cancer Centre, Thiruvananthapuram, which was the most sensitive fieldwork. Fieldwork involved 3–5 h of observation every day, totalling approximately 60–90 h. Observations were made on beneficiary interactions with legal counsel, documentation and eligibility, administrative communication, and inter-office connectivity. The researcher adopted a non-interventionist participant-observer role so that the researcher had the least influence on legal or administrative decisions. All observations were documented and then systematically studied in field notes to understand procedural dynamics and governance delivery gaps.

This study adhered to strict ethical standards, especially for the vulnerable population of geriatric cancer patients. Informed consent was obtained from all interview participants and the institution prior to data collection, with the purpose, scope, and voluntary nature of the study. Oral consent of a participant was preferred over written consent to eliminate identity documentation. Anonymity and confidentiality of the participants are ensured; documentation at any point does not record the actual names and identifying details, such as the location of the patients. Specific code is given to an individual in transcripts and field notes. Hard copies of documents are stored at the institution, and soft copies are stored with password protection. This data will be retained only until the manuscript publication and will be disposed of after discussion with the institutional ethical committee. Special care was taken to eliminate emotional and physical burdens on geriatric patients by non-intrusive observations and allowing participants to withdraw at any stage without consequences.

5.2. *Data Analysis*

Data analysis tried to optimise a qualitative approach to analyse how geriatric healthcare policies are taken into everyday administrative practice. Interview transcripts, participant observation field notes, and policy documents were studied with an integrated approach to trace implementation dynamics over time.

Longitudinal beneficiary interviews were organised chronologically to maintain flow in understanding the process of access attempts and administrative responses. Field notes were written immediately after observation, and policy documents were aligned with field events.

Analysis employed multi-stage thematic coding. During open coding, recurring procedural issues were identified (e.g., awareness gaps, documentation demands, discretionary decisions, approval delays). Axial coding examined relationships between actors, institutional procedures, and policy instruments, generating higher-order categories such as implementation bottlenecks and institutional fragmentation. Selective coding refined core explanatory themes, including policy–practice gaps, street-level translation, and the role of administrative artefacts in shaping access outcomes.

Actor-Network Theory (ANT) was used as a sensitising analytical framework, introduced inductively during axial and selective coding. ANT directed attention to interactions between human actors (beneficiaries, caregivers, welfare officers, administrators, and legal actors) and non-human actants (policy texts, eligibility rules, documentation forms, MIS portals, and grievance mechanisms), enabling analysis of how governance outcomes emerge relationally through networks rather than individual actors.

Analytical triangulation was achieved by cross-validating interviews with observational and documentary data. Coding was conducted manually using matrices and thematic charts, ensuring transparency and rigour.

5.2.1. Actor-Network Theory Mapping (Figure 1)

1. Central Nodes (SHA, Welfare Officers) where policy and data converge;
2. Peripheral Nodes (Beneficiaries, Caregivers, and Akshaya e-Kendra) that bridge users and the system;
3. Non-Human Actants (Policy Circulars, MIS Platform, Institutional Bottlenecks, and Bureaucratic Inertia) that shape how services flow;
4. External Catalysts (Legal Counsel, Civil Society, and Media) that apply pressure and reconfigure the network dynamics by influencing accountability, amplifying grievances, and enabling policy responsiveness and reform.

Latour’s stages of translation—problematization, interessement, enrolment, and mobilisation—are clearly visible in this study’s context (Table 2).

Table 2. The four phases of Actor-Network Theory, Latour’s stages of translation—problematization, interessement, enrolment, and mobilisation—applied to a healthcare welfare case. It shows how initial denial of benefits evolves through legal and civil society intervention, leading to realignment of actors and eventual restoration of effective policy implementation and governance.

ANT Phase	How It Unfolded in the Study
Problematization	Geriatric patient experiences denial of benefits under healthcare schemes due to knowledge asymmetries, policy gatekeeping, and systemic opacity—an actor-network breakdown.

Table 2. Cont.

ANT Phase	How It Unfolded in the Study
Interessement	Legal aid and civil society step in as obligatory passage points, reorienting the patient's connection with otherwise inert non-human actants (circulars, eligibility rules).
Enrolment	Healthcare officials and bureaucrats are repositioned to align with policy intent. The policy scripts (PMJAY and PMVVY) are "reinscribed" with meaning and accountability through stakeholder confrontation and legal legitimacy.
Mobilisation	A reassembled actor-network emerges with empowered stakeholders, awakened governance mechanisms, and restored function of non-human actants (circulars now re-communicated, policy eligibility clarified, new awareness created).

Source: Authors' compilation based on data from Cresswell et al. (2010), Ryan et al. (2024b), and the authors' own collected data.

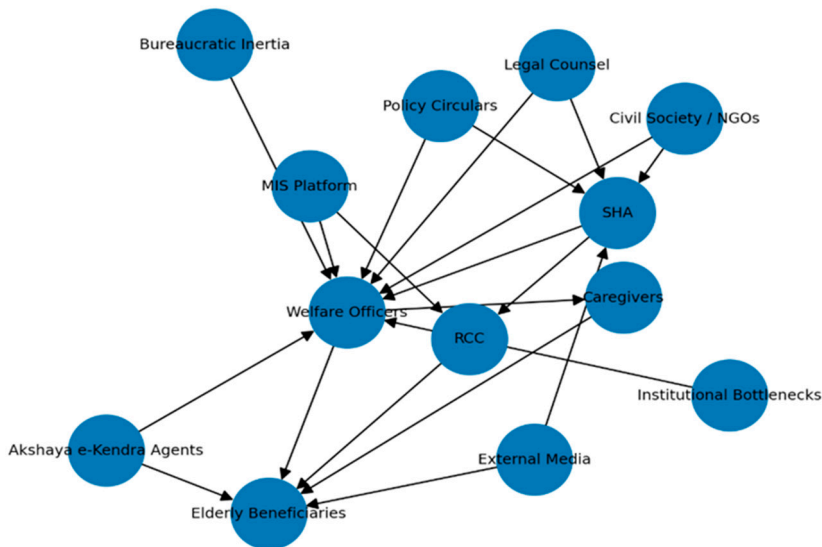


Figure 1. Actor-Network Theory mapped based on primary data analysis. Source: Authors' compilation based on data from Cresswell et al. (2010), Ryan et al. (2024b) and the authors' own collected data.

Actor-Network Theory (ANT) (Table 3) observes the governance breakdown, which cannot be attributed only to weak and limited administrative capacity. It reflects a failure of translation by interactions between human actors and non-human actants. Policy circulars, eligibility rules, documentation requirements, and digital Management Information System (MIS) platforms exercise influence by triggering automatic scheme delinking, limiting opportunities, and creating a procedural rigid structure that persists even when officials are aware of beneficiary hardship.

Table 3. Identifying key governance barriers in welfare delivery from an Actor-Network Theory perspective, linking shortcomings such as database errors, communication failures, bureaucratic apathy, media gaps, and lack of regional updates to disruptions in the actor-network. It provides evidence showing how these failures lead to misinformation, denial of benefits, and weak policy implementation at the ground level.

Governance Barrier	Shortcoming (ANT View)	Evidence and Network Disruption
Systemic database errors	Policy scripts misread or improperly stored—technical actant failure	Legal aid uncovered a record mismatch—the patient wrongly categorised; led to the denial of PMJAY
Communication failures (Centre to State Circulars)	Breakdown in translation across actor-networks; circulars not “translated” locally	Interviews show non-updated staff unaware of circular changes
Differential bureaucratic attitude and apathy	Weak human actant link; stakeholder disinterest disrupts the enforcement role	Initial passive resistance from health admin; reversed post legal-social advocacy
Media distortion/ absence of narratives	Misbehaving non-human actant; misinforms or creates perceptual noise	Beneficiaries and peers unaware of the PMVVY scheme despite mass outreach efforts
No update on regional implementation in the public domain	Non-existent “actor inscriptions”—policy remains inert due to non-materialisation at ground level	Interview with local PRI member confirms total absence of state-level PMVVY updates

Source: Table by authors.

While problematisation and incentives are achieved through scheme promotion, media narratives, and digital enrolment processes, wherein enrolment and mobilisation remain incomplete. This is shaped by delayed institutional recognition, fragmented policy communication, and inflexible technological systems. These non-human actants disrupt policy implementation across different levels of governance. As a result, beneficiary exclusions emerge from weakened alignments between actors and actants, rather than from isolated administrative errors or individual bureaucratic failures.

5.2.2. Evidence-Based Analysis

To examine the institutional and governance challenges—including fragmented policy frameworks, interdepartmental silos, and poor coordination—that hinder the effective implementation of Universal Health Coverage (UHC) for the elderly.

The effective implementation of geriatric health schemes—namely PMJAY, Karunya Benevolent Fund (KBF), and Pradhan Mantri Vaya Vandana Yojana (PMVVY)—is critically impaired by fragmented governance, lack of interdepartmental synchronisation, delayed circulars, and poor coordination between key implementing agencies. These institutional weaknesses disrupt scheme continuity, delay service delivery, and shift the burden of resolution to beneficiaries and civil society actors.

- **Delayed Policy Communication:** Welfare officers and District Programme Coordinators admitted that circulars regarding PMVVY implementation had not reached ground-level institutions months after its national launch in November 2024. As of February 2025, no official procedural updates had been received, rendering PMVVY effectively inoperable despite widespread public promotion (Welfare Officer Q5; DPC Notes, Secondary Source).
- **Interdepartmental Disconnect:** Welfare officials stated that they were unable to receive or verify information from other stakeholders—such as the State Health Authority, Akshaya e-Kendras, or hospital IT systems—regarding beneficiaries’ digital application status:

“There is no notification system when a patient links their Aadhar to PMVVY through an external kiosk. We only see that KBF is automatically unlinked” (Welfare Officer Interview, Q10).

- **Lack of Joint Coordination Mechanisms:** No formalised platform exists for real-time data exchange or problem resolution between the SHA, RCC hospital administration, e-Kendra agents, or welfare offices. Instead, officers rely on ad hoc methods like phone calls or verbal updates, which fail to address systemic issues.
- **Rigid Technological Frameworks:** The existing MIS backend does not allow the re-linking of previously cancelled schemes (e.g., KBF), nor does it support cancellation of PMVVY once linked—even if the latter remains non-operational. Welfare officers explained that, “The Aadhar system does not allow dual linking, and there’s no override mechanism. We cannot even cancel PMVVY entries ourselves” (Q13–Q14).
- **Failed Grievance Compensation:** The beneficiary’s formal complaint to the District Collector remained unacknowledged. No alternate path to restore coverage was proposed, leaving the patient dependent on a private health policy (Beneficiary Q20; Caregiver Q21).

The hypothesis is validated by empirical data showing that the absence of institutionalised coordination mechanisms results in fragmented, inefficient, and unjust service delivery for elderly patients.

Each department—SHA, RCC, Welfare Offices, Akshaya centres, and MIS backend administrators—operates in silos. There is no integrated command chain, real-time data sharing, or interdepartmental oversight body. As a result, beneficiary transitions across schemes are mishandled, eligibility assessments are inconsistent, and frontline officers are disempowered to rectify errors.

The coordination failure between SHA and the welfare office is further exposed by delayed circulars that leave officials unaware of current implementation statuses, rendering them unable to guide patients appropriately. While civil society and legal advocates have stepped in, their role remains corrective rather than preventive.

This breakdown has systemic consequences: miscommunication, digital duplication, and unresolvable denial of entitlements—all of which are exacerbated when actors such as Akshaya e-Kendra agents intervene without full knowledge of institutional readiness.

Ultimately, Objective 2 is strongly affirmed: Kerala's governance framework, though decentralised on paper, suffers from practical disintegration, which obstructs the localisation of SDG 3.8. Effective UHC cannot be realised unless mechanisms for cross-actor synchronisation, shared data infrastructure, and interdepartmental accountability are urgently established.

5.3. Evidence of Gaps in Awareness, Access, and Utilisation of Geriatric Welfare Schemes and Analysis

Beneficiary and caregiver awareness deficits, compounded by logistical hurdles and confusing communications, predict low uptake and disrupted continuity of PMVVY, KBF, and PMJAY among elderly cancer patients.

- Awareness Deficit: The 77-year-old beneficiary and his daughter-in-law reported they “were not aware that applying for PMVVY would cancel our existing KBF coverage” (Questionnaire B-5).
- Confusing Communication: Welfare officers admitted they only “verbally informed” beneficiaries of scheme cancellations, with no written notice, leaving patients uncertain about re-enrolment (Questionnaire B-6).
- Partial Knowledge of Coverage: Caregivers noted they “only knew the coverage limits (₹2 lakh for KBF, ₹5 lakh for PMVVY/PMJAY) but not the eligibility nuances or cancellation rules” (Caregiver Q2–Q3).
- External Media Influence: Both beneficiary and caregiver acknowledged “applying for PMVVY because media outlets touted its universal coverage for 70+ citizens”, despite the scheme not yet being operational locally.
- Logistical Barriers: Prior to legal intervention, the family “spent multiple days” travelling to the welfare office, only to be told the scheme was not yet implemented in Kerala (Questionnaire B-10).

These data illustrate a clear pathway from limited awareness and misleading external messaging to erroneous scheme switching and coverage gaps. Beneficiaries, trusting digital media reports, linked their Aadhar to PMVVY—unaware that the SHA had not issued regional implementation circulars.

Due to not receiving guidelines for the same from the National Health Authority since the November 2024 national launch. This premature uptake automatically unlinked their KBF card without granting PMVVY benefits, forcing them into out-of-pocket expenses or private insurance. The discretionary, verbal communication by welfare officers exacerbated confusion and prevented informed decision-making.

Together, these factors constitute major predictors of low utilisation: beneficiaries either never received entitled benefits or lost existing ones, confirming that awareness and logistical barriers critically undermine welfare scheme uptake and continuity.

5.4. Evidence-Based Analysis of Information Transmission and Accountability Mechanisms

Weak vertical information flows, the absence of formal accountability channels, and non-transparent circular dissemination hinder grievance compensation and scheme continuity, even after legal or civil-society interventions.

- **Delayed Circulars:** District and state officials acknowledged that “no PMVVY implementation guidelines” reached the district-level implementation units by February 2025—three months after the national launch—due to the absence of guidelines and circulars for the region from NHA, stalling beneficiary enrolment.
- **Grievance Inefficacy:** The beneficiary’s written grievance to the district collectorate “received no substantive reply”, and welfare officers could not re-link his KBF card or cancel the non-functional PMVVY entry (the first draft document includes data on the welfare official response—statement: the district-level/health institution welfare unit does not possess control over re-linking or de-linking from UHC policies).
- **Role of Akshaya e-Kendras:** Caregivers reported that “local Akshaya agents processed our PMVVY application online”, inadvertently unbinding the KBF card in the MIS without any on-ground benefits (Caregiver Q2).

The chronically delayed circulars reflect a broken policy diffusion mechanism: national directives (PMVVY guidelines) did not cascade to state or district levels in time to inform welfare staff or activate local MIS entries. Consequently, when beneficiaries or third-party agents (Akshaya e-Kendra) link new cards, the system automatically cancels legacy schemes without real benefits or fallback options. The absence of a formal accountability framework—despite a grievance compensation framework, no assured response timelines for grievances—leaves legal appeals and collectorate petitions ineffective. Even after legal intervention, the bureaucratic machinery remained inert, reflecting bureaucratic inertia and a lack of enforceable redress protocols. For genuine SDG 3.8 localisation, Kerala’s network must establish timely circular dissemination, transparent digital–MIS integration, and structured grievance mechanisms with clear accountability to safeguard reluctant beneficiaries from falling through administrative cracks.

5.5. Documenting Underrepresented and Systemic Obstacles in the Delivery of Geriatric Healthcare Services

Despite the presence of Universal Health Coverage (UHC) schemes for the elderly—namely PMJAY, Karunya Benevolent Fund (KBF), and PMVVY—multiple unrecorded systemic barriers prevent eligible geriatric beneficiaries from accessing or retaining their entitled services. These barriers include scheme discontinuity due to non-cancellable digital linkages, discretionary bureaucratic behaviour, reliance on external intermediaries, and a responsive grievance resolution framework.

- **Automatic Scheme Cancellation Without Consent or Warning:**

The beneficiary stated: “We were not aware that linking the PMVVY card would automatically cancel KBF. The service facilitators, such as Akshaya e-Kendra or welfare officials, showed limited attempts to inform us about the consequences of scheme switching, and we were told KBF cannot be re-linked” (Beneficiary Interview, Q5, Q6, and Q8).

Welfare officers confirmed that “Aadhaar can only be linked to one scheme, and PMVVY lacks a cancellation mechanism in the current database” (Welfare Officer Interview, Q11–Q12).

- **Digital Systemic Defect in Scheme Switching:**

The Akshaya e-Kendra processed the PMVVY application externally, leading to the KBF's automatic unlinking in the MIS database—even though PMVVY was not implemented regionally (Caregiver Interview, Q2–Q3).

- Lack of Alternative Solutions Post-Disruption:

When asked if there was a way to re-enrol or shift back to KBF, the welfare office admitted: “We cannot manually re-link Aadhar once PMVVY is attached. We have to wait for updates from the state or NHA” (Welfare Officer Interview, Q14).

- Systemic Barriers in Grievance Redressal and Legal Recourse:

The beneficiary and his family filed a grievance with the District Collectorate, but no satisfactory solution or service reinstatement followed (non-cancellation of error in scheme linkage). The beneficiary stated: “We waited for months. No restoration to the original condition or alternative solution was used for compensation. Legal advice only helped us understand the mistake—not reverse it” (Beneficiary Interview, Q17–Q18).

- Differential Bureaucratic Attitudes Pre- and Post-Intervention:

Prior to legal intervention, caregivers noted hostile behaviour, reluctance in information dissemination, and inculpation from officials; after intervention by a lawyer and civil society policy researcher, officials became more cooperative, although still unable to resolve the system-level blockage (Caregiver Interview, Q1–Q4; Tabular Analysis).

The qualitative evidence reveals an ecosystem where discretionary service denial, non-transparent digital linkages, and institutional rigidity collectively undermine geriatric healthcare delivery. Beneficiaries were deprived of scheme coverage not due to ineligibility, but because of non-human actants (e.g., the MIS platform's limitations and lack of a reversal protocol). This represents a critical, underreported systemic defect that currently lacks rectification within Kerala's SDG 3.8 localisation framework.

Moreover, even civil society advocacy and legal consultation, while helpful in surfacing the governance gap, were insufficient to ensure service restoration—highlighting the limits of existing compensation frameworks. The welfare office's admission that there is no mechanism to cancel PMVVY or re-link KBF demonstrates that digital rigidity, poor backend policy design, and lack of adaptive administrative tools are the principal culprits of welfare exclusion.

These findings reinforce the necessity for real-time interoperability, MIS flexibility, and contingency grievance redress mechanisms, especially when beneficiaries act in good faith based on incomplete or misleading public information. A robust localisation of SDG 3.8 cannot proceed without identifying and resolving these embedded, underrepresented infrastructural and systemic obstacles.

ANT identifies governance failures not as individual faults but as failures in network connectivity or translation. The previously analysed barriers reflect black-boxed or malfunctioning actants in the SDG localisation network.

6. Results

6.1. Actor-Network Theory-Based Recommendations

- Re-inscription of Non-Human Actants: Policies, guidelines, and legal documents must be simplified and regionally adapted (vernacular translations, community-level communication) to remain active in actor-networks.

- Strengthening Intermediaries: Local health officials and public healthcare and welfare staff must be equipped and trained to become effective translators of central/state schemes to geriatric populations.
- Codification of Legal-Aid Awareness: Legal aid services should be incorporated into healthcare awareness programmes; law and health must network better.
- Decentralised Policy Mapping: Localised digital dashboards that track PMJAY, Kerala Benevolent Fund, and PMVVY coverage at the district level should be developed and publicly accessible to prevent black-boxing of implementation.
- Civil Society as Mediator: Recognise and fund civil society as legitimate actors in governance, not external disruptors.

6.2. Standardised and Timely Circular Dissemination Protocol Reforms

- Welfare officers stated that “PMVVY circulars were not received” even months after the scheme was launched in November 2024, causing hesitation and refusal to process the scheme locally (Welfare Officer Interview Q5, DPC Interview).
- Analysis: Absence of effective prompts and region-specific policy directives leads to inconsistency in service delivery. Standardised protocol reforms (e.g., mandated SHA-NHA transmission timelines and publicly accessible circular logs) are essential to synchronise ground-level implementation with central policies.

6.3. Formal Grievance Redressal System Integrated with Scheme MIS

- The caregiver and beneficiary jointly filed a grievance to the District Collectorate, which “yielded no official response.” Welfare officers admitted that “there is no clear process to cancel a PMVVY link once it’s uploaded by an external agency” (Questionnaire B-10, D-16).
- A formal, digitised grievance compensation mechanism—connected to scheme MIS platforms—is necessary to address unintended scheme switching and system errors. This must include Aadhar-linkage reversibility options, timely tracking of complaints, and direct escalation paths.

6.4. Aadhar-Linkage Safeguard and Role Clarification for Akshaya e-Kendras

- Akshaya agents processed PMVVY cards without knowing their regional unavailability, triggering automatic KBF deactivation in the state MIS. “We were not told this would cancel the current scheme,” stated the caregiver (Caregiver Q3).
- Aadhar-linkage safeguards must be instituted to prevent uninformed scheme switching—such as a confirmation alert that informs the user of consequences (e.g., “This link will disable existing KBF coverage”). Additionally, Akshaya e-Kendras must be formally trained and regulated under the SHA’s scheme deployment plans to reduce misinformation. In addition, multi-stakeholder access and provisions regulated under SHA and in consonance with good governance practices would foster collaborative governance and effective service delivery.

6.5. Unified and Inclusive Beneficiary Communication Strategy

- Beneficiaries acted on media-driven information (e.g., “PMVVY gives ₹5 lakh to all aged 70+”) and were not warned by officials about consequences such as KBF de-linking (Questionnaire B-8, D-2).
- Current policy communication is fragmented, verbal, and reactive. Welfare offices should implement region-specific, multilingual information campaigns (pamphlets, SMS alerts, audio briefings at PHCs). Communication should clearly address eligibility, scheme conflicts, and procedural requirements.

6.6. Mandatory Scheme Awareness Sessions at Point-of-Care

- No orientation or awareness session was provided to the beneficiary or caregivers at the RCC or welfare office; they relied entirely on “external media” and “Akshaya agents” for information (Caregiver Q2, Beneficiary Q7).
- As cancer patients are already vulnerable, government hospitals and PHCs should integrate policy orientation into routine admissions, OPD counselling, or discharge processes. These sessions should inform patients about their entitlements, eligibility status, and appeal options.

6.7. Periodic Stakeholder Forums to Co-Design Implementation Practices

- Interviews with RCC admin, policy researchers, and legal counsel suggest the absence of structured multi-actor coordination platforms. “No quarterly or feedback-based stakeholder meetings are held,” one RCC officer admitted.
- SDG 3.8 localisation requires active feedback loops. Quarterly stakeholder forums (including beneficiaries, caregivers, hospital staff, bureaucrats, and civil society) can co-design practical workflow fixes, ensuring responsiveness and participatory governance.

7. Discussion

This study examines the implementation of geriatric health welfare schemes for elderly cancer patients, focusing on how governance arrangements, institutional coordination, and information flows (Figure 2) shape access and utilisation. Drawing on longitudinal qualitative data and Actor-Network Theory (ANT), the analysis shows that implementation failure arises not from isolated administrative errors but from unstable translations across fragmented actor-networks, where institutions, technologies, and actors fail to align.

Schemes such as PMJAY, KBF, and PMVVY, though designed as complementary supports, operate in silos due to delayed policy circulars, non-interoperable digital systems, and discretionary frontline practices. From an ANT perspective, this represents a failure of translation rather than policy absence, wherein policy intent does not stabilise into effective Universal Health Coverage for the elderly. Non-human actants—including Aadhaar-linked MIS architectures, eligibility rules, and policy texts—exercise agency by constraining administrative discretion and producing unintended outcomes such as automatic scheme delinking. Governance breakdown thus emerges relationally through the interaction of technology, bureaucracy, and information asymmetries.

Low beneficiary awareness, poor communication, and logistical barriers further depress utilisation. Media narratives promoting “universal” eligibility, when

misaligned with local implementation capacity, function as destabilising actants by enrolling beneficiaries into non-operational schemes, generating coverage gaps, increasing out-of-pocket expenditure, and increasing dependence on legal and civil-society mediation. Caregivers disproportionately absorb the burden of navigating these failures, reinforcing inequities for patients lacking legal literacy or social capital.

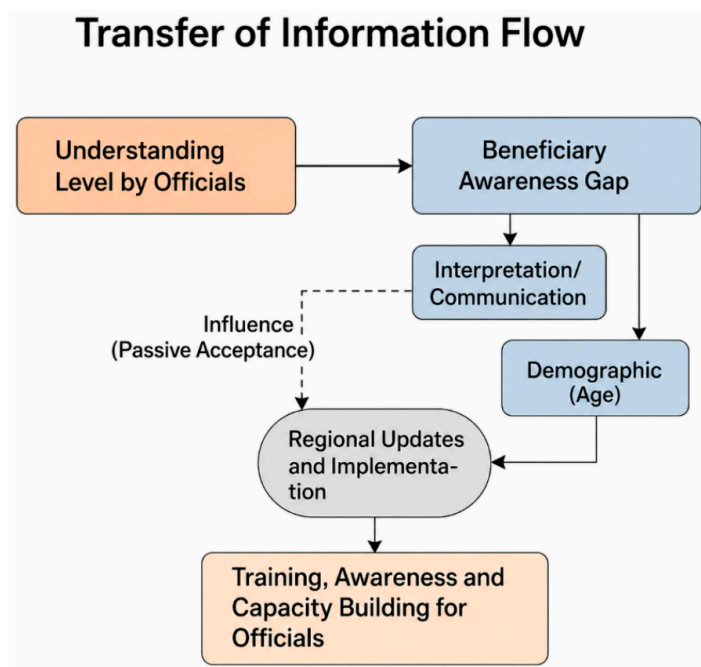


Figure 2. Representation of Transfer of Information Flow. Source: Figure by authors.

These findings align with international evidence from decentralised welfare systems, where digital health infrastructures introduced without interoperable governance exacerbate exclusion through discretionary gatekeeping, fragmented accountability, and informal mediation. The Kerala case demonstrates that such failures occur despite strong policy intent and relatively robust health infrastructure, underscoring coordination, communication, and translation—rather than resource scarcity—as central challenges. The study highlights both the analytical value of ANT in tracing non-human agency and its limits in addressing entrenched institutional power, suggesting the need to integrate ANT with institutional or political economy approaches.

Although this study is empirically grounded in the Regional Cancer Centre (RCC), Thiruvananthapuram, its findings generate transferable insights applicable to other districts within Kerala’s decentralised health governance framework. District-level variation in administrative capacity, interdepartmental coordination, institutional responsiveness, and resource allocation is likely to facilitate policy translation processes with some level of difference across regions, resulting in structurally comparable outcomes. The mechanisms identified in this study, including fragmented policy communication, delayed institutional inscription of policy directives, and the constraining effects of digital infrastructures, are common across all institutions.

They reflect systemic characteristics of decentralised welfare delivery (Table 4) and thus provide a conceptual basis for understanding the geriatric oncology settings within Kerala. The study contributes theoretically and not statistically informed, context-sensitive explanations of policy implementation and governance breakdown that are relevant to research on ageing, health equity, and Universal Health Coverage in Kerala and in comparable decentralised public health systems.

This study has certain limitations. It is based on a single in-depth study, which limits statistical generalisability; however, the objective is analytical transferability to similar decentralised and digitally mediated welfare contexts. The qualitative design emphasises process-oriented insights rather than quantitative assessment of scheme performance. The focus on elderly cancer patients may not capture the experiences of other beneficiary groups. This study conceptualises vulnerability through policy access and governance interactions with age and economic background rather than through other social identity categories like gender and caste. Reflecting the study’s focus on policy translation and administrative mediation. The findings suggest that caregiving roles, documentation dependence, and caste-mediated informational access may intersect with age-related frailty to shape access outcomes, indicating directions for future research. Additionally, while Actor-Network Theory is useful for analysing relational implementation dynamics, it does not fully address broader institutional power structures. Finally, the findings reflect a specific policy implementation period.

Table 4. Stakeholder category role and responsibilities mapping, categorising stakeholders in healthcare governance—government officials, beneficiaries, healthcare institutions, civil society organisations, and policy experts—outlining their roles, interview insights, and analytical interpretations. It highlights systemic gaps such as bureaucratic inertia, coordination challenges, service delivery inefficiencies, and the need for participatory, accountable, and evidence-based governance reforms.

Stakeholder Category	Role and Responsibilities	Interview Responses and Observations	Analysis and Justification
Government Officials (Local Self-Governance Authorities)	Policy implementation, service delivery, decentralised governance, stakeholder coordination, and SDG localization.	- Many acknowledged policy gaps and procedural delays. - Some officials cited a lack of awareness among elderly beneficiaries regarding welfare provisions. - A few admitted bureaucratic inertias affect timely service delivery. - District-level decentralised unit representatives highlighted challenges in coordinating between multiple departments.	- Evidence suggests a gap between policy design and ground-level implementation. - Bureaucratic inertia and administrative complexity hinder effective localization of SDGs. - Coordination issues reflect inefficiencies in multi-stakeholder governance. - There exists an information flow deficit between governance institutions and beneficiaries.

Table 4. Cont.

Stakeholder Category	Role and Responsibilities	Interview Responses and Observations	Analysis and Justification
Beneficiaries- (Geriatric Patients, Cancer-Affected Individuals, Low-Income Households)	Access to welfare schemes, participation in governance processes, and claim of entitlements.	- Many reported difficulties in understanding eligibility criteria for schemes. - Geriatric patients highlighted barriers in availing healthcare provisions, citing bureaucratic hurdles. - Cancer patients specifically pointed out financial and procedural constraints in accessing treatment despite existing policy provisions. - Some beneficiaries reported feeling alienated from governance processes.	- Evidence of administrative constraints within decentralised governance structures. - Highlights the disconnect between policy objectives and ground-level governance realities. - Demonstrates the impact of administrative mechanisms (or lack thereof) in determining policy effectiveness. - Indicates the necessity of structural reforms to empower local health governance bodies.
Healthcare Institutions (Regional Cancer Centre, Public Health Clinics, Primary Health Centres)	Service provision, medical care delivery, healthcare policy execution, and coordination with governance bodies.	- Healthcare officials acknowledged policy gaps affecting service provision. - Some cited the absence of streamlined approval mechanisms for financial assistance schemes. - A few mentioned overburdened infrastructures as a constraint to effective service delivery. - Cases of discretionary service denial due to administrative ambiguity were observed.	- Evidences the need for improved accessibility and dissemination of welfare information. - Highlights a significant gap in service delivery effectiveness for vulnerable and dependent (elderly) populations. - Demonstrates the failure of governance institutions in ensuring participatory development. - Strengthens the case for better grievance redressal mechanisms and policy transparency.
Civil Society Organisations (NGOs, Advocacy Groups, Legal Aid Societies)	Advocacy, legal aid, awareness campaigns, policy feedback, and public mobilisation.	- Advocacy groups reported inconsistencies in government service delivery. - Legal aid societies recounted instances where legal intervention was necessary to ensure service access. - NGOs suggested decentralised policy execution must be coupled with proactive community participation.	- Reinforces the argument that healthcare governance is fraught with inefficiencies. - Bureaucratic delays in financial eligibility and procedural guideline circular delays prevent equitable healthcare access. - Institutional rigidity and policy ambiguity create systemic barriers for geriatric and economically disadvantaged patients. - Governance delivery failures require urgent rectification through policy-level reforms.

Table 4. Cont.

Stakeholder Category	Role and Responsibilities	Interview Responses and Observations	Analysis and Justification
Academicians and Policy Experts (Legal and Public Policy Researchers, Governance Analysts, SDG Localization Specialists)	Research, policy evaluation, governance advisory, assessment of SDG impact, and localization effectiveness.	- Some experts highlighted the need for evidence-based policy interventions. - Researchers pointed out the necessity of a bottom-up approach in governance planning. - Analysts stressed data-driven governance reforms for better SDG localization. - There was consensus that decentralisation should be coupled with institutional accountability.	- Reinforces the importance of intermediary actors in ensuring governance accountability. - Demonstrates the significance of legal and policy intervention in ensuring service justice. - Civil societies can bridge awareness gaps and push for participatory governance. - Their role in monitoring governance effectiveness and pushing reforms is vital for SDG localization.

Source: Table by authors.

8. Conclusions

- **Core Systemic Insight:** There is a structural disconnect between policy formulation and policy interpretation and execution at the grassroots level, especially for vulnerable geriatric groups.
- **Stakeholder Responsibility Mapping** clearly indicates that state-level health administration, local government outreach workers, and institutional communication bodies bear significant accountability.
- The failure of coordinated communication, inadequate stakeholder training, and passive information dissemination strategies collectively erode the efficacy of SDG 3.8 localisation.
- Legal awareness and civil society engagement emerge as unofficial fallback mechanisms, which, although effective in individual cases, highlight deeper institutional governance gaps.
- The case further confirms that intersectionality (age, economic status, and literacy) needs to be central to stakeholder training and governance reforms.

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Anti-Dumping Policies of BRICS Nations: Intra-BRICS Vulnerabilities and Reforms

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Abstract: This chapter offers a comprehensive examination of anti-dumping (AD) policies in the BRICS nations, which are Brazil, Russia, India, China, and South Africa, with particular emphasis on disputes arising among BRICS nations themselves. It traces the evolution and operation of each country's AD framework, analyzing the governing legislation, institutional arrangements, procedural stages, approaches to injury determination, methods of margin calculation, and the design and practice of sunset reviews. Methodologically, the chapter combines doctrinal legal analysis with a reconstructed dataset of intra-BRICS investigations from 2020 to 2026. The study reveals a "solidarity paradox": while BRICS nations project geopolitical unity, their internal trade relations are characterized by an increasingly sophisticated "protectionist warfare," particularly between India/Brazil and China. The paper argues that reform must move beyond tariff harmonization to the standardization of anti-circumvention (AC) protocols to prevent the bloc from becoming a theatre of regulatory arbitrage. By illuminating these patterns and identifying recurrent procedural and substantive gaps, the study aims to inform ongoing discussions on reforming national AD systems, strengthening alignment with multilateral norms, and fostering more cooperative approaches for trade remedies among BRICS nations. In doing so, it seeks to provide policymakers, practitioners, and scholars with an analytically rich account of intra-BRICS AD practice and its consequences for the evolution of the intra-BRICS trade remedy architecture.

1. Introduction

The international trading system is governed by the World Trade Organization (WTO) and anchored by the General Agreement on Tariffs and Trade (GATT) 1994, which permits WTO member nations to impose protective measures against what they deem unfair trade competition to protect their local economies. Among the most widely deployed of these trade measures is the anti-dumping duty (ADD), a unilateral remedy designed to offset the injurious effects of "dumped imports" on domestic industries. The term "dumping" draws its origin from Article VI of GATT 1994 and is clarified in the Agreement on Implementation of Article VI of GATT 1994, commonly referred to as the WTO Anti-Dumping Agreement (ADA) (World Trade Organization, 1994). By definition, dumping occurs when a product is exported at a price below its normal value, typically defined as the price at which the same product is sold in the exporting country's domestic market. When such dumping causes or threatens to cause material injury to a domestic industry producing like goods in the importing country, WTO law permits the imposition of ADD to counter the competitive harm (Alasous, 2025). This framework, established during the

Uruguay Round of multilateral trade negotiations and refined through subsequent jurisprudence, establishes rigorous procedural and substantive requirements for investigating authorities. This includes standards for initiation, evidence appraisal, injury determination, margin calculation, and the imposition and duration of remedial measures.

Sections of ADD like initiation, evidence gathering, evidence submission, and injury determination are vital procedures that build the foundation of imposing ADD on a product. Since the mid-1990s, the landscape of anti-dumping (AD) enforcement has undergone a dramatic structural transformation. Historically, developed nations like the United States, the European Union, and traditional industrial powers dominated the application of trade remedies to shield domestic producers from foreign competition. However, the past three decades have witnessed a fundamental inversion in this dynamic. According to the WTO, between 1995 and June 2012, developing countries implemented 67 percent of all AD measures globally, compared to only 33 percent by developed countries (Bown & Crowley, 2013). Developing countries have not just become prolific users of AD instruments, their exports have simultaneously become the primary targets of AD measures, accounting for 69 percent of all AD investigations over the same period. This phenomenon reflects both the emergence of developing countries as substantial exporters in global markets and the strategic deployment of trade remedies to manage competitive pressures arising from South–South trade intensification.

Within the constellation of developing nations, the BRICS countries—Brazil, Russia, India, China, and South Africa—notably occupy a singularly prominent position in the global landscape of AD enforcement. As per the data from the WTO, there were approximately 6022 cases of AD investigations initiated across the world from 1995 to 2022. BRICS nations collectively account for 36 percent, or 2168 of all AD cases implemented by WTO members globally. Of these 2168 cases, BRICS nations simultaneously initiated 42 percent of the total number of such measures, or about 892 cases, against themselves. These figures undermine the paradoxical role of BRICS nations: firstly, as wielders of significant trade defence authority and secondly as vulnerable targets of aggressive AD investigations themselves. Although BRICS nations are growing industrial powerhouses, India stands as the world’s most prolific user of AD measures, implementing 18 percent of all global AD duties between 1995 and 2012 (Viljoen, 2013). China, on the other hand, has borne the brunt of AD actions, targeted in 24 percent of all AD investigations globally, a stark reflection of its rapid export expansion and the consequent protectionist responses of trading partners. Brazil and South Africa have each implemented five percent of AD duties while maintaining substantial export exposure to AD investigations (Viljoen, 2013).

Particularly significant for understanding the contemporary dynamics of emerging-market trade relations is the intensification of intra-BRICS AD disputes. Between 1995 and June 2022, 42 percent of total number of AD measures imposed on BRICS exports, or about 2047 cases, were implemented by other BRICS members (Choi, 2017). This intra-BRICS dimension reveals patterns of strategic and competitive trade management among countries which are bound by diplomatic solidarity and coordinated economic interests. India and Brazil have emerged as the principal implementers of AD measures against other BRICS exporters, primarily targeting China. South Africa has initiated and maintains comprehensive investigations affecting Chinese, Indian, Brazilian, and Russian exports. Conversely, China has implemented relatively fewer intra-BRICS AD duties, though significant

investigations targeting Russia and India have occurred, often understood as retaliatory measures against these countries. These enforcement patterns raise important questions regarding the consistency of national AD regimes with WTO guidelines, the integrity of injury determinations, the propriety of margin calculations, and the overall coherence of procedural safeguards across jurisdictions purporting to uphold multilateral trade norms. The legal and institutional frameworks governing AD enforcement in BRICS nations, while nominally anchored to WTO requirements, exhibit notable variations in procedural sophistication, institutional independence, and substantive rigour (Alasous, 2025).

Intra-BRICS AD practice reveals a fragmented and asymmetric enforcement landscape in which formally similar legal frameworks mask divergent strategic priorities. Brazil exemplifies a cautious, selectively deployed regime, illustrated by its 2025 investigation into Chinese hot-rolled flat steel (Liu, 2025) and its quantitatively rigorous “60/25 rule” on circumvention under Decree 8.058/2013, which enabled the extension of duties from finished blankets to long pile fabrics when inputs from China accounted for 83 percent of product value and local processing remained minimal. Russia, operating through the Eurasian Economic Union, has instead embraced a more expansive steel-centred approach, imposing differentiated AD duties on flat-rolled stainless steel containing at least 2.5 percent nickel from China, Brazil, or South Africa for a three-year period beginning in 2010, with rates reaching 39.1 percent for most Chinese producers (Steel News (Yieh Corp.), 2010). India has emerged as the bloc’s most assertive enforcer, grounding its authority in Section 9A of the Customs Tariff Act, 1975, and, most recently, imposing producer-specific definitive duties of USD 479–721 per metric tonne on Chinese aluminum foil for five years following the Directorate General of Trade Remedies (DGTRs) March 2025 final findings—measures that not only target alleged predatory pricing but also function as a protectionist tax on downstream users of Chinese inputs (Hindustan Times, 2025). By contrast, South Africa and China sit at opposite poles of enforcement visibility: South Africa has adopted a limited but sharply focused strategy through the International Trade Administration Commission (ITAC), imposing 11–16 percent duties on link chains and opening further steel investigations against Chinese exporters, whereas China has conspicuously refrained from initiating any AD cases against its BRICS partners, concentrating the Ministry of Commerce’s (MOFCOM) actions on non-BRICS economies such as the United States and the European Union (International Trade Administration Commission of South Africa (ITAC), n.d.a). Taken together, these patterns highlight not only the centrality of Chinese exports as the common object of BRICS trade defence, but also the extent to which AD law serves as an instrument of industrial policy, diplomatic signalling, and intra-bloc bargaining rather than a uniformly applied technical remedy.

1.1. Brazil: Selective Enforcement Against Chinese Steel

Brazil has initiated limited AD investigations targeting other BRICS nations, a pattern that underscores its relatively restrained deployment of trade defence measures within the bloc. In June 2025, the Brazilian Secretariat of Foreign Trade (SECEX) announced the initiation of an AD investigation against hot-rolled flat steel imports originating from China (Liu, 2025). The SECEX granted itself a 70-day review period to evaluate dumping allegations, representing a typical procedural timeline for preliminary investigations within Brazil’s institutional framework. Notably, Brazil

has not filed any recorded AD cases against India, Russia, or South Africa, suggesting a pattern of targeted trade defence focused narrowly on specific high-volume commodity sectors. This restraint may reflect either the limited competitive threat posed by other BRICS exporters to Brazilian producers in traditional sectors, or diplomatic considerations within the BRICS grouping to minimize intra-bloc friction.

Brazil's anti-circumvention regime is governed by Decree No. 8.058 of 2013, which modernized the country's trade remedies system. Unlike the generic "minor alterations" rules found in other jurisdictions, Brazil applies a rigorous quantitative test to determine if an exporter is evading duties by assembling products locally (CKD/SKD circumvention).

Under Article 78 of the Decree, Brazilian authorities apply a "60/25 rule" to determine circumvention:

- A. Input Threshold: The parts imported from the country subject to the AD measure must represent 60% or more of the total value of the parts of the assembled product.
- B. Value-Added Threshold: The value added during the assembly process in Brazil must be less than 25% of the manufacturing cost (Decree 8.058/2013, Poerschke et al., 2022).

This mechanism was famously applied in the investigation concerning long pile fabrics used for blankets. Authorities found that while imports of finished blankets from China decreased after duties were imposed, imports of the fabric inputs surged. The investigation revealed that the fabric constituted 83% of the blanket's value and that local processing was minimal, leading to the extension of duties to the inputs (SECEX). This codified objectivity contrasts sharply with the discretionary standards used in other jurisdictions.

1.2. Russia: Steel-Sector Dominance and the Eurasian Commission Framework

Russia, operating within the Eurasian Economic Union (EAEU) customs union structure, has pursued a more expansive intra-BRICS AD strategy, particularly in the steel sector (Agapova, 2018). Between 2010 and the present, Russia has initiated at least four documented AD investigations against BRICS members. Most significantly, in 2010, Russia imposed substantial AD duties on flat-rolled stainless steel containing at least 2.5 percent nickel imported from China, Brazil, or South Africa (Steel News (Yieh Corp.), 2010). The duty structure reflected differentiated treatment: Chinese producers faced a 39.1 percent duty (with Shanxi Taigang Stainless Steel receiving a marginally lower rate of 29.9 percent), Brazilian producers faced a 21.1 percent duty, and South African producers faced a 33.3 percent duty (Agapova, 2018). These duties were imposed for a three-year period, with enforcement delegated to the Eurasian Commission as the designated customs union authority. More recently, in 2018, the Eurasian Commission initiated an investigation into galvanized steel imports from China, culminating in duties that were extended to 2025 (Agapova, 2018). Notably, no recorded AD disputes exist between Russia and India, nor has Russia initiated investigations against South Africa's steel exports beyond the 2010 stainless steel case (Steel News (Yieh Corp.), 2010).

1.3. India: Aggressive Targeting of Chinese Imports Across Multiple Sectors

India has emerged as the most active intra-BRICS user of AD measures, consistently directing investigations toward Chinese exporters across diverse product categories. Since March 2025, India's DGTRs has recommended and finalized AD duties on multiple Chinese products, including aluminum foil, vacuum flasks, and chemical water-treatment compounds, representing at least five distinct investigations. In particular, the aluminum foil case illustrates India's rigorous investigative methodology: following a provisional AD duty notification in March 2025, the DGTRs issued final findings on 20 March 2025, recommending definitive duties structured on a producer-specific basis, with rates ranging from USD 479 to USD 721 per metric tonne, applicable for a standard five-year duration. These measures reflect India's systematic approach to addressing what it characterizes as predatory pricing by Chinese manufacturers exploiting India's growing domestic demand. Critically, India has not filed any recorded AD cases against Brazil, Russia, or South Africa, focusing its trade defence arsenal exclusively against Chinese competition (Mahajan et al., 2021).

India remains the most prolific user of AD measures within the bloc, deriving its authority from Section 9A of the Customs Tariff Act, 1975. Recent amendments and the 2025 Final Findings on Aluminum Foil demonstrate the DGTRs' expansive approach to "injury". However, this aggressive posture comes with a domestic economic cost often overlooked in policy analyses. The relentless application of duties on upstream inputs (chemicals, fibres) has created a "protectionist tax" on downstream Indian industries. Economic analysis indicates that between 2014 and 2018, the cumulative effect of AD duties on Chinese inputs inflated production costs for the Indian textile and pharmaceutical sectors by approximately 54 percent. This creates a vertical fracture within the Indian economy: the state protects inefficient upstream producers at the expense of the global competitiveness of its downstream exporters.

1.4. China: Conspicuous Absence of Intra-BRICS Enforcement Action

A striking asymmetry characterizes China's engagement with AD measures within the BRICS framework: China has initiated no recorded AD investigations against any fellow BRICS member—India, Brazil, Russia, or South Africa—despite being the world's largest exporter and possessing institutional capacity equivalent to its BRICS counterparts. The MOFCOM, China's competent authority for AD investigations, has historically directed its enforcement efforts toward non-BRICS exporters, particularly the United States and the European Union. This pattern suggests either that Chinese domestic producers face negligible price competition from BRICS exporters within Chinese markets, or that strategic diplomatic considerations within the BRICS bloc discourage unilateral trade defence actions that might undermine collective positioning in international trade negotiations.

China's administrative structure, while subject to limited transparency in publicly available sources, reflects the integration of state planning priorities within market-oriented trade policy. These institutional variations, combined with divergent methodologies for establishing dumping margins, determining injury causality, and applying sunset review provisions, create potential inconsistencies in the treatment of like products and similarly situated exporters across BRICS jurisdictions.

1.5. South Africa: Limited but Targeted Intra-BRICS Investigations

South Africa has pursued a modest but focused AD agenda within the BRICS framework, concentrating exclusively on Chinese imports. Between 2021 and 2022, the South African ITAC investigated welded link chains originating from China, imposing provisional AD duties in April 2022 with final duties finalized in 2023, set at a range of 11 to 16 percent (International Trade Administration Commission of South Africa (ITAC), n.d.b). This investigation exemplifies South Africa's defensive strategy to protect domestic manufacturing capacity in metal product sectors where Chinese competition has intensified. Furthermore, in 2024, ITAC initiated two additional steel-related investigations targeting Chinese exporters, examining both hot-rolled flat steel and structural sections (Liu, 2025). These investigations reflect South Africa's heightened scrutiny of Chinese commodity exports in sectors critical to its downstream manufacturing base. Notably, South Africa has not initiated any recorded AD cases against India, Brazil, or Russia, suggesting either compatibility of trade flows in these sectors or deliberate diplomatic restraint.

2. Procedures for Petitioning of AD Duty

Petitioning for AD duties in BRICS nations (Brazil, Russia, India, China, and South Africa) follows WTO guidelines, where domestic industries file detailed applications with national authorities demonstrating dumping, material injury or threat, and causation. These procedures ideally emphasize transparency, evidence-based reviews, and opportunities for interested parties to respond.

2.1. Initiation of Investigations

WTO Article 5 states that "sufficient evidence" is required of dumping, injury, and their nexus to commence proceedings. All BRICS nations mandate a petition with supporting data. Brazil screens for completeness within 60 days, while India requires petitioners to represent the industry majority. South Africa demands *prima facie* satisfaction of all three elements, and China and Russia initiate proceedings upon formal application with evidence. Notably, none of the BRICS impose thresholds exceeding the ADA standard; India and Brazil, unlike the United States (which imposes a two-year rule), have no restrictions on petition frequency. India and Brazil follow a 5-year rule, in which after the imposition of ADD, petitioners can reapply for another petition within the completion of the previous term to reimpose the duty.

2.2. Evidence Standards

WTO jurisprudence establishes a "sufficient factual information" standard. Brazil's DECOM (Department of Commercial Defense, currently known as Department of Trade Remedies), India's DGTRs, and China mandate detailed questionnaires and price/volume/injury data. South Africa's ITAC proceeds only upon *prima facie* evidence (International Trade Administration Commission of South Africa (ITAC), n.d.a). All organizations permit fact-finding and verification, are consistent with WTO case law and follow only available facts when respondents do not cooperate. India and South Africa routinely employ best-available information when data are incomplete. Although they are all compliant with WTO law, all BRICS nations utilize the law based on how it gives them maximum advantage.

2.3. Injury Determination

ADA Article 3 defines material injury through several criteria, which all BRICS laws incorporate. Brazil and India require “material injury or threat,” assessed via demand shifts and profit erosion. China enumerates factors including rising import volume and price undercutting; South Africa similarly examines volume, market share, prices, and domestic indices; Russia/the EAEU applies “material damage” analysis. Critically, all regimes mandate a causal link between dumped imports and injury, excluding injury from other sources. No BRICS country has relaxed this requirement below the WTO standard.

2.4. Calculation of Dumping

WTO Article 2 permits average-to-average or transaction-to-transaction comparisons of margins. China, India, and South Africa explicitly allow both methods; Brazil’s DECOM applies weighted-average comparisons. Where prices diverge widely, all regimes permit finer transaction-level testing. None deviate from ADA rules on adjustments (allowances, exchange rates); all normalize foreign prices to a common currency. Notably, BRICS countries treat China’s prices as market values rather than surrogate values, aligning with its 2016 WTO market economy status.

2.5. Provisional Measures

WTO Article 7 permits provisional duties upon preliminary evidence. Brazil, China, and India routinely impose provisional duties (6–12 months maximum) during investigation, Russia/the EAEU allows up to six months, and South Africa lacks a formal provisional stage but may issue interim tariffs. All BRICS nations permit and employ provisional relief upon strong domestic petitions.

2.6. Definitive Measures

All BRICS nations impose definitive duties equal to measured dumping margins, consistent with WTO Article 9. Unlike some jurisdictions, none apply a “lesser duty” rule comparing the margin to injury extent. India’s DGTRs and the Brazilian CAMEX (Chamber of Foreign Trade) set duties at or near calculated margins, using the full margin as the ceiling.

2.7. Duration and Review of Measures

All BRICS nations conform to ADA Article 11’s five-year sunset requirement. Brazil, India, China, South Africa, and the EAEU automatically terminate duties after five years unless reviews justify continuation. Review processes examine whether dumping and injury would recur. India and China explicitly permit review petitions from affected industries, fully aligned with WTO practice.

Table 1 presents a summary of how different criteria/investigations, procedural lapses and other key aspects of investigations are addressed in BRICS nations.

Table 1. Comparison of dumping law, petitions, provision measures, injury analysis procedures, major vulnerabilities, intra-BRICS anti-dumping (AD) practice, and suggested World Trade Organization (WTO) norms amongst BRICS Nations.

Sr. No.	Criteria	Brazil	Russia	India	China	South Africa
(1)	Main AD Law and authority	Decree 8058/2013 implementing Law 9.019/1995; investigations by trade authorities	Federal Law 165-FZ and EAEU Treaty; investigations by EAEU Commission (DPIM), national ministries assist, final decisions by Commission College	Customs Tariff Act 1975 (9A, 9B) and 1995 Rules; Directorate General of Trade Remedies (DGTR) investigates, Finance Ministry imposes duties	AD Regulations of PRC (Decree 328/2001, rev. 2004); MOFCOM investigates, State Council Tariff Commission approves duties	International Trade Administration Act (TAA), 2002; Anti-Dumping Regulations, 2003; Trade Remedies Unit (ITAC) investigates, DTIC Minister imposes duties, WTO Anti-Dumping Agreement (ADA) used as guidance
(2)	Petition/standing	Domestic industry (majority of production) may petition; investigations ~10-12 months	Domestic producers or ex officio by DPIM; written application with dumping, injury and causation evidence	Petitioners must represent $\geq 25\%$ of production or capacity (with 50% among producers when more applicants apply)	Domestic industry groups submit petitions; Ministry of Commerce (MOFCOM) decides on initiation and issues public notice	Domestic producer/association files AD application to ITAC; initiation requires "sufficient prima facie evidence" of dumping, injury, and causal link
(3)	Provisional measures	Provisional duties for up to 6 months within overall 10-12-month investigation	Provisional duties up to 6 months once strong preliminary evidence exists	Provisional duties up to 6 months, extendable by 6 more	Provisional duties usually 6 months, extendable by 60 days	No stand-alone AD provisional duty by ITAC; relies on customs measures, which can delay temporary protection
(4)	Duration and sunset review	Definitive duties with mandatory 5-year sunset reviews; if industry does not request review, duties lapse	Duties generally 5 years; sunset review may extend if revocation would cause recurrence of dumping/injury	Duties last 5 years; sunset review within 6 months before expiry can extend for another 5 years	Duties and undertakings up to 5 years; MOFCOM conducts sunset review, normally initiated 1 year before expiry	Investigations take ~482 days, up to 18 months+ with extensions; duties last 5 years; sunset review by ITAC at least 90 days before expiry; extend or revoke under WTO Article 11 logic
(5)	Lesser-duty practice	No lesser-duty rule; duties set at full dumping margin, potentially exceeding that needed to remove injury	No lesser-duty approach; duties generally equal full dumping margin	No lesser-duty rule; DGTR typically imposes full margin	No lesser-duty rule; duties may equal full margin	No lesser-duty rule; final duty = weighted-average dumping margin per exporter

Table 1. *Cont.*

Sr. No.	Criteria	Brazil	Russia	India	China	South Africa
(6)	Injury analysis key points	Courts rarely reopen injury findings; limited published data in public reports can restrict respondent insight.	Follows ADA Article 3; concern over separating injury from other causes in a multi-state union context.	Broad factor review, but risk of heavy reliance on petitioner data if verification is weak	Law expressly requires exclusion of non-dumping factors; threat of injury must be fact-based	ITAC applies material injury/threat test to the Southern African Customs Union (SACU) industry: sales, output, profitability, market share, import volume, price undercutting/depression; excludes injury from non-dumping factors
(7)	Major vulnerabilities	Full-margin duties, retroactive duties with limited disclosure, no cooling-off period, possible re-filing after lapses, limited judicial scrutiny	Ambiguous division of competences, occasional surrogate normal values for China, full-margin duties, limited judicial review, no explicit anti-circumvention rules	Low standing threshold, no cooling-off period, full-margin duties, circumvention rule not requiring proof of dumping for altered products, long procedures, risk of one-sided injury analysis	Transparency shortcomings (limited and Chinese-only publications), full-margin duties, occasional use of third-country prices when home prices not at arm's length, little intra-BRICS practice as filer so responses tested mainly as exporter	Very long investigations (extensions common); no lesser duty; low initiation threshold ("prima facie"); circumvention via transshipment (enforcement depends on customs); sunset reviews may lapse if industry does not apply
(8)	Intra-BRICS AD practice	Historically a target, not active filer; one 2025 AD probe on Chinese hot-rolled steel; Brazil previously challenged South Africa's chicken duties (DS439)	Active filer: 2010 duties on stainless steel from China, Brazil, South Africa; 2018–2025 measures on Chinese galvanized steel; no cases involving India as target	Only BRICS target so far is China; no active AD cases with Brazil, Russia/EAEU, or South Africa	Has never filed AD cases against other BRICS nations; instead, often respondent in their AD actions (e.g., India, South Africa, Russia/EAEU)	Three AD cases vs. China (chains, hot-rolled flat steel, structural sections); duties on welded steel chains (2022) plus anti-circumvention on re-routed imports; DS439: Brazil challenged SA's AD on Brazilian chicken, SA replaced AD with general tariff

Table 1. *Cont.*

Sr. No.	Criteria	Brazil	Russia	India	China	South Africa
(9)	Main WTO-consistent reforms suggested	Introduce lesser-duty approach, improve transparency and publication of data, clarify injury criteria, standardize timelines and reviews, strengthen verification	Clarify EAEU rules and roles, limit surrogate normal value use, systematize sunset reviews, tighten causation analysis, improve transparency	Add cooling-off period, strengthen causation and injury scrutiny, reform circumvention rule to require dumping proof, enforce deadlines, selectively use lesser duties	Increase transparency (detailed bilingual publications), clarify initiation criteria, strictly observe sunset review rules, document exclusion of non-dumping causes, consider careful use of alternative measures	Shorten investigation timelines, consider lesser-duty policy, tighten initiation standard, strengthen anti-circumvention/customs coordination, ensure regular sunset reviews
(10)	Beyond-WTO cooperation ideas	Bilateral/BRICS consultations, capacity building, regional harmonization (e.g., MERCOSUR), BRICS peer-review/mediation mechanisms	Bilateral talks with BRICS exporters, BRICS trade remedy coordination forum, technical assistance, use of BRICS-level mediation	Bilateral consultations, BRICS Trade Remedy Forum, mutual technical assistance, sectoral agreements to reduce AD incentives	Lead BRICS cooperation on trade remedies, act as mediator in disputes, provide technical assistance, encourage investment/value-added strategies to lower AD risk	Greater bilateral consultations and negotiated solutions in disputes (e.g., Brazil chicken case) and coordinated action on circumvention with BRICS partners

Source: Table by authors.

3. Loopholes in Policy

Loopholes and circumvention in anti-dumping duties arise in a highly structured way from both firm-level strategic behaviour and the institutional design of trade remedy law, rather than from any simple failure of enforcement. At the microlevel, exporters routinely engage in transshipment and trade re-routing, channelling goods through third countries that are not subject to an anti-dumping order with only minimal processing or relabelling so that the apparent origin changes while the essential economic characteristics of the supply remain constant. Detailed legal and empirical analyses of circumvention practices in the context of Chinese exports to the United States and the European Union demonstrate that such re-routing reshapes customs data without altering underlying competitive conditions (Vermulst & Waer, 1990; Bown & Crowley, 2013). Firms are also known to exploit the product-scope granularity of anti-dumping orders by making minor alterations to products—adjusting dimensions, coatings, or technical specifications just enough to fall outside the defined scope, while preserving functional substitutability—behaviour that prompted the United States to introduce “minor alterations” and “later-developed merchandise” provisions in 19 U.S.C. § 1677j expressly to capture such strategies (Vermulst & Waer, 1990). Closely related is the use of semi-knocked-down and completely knocked-down kits assembled in third countries or in the importing market itself, through which producers restructure only the last

stage of the value chain so that origin rules attribute the finished product to the assembly jurisdiction rather than to the country subject to duties, a pattern that legal scholarship has traced in a range of capital- and consumer-goods industries (Vermulst & Waer, 1990; Prusa & Skeath, 2002). Misclassification and undervaluation represent another family of tactics: importers deliberately misdeclare Harmonized System headings or under-invoice transaction prices to obtain lower or zero anti-dumping liability, behaviour that parallels the broader customs-evasion dynamics documented in the public-finance literature and that depends critically on weaknesses in customs valuation and post-clearance audit systems (Fisman & Wei, 2004). When duties are firm-specific, producers additionally engage in intra-group “firm-level games”—channelling exports through affiliates with lower calculated margins, creating new corporate entities not covered by the original order, or manipulating internal transfer prices and home-market sales patterns to influence the construction of normal value and export price—tactics that have been analyzed as predictable responses to the combination of firm-level margin calculation and imperfect information in anti-dumping administration (Prusa & Skeath, 2002; Bown & Crowley, 2013). Strategic non-cooperation, selective data disclosure, manipulation of home-market costs and prices, and the use of opaque affiliated resellers exploit calculation and data gaps in the investigative process; because authorities must often rely on “facts available” only after protracted attempts to obtain verifiable information, these tactics create a temporal window during which dumping can continue with reduced risk of full remedial action (Vermulst & Waer, 1990). At the institutional level, structural features of the multilateral and domestic frameworks create further loopholes. The Dunkel Draft of the Uruguay Round included proposals for multilateral anti-circumvention disciplines, but these were ultimately excluded from the WTO Anti-Dumping Agreement, leaving members to craft heterogeneous unilateral anti-circumvention regimes; legal analysis has shown how this fragmentation enables exporters to arbitrage differences in definitions of “like products,” transformation thresholds, and evidentiary standards across jurisdictions (Vermulst & Waer, 1990). Economic theory concerning trade agreements further shows that anti-dumping itself functions as a form of contingent protection that can be used to bypass tariff bindings: in self-enforcing trade-agreement models, governments resort to contingent measures such as anti-dumping when import volumes are high or political-economic pressures intensify, thereby raising effective protection while remaining formally within bound tariffs, a pattern documented empirically for time-varying contingent protection in the United States and other WTO members (Bagwell & Staiger, 1999; Bown & Crowley, 2013).

The legal standards for injury and causation, which require an assessment of price effects, import volumes, and the attribution of injury vis-à-vis other factors, are sufficiently open-textured to permit both under-enforcement—when authorities apply stringent evidentiary thresholds—and over-enforcement—when agencies, under producer influence, broadly ascribe domestic difficulties to dumped imports—as law-and-economics analyses of the WTO injury regime emphasize (Irwin, 2003; Sykes, 2003). The length and complexity of original AD and anti-circumvention proceedings, together with the limited administrative capacity in many jurisdictions, create further room for evasion by allowing exporters to exploit the lag between the onset of circumvention behaviour and the conclusion of formal inquiries, particularly in re-routing and minor-alteration scenarios (Vermulst & Waer, 1990; Billa, 2018). In response, major jurisdictions have constructed explicit anti-circumvention frameworks that endogenously expand the coverage of existing orders. The United States, through 19 U.S.C. § 1677j, authorizes the Department of Commerce to

extend anti-dumping and countervailing duty orders to merchandise completed or assembled in the United States or third countries from parts originating in the subject country, to goods subject to only minor alterations, and to later-developed merchandise closely resembling covered products, while parallel Enforce and Protect Act procedures empower U.S. Customs and Border Protection to address evasion at the border, a dual-track structure analyzed in detail in recent trade-law commentary (Vermulst & Waer, 1990). The European Union's basic anti-dumping regulation, most recently codified in Regulation (EU) 2016/1036, defines circumvention as a change in the pattern of trade resulting from practices without sufficient economic justification other than the imposition of duties, which undermines the remedial effect of the measures and involves continued dumping; the Union's case law operationalizes this definition through criteria requiring a significant shift in trade flows, absence of credible non-duty-related explanations, undermining of remedial effects via price and quantity changes, and evidence of continued dumping relative to the normal value established in the original investigation (Vermulst & Waer, 1990). India has similarly developed an anti-circumvention regime within its anti-dumping framework, enabling the extension of duties to slightly modified products, to parts and components assembled into subject merchandise in India or third countries, and to exporters or countries determined to be circumventing existing measures; doctrinal analysis has shown how this regime raises nontrivial questions about consistency with WTO disciplines and about the balance between trade remedy effectiveness and adherence to free-trade commitments (Billa, 2018). From the standpoint of economic theory, these anti-circumvention architectures can be interpreted as legal responses to the gap between the canonical models of dumping—based on price discrimination and oligopolistic “reciprocal dumping” (Brander & Krugman, 1983)—and the empirical reality that targeted, firm- and product-specific duties in a politically constrained, information-imperfect environment systematically generate incentives for re-routing, minimal transformation, corporate restructuring, and data manipulation. In this sense, national anti-circumvention statutes in the United States, the European Union, India, and other jurisdictions represent an attempt to realign the practical operation of anti-dumping law with its theoretical objective of neutralizing injurious dumping and stabilizing the cooperative equilibrium of trade agreements, even as they themselves become embedded in the broader political-economic use of contingent protection as a *de facto* escape mechanism from tariff bindings (Bagwell & Staiger, 1999; Bown & Crowley, 2013; Prusa & Skeath, 2002). Table 2 illustrates a list of 5 circumventing tactics used by their operational mechanisms and their institutional vulnerabilities.

A significant shortfall in BRICS AD administration is the selective invocation of the “lesser duty rule” and public interest tests. The lesser duty rule allows authorities to impose a duty lower than the dumping margin if that lower amount is sufficient to remove the injury to the domestic industry. While the EU and some other jurisdictions mandate the use of this rule, BRICS authorities often underutilize it. Brazil, despite having legislative provisions for public interest assessments, seldom adjusts duties to the minimum injury-offsetting level, thereby amplifying the burden on consumers without proportional gains for domestic industry (Mahajan et al., 2021). Across the BRICS bloc, the absence of robust public interest tests permits the imposition of duties that harm export-oriented sectors. For instance, India's 121 AD duties on Chinese commodities between 2014 and 2018 shielded select upstream industries but inflated input costs in the textiles and pharmaceutical sectors by as much as 54 percent in certain segments. These flaws erode transparency, invite political interference, and

often contravene the spirit of WTO mandates requiring a clear causal linkage between dumping and material injury.

Table 2. Comparison of 5 circumventing tactics used by their operational mechanisms and institutional vulnerabilities. SKD—Semi Knocked Down, CKD—Completely Knocked Down, AD—anti-dumping.

Circumvention Tactic	Operational Mechanism	Institutional Vulnerability
Trade Re-Routing	Channelling goods through third-party jurisdictions with minimal transformation	Lack of harmonized rules of origin across trading partners
Product Alteration	Minor changes to specifications to fall outside defined HS code scope	Product-scope granularity in AD orders
SKD/CKD Assembly	Restructuring final stage of value chain to importing or third country	Transformation thresholds in domestic trade laws
Misclassification	Deliberate misdeclaration of Harmonized System (HS) headings	Weaknesses in customs valuation and post-clearance audits
Firm-Level Games	Channelling exports through affiliates with lower calculated margins	Firm-specific duty calculation methodologies

Source: Table by authors.

4. Conclusions

The misuse and loopholes in AD regimes manifest through semi-transparent injury assessments, flexible surrogate pricing, inconsistent treatment towards a country's market status, weak causal-link scrutiny, and industry-driven petitions. Additionally, intra-BRICS relationships turn AD from a rules-based safety valve into a discretionary protectionist weapon that strains intra-BRICS relations. When India, Brazil and South Africa repeatedly deploy AD duties against Chinese steel, chemicals, machinery and textiles, these measures are perceived in Beijing less as neutral legal responses and more as politically charged constraints. This has deepened mistrust in China's export model, further provoking retaliatory actions. Such practices fragment emerging BRICS value chains, raise input costs for downstream producers, and entrench structural asymmetries in trade balances. Even as BRICS leaders rhetorically promote South–South cooperation and developmental solidarity, the bloc lacks supply-chain integration. Consequently, BRICS should close these trade loopholes through the following interventions:

1. Greater transparency;
2. Harmonized methodologies;

3. Stronger due-process safeguards;
4. Dedicated intra-bloc consultation or mediation mechanisms.

Without these changes, AD policies will continue to act less as legitimate trade remedy tools and more as recurring sources of friction that undercut the bloc's broader economic integration agenda.

The landscape of trade remedy enforcement has undergone a structural transformation over the past three decades in the international trading system. Historically, the imposition of trade defence measures was the near-exclusive prerogative of developed economies, such as the United States and the European Union, which utilized these instruments to shield domestic industrial bases from emerging foreign competition. However, empirical data from the WTO reveals a dramatic inversion of this historical trend. Between 1995 and 2012, developing countries were responsible for approximately 67 percent of all AD measures implemented globally. Within this emerging landscape, the BRICS nations have emerged as central actors. Simultaneously they serve as the most prolific users of these measures and their primary targets. Collectively, these five nations account for roughly 36 percent of all global AD investigations, a figure that underscores their pivot toward a more assertive, and often contentious, trade defence posture.

The paradoxical nature of BRICS trade relations is most visible in the intensification of intra-bloc disputes (Contractor, 2025). While the group projects a united geopolitical front, advocating for a multipolar world order and a reformed multilateral trading system, their internal trade dynamics are increasingly characterized by what can be described as strategic protectionist warfare. Between 1995 and 2022, approximately 42 percent of the AD measures imposed on BRICS exports originated from other members of the same bloc. This intra-BRICS dimension reveals a fragmented enforcement landscape where domestic industrial priorities frequently override the rhetoric of South–South cooperation. India and Brazil, for instance, have emerged as the principal implementers of measures against other BRICS members, with China serving as the primary subject of these investigations. These patterns raise profound questions regarding the consistency of national regimes with WTO guidelines and the long-term viability of the bloc's economic integration agenda.

Despite their nominal adherence to WTO standards, the AD regimes of BRICS nations exhibit significant procedural and substantive gaps that allow for the potential misuse of trade remedies as protectionist tools. These vulnerabilities are often embedded in the way authorities determine injury and calculate dumping margins. The central contradiction within the BRICS bloc is what scholars term the “solidarity paradox”. While the nations seek to collaborate on global governance reform, their internal trade relations are marred by the same protectionist instruments they often criticize when used by developed powers.

4.1. Intra-Bloc Fragmentation

The intensification of intra-BRICS disputes is not merely a technical issue but a reflection of divergent economic models. China's export-led growth frequently clashes with the import-substitution tendencies of India and Brazil. This tension is exacerbated by the lack of a formal BRICS-level dispute settlement mechanism. Currently, members must rely on the WTO's Dispute Settlement Body (DSB) to resolve grievances, as seen in the Brazil–South Africa poultry case. The absence of a

regional alternative forces these “allies” to litigate against each other in a forum they collectively seek to reform.

4.2. The Impact of Expansion

The recent expansion of the bloc to include nations like Iran, Saudi Arabia, and the UAE further complicates this dynamic. An expanded BRICS possesses a larger share of the world’s population and GDP, but it also brings together countries with even more heterogeneous economic interests. Analysts worry that this expansion might dilute the bloc’s internal coherence, making it harder to reach a consensus on trade policy and potentially leading to a “deadlock” in cooperation.

4.3. Economic Impacts and the “Lesser Duty” Shortfall

A significant shortfall in the AD administration of BRICS nations is the underutilization of the “lesser duty rule” and public interest tests. The lesser duty rule allows authorities to impose a duty lower than the calculated dumping margin if that lower amount is sufficient to remove the injury to the domestic industry. While this practice is mandated in the European Union, it is rarely applied in BRICS jurisdictions.

4.4. Downstream Consequences

By imposing duties at the full dumping margin, BRICS authorities often ignore the interests of downstream manufacturers and consumers. For instance, India’s duties on Chinese chemical inputs may protect a few domestic producers, but they raise the costs for thousands of pharmaceutical firms that rely on those inputs to produce affordable medicines. Similarly, Brazil’s public interest assessments, while legislatively present, are seldom used to adjust duties to a level that balances the needs of all economic stakeholders. This lack of a “holistic” approach to trade remedies can erode the overall competitiveness of national economies in the long term.

4.5. Pathways to Reform: Aligning with Multilateral Norms

The current friction points within the BRICS trade remedy architecture suggest an urgent need for reform. These reforms should aim to standardize procedures, increase transparency, and foster a more cooperative approach to trade disputes.

4.6. Proposed Policy Interventions

- **Adoption of the Lesser Duty Rule:** BRICS nations should consider making the lesser duty rule mandatory. This would ensure that trade remedies are truly remedial rather than punitive, protecting domestic industries without imposing unnecessary costs on the rest of the economy.
- **Enhanced Transparency and Data Publication:** Harmonizing the standards for public reports and ensuring that all investigations are documented in detail (ideally in bilingual formats) would improve the ability of respondents to defend their interests and reduce the perception of political interference.
- **Standardization of Anti-Circumvention Protocols:** Developing a common set of rules for what constitutes circumvention, perhaps modelled on a refined version of Brazil’s quantitative tests, would prevent regulatory arbitrage and ensure that duties are not bypassed through minor alterations.

- **BRICS Trade Remedy Forum:** Establishing a dedicated technical forum for investigating authorities could facilitate the exchange of best practices and the informal resolution of disputes. Such a forum could also work on harmonizing methodologies for injury determination and margin calculation.
- **Strengthening Public Interest Tests:** Mandating that every AD investigation include a rigorous assessment of the impact on downstream users and consumers would ensure that trade policy supports broad-based economic growth rather than narrow sector interests.

The evolution of AD enforcement within the BRICS framework illustrates a structural tension where the prerogative to protect domestic industrial bases frequently collides with the collective ambition of South–South economic integration. While these nations have successfully institutionalized WTO-aligned trade remedy architectures to navigate the complexities of a multipolar trading environment, the emergence of a “solidarity paradox” characterized by the aggressive use of protectionist tools against intra-bloc partners reveals a fragmented landscape of regulatory arbitrage and strategic competition that risks undermining the bloc’s broader developmental agenda. By maintaining sophisticated but often asymmetric regimes for injury determination and anti-circumvention, BRICS nations have created a theatre of “protectionist warfare” that inflates production costs for downstream industries and deepens mistrust, particularly between the manufacturing powerhouses of India, Brazil, and China. Ultimately, the transition from a group of “unlikely bedfellows” to a cohesive economic union will require a fundamental shift toward the standardization of trade remedy protocols, the mandatory adoption of lesser-duty principles, and the institutionalization of intra-bloc mediation mechanisms to ensure that trade defence functions as a transparent safety valve for market stability rather than a discretionary weapon of diplomatic signalling.

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Selective Justice? BRICS and the Dilemmas of International Justice

Nisarg Jani, Sharmistha Hazra and Udayprakash Sharma

Abstract: The international legal order has historically been shaped by Western normative frameworks, particularly in realms of sovereignty, justice, and the virtue of responsible intervention for humanitarian purposes. These frameworks are codified through instruments such as the International Criminal Court (ICC), which has consistently shown a pattern of reflecting the geopolitical agenda and ideological priorities of the Western world, causing a deep-rooted resentment within BRICS nations—consisting of Brazil, Russia, India, China, and South Africa. Incepted as an economic bloc with a shared interest in collective prosperity and freedom of trade, the BRICS coalition over the decade of 2010–2020 has emerged as a political alliance that intends to challenge the Western monopoly over global governance narratives. While not an ideological monolith, BRICS states collectively share a common scepticism towards the West’s selective invocation of humanitarian norms. However, the expression of this scepticism varies individually, leading to divergent yet overlapping positions of each state in the case of global security crises. The authors employ the research methodology of textual interpretation and analysis, a comparative research method, and content analysis to interrogate how the BRICS nations contest the existing liberal international order by individually expressing their alternative understandings of sovereignty, non-intervention, and multipolarity. Analyzing the engagement of BRICS nations with the ICC and other global security crises, their responses are analyzed through first-hand sources in order to highlight the complex interplay between historical grievances, geopolitical realities, the quest for a multipolar world and will to achieve strategic autonomy. Further, this research critically examines the responses of the BRICS nations to the International Criminal Court (ICC) and the Responsibility to Protect (R2P) doctrine. It explores how these emerging powers perceive and react to what they consider selective applications of international justice, often influenced by geopolitical interests. Through an analysis of key events and policies, the article highlights the complexities and divergences within BRICS regarding international justice mechanisms and their implications for global governance. The research concludes that while BRICS presents a united front in criticizing perceived Western bias, internal diversity prevents the emergence of a cohesive alternative justice regime, underscoring the need for reform and inclusivity in global institutions.

1. Introduction

The international legal order has historically been shaped by Western normative frameworks, particularly in realms of sovereignty, justice, and the virtue of responsible intervention for humanitarian purposes. These frameworks are codified through

institutions such as the International Criminal Court (ICC) that hold a humanist view of protecting citizens of nations suffering from state-led violence that overrides the principle of sovereignty and territorial integrity. However, these institutions have lately shown a pattern of systemic bias. Empirical evidence suggests that since the inception of the ICC, of the 54 individuals indicted (Pramanik, 2025), 47 are African, although Africa represents only 28% of the state parties. The same institution has avoided investigating similar issues when a leader of a Western state is concerned, causing a deep-rooted resentment, individually as well as collectively, within BRICS nations, consisting of Brazil, Russia, India, China, and South Africa.

While the phenomenon of BRICS was initially observed by Jim O'Neil, chief economist at Goldman Sachs in 2001, considering their collective economic might (Library of Congress, n.d.), its materialization into an international grouping was a factor of a shared interest in collective prosperity and freedom of trade. Their collective observation of such systematic biases in international organizations has led to the emergence of BRICS as a political alliance that intends to challenge the Western monopoly over global governance narratives. While not an ideological monolith, BRICS states share a scepticism towards the West's selective invocation of humanitarian norms. However, this article argues that the expression of this scepticism varies individually, leading to divergent yet overlapping positions of the states in the case of global security crises. The authors employ the research methodology of textual interpretation and analysis, a comparative research method, and content analysis to interrogate how the BRICS nations contest the existing liberal international order by showing a shared concern for upholding the virtues of sovereignty, non-interventionism, and multipolarity in the global world order, although the lack of political cohesion among these nations dilutes their diplomatic efforts to achieve the virtues that they collectively advocate for or demand in existing global institutions.

Analyses of ICC rulings by BRICS nations are a major anchor point in arguing that while it is fair for BRICS to have a scepticism of liberal democracies, there is a lack of coherence amongst the BRICS countries in expressing their scepticism internationally considering their individual geopolitical realities, commitment to a multipolar world, and willingness to uphold their sovereignty and territorial integrity. For this, the authors critically examine the participation and response of BRICS nations in and to International Criminal Court (ICC) rulings. It is worth noting that among the five BRICS members, three (Russia, China, and India) are non-parties to the Rome Statute, while two (Brazil and South Africa) are signatories and members of the ICC. This tension becomes evident when South Africa, facing an ICC arrest warrant against President Vladimir Putin, reconsidered visiting the 2023 BRICS Summit and 2025 G-20 Summit, illustrating the practical dilemmas that arise between BRICS members. The authors explore how BRICS nations politically perceive and diplomatically react to such rulings. The research concludes that while BRICS presents a united front in criticizing Western biases in the ICC, its internal diversity prevents the emergence of cohesive political communication that effectively course-corrects the global international order.

2. Revisiting Sovereignty, Non-Intervention, and Multipolarity from the Perspective of BRICS Nations

This section revisits the core concepts of sovereignty, non-intervention, and multipolarity to inquire into a fundamental question: do BRICS nations actually share a common understanding of these principles? The international world order is structured around sovereign states where the principle of sovereignty and territorial integrity are inherently tied to the norm of non-intervention (Mathieu, 2020). The sovereign state system presupposes the juridical equality of all states regardless of size or power (International Commission on Intervention and State Sovereignty, 2001). Its philosophical origins are widely traced to the Westphalian settlement that established the foundational principles of nation-state sovereignty and later expanded them globally (Falk, 2002). This system consists of nation-states that form the basic unit of international systems analysis and whose pursuit of individual national interests is paramount to their bilateral and multilateral engagement.

For most non-Western states, sovereignty did not emerge as an organic political evolution such as in Europe. Their sovereignty was a product of abrupt and at times violent struggles against collapsing empires. Brazil's struggles during the IMF-driven austerity of the 1990s, India's independence movement against the British Raj and partition in 1947, the Soviet implosion in 1991, and China's rapid but uneven industrial transformation from 1965 to 1991 reveal that sovereignty for these nations has been an existential project, rather than a legal doctrine tied to survival, state-building, and economic recovery, that emerged through prolonged periods of external domination, internal conflict or systemic collapse. It is within this historical frame that BRICS nations interpret the sovereign state system, shaped by legacies of colonial rule, Cold War alignments, foreign interference, and cycles of economic vulnerability. Their interaction with Western powers has historically been mediated through the asymmetries of colonialism, military occupation, externally imposed economic reforms, and conditional access to global markets (Opello & Rosow, 1999). Thus, while realist scholars such as Morgenthau (1954) posit power as a currency in international politics, nations who form the BRICS grouping have experienced power as unevenly distributed and frequently weaponized against them. Their pursuit of national interests occurs within a system in which the formal equality of states rarely translates into substantive equality within international organizations, whether economic, such as International Monetary Fund or World Trade Organization; security-based, such as the United Nations Security Council; or judicial, such as the International Criminal Court or International Court of Justice. In such societies, the idea of nationalism is tightly tied to upholding sovereignty of the state over its territorial boundaries.

Non-Western states did not reject the European conception of nationalism. They adapted it to their own historical and political circumstances (Dar, 2022). In Europe, nationalism emerged as a unifying force among culturally aligned, predominantly Christian polities during the period of war and catastrophe (Krasner, 2001). In contrast, countries such as India deployed nationalism as an anti-colonial instrument to politically consolidate highly diverse and often fragmented societies against imperial rule. As a result, the normative content and political function of nationalism have always diverged between Western and non-Western contexts. This divergence helps in interpreting political commitments such as the Responsibility to Protect (R2P). While Western governments often frame R2P as an ethical imperative (though

not a politically binding agreement) aligned with liberal internationalism, many non-Western states view it with caution informed by historical experiences of external interference cloaked in normative language.

Although Non-Western states used the European idea of nationalism, they tweaked and modified that idea as per their needs and requirements. For instance, European nationalism helped in uniting Christian states during periods of war and catastrophe, whereas non-Western countries like India used the idea of nationalism to unite their fragmented society against their colonial masters. Hence, the idea of nationalism remains different for Western and non-Western states (Bellamy & Williams, 2011). At its core, R2P challenges the traditional architecture of sovereignty intimately tied to the principle of non-intervention, which is a foundational component of the contemporary state system. Although R2P, as articulated in UN documents, embodies a global commitment to preventing mass atrocities and protecting human rights, it also marks a departure from the realist conception of sovereignty as inviolable and absolute (Bellamy, 2014). For the nations comprising BRICS, the concern lies not in the aspiration to prevent atrocities, but in the potential for the political misuse of R2P, which is a political guidance in case of major humanitarian crisis such as genocide rather than a binding political agreement. The NATO-led intervention in Libya in 2011 remains a pivotal example where power was initially authorized as a civilian protection effort but rapidly evolved into a regime-change operation, reinforcing suspicions among BRICS that humanitarian justifications can be selectively deployed to advance strategic objectives (Garwood-Gowers, 2013). On 17 March 2011, while Russia abstained from voting on the UN Security Council resolution that sanctioned the use of force against Libya, then President Dmitri Medvedev and Prime Minister Vladimir Putin engaged in a public discourse where Putin condemned the resolution as “interference in a sovereign state” (Agence France-Presse, 2011). China similarly abstained from the Security Council vote and called for a non-interventionist approach (Reuters, 2011).

Politically, the formation of BRICS, we argue, fundamentally shows a growing consensus amongst major economies of the world of collective dissatisfaction with Western-led international organizations and concentration of decision-making power within them. For instance, in the International Monetary Fund, the currency basket, also known as Special Drawing Rights, is heavily tilted towards dollar participation. Interventionist measures taken by Western states in the post-Cold War era have prompted most former colonial powers to come to a political consensus led by BRICS nations who seek an alternative pathway for political autonomy and economic development. For the African continent, the prolonged colonial disruption of the former century still afflicts their political economy (Lange, 2004).

Economically, the Western payment and clearing systems’ centrality and the American dollar’s dominance in global trade, particularly in strategic commodities like oil, has been accepted as a structural feature of international economics. BRICS nations’ main concern is not the existence of this centrality but the increasing weaponization of international payment systems and the dollar in ways that expose sovereign economies to extraterritorial pressure. This fact has been accepted by European institutions such as Euroclear who stand against the freezing of Russian assets (Albert, 2025). The use of sanctions, financial surveillance, and restricted access to global payment systems such as SWIFT has made clear that monetary sovereignty in the twenty-first century cannot be perceived separately from geopolitics (Farrell & Newman, 2023). Hence, what is economic is also political. This recognition has

accelerated calls within BRICS to explore alternative financial instruments, local currency settlement mechanisms, and regional payment systems. In response, the current American administration threatened to sanction BRICS collectively in case any of the above measures being institutionalized (Reuters, 2025). For BRICS nations, such an explicit threat turns multipolarity into a strategic necessity rather than a rhetorical aspiration, where no single state holds uncontested authority over economic governance, security norms, or institutional frameworks (Hofer, 2024).

Despite the broader consensus on the above-mentioned principles, why are BRICS nations not legitimately purposeful in reforming the existing Western-led framework? The following section addresses this problem by studying the responses of BRICS nations to major ICC rulings.

3. Asymmetrical Participation of BRICS Nations in Current International Judiciary Framework

A persistent gap in BRICS is the lack of a meaningful approach that addresses questions of international ethics and justice considering the fact that, for BRICS, virtues of sovereignty, non-interventionism, and multipolarity are prioritized over the virtue of international justice. As many scholars note, although BRICS operates within an implicit assumption that what is economic is inevitably political, this has not translated into an underlying normative framework to guide state behaviour in the realms of human rights or accountability. According to Bawa and Kourbeles (2024), BRICS, while economically ambitious, lacks coherent institutional commitments to human rights or ethical oversight, and shows a tendency to prioritize sovereignty and non-interference over justice. Duggan and colleagues note that BRICS is a loosely institutionalized group without formal ethics or justice frameworks. It operates through consensus and pragmatism but lacks mechanisms for enforceable moral or legal standards (Duggan et al., 2021). This makes it more challenging for the organization to become a leader in Global South since it does not have a framework for justice (Bawa & Kourbeles, 2024). Bawa & Kourbeles further state that, “Current members have already committed multiple internal human rights violations, and the group’s expansion to include new members who are predominately not democracies has raised concerns about whether or not, beyond summit declarations, safeguarding and upholding human rights are a core part of BRICS” (Bawa & Kourbeles, 2024). In order to work towards betterment of the Global South, BRICS nations need to commit to the Universal Declaration of Human Rights, since its applicability in the Global South remains problematic. For instance, in 2023, the ICC issued an arrest warrant for Russian President Vladimir Putin, charging him with unlawfully deporting hundreds of children from Ukraine as a war crime. Putin was already invited by South Africa to attend the BRICS meeting in August when the international arrest order was issued, and if he entered the country, South Africa would be required to turn him over to the ICC (Plessis, 2023). As a result, South Africa considered withdrawing from the ICC, but later changed their decision. This incident sets the background to explain the relationship between the BRICS countries and the ICC. While South Africa and Brazil are members of the ICC, Russia, China, and India are not. The non-signatory BRICS countries, along with Israel, have demanded important amendments to the ICC charter.

Russia has always adopted a guarded approach to the ICC. Russia signed the ICC Statute in 2000 but never ratified it, and withdrew its signature on 16th November 2016,

when the ICC's then-Prosecutor issued a report classifying the situation in Crimea and Sevastopol as an occupation (International Criminal Court, Office of the Prosecutor, 2016). Non-participation of many important countries like the US, China, and India stops the ICC from being fully operational (Sayapin, 2022). According to Russia, the norms of the Rome Statute should be reconsidered. In 2011, the UN's International Law Commission created Draft Articles on the Responsibility of International Organizations, which mostly summarized existing customary international law rules. According to Articles 15(b)(i)(s) and 15(t)(e)(r) of the Rome Statute, the ICC can only handle cases about the crime of aggression if the UN Security Council or the state involved refers the case to the Court. Even though the Rome Statute sets clear limits on the ICC's authority, including when and where it can act, the Court has often ignored these limits in practice and acted beyond its powers.

While non-participation or unwillingness to enforce the rulings of the ICC by BRICS nations is a major concern, it is worth noting that while the ICC was established to help resolve conflicts and promote peace through criminal justice, especially with support from the UN Security Council, its actions have often made conflicts more difficult to solve. The ICC's decisions are often inconsistent, and some judges' opinions seem to replace official reasoning. The way the ICC's judges and Prosecutor work together is unclear, with the Prosecutor holding too much power, leading to accusations of bias and politicization. The ICC's arrest warrants against Russia's President and other officials are illegal under international law and the Rome Statute. According to Russia, by issuing them, the ICC committed a wrongful act (The Ministry of Foreign Affairs of the Russian Federation, 2024). If a country tries to enforce ICC arrest warrants against officials from non-Rome Statute countries without a UN Security Council decision, this will violate international rules on immunity and be a wrongful act (The Ministry of Foreign Affairs of the Russian Federation, 2024). The ICC, created by countries to deliver criminal justice, is limited by international law and the Rome Statute. However, it has often overstepped its authority, violated rules, and issued unlawful warrants, like those against Russian officials (The Ministry of Foreign Affairs of the Russian Federation, 2024). Its inconsistent decisions, biased processes, and failure to support global peace have led many to question its legitimacy. China, as one of the permanent members of the UN Security Council, has not joined the ICC. The Rome Statute grants the International Criminal Court universal jurisdiction over serious international crimes, which means that even if the suspect's country of nationality or non-nationality is not a party to the Statute, the International Criminal Court can exercise jurisdiction as long as the crime occurred in the territory of a party or the perpetrator is a national of a party. China believes that such universal jurisdiction may infringe upon national sovereignty and interfere with domestic judicial procedures and therefore has reservations about it.

The Rome Statute includes war crimes in domestic armed conflicts within its jurisdiction. According to China, domestic armed conflicts are internal affairs of a country and should be governed by domestic law. The involvement of the International Criminal Court may exacerbate domestic conflicts and be detrimental to conflict resolution (Hafetz, 2014). Therefore, China strictly reserves this point. The International Criminal Court (ICC) declined requests to investigate China for alleged genocide and crimes against Uyghurs in Xinjiang, stating it lacked jurisdiction because the alleged acts occurred in China, a non-signatory state to the Rome Statute (CGTN, 2020). China considers that the crime of aggression is a state act and that the UN Security Council should determine whether there is an act of aggression before

pursuing individual criminal responsibility (Lu & Wang, 2005). However, the Rome Statute does not explicitly confirm the Security Council's leading role in this issue. China is worried that without the Security Council's judgement, the International Criminal Court may abuse its authority and prosecute innocent individuals. The Rome Statute grants prosecutors the power of self-investigation, which means that prosecutors can investigate possible international crimes without a request from a country. China believes that this power may lead to prosecutors abusing their powers and interfering with national judicial procedures and therefore has "serious reservations" about it. China has reservations about the definition of crimes against humanity in the Rome Statute, believing that the definition is too broad and could internationalize domestic political conflicts, ethnic contradictions, and other issues, exacerbating international tensions (Hafetz, 2014).

India has provided multiple reasons for its unwillingness to join the ICC. The reasons for the objections were the United Nations Security Council (UNSC) powers granted and the exclusion of nuclear weapons and other WMDs from the list of weapons whose use would be considered a war crime (Bais, 2016). India strongly disagreed with the powers granted to the UNSC by the Statute and the express recognition of such powers by the Statute. Due to the indiscriminate character of nuclear bombs and the fact that the International Court of Justice had declared in its advisory opinion that their use violated international humanitarian law, India supported adding their use to the list of war crimes. India put forth a plan to declare the use of nuclear weapons a war crime. India was concerned that the ICC might abuse its authority to look into how Indian officials behaved in regions of the country where it was fighting terrorism and insurgency. Since these disputes are regarded as internal affairs, they should not be debated in global forums (Bais, 2016). India felt that terrorism had to be on the list of crimes if the ICC was to decide cases involving crimes of international importance. Indian lawyer and human rights activist Prashant Bhushan argues that every Indian government could face prosecution at the ICC if India were a signatory to the Rome Statute (Priya, 2010).

South Africa has a complicated relationship with the International Criminal Court. On 17 July 1998, South Africa signed the Rome Statute, and on 27 November 2000, it deposited its instrument of ratification. The Rome Statute Implementation Act No. 27 of 2002 was passed by the South African Parliament and came into force on 16 August 2002. The Act contains clauses about cooperation and complementarity. The definitions of crimes against humanity, war crimes, and genocide found in the Rome Statute are incorporated into the Act, whereas immunity of any kind is not. The 2010 Review Conference's Kampala Amendments to the Rome Statute, which address the crime of aggression and the use of specific weapons in armed conflicts that are not international, have not yet been accepted by South Africa. Nonetheless, South Africa made firm promises to ratify the changes regarding the crime of violence. After a disagreement over Sudanese President Omar al-Bashir's 2015 visit, South Africa first decided to withdraw. Even though Mr. Bashir had an ICC arrest order for alleged war crimes, the authorities refused to take him into custody. When a domestic court determined that pulling out would have been unconstitutional, that decision was rescinded. President Ramaphosa's 2023 statement about exiting the ICC, later clarified as a mistake, highlighted ongoing uncertainty (Kisla, 2023).

Brazil supported the establishment of the International Criminal Court (ICC) as it recognized that the battle against impunity for the most serious international crimes should be judged with an effective, independent, and unbiased court. The ICC Statute

was adopted at the 1998 Rome Conference, in which the Brazilian government actively participated in the preparatory efforts. Brazil deposited its instrument of ratification of the Rome Statute on 20 July 2002. The treaty was incorporated into the Brazilian judicial system by means of Decree n. 4388 of 25 September 2002. During the ICC's almost two decades of operations, Brazil has had a strong presence in The Hague, through its delegation to the Assembly of the States Parties and the participation of its nationals in important positions at the Court. Brazil has begun the process of integrating the Kampala Amendments on the crime of aggression into its domestic legal framework. Brazilian President Luiz Inácio Lula da Silva has expressed doubts about the ICC's significance, arguing that its relevance is diminished because major powers like the United States, Russia, and China are not subject to its jurisdiction (Pressenza New York, 2023).

4. Divergences Within BRICS: National Interests and Policy Approaches

Despite their shared discomfort with the Western-led norms of international justice, the BRICS bloc is not a cohesive ideological front. Instead, it is a pragmatic coalition forged in response to the inequities of a post-Cold War order. This pragmatism breeds divergence. Each member state operates within its own constellation of strategic imperatives, historical grievances, and geopolitical calculations. What unites BRICS is opposition to the Western monopoly on normative frameworks. What divides it are the methods, priorities, and red lines each state maintains in navigating a world where sovereignty and intervention frequently collide.

Brazil has historically taken the most conciliatory approach towards humanitarian intervention as a leading Latin American democracy. The country has been actively involved in multilateral forums and peacekeeping missions. It proposed "Responsibility with Protection" (RwP) given the misuse of by the West in Libya (Reuters, 2011). RwP sought to introduce procedural checks, such as prior Security Council oversight and post-intervention accountability (Bellamy, 2010). The RwP concept was never formally adopted by the UN. However, it marked Brazil's attempt to insert normative restraint into the interventionist discourse. Today, Brazil remains diplomatically aligned with multipolarity but is hesitant to fully disavow liberal norms. Its reluctance to criticize Russia's actions in Ukraine, despite rhetorical support for international law, shows the tension between principled multilateralism and realist regional diplomacy (Murray & Hehir, 2012).

India's posture within BRICS is defined by its insistence on strategic autonomy. Rooted in the Non-Aligned Movement and later adapted to a post-liberal international order, India's foreign policy resists alignment either with the West or with anti-Western blocs. Its critique of international justice centres on the politicization of humanitarian norms and the double standards applied by Western powers (Wulf & Debiel, 2015). India does not subscribe to doctrines such as R2P since its position is grounded in classical Westphalian sovereignty with development-first pragmatism, which at times falls in contradiction to its focus on strategic autonomy. The Indian political class emphasizes internal consolidation for federal stability and countering terrorism, for which it needs support from outside. Hence, there is an inherent reluctance to become involved in external entanglement. India's silence or abstention on international votes related to Syria, Libya and Ukraine reflects this. India's emphasis on sovereignty is also linked to its security environment. In the case

of Kashmir, India perceives Western responses to terrorism to be made through a biased lens where Pakistan's transgressions are downplayed by the superpowers for geopolitical expedience. Hence, there is a growing trust deficit regarding the normative framework of international justice mechanisms from the side of the Indian state since it is perceived as a tool for undermining the security concerns of emerging powers that are instrumental to their territorial integrity, rather than a platform for equitable redress.

China, on the other hand, is the most doctrinaire among BRICS in defending the principle of non-intervention, as reflected in its foreign policy, which is very much rigid on respect for China's sovereignty, territorial integrity and non-interference in its internal affairs, especially related to Taiwan and Tibet. For China, these principles are existential safeguards for the concerns related to secessionist movements in what the Chinese state considers its sovereign territory. Any foreign opinion related to Xinjiang, Hong Kong, Taiwan, or Tibet is perceived as an encroachment on the core interest of Chinese state (Chaziza, 2023). Its reluctance and rejection of ICJ jurisdiction on its territorial dispute with the Philippines is the case in point. China's economic diplomacy also communicates this agnosticism towards international judicial frameworks, since through its Belt and Road Initiative, the Chinese state, in principle, claims to have a "no-strings attached" approach, projecting power without claiming unconditionalities to differentiate its approach from Western conditions that many Global South regimes in Africa and elsewhere resist (Ginsburg, 2021). At its best, this approach reflects an ideology where stability trumps liberal human rights concern. At its worst, it reflects a shield for authoritarian governance.

South Africa occupies an ambiguous space in the BRICS constellation. As a constitutional democracy with a deep-rooted history of human rights struggle, it finds itself torn between its regional responsibilities and global legal obligations. This is very much clear in its relationship with the International Criminal Court (ICC). Its refusal to arrest Sudanese President Omar al-Bashir during his 2015 visit despite an ICC warrant sparked international controversy (Mistry & Verduzco, 2012). The ICC arrest warrant against Israeli Prime Minister Benjamin 'Bibi' Netanyahu and former Defense Minister Yoav Gallant was welcomed by South Africa. However, the ICC has also issued an arrest warrant against Russian President Vladimir Putin. Despite that, South Africa reportedly invited Putin to the G20 summit, which shows the dilemma of the South African state mentioned above. Pretoria's foreign policy remains rhetorically committed to justice and multilateralism. Yet in practice, it often defaults to the BRICS position of advocating reform rather than withdrawal. South Africa calls for a more representative ICC and the equitable application of international law (Tsunga, 2017).

Russia's position on sovereignty and international justice is perhaps a combination of historical resentment, geopolitical rivalry, and concerns of foreign interventionism, particularly from the West, by undermining its cultural soft power in former Soviet Union states. Russia claims that in contemporary discourse surrounding European security, much of the analytical bandwidth is monopolized by the spectre of Russian aggression. From Georgia in 2008 to Crimea in 2014 and the full-scale invasion of Ukraine in 2022, Moscow's alleged revisionist maneuvers have shaped Western security doctrine, institutional spending, and NATO's forward posture. However, this focus, though warranted in part, has occluded a deeper, more insidious risk to European stability, i.e., the internal fragility of Eastern European democracies themselves. The fact remains that while the Biden administration reported sending

over \$70 billion in security and economic aid to Ukraine, (Congressional Research Service, 2024) President Zelensky has publicly stated that only a fraction of these funds was arriving in usable form. This gap, rarely discussed in Western policy forums, raises fundamental questions about aid disbursement mechanisms, local absorptive capacity, and the risks of corruption in wartime governance. If Ukraine's reconstruction is to succeed, clarity in fiscal governance must be as much a priority as military resourcing (Freedom House, 2023).

Beyond governance, Ukraine's natural resource wealth, particularly in rare earth elements, lithium, and titanium, adds an underexplored dimension to the conflict. These materials are critical inputs for high-end technologies, electric vehicles, and defence systems, making Ukraine a strategic node in the global supply chain rivalry between the U.S., EU, China, and Russia. There is credible analysis suggesting that multinational actors have begun quietly maneuvering to secure stakes in these sectors, raising the spectre of resource extraction being prioritized over genuine economic stabilization (Tellis, 2020).

Russia's justification for these actions is rooted in an alternative interpretation of sovereignty: one that allows for intervention to protect cultural and ethnic kin or to pre-empt perceived Western encroachment. This doctrine was articulated as early as Putin's 2007 Munich speech and later reaffirmed through Russia's opposition to NATO expansion and Colour Revolutions (Jani, 2025; Mearsheimer, 2019). In Syria, Russia's military engagement was framed as a defence of sovereign legitimacy (Assad's government) against externally backed insurgents. In Ukraine, Russia invoked the protection of Russian-speaking populations and the failure of the Minsk Agreements to justify its actions (Catrinel Popescu, 2017).

Even in the context of such divergence concerning what consists of a consensual international normative framework of justice within BRICS nations, it appears that there exists a unified consensus within BRICS to create a better framework of international justice that takes the ideological positions of BRICS nations as individuals into account. However, the glaring contradictions between their individual approaches shows both strength and weakness of this coalition. For Western policymakers, BRICS at its best is a unification of Global South consensus that intends to make the world an equitable place, while at its worst, BRICS is a breeding ground of alternative superpowers who intend to replace the Western hegemony in global international organizations either by undermining their power in these organizations or creating an alternate framework unified by a collective resentment of Western intervention in Global South societies. Whether this results in a more fragmented or recalibrated global legal order remains to be seen, but the divergence within BRICS might be the truest expression of a multipolar world where legitimacy definitions of sovereignty and just interventionism are not monopolized by the West and justice must navigate the unforgiving terrain of contradictions of interests, interpretations of history and diverse political systems.

5. Conclusions

BRICS as a coalition, while offering a pragmatic platform where dissent against the dominant order converges, does not offer a unified legal alternative to Western norms of international justice due to its states' reactionary and at times divergent actions in global political platforms, as witnessed in case of South Africa's reaction to the ICC warrants against Netanyahu and Putin. Its members are driven by

strategic interests and a shared historical narrative of being the victims of colonial imperialism. A lack of a consolidated approach leads to broader dissatisfaction amongst post-colonial nations of the so-called Global South who feel victimized by the structural inequities of the post-Cold War world order. However, the internal divergence in approaches to the existing international justice framework is not a bug. In fact, it is a feature of this coalition where there is scope for negotiation about the future of international justice where the West's monopoly on normative authority is eroded and legitimacy will likely stem from multipolarity in the structures of international organizations. Whether BRICS becomes a vehicle for reform or merely a reproduction of power asymmetries between Asian powers and African nations depends on the collective willingness of the coalition to address the internal contradictions that are articulated in this chapter. The authors suggest that BRICS nations should focus on the creation of coherent frameworks in order to codify a common version of sovereignty, multipolarity and re-interpreted understandings of virtues such as Responsibility to Protect that do not vilify or alienate Western norms but integrate their roles and responsibilities. This includes addressing global security concerns such as climate change, power asymmetry in the technology sector and creation of inclusive global digital and physical infrastructure focused on last-mile delivery. Such a shift should reframe the pursuit of state power through economic development as the primary vehicle that advances multipolarity rather than the military confrontation that has historically shaped International Relations.

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Decentering the Episteme of 'Good' Governance: Introducing Integrative Governance of Multilateral Organization in Global South

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Abstract: In common parlance, 'good governance', is a terminology donated temporarily by the World Bank in its bid to rescue the Sub-Saharan African nation from a terrible economic crisis famously referred to as Structural Adjustment Programs. Since then, the third world countries or what have parochially been termed as 'developing nations' have uprooted such signifiers from the universe of social meanings and have reconfigured the relation between development and governance. This deontological attestation by the countries of the regional block, famously referred to as Brazil, Russia, China, South Africa and other countries (BRICS+), Association of Southeast Nations (ASEAN), South Asian Association for Regional Cooperation (SAARC), etc., highlights a growing chasm between 'good' and 'integrative' in the context of governance. This chapter would, thus, mark a rupture from the erstwhile epistemic commitment of governance that sought to redefine the relationship between socio-legal structures and the respective countries largely shaped by Eurocentric ideals. It would now aim at substituting the dominant understanding of governance with a renewed reinvention of governance in rendering 'context', both geographically and politically to BRICS+ and other multilateral agencies representing south-south dialog. This robust reshaping of the regional blocs in the global south would, therefore, become an avenue for diplomatic expressions for countries who have been marginalized from the dominant discourse and have been barricaded by barbed wires of illiteracy, civil wars, poverty, unemployment, and most importantly, unstable and volatile governments. The present-day global scenario stands as a living indictment to the preaching of the global north and has a witnessed major power shift in the balance of power. In the backdrop of multipolarity and the emergence of multiple power vortices, there is an interminable series of questions which this chapter intends to answer: Can regional blocks open up global spaces of dialog and deliberation to de-escalate violence and resume talks between nations on the two ends of the spectrum both ideologically and territorially? Can 'collaborative' and 'integrative' governance unite the contradiction occurring due to economic and social disparity between two nations? Can multilateral organization act as diplomatic channels safeguarding cultural diplomacy mediated through regional blocs? Can white diplomacy or legitimization of public diplomacy be carried out through multilateral organization so as to validate even state sponsored acts of violence and in rare cases, acts of war?

1. Introduction: The Need for 'Integrative' Governance and Its Consequent Significance

The semantical shift in the nature of governance is not just limited to the opening of diplomatic channels between the global north and global south but also marks a unity in intent and direction towards the betterment of the world as a whole by both the blocs. The shift from 'good' to 'integrative' governance calls for a systemic overhaul in the intent and processes of 'integrating' countries situated and located territorially and politically at the fringe. This marginalization is not sudden but is symptomatic of a deliberate, consciously led systematic marginalization that not just deployed political dominance but also economic machination to effectuate its predominance. Hence, integrative governance (Stout & Love, 2019) marks an intellectual rupture or an epistemological shift in the paradigmatic understanding of addressing international grievances both political and economic in nature. Before we lay out a conceptual roadmap for this transition, it is essential that we assess and evaluate this shift in the understanding of international theorists that predominantly pervade the consciousness of international governance. Integrative governance is a deeply philosophical project that democratizes the intent of equitable economic distribution whilst integrating particulars of practice. It has a particularly unique governance typology that is not only accepting of a transdisciplinary approach in assessing governance but also deploys alternative expressions of development to accommodate decolonized assertions from develop(ing) countries. This continuity in the process of carving a niche for an economy that is purely borne out of struggle and assertions of a decolonized country is characteristic of a model that has the potency to travel through space (north to south) and from precolonial to decolonial times while capturing the nuances of this progression. Multilateral organization and the emphasis on finding sustainable responses to international predicament in today's day and age points to the growing significance of finding collaborative (Miller-Stevens & Morris, 2016) practices that can unitedly resolve problems originating regionally but have international ramifications. From food crisis to energy to environmental crisis, all point to the growing need of an international platform that can give sustainable as well as universal yet regionally specified solutions, which cannot be brought to fruition unless every country individually as well as in association with other countries seeks to find a solution for the given global crisis. The imaginary yet deeply racial and discriminatory divide that seeks to club postcolonial or oriental (Said, 2016) together into the framework of 'third world nation' has reinforced the skepticism of developing nations who believe that the developed nations have exercised their power and position to the detriment of the latter.

The use of political theatrics and self-interestedness (Morgenthau & Thompson, 2014) has reigned supreme on the global consciousness for the longest time, reflecting realist (Niebuhr, 1977) ideals, but the nature of crisis that has confronted humanity today has brought in its wake changing discourses and the need for collaborative as well as cooperative discourse in shaping and confronting modern day crises. This arrival of cooperative effort on the global scene tells us that an epidemic can morph into a pandemic, crisis into scarcity, and conflict into war. The butterfly effect of a seemingly innocuous event can degenerate and engender a series of crises in various parts of the globe. Trans-governmental authority that has brought the nation-centric approach to the receiving end of major criticism paves the way for

an international forum that can facilitate trade which is not only developmental but environmentally sustainable.

2. Multilateralism and the Emergence of Regional Blocs

During the Cold War with the emergence of the US and USSR as two power blocs who adopted neo-imperialistic mechanisms to subdue nations and contain each other's power and influence, there came a regional yet powerful multilateral organization called the Non-Alignment Movement. For an idea to become a fledgling movement, this organization is an excellent recipe for 'balance of power'. In a global scenario where bandwagonism had become a global ailment, to stand firm with an independent power bloc reflects that international events give rise to pure and undivided ideational context that nourishes the emergence of regional power blocs. However, one cannot, while studying the change in the nature of governance, ignore the emergence of multilateral organization formed due to and amidst the Cold War, with countries joining together to form The North Atlantic Treaty Organization (NATO), the Southeast Asia Treaty Organization (SEATO), and the Central Treaty Organization (CENTO), NAFTA (North American Free Trade Agreement), SAFTA (South Asian Free trade Area), ANZUS Australia, New Zealand and United States security treaty, and WARSAW PACT (the treaty of friendship, cooperation and mutual assistance). Here, the attempt is not to study the formation and its associated instrumentalities but to study the 'need' for the emergence of these organizations and the larger global landscape that necessitated the formation of these military blocs and trade blocs. The North Atlantic Treaty Organization, Southeast Asian Treaty Organization, and Central Treaty Organization were specifically introduced to the international arena to further the cause and agenda of one bloc against the other. The content and nature of regional blocs, however regional in its orientation, had a larger intent to universalize the cause of a singularly powerful country onto a region which was presumably less defiant. The counter hegemonic trail of action that came forth with the collective military defense through the Warsaw pact occurred against a heavily predominant unilateral imposition.

No matter how much the use of diplomacy is seen to be deployed to garner trade favors or remove trade sanctions and embargos, the use of people to people diplomacy with regard to public diplomacy (Holmes & Rofo, 2018) finds resonance in resolving territorial disputes arising from ideological confrontations. What was once referred to as 'propaganda' is now shrouded under the garb of 'public diplomacy' or white diplomacy to legitimize acts of violence, to assure the trade lobbyists, to legitimize Xenophobia in the name of territorial sovereignty, and finally to whitewash acts of aggression in the name of peace-keeping, peace-building, and peace-making. Since the time before the common era or the thirty years war or the understanding of nation state as a distinct category with the signing of Magna Carta, Treaty of Westphalia, and Bill of Rights, the use of multilateral treaties and negotiation have marred the evolution of international relations. Every act of powerful countries in bringing about territorial invasion or disruption of older conservative regimes to supplant it with a liberal democratic regime reflects an inherent bias and prejudice. The prejudicial understanding woefully believes that the newly independent countries moving away from the throes of colonialism are necessarily ruled by an oppressive regime and can never pace up with the developed progressive regimes. This bias is reflected in the functioning of international organizations, however covertly, and has led to

the rebranding and remaking of such countries as 'nation state in process' without the heads of state. The countries thus were made or rather compelled to become a democracy without following the necessary path of republicanism. The 'illiberality' of the liberal nation thus enforced their ideals to these nations and converted the latter into the most undemocratic democracy. The rise in the Taliban in Afghanistan, the political turmoil in Palestine, and the volatility in the middle east with Iran being at the receiving end of the US's wrath tells us that the conspicuous absence of diplomatic channels that can act as a safety valve during such confrontation has turned the entire global landscape into an arena where the military of different countries are jostling for power. The transformation of The League of Nation into the United Nation the paved way for a redefined global space where the mistakes of World War II were supposed to be rectified but the current global scenario paints a dreadful picture where the specter of war looms large. In this backdrop and amidst this global turmoil, the emergence of a multi-governmental organization has facilitated dialog and deliberation amongst the regional players and has helped in cementing power shifts happening in the post-Cold War era. Hence, this chapter will revolve around four cardinal principals that multilateralism today has brought to the fore. These principals will trace the trajectory of the evolution of multilateralism and its reflection in the international multilateral organization. The four cardinal principals are the following: Firstly, the primary actors in multilateral organizations are not a 'nation state' but a state as well as non-state actors. The second principal points to the relation between multilateral organization and the essence of multilateralism followed by a third principal which is closely tied to the idea of integrative governance, bringing multilateralism to the forefront not as a Structural Adjustment Program elucidated by the World Bank but as an overarching framework that can accommodate contested meanings of development. The fourth and final principal requires us to revisit multilateralism to map the link between new social movements and multilateral organizations, where we end up espousing a new theory of governance that can accommodate newer and more fast-paced challenges.

The main aim of the study is therefore to trace the genealogy of the development of multilateralism and its concomitant partner, that is governance. This study will, therefore, acquaint the readers with the significance of multilateral organization and 'who' the actor is that governs these institutions and a forward leap will give us the reason 'why' they are governed this way and finally, the 'how' will familiarize the reader with the ruling principals of governance laid out by these organizations.

3. Multilateralism vs. Multilateral Organizations

The qualitative shift in the understanding of multilateralism is the foundational understanding on which is hinged the edifice of multilateral organization. The older more conventional understanding of multilateral organization in its nascent stage espoused a theory in which state actors or countries act as the primary stakeholders and international players in the formation and working of multilateral organization. The World Bank, IBRD (International Bank for Reconstruction and Development), and the IMF (International Monetary Fund) have their roots in Washington consensus (Williamson, 1994) with markers such as neoliberalism, deregulation, dirigiste economy, and currency devaluation. Now, each marker found its source in a developmental economy carried out by the state through liberalization, privatization, and globalization. This was further entrenched by GATT (General Agreement on

Trade and Tariffs) forming into GATS (General Agreement on Trade and Services) or WTO (World Trade Organisation), but the preceding summits witnessed a rather repressed but acute resentment from the developing nation who considered the superimposition of these goals as principals laid out to further impoverish the masses. It highlighted for the first time the unilateral engagement by multilateral organizations. This resulted in a relentless slew of opposition from the developing nation and a stout challenge to the ground on which multilateral organization legitimizes its action. This was not a benevolent critique of the west but a robust renaissance of global engagement, which was an essential trait of these countries prior to colonization. It also reflected the waning away of a unipolar world and the emergence of a multipolar world with nations equipped to bargain economically and politically so as to safeguard their rights. However, the resentment in the form of trade negotiations lead to an incremental growth in the threshold of what constitutes 'good' governance.

The ascriptive value rendered to governance saw a transformation in good governance but what astounded the minds of international theorists was not the nature and content of good governance but the arrival of a rather neglected and seemingly unassuming civil society and in this case, 'political society' (Chatterjee, 2011). Developing nations have been often criticized by the torchbearers on the path of enlightenment (Chakrabarty, 2008) for having a premodern lag in their transition to a modern democracy as if democracy is the universal panacea for all the social, economic, and political ills faced by these countries. This premodern lag has retarded the processes of development brought about by modernity and has de-individualized citizenry by preserving cultural and religious identity markers in relation to the state. The disruption of a liberal constitutional model has led to a democratic downturn where the paralegal structures, undefined spaces of power, and authority have paved non-linear paths of development (Chatterjee, 2011). Here, 'political society' is not necessarily social groups of intellectuals, servicemen, and people partaking in the workings of non-governmental organizations but people who do not come within the fold of modern nation states as identified and enumerated citizens but as people who often bargain with the state as para legal people. A holistic understanding of the citizens in the modern-day context presupposes that the individual has to keep a considerable distance from their identity and then participate in the discourses on right as hyper-individuated selves. This helps in enumerating citizens and turning them into a cohesive whole who can bargain as political citizens with multilateral organizations. The true meaning of multilateralism is when the identified beneficiaries are empowered without disenfranchising them. The mandate that comes from such an accommodative purview reaffirms the essence of multilateralism that can resolve international crises like refugee crisis, neo-imperialist expansionism, economic recession, and environmental and health hazards.

The broader contestations on the nature and content of multilateralism highlights the constituting elements of integrative governance of multilateral institutions. The constituent element, therefore, includes technology/knowledge transfer, localized skill development, self-reliance, the bottom-up approach, and other human development indices. Integrating the marginalized section of society has given rise to subaltern literature more akin to global needs. A set of theories now propounds an inclusionary counter-hegemonic narrative that acts with resilience and fortitude against the hegemonic Eurocentric narrative. This theoretical breakthrough questions governance not only on semantical ground but objectively assesses the substantive elements of governance and its consequence on the countries which

were invisibilized. The need to bring back multilateralism in by third-generation scholars reattempting to analyze global governance tells us that the first two attempts at understanding global governance are not just inadequate, it is preposterous. This is because all the studies attempting to understand governance limited themselves to the model of the Westphalian nation state but this was inherently incapable of marking the jurisdiction of supranational authorities in resolving transnational disputes. The second generation expanded the primary architect of global governance by bringing two or more countries within the ambit of the international entity, which examples being the European Union, OPEC (Organization for Petroleum Exporting Countries), SAARC, G7+ (Group of Seven), etc. However, this reconfiguration of primary players in governance only provided temporary service to equity, justice, trade deficit, trade imbalance, insolvency, and most importantly, regional conflict. Hence, the third generation brought about a systemic transformation in the model of governance whereby the Westphalian model was heavily challenged and the newer model espoused a theory of international players including transnational organizations, global enterprises both multinational and transnational, non-governmental organizations, and civil and political society.

Multilateralism is brought into the fold of global governance. Multilateralism in the 1990s was reflective of the changing institutional structures that emerged as a response to the disintegration of the Soviet Union and the end of Cold War. It was a regionally specific response to the international institution of that time. Countries left outside this selective assortment had to deal with the brunt of non-conformism bred through independent thinking. A single most important component of the institution of multilateralism is related to resultant gains, which implied the importance of a long-term comparative advantage in comparison to short-term absolute gains. This advantage could be availed if the European Union was created. It was common understanding that the unification process may carry certain unresolved contradictions, but the long-term gains will paper over it.

However, in the year 1992, James Caporaso lamented about the neglect of multilateralism and its lacking role in international relations. It was astutely observed that the first generation's reading of global governance lacks the depth and research needed to understand that the role of the nation state in coordinating and steering international norms and institutions is much broader and widespread. The newer and more insightful understanding of global governance involves both state and non-state actors at different levels, making it difficult to differentiate between public and private actors' roles in the processes that involve governing at the global level. With this assumption in mind, further delving into this principle, Caporaso answered: 'One possible reason for the paucity of theory concerning multilateralism is that there may be so little multilateralism in practice' (Tutumlu & Güngör, 2016). This is when we try to ascribe a distinctive value to multilateralism away from the norms and practices of global governance. We have to agree with Coparaso without taking into consideration the rhetoric of multilateralism but a direct and undiluted commitment to the doctrine by the state-centric first-generation scholars, which is scant to say the least. Instead, international regime-based theories were predominantly studied in international relations theory.

The global governance mechanism has also been subsumed under the umbrella of international regime theory. Hence, the second-generation scholars dismissed the idea of multilateralism altogether and changed the grammar of international politics and made it more akin to the contemporary language of international theories. At

the onset, this shift was almost imperceptible but with the coming of non-state actors and NGOs in the picture, this shift changed the entire disposition of the international community towards multilateral organization. Myriads of definitions of governance have all converged on the dictum that the boundary between public and private actors' roles in the process of governing has blurred. Yet we cannot help but witness a slow and steady denial of the apprehensions raised by Coparaso neither through the scholasticism of international theorists nor in the practice of multilateralism. In addition, the criticism that came from regime theorists for assuming that global governance is a somehow unified and coherent entity also points to a rejection of the idea that we aim to gloss over the diverse patterns that led us towards a more diversified and accommodative international ideal. However, each attempt at criticism could not transcend or surpass the given boundaries of their respective disciplines, making research disparate and unconnected. For the next generation of global governance research to accomplish the task of clearly demonstrating how the nature and limits of multilateralism and global governance are connected, these disjointed yet symbiotic disciplines must synergize. Therefore, this chapter goes beyond the second-generation research and cements the location of each actor, the state, the civil society, and the supranational organization brought in symphony by multilateralism.

4. New Governance Model: Integrative Governance or Good Governance

In an attempt to educate the world of development discourses more suited to western countries, it became white men's burden (Kipling & Robinson, 2020) to bring about reforms that can help make the developing countries an easy market to be accessible to the global giants. This enforced global doctrine that led to further impoverishment of the underdeveloped countries. However, any hegemonic theory needs to be countered by equally powerful theory and thus, came the dependency theory by Andre Gunde Frank, Immanuel Wallerstein, Raúl Prebisch, and Samir Amin. All these theorists point towards systemic inequality consciously entrenched by structural imbalance. This foundational critique seeks to highlight the overt dependence of the countries on the periphery with that of core countries. As is rightly pointed out, unless the structures of modernity change, the developing countries will always be dependent on developed countries. This is a sharp critique of the Modernization theory.

This does not only highlight the incompetence of western theorists to analyze the challenges faced by the developing and underdeveloped countries alike but also depicts how inadequate the solutions offered by the west are. Modernity entwined with democracy seemed like a readymade recipe to proffer ideals of the west and a great political gimmick for making the poorer countries believe that they are benefitting from this unilateral transaction. This realization brought the developing and underdeveloped countries to a jolt and signified the need to unite their grievances and mediate these grievances through multilateral agreements. Thus, the third-generation scholars do not limit the scope of multilateralism to economic succession but also deploy multilateralism as a diplomatic channel giving and taking sustainable solutions to their politico-social problems. The flight of capital, environmental degradation, political indifferentism, and social apathy are a few amongst the many difficulties faced by non-western countries. What was once called propaganda is now referred to as white diplomacy (Berridge, 2015) with

countries either legitimizing their policy or citing reasons of hostility with other countries. Multilateral organization thus acts as conduit between overlapping yet multiple international ideals that are in reality diplomatic expressions of countries often caricatured by the media and politics of the powerful nations. The perceptible yet seamless shift from old diplomacy to new diplomacy has to be studied within the contemporaneous ideational context that seeks to bring in multi-track diplomacy, bringing soft and hard power diplomacy together. With the involvement of technology in diplomacy, the steadfastness with which leaders respond to international crises may have brought fast-paced responses but it is not very well thought out and could be misleading. Therefore, telephonic conversation and tweets on X may be steadfast but their accuracy needs to be tested. This technological overhaul has obliterated the diplomatic expectation of sending Consulates (accredited diplomatic members) while resolving territorial disputes through traditional diplomatic method. The newer more fast-paced resolution of territorial conflict involves multi-track diplomacy that uses not just formal means and institutions of communication but also informal means and methods to soften the blow of hard power. The potential of white public diplomacy to reorient the model of governance tells us that it would inexorably integrate the less developed countries into the mold of larger political institutions. There is now a greater reliance on multi-track diplomacy with the traditional exhibits of power display being questioned and surpassed while more nuanced, softer exhibits of power are gaining ground. Multi-track diplomacy is an amalgamation of track 1 and track 2 with hard traditional diplomatic channels being supplemented and at times even supplanted with track 2 diplomacy.

The change in global governance rendering voice to the cicadas of the global community makes it integrative. Integrative does not necessarily mean the expansion of the role of international players but the potential power that these multilateral institutions carry in internationalizing the voice of the neglected and less developed countries. This kind of diplomacy broadens the horizon of development and renders other meanings contestable. This transition of multilateralism giving credence to the voice coming from the margins becomes the mouthpiece of hitherto exploited masses and tells the international community that they no longer have the power to set the narrative.

5. Multilateral Organization and the New Social Movements: A Case Study of Mahakumbh Mela

The involvement of civil society in the governance of society brought with it a new but powerful awareness of forming unions, syndicates, and communities (often referred to as class). These newer means and methods of association formed a symbiotic relation between the question of rights and groups, which were then asserted through movements, strikes, and popular engagement. This in turn led to 'complex multilateralism' (O'Brien, 2000). Complex multilateralism brought the role of state and non-state actors into constant interaction with these movements. A conscious engagement and conversation with globalization renewed the meaning associated with governance. The resurgence of post-colonial countries has renegotiated the ways in which third world countries are seen and catered to, even when they are struggling with non-performing assets, insolvency, and debt traps. Cultural signifiers often pry open a portal to renewed social engagement while also enlarging the scope of a country's engagement in the international landscape.

Mahakumbh Mela (Mazumdar, 2018) with a congregation of 4 million people was a case in point. Mauni Amavasya Snan, Mahahshivratri witnessed a heavy influx of pilgrims rendering cosmic significance to the city of Prayagraj. This also led to temporary and transient urbanity, which called for a deeper sociological and political engagement with a cultural capital. The need to capitalize on the cultural signifier even paved the way for multilateral engagement. For countries that thrive on a plethora of cultural markers, the seamless relay of global engagement through cultural capital points at the reinvention of the ways in which multilateralism is operationalized. Multilateral public institutions are constantly shaping and reshaping themselves in response to pressure from social movements, NGOs, and influence from business actors. Institutional accountability and transparency demanded by big business tycoons was rebranded as 'Ease of doing business', with New Public Administration (Bhattacharya, 2011) harping on about 'bringing people closer to the government'. The sustained effort of corporations and industries was met with disdain by the bureaucrats who have often slowed the growth of companies through license-permit raj, trade monopoly, and red-tape(ism). This lack of synergy between the steel frame of the developing nation and the ideals of the Structural Adjustment Program (United Nations & Global Forum on Reinventing Government, 2007) has forced the government as well as complex multilateralism to renegotiate the boundaries of modification. Multilateral institutions are going beyond the state-led administration in an attempt to find legitimacy through civil societies. Modifications vary across institutions depending upon the culture, structure, and role of institutions and the pressure coming from civil society.

A second characteristic of this is that the major players and actors of international politics today are rendering world politics to contestation and even the methods of achieving solutions to major international problems. The goal of the government is not always policy-oriented since the politics of scarcity reign supreme and this in turn causes conflict in setting goals and the means to achieve them. Another way of looking at it would be the government maintaining the status quo. In contrast, the goal of many civil society actors, and certainly of social movements, is to steer the direction of state policies to their advantage. The principle of 'Common but differentiated responsibility' is a case in point. For example, even if the countries agree to bring about sustainable development, the responsibility is not shared equally but equitably.

6. Conclusions

The conflicting and incommensurable goals of both the state and civil society have resulted in ambiguous implications with the state and civil society achieving limited success in their respective overtures. The onslaught of new social movements has pervaded the territories reeling under identity, environment, and energy and security crises, to name a few. However, despite a concerted revolt against the ruling dispositions, these movements have realized that the general principles that define the conduct of the populace remain largely unchanged. It has been observed that even if the movements have tried to subvert the state's logic of governance, they have only been successful in bringing about imperceptible changes. There is no dramatic repercussion on the policy level issues with the coming of newer international players. This can be redressed only when there is a sincere acknowledgement of the problems that have led to these movements. The institutionalized version of resentment

organized through movements has been able to bring the problems into political dialogs but deliberation on policies to address these grievances has been limited.

A major discourse that shaped up during the time of Michael Walzer's theory on Structural Realism (Walzer, 2015) that observed the differential impact of the countries as the sole arbiter of international dialog based upon their respective position in the international system carries the potential to resolve major dilemmas. If one were to compare the developed countries with an underdeveloped country, one can notice that there is constant battle between the domestic government and transnational government to usurp each other. The underdeveloped country finds itself helpless in the face of encroachment by the supranational authorities onto not just the territory but the very contours defining its governability. Thus, the power of either the state or multilateral organization is not impervious and can be held hostage to a powerful blend of hard and soft power (Nye, 2009).

The growing need of bringing together all nations to defy global challenges on energy, environment, and security paves the way for multilateralism. This multilateralism is not about correcting nations militarily or about imposing sanction on rogue nations. It is a complex interplay of states, supranational institutions, and other non-state actors in a defined set up with a singular focus of governing multilateral organization. The essence of multilateralism today does not only identify nations considered to be weak militarily to further their respective agenda but sees meaningful dialogue as a prerogative to world peace.

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The urgency for transformation in governance is imperative to address the multi-faceted challenges impeding sustainable development. Particularly for the BRICS nations, the integration of comprehensive governance mechanisms can catalyze economic health and social progress. This book explores the concept of “integrative governance” in the context of BRICS countries, highlighting its potential to reconcile rapid economic growth with sustainable development. Integrative governance, rooted in inclusivity and adaptability, encompasses diverse domains such as participatory governance, human capital development, and macroeconomic stability. It provides insights into how BRICS nations can leverage governance to mitigate poverty, inequality, bolster rural development, and enhance social welfare. The book will focus on thematic successes and challenges observed in BRICS nations, with a particular focus on participatory governance, human capital and health, macroeconomic and debt management, urban local economic development, and technological advancement in governance. The book adopts a call for papers approach, promoting a transformative agenda in line with the principles of the United Nations Global Compact and promoting sustainable development.

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