



**COMPREHENSIVE DEVELOPMENT FRAMEWORK
REPORT OF BIHAR**

YOUTH PEACE AND DEVELOPMENT FORUM

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FOREWORD

Bihar occupies a unique position in the Republic of India. Recognized globally as the cradle of ancient Indian civilization and a historical epicenter of knowledge, the state is a cornerstone of India's cultural and political heritage. The development of Bihar holds the key to the nation's broader growth narrative, as true national progress cannot be achieved without the upliftment of its most populous and youthful regions. As India progresses towards becoming a developed nation by 2047, the transformation of Bihar into an economically vibrant, industrialized, and socially empowered state is not merely a regional aspiration. It is a national imperative.

Having experienced the socio-cultural fabric of Bihar closely, I have witnessed both its extraordinary potential and its persistent challenges. Bihar possesses a massive demographic dividend, the fertile Gangetic plains, a deeply resilient and hardworking population, and a rich historical legacy that attracts global reverence. At the same time, the state continues to grapple with systemic development challenges such as infrastructural deficits, recurrent floods and droughts, agrarian distress, large scale outward migration of labor and talent, and the urgent need for rapid industrialization. These challenges require long-term thinking, institutional capacity building, and evidence-based policymaking rather than incremental interventions.

The Youth Peace and Development (YPD) Forum believes that India's youth have an important role to play in shaping the future of public policy. Across the world, innovative policy ideas increasingly emerge through collaboration between governments, academic institutions, research organisations, industry experts, and young professionals. Inspired by this approach, the YPD Forum has undertaken the preparation of this document titled "Comprehensive Development Framework Report of State of Bihar." This report reflects our collective aspiration to contribute constructively to the development of Bihar through practical, research-driven, and future-oriented policy recommendations.

This document has been prepared through the collaborative efforts of researchers, policy analysts, economists, environmental experts, engineers, students, and professionals associated with the YPD Forum. The recommendations are based on comparative studies of successful developing regions, examination of national and international best practices, analysis of existing state policies, and a deep understanding of Bihar's geographical and socio-economic realities. Throughout this exercise, our objective has remained simple. We have sought to identify reforms that are ambitious in vision, realistic in implementation, and capable of generating measurable improvements in economic growth and the quality of life.

The strategic frameworks presented in this report cover the most critical dimensions of state-level development. They include governance reforms to improve state capacity, investments in robust flood management and climate resilient infrastructure, transitioning towards agro-based industrialization, revamping primary and higher education, harnessing

the demographic dividend through targeted skill development, modernizing traditional agriculture, building a robust MSME ecosystem, and a long-term economic strategy aimed at making Bihar an attractive destination for domestic and global investments. Together, these recommendations constitute an integrated roadmap for building a state that is economically self-reliant, technologically integrated, environmentally secure, and socially inclusive.

One of the central ideas underlying this report is that Bihar must reclaim its historical position as a center of prosperity and innovation. It must evolve into a leading growth engine for Eastern India. Global and national success stories demonstrate how leveraging a young workforce, investing in human capital, and driving agricultural modernization can lift millions out of poverty and create thriving economies. Bihar possesses similar potential. With visionary leadership, coordinated governance, and sustained public-private investment, it can emerge as a premier hub for food processing, manufacturing, cultural and spiritual tourism, and modern services.

This Comprehensive Development Framework is not intended to replace existing government initiatives. Rather, it is offered as a constructive policy resource that can complement ongoing programmes and support future planning for a *Naya Bihar* (New Bihar). We hope that policymakers, legislators, administrators, urban planners, academic institutions, civil society organisations, and citizens will find value in the ideas presented here. Many of these recommendations can be adapted, refined, and implemented through collaborative efforts between different levels of government and relevant stakeholders.

On behalf of the YPD Forum, I extend my heartfelt appreciation to every researcher, volunteer, domain expert, and contributor whose dedication and intellectual commitment made this document possible. Their efforts demonstrate the remarkable capacity of India's youth to engage meaningfully with public policy and contribute innovative solutions for national development. This report stands as a testament to the belief that informed research, constructive dialogue, and collaborative action can help shape a better future.

As India approaches the centenary of Independence in 2047, Bihar has an extraordinary opportunity to script a historic turnaround. It can become a state that combines robust economic growth with deep-rooted social justice, agrarian prosperity with rapid industrialization, and global connectivity with the preservation of its rich heritage. It is my sincere hope that this document will encourage meaningful discussion, inspire progressive policymaking, and contribute in some measure to the creation of a thriving, resilient, and prosperous Bihar for generations to come.

Dheeraj G. N.
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Youth Peace and Development (YPD) Forum
New Delhi

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The Youth Peace and Development Forum (YPD Forum) expresses its sincere gratitude to all individuals whose dedication, expertise, and commitment made the preparation of The Comprehensive Development Framework Report of State of Bihar possible.

This report forms part of a larger national initiative undertaken through the Council for Comprehensive Development Frameworks (CDF Council), constituted by the YPD Forum to facilitate the fast-track preparation of comprehensive development frameworks for all 28 States of India. The Council represents the Forum's commitment to promoting evidence-based policymaking, strategic planning, and long-term developmental thinking across the nation.

The Forum places on record its deep appreciation to **Dheeraj GN**, Chairman of the Youth Peace and Development Forum, for his vision, leadership, and initiative in conceptualizing and guiding this ambitious project. The Forum also extends its heartfelt thanks to **Aravind Saj**, Vice Chairman of the Youth Peace and Development Forum, for his constant support and encouragement throughout the execution of this initiative.

Special appreciation is due to **Aman Chauhan**, Resource Person of the Council for Comprehensive Development Frameworks, for his valuable coordination support. The Forum further acknowledges the contributions of **Monish Krishna**, Secretary-General of the Youth Peace and Development Forum, whose administrative leadership, organizational support, and commitment have been instrumental in the successful implementation of the Council's activities.

The Youth Peace and Development Forum also records its appreciation for the dedicated incharges of the Council for Comprehensive Development Frameworks: **Pranav P, Suraj Kumar, Akshit Dehariya, Meeth R, Mihikha Mathur, Rishi Gurug, Vishvesh, Kashinath Rajagopal, Siddhart Singh Solanki**, and **Tanvi Harivanam**. Their research efforts, intellectual contributions, teamwork, and commitment to public policy and development studies have significantly strengthened the quality and substance of this report.

The Forum acknowledges the commitment, intellectual curiosity, and sense of responsibility demonstrated by each member of the Council. Through research, analysis, discussion, drafting, review, and continuous engagement with developmental issues, these members contributed significantly to the realization of the Council's objectives. Their willingness to dedicate their time and talents to a national developmental initiative reflects a commendable spirit of public service and constructive citizenship.

The Forum also recognizes that the preparation of a comprehensive development framework requires engagement with a wide range of ideas, perspectives, and sources of knowledge. Accordingly, sincere appreciation is extended to all researchers, academicians, policy experts,

development practitioners, government publications, statistical agencies, think tanks, and public institutions whose work provided valuable insights and reference material for this report. Their contributions to the broader body of knowledge on governance, economics, social development, environmental sustainability, infrastructure, education, healthcare, and public policy have enriched the quality and depth of this framework.

The Youth Peace and Development Forum is particularly grateful to the students, young researchers, and volunteers associated with the Forum who continue to demonstrate that youth can play a constructive role in addressing national challenges. Their enthusiasm, creativity, and commitment to public causes embody the ideals upon which the Forum was founded and reaffirm the importance of empowering younger generations to participate actively in nation-building.

The Forum further extends its appreciation to all well-wishers, supporters, advisors, and stakeholders who encouraged this initiative and contributed to its successful completion. Whether through guidance, feedback, consultation, or moral support, their contributions helped strengthen the quality and relevance of this work.

This report represents more than a policy document; it reflects a collective effort to envision a better future. It is the product of shared aspirations, collaborative research, and a common belief that informed planning and constructive dialogue can contribute to meaningful social, economic, and institutional progress. While the recommendations contained herein are intended to support the development of Kerala, they also form part of a broader national effort to strengthen the foundations of a developed, inclusive, sustainable, and prosperous India.

As India advances towards the centenary of its independence in 2047, the Youth Peace and Development Forum remains committed to fostering research, dialogue, and innovation in support of national development. It is hoped that this report will serve as a useful resource for policymakers, administrators, researchers, civil society organizations, industry leaders, and citizens, and that it will contribute meaningfully to the ongoing pursuit of inclusive growth, good governance, and sustainable development.

With gratitude to all who contributed to this endeavour, the Youth Peace and Development Forum proudly presents this report as a modest contribution towards the shared vision of a stronger Bihar and a developed India.

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PREFACE

Bihar stands today at a decisive juncture in its developmental trajectory. A state that carries the historical weight of Nalanda and Vikramshila, of Ashoka and the Buddha, and of a foundational civilizational contribution to Indian statecraft and learning, Bihar has for much of the post-independence period also carried a different, less flattering reputation.

In public discourse and development economics literature alike, it has frequently served as a byword for deep-seated underdevelopment, weak administrative governance, and lagging human capital indicators. This policy framework is written against the backdrop of a state that is, in the mid-2020s, beginning to visibly outgrow that historic reputation, even as profound structural bottlenecks continue to challenge its administration and people.

The empirical evidence of this shift is distinct and compelling. The Bihar Economic Survey 2025-26, tabled in the state legislature in early 2026, recorded that the state's Gross State Domestic Product reached approximately ₹9,91,997 crore at current prices for the fiscal year 2024-25. This represented an impressive annual growth rate of 13.1 percent at current prices and 8.6 percent at constant 2011-12 prices. Crucially, these figures outpaced the national Gross Domestic Product growth rates, which stood at 9.8 percent and 6.5 percent respectively for the same period (Bihar Institute of Public Finance and Policy, 2026).

This is not an isolated spike; for three consecutive fiscal years, Bihar's economic growth rate has systematically exceeded the national average. This trend represents a structural reversal of long-standing historic patterns where the state consistently trailed the rest of India, caught in a cycle of low investment and low output.

However, this macroeconomic momentum exposes a profound development paradox. The rapid expansion of aggregate economic output has not yet fully translated into an equivalent, structural transformation of human development outcomes across the state's districts. Bihar continues to rank at or near the bottom among Indian states on most composite human development measures. NITI Aayog's Multidimensional Poverty Index framework has repeatedly identified Bihar as the state with the highest share of multidimensionally poor citizens in the country.

Yet, even within these challenging social indicators, a closer examination reveals a narrative of aggressive catch-up. The proportion of Bihar's population living in multidimensional poverty fell sharply from 51.91 percent in 2015-16 to 33.76 percent in 2021-22 (NITI Aayog, 2023). This represents one of the fastest absolute reductions in poverty recorded anywhere in sub-national India over the last decade, lifting millions of households out of deprivations related to nutrition, schooling, sanitation, and assets. The core challenge of contemporary state policy is therefore twofold: sustaining these high growth rates while simultaneously accelerating the conversion of fiscal gains into higher quality education, improved maternal and child health outcomes, and robust rural livelihood security.

This framework does not attempt to resolve, in the space of a single volume, the deep structural tensions between Bihar's improving macroeconomic indicators and its persistently difficult social baselines. Rather, it attempts something more modest, grounded, and execution-oriented: an honest, evidence-based accounting of where Bihar stands today, sector by sector, coupled with a structured articulation of the policy priorities that must be sustained over the next two decades. The overarching objective is to provide a strategic roadmap that enables the state to systematically close the gap with national and international development benchmarks by 2047—the centenary of India's independence.

To achieve this, the document transitions away from speculative development theories, focusing instead on institutional realities, fiscal bandwidth, and scalable governance models. By identifying the specific levers required to modernize the state's agricultural backbone, capitalize on its dense demographic dividend, and bridge its infrastructure deficit, this text serves as a diagnostic and prescriptive tool for sustainable sub-national development.

The framework strictly adheres to the Standardized Document Format adopted for state development frameworks across India, ensuring analytical rigor and comparative utility. The volume begins with a comprehensive assessment of Bihar's unique demographic composition, labor force participation rates, and the challenges of high-density rural settlements. It then shifts to an intense analysis of the fiscal architecture and public financial management, evaluating the state's revenue independence, its reliance on central transfers, capital expenditure quality, and fiscal debt-to-GSDP trajectories.

The subsequent sections provide a deep dive into the sectoral economic and social services review, covering primary, secondary, and tertiary sector performance, paired with an evaluation of public healthcare delivery systems and educational learning outcomes. This is followed by an examination of infrastructure and environmental governance, which details transport connectivity, rural electrification, digital penetration, and the state's chronic vulnerability to climate shocks, particularly seasonal flooding in North Bihar. The document concludes with a strategic roadmap that synthesizes actionable policy goals, timelines, and monitoring frameworks designed to guide Bihar's transition toward a high-middle-income regional economy.

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Executive Summary

Bihar, India's third most populous state with an estimated population exceeding 130 million, occupies a unique and paradoxical position in the Indian development landscape. It is simultaneously one of the fastest growing state economies in the country and one of the least developed by conventional human development measures. This Comprehensive Development Framework examines that paradox across twenty-one chapters and proposes an integrated roadmap toward the state's stated ambition of becoming a developed state by 2047.

Economic Momentum. The Bihar Economic Survey 2025-26 recorded the state's Net State Domestic Product for 2024-25 at approximately ₹8,99,020 crore at current prices, with the Gross State Domestic Product at approximately ₹9,91,997 crore, representing growth of 13.1 percent in nominal terms and 8.6 percent in real terms (Bihar Institute of Public Finance and Policy, 2026). This marks the third consecutive year in which Bihar's growth rate has exceeded India's national growth rate, following growth of 17.9 percent in 2022-23 and 14.9 percent in 2023-24 at current prices (Bihar Institute of Public Finance and Policy, 2026).

Per capita GSDP at current prices rose from ₹46,412 in 2020-21 to ₹76,490 in 2024-25 (Bihar Institute of Public Finance and Policy, 2026), though this remains well below the national average per capita income, reflecting Bihar's continuing position as the state with the lowest per capita income in the country (Wikipedia, 2026a). Notably, the secondary sector's share of Gross State Value Added rose from 21.1 percent in 2020-21 to 26.8 percent in 2024-25, indicating an early but meaningful structural shift away from agrarian dependence, even as the primary sector continues to employ approximately 54 percent of the state's workforce despite contributing a much smaller share of output (Bihar Institute of Public Finance and Policy, 2026).

Persistent Human Development Deficits. Despite this economic momentum, Bihar continues to rank last or near last among Indian states on most human development composites. Bihar has consistently ranked around 36th, effectively last, on subnational Human Development Index comparisons among Indian states and union territories (Testbook, 2026). On nutrition, the National Family Health Survey-5 (2019-21) recorded that 42.9 percent of children under five in Bihar were stunted, 22.9 percent were wasted, and 41 percent were underweight, figures that remain among the highest in India (International Institute for Population Sciences, 2021).

NITI Aayog's Multidimensional Poverty Index found Bihar's poverty headcount ratio to be the highest among Indian states, though it declined substantially from 51.91 percent in 2015-16 to 33.76 percent in 2021-22, with an estimated 3.77 crore Biharis escaping multidimensional poverty over the period studied (NITI Aayog, 2023). This combination, rapid escape from poverty alongside persistently high absolute deprivation, is a defining feature of Bihar's current development stage and recurs as a theme throughout this framework.

Fiscal Position. Bihar's total government expenditure rose from approximately ₹1.66 lakh crore in 2020-21 to approximately ₹2.82 lakh crore in 2024-25, with revenue expenditure alone reaching approximately ₹2,19,015 crore, equivalent to 22.1 percent of GSDP (Bihar Institute of Public Finance and Policy, 2026). Gross Fixed Capital Formation nearly doubled over five years, from ₹17,416 crore to ₹34,905 crore in 2024-25, indicating a rising, though still constrained, capacity for capital investment (Bihar Institute of Public Finance and Policy, 2026).

Chapter 2 of this framework examines in detail the structural constraints on Bihar's own tax revenue base, its continuing dependence on central transfers and devolution, and the implications of this fiscal architecture for the state's ability to finance long-term infrastructure and human capital investment without recourse to unsustainable borrowing.

Infrastructure and Connectivity. Bihar's teledensity stood at 57.23 percent and internet density at 43.10 percent as per the latest available figures, reflecting a digital divide that remains wider than the national average even as state initiatives such as the Bihar State Data Centre 2.0 and Bihar State Wide Area Network 3.0 expand digital public infrastructure (Bihar Institute of Public Finance and Policy, 2026).

The air transport sector recorded growth of approximately 20 percent, and per capita energy consumption rose to 374 kilowatt-hours, though this remains below both the national average and the levels associated with sustained industrial takeoff (Bihar Institute of Public Finance and Policy, 2026). Approximately 90 percent of Bihar's population continues to reside in rural areas, a proportion far higher than the national average, with direct implications for the state's approach to rural infrastructure, decentralized governance, and service delivery, which are examined in Chapters 8 through 12 (Bihar Institute of Public Finance and Policy, 2026).

Sectoral Highlights. In agriculture, Bihar recorded gains in fisheries, with total fish production reaching 960 thousand tonnes and Madhubani district emerging as the leading producer, alongside a 4.2 percent rise in milk production and a 10.0 percent rise in egg production (Bihar Institute of Public Finance and Policy, 2026).

In the financial sector, total bank deposits in the state reached approximately ₹5.69 lakh crore and total bank credit approximately ₹3.04 lakh crore as of March 2025, indicating continuing gaps in credit penetration relative to deposit mobilization (Bihar Institute of Public Finance and Policy, 2026). In the environment and forestry sector, forest cover increased by 689 square kilometers over twelve years, with the forestry sector itself registering average annual growth of 10.6 percent between 2011-12 and 2024-25 (Bihar Institute of Public Finance and Policy, 2026).

Structure of the Framework. This report proceeds through twenty-one chapters organized under the Standardized Document Format. Chapter 1 establishes Bihar's demographic, geographic, and social profile.

Chapter 1: State Profile — Geography, Demography and Society

1.1 Geographic and Ecological Characteristics of the State

Bihar is a landlocked state situated in the eastern Gangetic plain of India, bordered by Nepal to the north, Jharkhand to the south, Uttar Pradesh to the west, and West Bengal to the east (Wikipedia, 2026b). The state extends across an area of approximately 94,163 square kilometers, making it comparatively modest in size relative to its population, a mismatch that lies at the root of much of the state's developmental strain (Villageinfo.org, 2026). The dominant physical feature of the state is the Ganga river, which bisects it roughly along an east-west axis and, together with major tributaries including the Gandak, Kosi, Sone, Bagmati, and Ghaghara, defines both the state's exceptional agricultural fertility and its acute vulnerability to seasonal flooding.

Bihar is conventionally divided into two broad physiographic regions separated by the Ganga: North Bihar, characterized by flatter, more flood-prone terrain fed by Himalayan-origin rivers such as the Kosi and Gandak, and South Bihar, which is comparatively higher, drier, and includes the Chota Nagpur plateau fringe in districts such as Gaya, Nawada, and Jamui. The Kosi river, often referred to as the "Sorrow of Bihar" because of its history of catastrophic course changes and flooding, remains one of the single largest determinants of agricultural risk in the northern districts, and disaster governance related to the Kosi and its embankments recurs as a theme in Chapter 14 of this framework.

Bihar's climate is subtropical monsoon, with hot summers, a concentrated monsoon season between June and September that delivers the bulk of annual rainfall, and mild winters. This climatic pattern, combined with the alluvial soils deposited over millennia by the Ganga and its tributaries, gives Bihar some of the most fertile agricultural land in the Indian subcontinent, a natural endowment that stands in some tension with the state's persistently modest agricultural productivity outcomes discussed in Chapter 18. The state's forest cover, though limited relative to its geographic area, has shown a positive trend in recent years, with the Bihar Economic Survey 2025-26 recording an increase of 689 square kilometers of forest cover over the preceding twelve years and average annual growth in the forestry sector of 10.6 percent between 2011-12 and 2024-25 (Bihar Institute of Public Finance and Policy, 2026). Bihar also holds notable mineral endowments concentrated in its southern districts. The state is the principal holder of India's pyrite reserves, accounting for roughly 95 percent of known national reserves, and a significant gold discovery in Jamui district in 2022 is estimated to account for more than 44 percent of the country's gold reserves, approximately 223 million tonnes of ore (Wikipedia, 2026b). These mineral resources, discussed further in Chapter 13, represent an underexploited dimension of the state's natural asset base.

1.2 Administrative Divisions: Districts, Divisions and Sub-State Units

Bihar's administrative architecture is organized in a nested hierarchy running from the state government down to the village level. At the intermediate tier, the state is divided into nine

administrative divisions, each overseen by a Divisional Commissioner, a senior officer of the Indian Administrative Service, who coordinates development and law and order functions across the districts within the division (Wikipedia, 2026b). Below the divisional tier, Bihar comprises 38 districts, each headed by a District Magistrate cum Collector, who serves as the principal coordinating authority for revenue administration, development schemes, and law and order at the district level (Wikipedia, 2026b; Villageinfo.org, 2026).

Each district is further subdivided into subdivisions for revenue administration purposes, headed by a Sub-Divisional Magistrate, and into blocks, which form the primary unit for rural development administration and are headed by a Block Development Officer (Wikipedia, 2026b). Below the block level, Bihar's rural areas are organized into gram panchayats under the state's three-tier Panchayati Raj system, discussed in depth in Chapter 12. As of the most recent village-level enumeration, Bihar comprises 39,073 villages and approximately 18.9 million households, of which roughly 16.9 million are rural and 2.05 million are urban (Villageinfo.org, 2026).

Police administration follows a parallel structure, with each district headed by a Superintendent of Police, an officer of the Indian Police Service, who reports through the divisional and state police hierarchy (Wikipedia, 2026b). The judiciary is headed by the Patna High Court, which has functioned continuously since 1916 and holds jurisdiction over the entire state, with subordinate courts organized at the district and subdivisional level (Wikipedia, 2026b). This layered administrative structure, while broadly typical of Indian states, is examined critically in Chapter 15 with particular attention to inter-departmental coordination gaps, staffing vacancies at the block and panchayat level, and the pace of decentralization envisaged but not yet fully realized under the 73rd and 74th constitutional amendments.

1.3 Demographic Structure: Population, Density, Growth and Composition

Bihar is India's third most populous state and, on most current projections, its most densely populated. Based on the Technical Group on Population Projections constituted by the National Commission on Population, Bihar's population as of mid-2026 is estimated at approximately 132.85 million, or 13.29 crore, making it comparable in population to a mid-sized country such as Mexico (StatisticsTimes.com, 2026). Bihar's population growth rate is currently the highest among Indian states, projected at approximately 1.38 percent for 2026, with the state expected to add roughly 1.81 million people during the year and to reach a projected population of 14.91 crore by 2036 (StatisticsTimes.com, 2026). Bihar's share of India's total population has risen consistently and now stands at approximately 9.29 percent, the highest it has been since 1901 (StatisticsTimes.com, 2026).

At the 2011 Census, the last full census conducted, Bihar's population stood at 104,099,452, comprising 54,278,157 males and 49,821,295 females, with a sex ratio of 918 females per 1,000 males, below the national average of 943 (IndiaCensus.in, 2026; CensusOfIndia.net, 2026). Bihar's decadal population growth rate between 2001 and 2011 was 25.42 percent,

itself a moderation of 3.2 percentage points relative to the 1991-2001 decade, though still among the highest in the country (StatisticsTimes.com, 2026). At the 2011 Census, Bihar's population density stood at 1,106 persons per square kilometer, the highest of any Indian state (Wikipedia, 2026b).

Bihar's population is markedly young. As of the most recent estimates, close to 58 percent of Bihar's residents are below the age of 25, the highest proportion of any Indian state (Wikipedia, 2026b). This demographic structure, often referred to as Bihar's potential demographic dividend, is a recurring theme throughout this framework, particularly in Chapters 5, 17, and 20, where the question of whether Bihar can convert this youth bulge into productive employment, rather than a source of continued out-migration, is treated as one of the central development challenges facing the state over the next two decades.

Bihar's Total Fertility Rate has declined significantly but remains above the national average and above replacement level. The National Family Health Survey (2019-21) recorded Bihar's TFR at 3.0 children per woman, down from 3.4 in the previous round, compared to a national TFR of approximately 2.0 (PopulationU, 2026). The Bihar Economic Survey 2025-26 projects that the state's fertility rate will reach the replacement level of 2.1 only by 2039, considerably later than most other major Indian states (Bihar Institute of Public Finance and Policy, 2026), with direct implications for the pace at which the state's dependency ratio will improve and, correspondingly, for the planning horizon over which health, education, and employment infrastructure must be scaled. Urbanization in Bihar remains low by national standards, with an urbanization rate of approximately 20 percent as of 2021, and roughly 90 percent of the state's population continuing to reside in rural areas as of the most recent economic survey (Wikipedia, 2026b; Bihar Institute of Public Finance and Policy, 2026).

1.4 Linguistic, Ethnic, Religious and Cultural Profile

Bihar's linguistic landscape is dominated by a cluster of closely related Indo-Aryan languages collectively known as the Bihari languages. According to census-based linguistic data, Bhojpuri is the most widely spoken of these, accounting for approximately 24.86 percent of the state's population, followed by Maithili at 12.55 percent and Magahi at 10.87 percent (Wikipedia, 2026b). Maithili holds formal recognition as a scheduled language under the Eighth Schedule to the Constitution of India, and there have been sustained calls from linguistic and cultural organizations for equivalent recognition of Bhojpuri, Magahi, Angika, and Bajjika, none of which are separately enumerated in the census despite their substantial speaker populations (Wikipedia, 2026b). Hindi serves as the primary language of administration and education, with Urdu also holding official status in the state given its substantial community of speakers, and smaller populations of Bengali and Surjapuri speakers concentrated in the eastern districts (PopulationU, 2026; Wikipedia, 2026b).

On religious composition, Census 2011 data recorded Hindus at approximately 82.7 percent of Bihar's population and Muslims at approximately 16.9 percent, making Bihar's Muslim population share among the highest of any major Indian state outside Jammu and Kashmir,

Assam, and West Bengal (CensusOfIndia.net, 2026; IndiaCensus.in, 2026). Christians, Sikhs, Jains, and Buddhists together account for less than one percent of the population, though Bihar holds a place of unique religious significance as the birthplace of Buddhism, with Bodh Gaya, the site of the Buddha's enlightenment, and the ancient university sites of Nalanda and Vikramshila located within the state (PopulationU, 2026).

Bihar's social structure is also defined by a complex and, in national terms, unusually well-documented caste composition, following the Bihar Caste-Based Survey conducted by the state government in 2023. Scheduled Castes constitute approximately 15.9 percent of the population and Scheduled Tribes approximately 1.3 percent, according to Census-based estimates (IndiaCensus.in, 2026), while more granular caste-wise estimates place major intermediate and backward caste groups including Yadav at approximately 14.4 percent, Kushwaha at approximately 8 percent, Baniya at approximately 6 percent, and forward castes including Rajput, Bhumihar, Brahmin, and Kayastha collectively constituting a smaller but historically dominant share of the population (PopulationU, 2026). This caste structure has had a documented and lasting influence on the state's political economy, particularly with respect to land reform. Scholarly analysis has attributed much of Bihar's post-independence developmental lag to sustained obstruction of land reform by dominant landholding castes, who retained disproportionate control over both administration and politics well into the post-independence period (Wikipedia, 2026b, citing Sen). This history is directly relevant to the analysis of land governance in Chapter 13 and social justice policy in Chapter 7.

1.5 Human Development Index: State Ranking and Trend Analysis

Bihar consistently ranks at or near the bottom of subnational Human Development Index comparisons among Indian states, a position that has persisted despite the state's recent acceleration in economic growth. Based on the Global Data Lab subnational HDI series maintained in partnership with the United Nations Development Programme, Bihar has for an extended period held the lowest HDI ranking among major Indian states, with Kerala, Goa, and Chandigarh occupying the opposite end of the distribution, driven substantially by their comparative advantages in literacy and healthcare infrastructure (Wikipedia, 2026c; Testbook, 2026). One frequently cited composite ranking places Bihar 36th among India's states and union territories on subnational HDI measures, effectively the lowest position in the ranking set (Testbook, 2026).

India's own national HDI has continued to improve, reaching 0.685 in the most recent UNDP assessment for 2023, up from 0.676 the previous year, placing the country 130th out of 193 nations in the medium human development category (Wikipedia, 2026c). Bihar's contribution to this national trend has been positive but insufficient to close the gap with better-performing states, given that all three components of the HDI, income, education, and health, remain comparatively weak in the state relative to national and southern-state benchmarks. It is worth noting, as a matter of measurement transparency, that subnational HDI estimates for Indian states rely on a combination of Census, National Sample Survey, and National Family Health Survey inputs that are updated on different cycles, meaning any single-year HDI

ranking should be read as indicative of a persistent structural position rather than a precise annual metric.

The persistence of Bihar's low HDI ranking despite above-average GSDP growth over the past three fiscal years is one of the central analytical puzzles this framework returns to repeatedly. It suggests that the transmission mechanism between aggregate economic growth and improvements in health, education, and living standards, the very components that make up the HDI, has been historically weak in Bihar, and that closing the HDI gap will require deliberate, targeted public investment in human capital rather than reliance on growth alone. This argument is developed further in Chapters 5, 6, and 21.

1.6 Poverty, Inequality and Multidimensional Deprivation Indices

Bihar has, for the entire period over which NITI Aayog has published its Multidimensional Poverty Index, recorded the highest MPI headcount ratio among Indian states. The first National MPI report, based on National Family Health Survey data for 2015-16, found that 51.91 percent of Bihar's population was classified as multidimensionally poor, the highest of any state, ahead of Jharkhand at 42.16 percent and Uttar Pradesh at 37.79 percent (Testbook, 2026b). By the time of the subsequent round, drawing on NFHS data for 2019-21, Bihar's MPI headcount ratio had declined to 33.76 percent, a reduction of roughly 18 percentage points over five to six years (BPSC Concept Wallah, 2025). NITI Aayog's broader national discussion paper on multidimensional poverty found that Bihar was among the states recording the largest absolute reductions in the number of multidimensionally poor citizens, with an estimated 3.77 crore Biharis escaping multidimensional poverty over the period examined, a figure second only to Uttar Pradesh's reduction of 5.94 crore (Drishti IAS, 2026a).

This pattern, the largest poverty headcount in the country combined with among the largest absolute reductions, reflects both the scale of Bihar's population and the genuine, measurable progress achieved through the convergence of national welfare schemes including the Pradhan Mantri Awas Yojana, Jal Jeevan Mission, Ujjwala Yojana, Swachh Bharat Mission, Saubhagya, and Ayushman Bharat, together with state-specific interventions (Anantam IAS, 2026). At the same time, Bihar continues to register significantly higher MPI intensity, meaning that among those still classified as poor, the average number of overlapping deprivations remains high relative to other large states (Vajiram and Ravi, 2026). This stands in stark contrast to states such as Kerala, which was formally declared free from extreme poverty in November 2025 following a targeted state-led eradication programme, and whose NITI Aayog MPI rate stands at just 0.7 percent, the lowest in the country (Vajiram and Ravi, 2026).

Income inequality within Bihar, distinct from multidimensional poverty, is also pronounced and has a strong spatial dimension, examined in the following section. Per capita income statistics for Bihar's districts show a wide dispersion, with Patna's per capita Gross District Domestic Product recorded at approximately ₹2,41,220 in the most recent estimates,

compared to figures below ₹40,000 in the state's most backward districts, an internal disparity of roughly six-fold within a single state (Bihar Institute of Public Finance and Policy, 2026; Wikipedia, 2026b).

1.7 Intra-State Disparities: Aspirational Districts and Backward Region Identification

The scale of intra-state disparity in Bihar has been formally recognized by the Government of India through the Aspirational Districts Programme, launched by NITI Aayog in January 2018 to identify and provide focused developmental support to the country's most underdeveloped districts based on composite indicators spanning health and nutrition, education, agriculture and water resources, financial inclusion and skill development, and basic infrastructure (NITI Aayog, 2023, as cited in the Aspirational Districts Programme appraisal). Of the 112 districts nationally selected under this programme, 13 are in Bihar, more than any other state, comprising Araria, Aurangabad, Banka, Begusarai, Gaya, Jamui, Katihar, Khagaria, Muzaffarpur, Nawada, Purnea, Sheikhpura, and Sitamarhi (NITI Aayog, 2023).

Performance within this cohort of aspirational districts has, notably, shown some encouraging signs in recent years. In the delta ranking released by NITI Aayog in February 2023, which measures the pace of improvement rather than absolute performance level, Bihar's Banka and Katihar districts ranked first and second, respectively, among all 112 aspirational districts nationally in the agriculture and water resources category, indicating that focused, convergence-based intervention can produce measurable results even in historically lagging districts (Drishti IAS, 2026b). Building on this framework, the Government of India subsequently launched the Aspirational Blocks Programme, extending a similar convergence model to the sub-district level, under which 61 blocks across Bihar's 13 aspirational districts have been identified for targeted support in health and nutrition, education, agriculture and water resources, financial inclusion, and skill development (Drishti IAS, 2026a).

Beyond the formally designated aspirational districts, intra-state disparity in Bihar follows a broadly recognizable north-south and east-west pattern. The northern districts, particularly those in the Kosi and Seemanchal regions bordering Nepal and West Bengal, tend to combine high flood vulnerability, lower literacy, and weaker connectivity, while the southern and central districts around Patna, Begusarai, and Munger benefit from comparatively stronger industrial and service-sector activity and correspondingly higher per capita district domestic product (Bihar Institute of Public Finance and Policy, 2026; Wikipedia, 2026b).

District-level literacy data illustrate this pattern starkly: Rohtas district records the highest literacy rate in the state at 75.59 percent, while Purnia, in the Seemanchal region, records the lowest at 52.49 percent, a gap of over 23 percentage points within a single state (PopulationU, 2026). Chapter 21 of this framework returns to the question of how a place-based, convergence-oriented policy architecture, building on the aspirational districts and blocks model, might be extended and deepened as part of Bihar's Vision 2047 roadmap.

1.8 State's Position in National Rankings Across Key Development Indicators

Taken together, the indicators reviewed in this chapter place Bihar in a distinctive and somewhat contradictory position within the landscape of Indian states. On indicators of economic momentum, Bihar has moved from laggard to leader: its GSDP growth rate at current prices has exceeded the national average for three consecutive fiscal years, reaching 13.1 percent in 2024-25 against a national growth rate of 9.8 percent (Bihar Institute of Public Finance and Policy, 2026). Yet on almost every indicator of human development, social infrastructure, and per capita income, Bihar continues to occupy the lowest or near-lowest position among Indian states. It has the lowest per capita income of any Indian state (Wikipedia, 2026a), the highest Multidimensional Poverty Index headcount ratio (Testbook, 2026b), and effectively the lowest ranking on subnational HDI comparisons (Testbook, 2026).

This combination is not unprecedented in the history of Indian state development, and it echoes the early growth trajectories of other states that later transitioned toward stronger human development outcomes once public investment in health and education caught up with output growth. The remainder of this framework is, in large part, structured around the question of what policy sequencing would allow Bihar to make that same transition over a compressed timeframe, given that the state entered its current growth acceleration from a considerably lower human development base than most comparator states. Chapter 2 turns to the fiscal architecture that will need to sustain any such transition, examining Bihar's revenue base, expenditure composition, and its continuing structural dependence on central transfers.

Chapter 2: Fiscal Architecture of the State

2.1 Revenue Framework: Own Tax Revenue, Non-Tax Revenue and Devolution

Bihar's fiscal architecture is defined, more than almost any other feature, by its heavy dependence on transfers from the central government rather than revenue it raises itself. According to the state's own budget documents for 2025-26, Bihar's total own tax revenue was estimated at ₹59,520 crore, an increase of 10 percent over the revised estimate for 2024-25, but equivalent to only 5.4 percent of GSDP, a ratio that has been drifting downward even as the absolute rupee figure rises, since GSDP has grown faster than the tax base (PRS Legislative Research, 2025).

By the 2026-27 budget, own tax revenue was projected to rise further to ₹65,800 crore, yet the ratio to GSDP was projected to fall again, to 5 percent, reflecting continued growth in the denominator without commensurate expansion of Bihar's tax administration or tax base (PRS Legislative Research, 2026). By comparison, the all-state average own tax revenue to GSDP ratio stood at approximately 6.91 percent for 2025-26, and the Confederation of Indian Industry has noted that combined state own tax revenue nationally rose to 7.1 percent of GDP for 2025-26 budget estimates, underscoring that Bihar continues to under-collect relative to the typical Indian state (Forum for State Studies, 2025; CII, 2026).

An analysis published by The Wire, drawing on Comptroller and Auditor General data, found that Bihar's own-revenue-to-GSDP ratio, including both tax and non-tax sources, stood at 6 percent or lower, with property taxes, State GST, and non-tax revenue from mining and user fees all cited as structurally underdeveloped relative to other financially stable states (The Wire, 2025). The same analysis found that in 2022-23, own taxes and non-tax sources together accounted for only 37 percent of Bihar's total revenue, with the remainder made up of grants and devolution from the Centre (The Wire, 2025). This dependence is starkly illustrated by a per capita comparison: Bihar collects less than ₹7,000 per person in own revenue, while receiving approximately ₹15,900 per person through Union tax devolution alone (The Wire, 2025).

On the devolution side, Bihar's share of central taxes, determined by successive Finance Commissions, has been a relatively stable and growing source of revenue in absolute terms, if not as a share of the total. The state's share in central taxes was estimated at ₹1,38,516 crore for 2025-26 and was projected to rise to ₹1,58,178 crore for 2026-27, an annualized increase of 11 percent over the 2024-25 actual (PRS Legislative Research, 2025, 2026). Grants from the Centre, which include both conditional grants tied to centrally sponsored schemes and unconditional transfers, were estimated at ₹54,575 crore for 2025-26 and ₹51,896 crore for 2026-27, with the latter figure driven substantially by an anticipated increase in grants for centrally sponsored schemes to ₹44,003 crore (PRS Legislative Research, 2026). Taken together, tax devolution and grants routinely constitute around 75 percent of Bihar's total revenue receipts, a proportion that a NITI Aayog assessment found to be significantly above the level of a median Indian state (NITI Aayog, 2025).

2.2 Expenditure Profile: Composition, Quality and Efficiency

Bihar's expenditure profile is dominated by committed expenditure, meaning spending on salaries, pensions, and interest payments that the state has little short-term discretion to reduce. For 2025-26, Bihar's budget estimated committed expenditure at ₹1,08,094 crore, equivalent to 42 percent of estimated revenue receipts, comprising salaries at 20 percent of revenue receipts, pensions at 13 percent, and interest payments at 9 percent (PRS Legislative Research, 2025). The Wire's analysis of CAG data found an even starker picture for 2022-23, with revenue expenditure, primarily salaries, pensions, and interest, accounting for 84.7 percent of the state's total spending, leaving a comparatively small residual for capital expenditure on hospitals, roads, and irrigation (The Wire, 2025).

Total expenditure, excluding debt repayment, was estimated at ₹2,94,075 crore for 2025-26, a nominal decrease of 10 percent from the revised estimates of 2024-25, reflecting a degree of consolidation following a period of elevated spending (PRS Legislative Research, 2025). Revenue expenditure alone was proposed to rise to ₹2,84,134 crore for 2026-27, an annualized increase of 14 percent over the 2024-25 actual (PRS Legislative Research, 2026). The Bihar Economic Survey 2025-26 separately recorded revenue expenditure at approximately ₹2,19,015 crore, equivalent to 22.1 percent of GSDP for the relevant reference year, a figure broadly consistent with the trajectory described in the budget documents (Bihar Institute of Public Finance and Policy, 2026).

The efficiency question in Bihar's expenditure profile is less about the level of spending, which has risen substantially in absolute terms, and more about its composition. A national comparison by the Confederation of Indian Industry found that social sector spending across Indian states stood at approximately 8.2 percent of GDP for 2025-26, with capital outlay having risen from 2.3 percent pre-pandemic to 3.0 percent, aided substantially by the central government's scheme of interest-free 50-year loans to states for capital expenditure, particularly in irrigation and transport (CII, 2026). Bihar has been a significant beneficiary of this scheme, and Chapter 2.3 examines its capital expenditure trajectory in more detail. Nonetheless, the persistence of committed expenditure at over 40 percent of revenue receipts constrains the state's ability to reallocate spending toward productive investment without either raising own revenue or securing larger transfers.

2.3 Capital Expenditure: Infrastructure Investment and Asset Creation

Bihar's capital expenditure has shown a genuinely encouraging upward trend in recent years, even if it remains modest relative to the scale of the state's infrastructure deficit. The Bihar Economic Survey 2025-26 recorded that Gross Fixed Capital Formation in the state nearly doubled over five years, rising from ₹17,416 crore to ₹34,905 crore in 2024-25 (Bihar Institute of Public Finance and Policy, 2026). This trend has been assisted substantially by the Government of India's scheme of interest-free capital loans to states, which are explicitly excluded from the calculation of a state's borrowing ceiling and have been an important source of financing for capital projects since 2020-21 (PRS Legislative Research, 2026).

A 16th Finance Commission evaluation study of Bihar's state finances, covering the period 2012-13 to 2022-23, found that off-budget borrowing in Bihar remained relatively contained, at ₹2,078 crore or 0.27 percent of GSDP in 2022-23, suggesting that most capital financing has been routed through the regular budget rather than through opaque off-budget vehicles, a finding that is relevant to the fiscal transparency assessment in section 2.5 below (Fifteenth and Sixteenth Finance Commission Secretariat, 2025). At the same time, The Wire's analysis found that in Bihar, debt accounted for 99.3 percent of the state's capital receipts, indicating that capital investment in the state continues to be financed almost entirely through borrowing rather than through asset sales, disinvestment, or loan recoveries (The Wire, 2025). The same analysis characterized much of Bihar's recent capital spending as yielding comparatively low development returns relative to the debt incurred to finance it, a concern that underscores the importance of project selection and execution capacity, addressed further in Chapter 4's discussion of public-private partnerships and Chapter 8's review of transport infrastructure.

2.4 Fiscal Deficit, Primary Deficit and Debt Sustainability

Bihar's fiscal deficit trajectory over the past several budget cycles illustrates a pattern of ambitious budgeted targets that have repeatedly been overshot at the revised estimate stage. The state's Fiscal Responsibility and Budget Management Act, 2006, together with central government borrowing ceilings, has generally targeted a fiscal deficit of around 3 percent of GSDP, sometimes extended to 3.5 percent where the state undertakes power sector reforms (PRS Legislative Research, 2025). In practice, Bihar has substantially exceeded these targets in recent years. The fiscal deficit for 2023-24 was budgeted at 3 percent of GSDP but reached 8.9 percent at the revised estimate stage, and the fiscal deficit for 2024-25 was budgeted at 3 percent but reached 9.2 percent, later cited elsewhere as 4.2 percent of GSDP on an actuals basis, reflecting some variation in reporting basis across sources (PRS Legislative Research, 2025, 2026). For 2025-26, the fiscal deficit was again budgeted at 3 percent of GSDP but the revised estimate rose sharply to 11.8 percent, an overshoot the Confederation of Indian Industry attributed largely to an unusually high 2024-25 base combined with front-loaded capital expenditure and revenue shortfalls rather than a structural deterioration (CII, 2026; PRS Legislative Research, 2026). The 2026-27 budget again targets a fiscal deficit of 3 percent of GSDP, equivalent to ₹39,112 crore (PRS Legislative Research, 2026; Testbook, 2026c).

On debt sustainability, a NITI Aayog macro-fiscal assessment found Bihar's debt-to-GSDP ratio at 39.6 percent in 2022-23, higher than the median Indian state, with fiscal and primary deficits in 2021-22 also running nearly a full percentage point above the median state (NITI Aayog, 2025). The Wire's analysis using CAG data placed Bihar's total liabilities at ₹2.93 lakh crore, or 39.35 percent of GSDP, against a prudential threshold of 33.3 percent, with public debt alone at ₹2.43 lakh crore, or 32.6 percent of GSDP, a level that made Bihar the fifth most indebted major state in the country by this measure (The Wire, 2025). PRS Legislative Research's budget analysis for 2025-26 placed outstanding debt at an estimated

37 percent of GSDP at the end of that year, broadly similar to the revised estimate for 2024-25 of 37.1 percent (PRS Legislative Research, 2025).

Perhaps most consequential for the state's long-term fiscal planning, the NITI Aayog debt sustainability analysis found that under a baseline scenario in which current debt levels, primary deficit, real growth, and real effective interest rates persist unchanged, Bihar's debt-to-GSDP ratio is not projected to decline over a five-year horizon (NITI Aayog, 2025). The same analysis noted that only through higher growth, a lower primary deficit, or some combination of the two, can the debt-to-GSDP trajectory realistically be expected to turn downward (NITI Aayog, 2025). This finding carries direct implications for the financing strategy set out in Chapter 21 of this framework, since it suggests that Bihar's recent above-average GSDP growth, while necessary, will not by itself be sufficient to stabilize the state's debt position unless accompanied by expenditure discipline or a meaningful increase in own revenue mobilization.

2.5 State's Borrowings, Guarantees and Off-Budget Liabilities

Beyond conventional public debt, Bihar's fiscal position is also shaped by contingent liabilities in the form of state government guarantees extended to public sector undertakings and other entities. The Wire's CAG-based analysis found that Bihar's total liabilities of 39.35 percent of GSDP already incorporated a meaningful guarantee component beyond the 32.6 percent attributable to direct public debt (The Wire, 2025). Nationally, the Confederation of Indian Industry has flagged the rise in off-budget borrowing through state-owned entities, particularly power distribution companies, as a concern that creates future repayment obligations while reducing fiscal transparency, a concern that the 16th Finance Commission has sought to address through enhanced reporting mandates (CII, 2026). As noted above, Bihar's own off-budget borrowing was comparatively modest at 0.27 percent of GSDP in 2022-23 according to the Sixteenth Finance Commission's state evaluation study, suggesting the state has thus far relied less heavily on this channel than some peers, though continued vigilance is warranted given the sector's opacity nationally (Fifteenth and Sixteenth Finance Commission Secretariat, 2025).

The CAG has separately noted, in a finding that applies across most Indian states including Bihar, that a large share of state borrowings nationally, on the order of 70 percent, are effectively absorbed by pension and interest obligations rather than productive investment, reinforcing the point made in section 2.2 that Bihar's fiscal space is substantially pre-committed before any discretionary allocation decisions are made (The Wire, 2025).

2.6 Finance Commission Awards: Allocation and Utilisation

Bihar's share of the divisible pool of central taxes has increased modestly across successive Finance Commission cycles, rising from 9.7 percent under the Fourteenth Finance Commission to 10.1 percent under the Fifteenth Finance Commission, alongside a 0.5 percentage point increase in Bihar's share of total grants-in-aid over the same transition (NITI

Aayog, 2025). Bihar's overall share of tax devolution nationally stands at approximately 10.07 percent, the second highest of any state after Uttar Pradesh, reflecting the population-weighted formula used by the Finance Commission and Bihar's status as India's third most populous state (The Wire, 2025).

At the local government level, the Sixteenth Finance Commission's state evaluation study found that Union Finance Commission grants and Fifth State Finance Commission grants together constituted approximately 46 percent and 25 percent, respectively, of total revenues for Bihar's Panchayati Raj Institutions, underscoring that even at the sub-state level, Bihar's local bodies remain heavily dependent on formula-based transfers rather than own-source revenue (Fifteenth and Sixteenth Finance Commission Secretariat, 2025). The same study noted that as of April 2021, no taxes were being levied and collected by Panchayati Raj Institutions in Bihar because the state government had not notified applicable tax rates, a significant gap in fiscal decentralization that is examined further in Chapter 12 (Fifteenth and Sixteenth Finance Commission Secretariat, 2025). As of March 2024, Bihar had 8,624 Panchayati Raj Institutions in operation, and while these bodies have formally been assigned self-governance functions across 29 subjects spanning 20 state government departments, the absence of independent tax authority leaves their functional autonomy substantially incomplete (Fifteenth and Sixteenth Finance Commission Secretariat, 2025).

2.7 GST Implementation: Revenue Impact and Compensation Status

The Goods and Services Tax regime continues to be the single largest component of Bihar's own tax revenue base, and its performance has been a source of some volatility in recent budget cycles. PRS Legislative Research's analysis of the 2026-27 budget noted that in 2024-25, actual State GST revenue came in 8 percent lower than the budget estimate, illustrating the difficulty state finance departments face in forecasting SGST collections accurately (PRS Legislative Research, 2026). Nationally, the share of State GST within total own tax revenue across major states was estimated to rise from 42.20 percent in 2023-24 to 43.57 percent in 2025-26, reflecting the tax's growing centrality to state finances even as compensation-related transfers, which had cushioned states during the initial GST rollout period, have been progressively withdrawn (Forum for State Studies, 2025). The Sixteenth Finance Commission has recommended the elimination of post-devolution revenue deficit grants that had previously been significant for several states, a change expected to increase reliance on GST buoyancy and own-source collection efficiency going forward (CII, 2026). For a state such as Bihar, where own tax revenue as a share of GSDP has been declining even as absolute collections rise, continued attention to SGST compliance, registration expansion, and anti-evasion measures will be central to any credible strategy for reducing dependence on central transfers, a theme returned to in Chapter 21's financing strategy.

2.8 Public Financial Management Reforms and Audit Compliance

Public financial management in Bihar has been the subject of sustained scrutiny by the Comptroller and Auditor General, whose findings, synthesized in the Sixteenth Finance

Commission's dedicated evaluation of Bihar's state finances covering 2012-13 to 2022-23, span revenue receipts and expenditure, deficits, debt and liabilities, the performance of Panchayati Raj Institutions and Urban Local Bodies, the financial health of state public sector enterprises, and the fiscal effects of power sector reforms (Fifteenth and Sixteenth Finance Commission Secretariat, 2025). This evaluation represents one of the most granular independent assessments of Bihar's fiscal management available and has been used throughout this chapter as a primary source precisely because of its comprehensiveness and its basis in audited, rather than self-reported, budget data.

Among its findings, the evaluation highlighted that Bihar's state public sector enterprises, numbering 37 working entities as of the reference period, together represented a turnover relative to GSDP that the report examined sector by sector, alongside documented losses incurred by these enterprises between 2020-21 and 2022-23 (Fifteenth and Sixteenth Finance Commission Secretariat, 2025). The performance and reform agenda for these public sector undertakings is examined in greater depth in Chapter 4.6 of this framework. On audit compliance more broadly, the persistence of significant gaps between budgeted and revised fiscal deficit estimates across successive years, documented in section 2.4 above, itself points to continuing weaknesses in expenditure forecasting and mid-year fiscal monitoring that would benefit from strengthened public financial management systems, including more frequent and granular in-year expenditure tracking.

2.9 Centre-State Fiscal Relations: Trends and Themes

The overarching theme that emerges from this chapter's review of Bihar's fiscal architecture is one of substantial and, in the near term, unavoidable dependence on the Union government, combined with a state government that has nonetheless begun to expand its capital expenditure and pursue a more ambitious development agenda through its own budgetary choices. The state's Saat Nishchay-3 roadmap, covering the period 2025 to 2030, sets out targets including doubling per capita income, accelerating industrialization, raising farmer incomes, improving education and medical services, developing new planned cities, and improving ease of living (PRS Legislative Research, 2026). Achieving these targets within a fiscal architecture where own tax revenue constitutes only around 5 percent of GSDP, and where devolution and grants together constitute roughly three-quarters of total revenue, will require either a marked improvement in Bihar's own revenue mobilization, sustained and predictable central transfers, or, more realistically, some combination of both.

The NITI Aayog's macro-fiscal landscape assessment for Bihar concluded that the state's debt-to-GSDP ratio would not decline under prevailing trends without higher growth or reduced primary deficits (NITI Aayog, 2025), a conclusion this framework takes as a central constraint shaping the fiscal strategy proposed in Chapter 21. Centre-state fiscal relations for Bihar are therefore best understood not as an adversarial dynamic, but as a structural feature of the state's development model: a state with limited own fiscal capacity, a young and rapidly growing population, and an ambitious development agenda that is, for now, substantially financed by transfers determined outside the state's own control. The durability

of Bihar's recent growth acceleration, and the credibility of any human development catch-up strategy built upon it, will depend in considerable part on how this fiscal relationship evolves over the coming Finance Commission cycles.

Chapter 3: Economic Structure, Growth and Sectoral Performance

3.1 Gross State Domestic Product: Trends, Growth Rate and Sectoral Share

Bihar's Gross State Domestic Product has entered a period of sustained acceleration that marks a genuine departure from its long-run historical trend. Over the decade from 2012-13 to 2021-22, Bihar's real GSDP grew at an average annual rate of 5.0 percent, below the national average of 5.6 percent over the same period, and the state's nominal share of national GDP actually declined over three decades, from 3.6 percent in 1990-91 to 2.8 percent in 2021-22 (NITI Aayog, 2025). Against that backdrop, the performance recorded in the Bihar Economic Survey 2025-26 represents a marked inflection. GSDP at current prices reached ₹9,91,997 crore in 2024-25, with growth of 13.1 percent in nominal terms and 8.6 percent in real terms, exceeding India's national GDP growth of 9.8 percent and 6.5 percent, respectively, for the third consecutive year (Bihar Institute of Public Finance and Policy, 2026).

In the two preceding years, Bihar's nominal GSDP growth had reached 17.9 percent in 2022-23 and 14.9 percent in 2023-24, compared to national growth of 14.0 percent and 12.0 percent, respectively (BPSC Pathshala, 2026). The state's own budget documents project GSDP for 2025-26 at approximately ₹10.97 lakh crore, implying growth of around 22 percent for that year, and a further rise to approximately ₹13.1 lakh crore for 2026-27, an anticipated growth of 15 percent (PRS Legislative Research, 2025, 2026).

On sectoral composition, the most significant structural development has been the growing weight of the secondary sector. Between 2020-21 and 2024-25, the secondary sector's share of Bihar's Gross State Value Added at constant 2011-12 prices rose from 21.1 percent to 26.8 percent, while the share of agriculture declined to 18.3 percent and services eased to 54.8 percent (People Matters, 2026). At current prices for 2024-25, the primary sector grew 9.6 percent, the secondary sector 15.5 percent, and the tertiary sector 13.5 percent over the previous year, with the secondary sector's real growth of 11.1 percent outpacing both services at 8.9 percent and the primary sector at 4.1 percent (Bihar Institute of Public Finance and Policy, 2026; BPSC Pathshala, 2026). This shift, led by manufacturing and construction, indicates the early stages of a structural transformation away from agrarian dependence, though the pace and durability of that transformation remain to be tested over a longer horizon than the three years of data currently available.

3.2 Per Capita Income and Purchasing Power Analysis

Despite the acceleration in aggregate GSDP growth, Bihar's per capita income remains the lowest of any Indian state, a position that has persisted through the recent growth cycle because population growth and a low starting base continue to weigh on the per capita figure. The Bihar Economic Survey 2025-26 recorded per capita GSDP at current prices rising from ₹46,412 in 2020-21 to ₹76,490 in 2024-25, and at constant 2011-12 prices from ₹30,159 to ₹40,973 over the same period (BPSC Pathshala, 2026). NITI Aayog's macro-fiscal

assessment, using an earlier reference year, found Bihar's nominal per capita income to be only around 30 percent of the national per capita income (NITI Aayog, 2025), underscoring the scale of the gap that remains even after several years of above-average growth.

Within Bihar, the disparity in per capita income across districts is itself substantial. Patna district recorded the highest per capita Gross District Domestic Product in the state at approximately ₹2,41,220, followed by Begusarai at approximately ₹1,05,600 and Munger at approximately ₹93,921 (BPSC Pathshala, 2026).

By contrast, Wikipedia's compilation of district-level data placed per capita income in several districts below ₹40,000, indicating an internal spread of roughly six-fold across the state (Wikipedia, 2026b). In comparative urban terms, Patna's per capita income of approximately ₹1.85 lakh remains far below that of India's leading metropolitan economies, including Gurugram at approximately ₹7.41 lakh, Bengaluru at approximately ₹6.21 lakh, and Mumbai at approximately ₹6.43 lakh (Wikipedia, 2026b), a comparison that illustrates the scale of the gap even Bihar's most prosperous district faces relative to India's most dynamic urban economies.

3.3 Primary Sector: Agriculture, Horticulture, Animal Husbandry and Fisheries

Agriculture remains the largest source of employment in Bihar even as its share of output continues to decline. The Bihar Economic Survey 2025-26 recorded that the primary sector employs approximately 54 percent of the state's workforce while contributing a much smaller share of GSVA, a structural mismatch that reflects low agricultural productivity relative to the sector's labour absorption (Bihar Institute of Public Finance and Policy, 2026). Within cropping patterns for the period 2020-21 to 2024-25, foodgrains accounted for 95.2 percent of the gross cropped area under the relevant classification, cereals for 89.2 percent, and pulses for only 6.0 percent, indicating limited diversification toward higher-value crops (Bihar Institute of Public Finance and Policy, 2026).

Allied activities have shown more encouraging momentum. Milk production rose by 4.2 percent, egg production by 10.0 percent, and fish production by 9.9 percent, with total fish production reaching 960 thousand tonnes and Madhubani district emerging as the state's leading producer (Bihar Institute of Public Finance and Policy, 2026). The state government has supported this growth through schemes including the Mukhyamantri Samekit Chaur Vikas Yojana, targeting the development of Bihar's extensive chaur, or seasonal wetland, ecosystems for aquaculture, alongside the River Ranching Programme and the Jalashay Matsyiki Vikas Yojana for reservoir-based fisheries development (Bihar Institute of Public Finance and Policy, 2026).

These allied sector gains are examined in greater sectoral depth in Chapter 18, alongside a fuller treatment of irrigation, agricultural marketing, and farmer income, given that the Standardized Document Format allocates a dedicated chapter to agriculture that extends beyond the summary treatment appropriate here.

3.4 Secondary Sector: Industry, Manufacturing and Mining

The secondary sector has been the principal driver of Bihar's recent growth acceleration, with its share of Gross State Value Added rising from 21.1 percent in 2020-21 to 26.8 percent in 2024-25 at constant prices, growing 11.1 percent in real terms in 2024-25 alone (People Matters, 2026). Within the sector, construction has historically commanded the largest individual share, at approximately 8.7 percent of total GSVA in an earlier reference year, with manufacturing contributing approximately 7.8 percent, electricity approximately 1.5 percent, and mining a comparatively minor 0.2 percent (NITI Aayog, 2025). Manufacturing's share of total workers stood at approximately 5.7 percent in 2022-23, below the national estimate for the same year, indicating that the sector's contribution to output growth has not yet been matched by a commensurate expansion in manufacturing employment (NITI Aayog, 2025).

Bihar holds notable, if underexploited, mineral resources that could support secondary sector expansion over the coming decades. The state is estimated to hold approximately 95 percent of India's known pyrite reserves, and a 2022 gold discovery in Jamui district is estimated to represent more than 44 percent of the country's gold reserves, at approximately 223 million tonnes of ore (Wikipedia, 2026b). The pace at which these mineral assets are brought into productive use, addressed further in Chapter 13's treatment of mining and mineral resource governance, will materially influence whether Bihar's secondary sector growth can be sustained beyond the current construction-led phase.

3.5 Tertiary Sector: Trade, Finance, Real Estate and Services

The services sector remains the largest single contributor to Bihar's GSVA, even as its relative share has eased somewhat as the secondary sector expands. Services accounted for approximately 54.8 percent of GSVA in 2024-25 at constant prices, down modestly from a higher base, and grew at 8.9 percent in real terms and 13.5 percent at current prices over the same year (People Matters, 2026; Bihar Institute of Public Finance and Policy, 2026). An earlier NITI Aayog assessment placed the services sector's share even higher, at 57.1 percent of GSVA, ahead of agriculture at 24.3 percent and industry at the residual share, underscoring the sector's longstanding dominance in the state's economic structure (NITI Aayog, 2025). Within financial services, total bank deposits in Bihar reached approximately ₹5.69 lakh crore as of March 2025, with total bank credit at approximately ₹3.04 lakh crore, a credit-to-deposit ratio that remains comparatively low and points to continuing gaps in credit penetration relative to the scale of deposit mobilization in the state (BPSC Pathshala, 2026). This gap is examined further in Chapter 4's assessment of the investment climate and Chapter 12's discussion of rural credit institutions.

3.6 Informal Economy: Size, Significance and Integration Challenges

Bihar's labour market remains heavily informalized, a feature closely tied to the state's low rate of manufacturing employment and its continued dependence on agriculture and self-employment. The NITI Aayog macro-fiscal landscape assessment found that Bihar's

working population is concentrated predominantly in agriculture, forestry and fishing, services, and construction, sectors in which informal, casual, and self-employment arrangements are the norm rather than the exception (NITI Aayog, 2025). The Bihar Economic Survey for 2024-25 similarly noted a high reliance on self-employment and casual labour, particularly in rural areas, with agriculture continuing to engage over half the workforce and construction and trade serving as the principal sources of employment outside agriculture (BPSC Concept Wallah, 2025).

Female labour force participation in Bihar illustrates the scale of informalization particularly clearly. Female participation in Bihar is predominantly concentrated in rural areas, and the majority of the female workforce comprises self-employed individuals, typically in unpaid or low-remuneration household and agricultural work, rather than salaried or regular wage employment (NITI Aayog, 2025). At the same time, longitudinal research from the Economic Advisory Council to the Prime Minister has documented a striking recent improvement, finding that rural Bihar's female labour force participation rate, while still the lowest among eastern states, grew by a factor of approximately six in recent years, among the largest gains recorded anywhere in the country, particularly among rural married women (Ravi & Kapoor, 2024). The integration challenge going forward is less about generating labour force entry, which appears to be occurring, and more about shifting that participation from informal, low-productivity work toward formal employment with social security coverage, a theme that connects directly to the skill development priorities discussed in Chapter 17.

3.7 Labour Market: Employment, Unemployment and Workforce Quality

Bihar's labour market is distinguished nationally by an unusually low overall labour force participation rate combined with a comparatively low headline unemployment rate, a combination that reflects large-scale withdrawal from the labour force, particularly among women, rather than an absence of joblessness among those who do seek work. According to PLFS 2022-23 data cited in the Bihar Economic Survey, Bihar's overall labour force participation rate stood at 43.4 percent, well below the national average of 56.0 percent, with male participation at 70.6 percent and female participation at only 15.6 percent (BPSC Concept Wallah, 2025). More recent compilations using PLFS 2022-23 and subsequent data place Bihar's LFPR at approximately 41.0 percent, again among the lowest of any Indian state, a position the India Data Map analysis attributes to the state's limited industrial development and the resulting concentration of the working-age population in either unemployment or low-skill agricultural work (India Data Map, 2026). The Economic and Political Weekly's review of the redesigned PLFS 2025 confirmed that Bihar, alongside Uttar Pradesh, Haryana, and Delhi, continued to report an LFPR below 50 percent even as the national LFPR rose to 55.7 percent in 2025 (Economic and Political Weekly, 2026).

On unemployment specifically, the Bihar Economic Survey recorded an overall unemployment rate of 3.4 percent in Bihar compared to 3.2 percent nationally as of PLFS 2022-23, but youth unemployment in urban Bihar, for the 15 to 29 age group, stood considerably higher at 10.8 percent (BPSC Concept Wallah, 2025). More recent quarterly

PLFS data covering FY25 recorded a sharper deterioration, with Bihar's urban youth unemployment rate rising to 26.4 percent from 20.8 percent across the quarters examined, one of the largest increases recorded among Indian states over that period (Shankar IAS Parliament, 2026). This divergence between a moderate headline unemployment rate and a considerably higher and rising youth unemployment rate is one of the more consequential labour market findings in this framework, and it reinforces the concern, raised in Chapter 1.3, that Bihar's demographic dividend could as easily become a demographic liability if youth employment generation does not keep pace with the growing cohort of young labour market entrants. High rates of out-migration, predominantly among young rural males seeking work outside the state, continue to be a defining feature of Bihar's labour market and are treated in greater depth in Chapter 20.4 on migration.

3.8 Inflation, Price Stability and Consumer Welfare

Price stability data specific to Bihar at the granularity available for this framework is less extensively published in state-specific form than the growth and employment indicators discussed above, since consumer price indices are generally compiled and reported at the all-India and select-city level by the National Statistical Office rather than comprehensively at the state level. What can be said with confidence from the sources reviewed for this chapter is that Bihar's recent growth in nominal GSDP, at 13.1 percent for 2024-25 against real growth of 8.6 percent, implies a GSDP deflator of approximately 4 to 5 percentage points, broadly consistent with prevailing national inflation trends over the same period (Bihar Institute of Public Finance and Policy, 2026). A more granular, Bihar-specific analysis of consumer price trends, rural versus urban inflation differentials, and the effectiveness of the public distribution system in insulating vulnerable households from price shocks would strengthen future editions of this framework, and is flagged here as a data gap rather than papered over with unsupported figures.

3.9 Growth Corridors: Engines of Economic Expansion

Several geographic and sectoral corridors have emerged as the principal engines of Bihar's recent growth acceleration. The Patna-Begusarai-Munger axis along the Ganga continues to anchor the state's highest per capita district output, benefiting from relatively stronger industrial and service-sector infrastructure, financial services concentration, and connectivity (Bihar Institute of Public Finance and Policy, 2026; Wikipedia, 2026b). The state government's proposed Industrial Manufacturing Cluster in Gaya, entering its second phase under the 2026-27 budget, represents an explicit attempt to extend industrial growth beyond the traditional Patna-centric corridor into South Bihar (Testbook, 2026c). Air transport has emerged as a particularly fast-growing corridor in its own right, with the sector recording growth of approximately 20 percent, supported by the ongoing expansion of Patna airport's terminal capacity to 8 million passengers annually and the construction of a new civil enclave at Bihta with an annual capacity of 2.5 million passengers, alongside the under-construction Purnea Airport intended to improve connectivity to some of the state's most backward

northern and eastern districts (Bihar Institute of Public Finance and Policy, 2026; Wikipedia, 2026b).

Taken together, the picture that emerges from this chapter is of an economy in genuine structural transition, with manufacturing and construction beginning to displace agriculture's traditional dominance of output, even as agriculture continues to absorb the majority of the workforce, and even as the benefits of this transition have yet to translate into either a significant rise in Bihar's relative per capita income position or a resolution of the state's persistently high youth unemployment. Chapter 4 turns to the investment climate and industrial policy framework that will need to evolve further if these growth corridors are to broaden and deepen over the coming decade.

Chapter 4: Investment, Industry and Private Sector Development

4.1 Investment Climate Assessment and Ease of Doing Business

Bihar's investment climate has historically been constrained by weak infrastructure, limited industrial legacy, and a reputation for regulatory unpredictability, but the state has undertaken sustained reform efforts over the past decade to address these constraints. Since 2015, the Government of India has implemented the Business Reforms Action Plan across states and union territories, with the eighth edition, BRAP 2026, formally rolled out on November 11, 2025, to promote transparency, simplify regulatory procedures, and enhance service delivery (Press Information Bureau, 2026). Nationally, more than 47,000 compliance requirements have been reduced as of November 2025, including 16,108 simplified, 22,287 digitized, and 4,458 decriminalized, reforms that apply to businesses operating in Bihar as they do across the country (Press Information Bureau, 2026).

At the state level, Bihar's own Industrial Investment Promotion Policy, first adopted in 2016, introduced several ease of doing business measures specific to the state, including the UDYOG SAMWAD portal for grievance redressal, an effective single window clearance system, an online inspection system, provision for a single integrated return under various labour laws, and differentiated compliance inspection requirements calibrated to the risk profile of individual industries (Government of Bihar, Department of Industries, 2016). These reforms have been extended and deepened through the Bihar Industrial Investment Promotion Package 2025, approved by the state cabinet on August 26, 2025, which remains in effect until March 31, 2026, and is explicitly framed as part of the state's effort to generate one crore employment opportunities over the next five years (Drishti IAS, 2026c). Under this package, investors can access land at a nominal fee of ₹1 for setting up new industries, with allotments of up to 10 acres available for investments of ₹100 crore that create 1,000 jobs, and up to 25 acres for larger projects exceeding ₹1,000 crore (Drishti IAS, 2026c). The package additionally provides interest subvention of up to ₹40 crore and a capital subsidy of up to 30 percent for new industrial units, alongside support for skill development, environmental protection, renewable energy adoption, stamp duty and land conversion fee reimbursement, private industrial park development, patent registration, and quality certification (News on Air, 2026).

4.2 Industrial Policy Framework and MSME Development

Bihar's industrial policy framework has consistently identified Micro, Small and Medium Enterprises as a central pillar of the state's industrialization strategy, reflecting both the state's limited base of large anchor industries and the labour-intensive nature of the sectors in which Bihar holds comparative advantage. A strategic investment plan prepared under the Ministry of MSME's RAMP programme identified more than fifteen potential priority sectors for MSME development in Bihar, including agro-based industries, textiles and leather, dairy, sugar, food processing, handloom, tourism, IT and IT-enabled services, and handicrafts (Ministry of MSME, 2025). The plan noted that Bihar has emerged as a hub for textiles,

garments, food processing, pharmaceuticals, and renewable energy, supported by the establishment of industrial parks, clusters, and special economic zones under the broader Make in India initiative (Ministry of MSME, 2025).

Credit access remains a central constraint on MSME growth in the state, and the government has sought to address this through promotion of non-banking financial companies and microfinance institutions alongside conventional banking channels. As of March 2023, the Pradhan Mantri Mudra Yojana had provided over 10 million loans to businesses in Bihar, reflecting the scale of demand for small-ticket credit among the state's informal and semi-formal enterprise base (Ministry of MSME, 2025). Nationally, digital credit underwriting programmes for MSMEs have gained traction, with public sector banks sanctioning over 3.96 lakh MSME loan applications amounting to more than ₹52,300 crore between April and December 2025 using digitally verifiable data and automated appraisal, a channel that could meaningfully improve credit access for Bihar's MSME sector if uptake in the state keeps pace with national trends (Press Information Bureau, 2026).

4.3 Large and Anchor Industries: Sectoral Analysis

Bihar's large industry base remains concentrated in a handful of well-established clusters, most notably around Hajipur, Phulwari Sharif, and Bihta near Patna, an area known for pharmaceuticals, textiles, engineering, chemicals, food processing, and packaging (Ministry of MSME, 2025). Hajipur in particular functions as a significant industrial town within this cluster. Beyond this core, Bihar's largest single sectoral employer by far remains agriculture and its allied processing industries, with the state ranking as the fourth-largest producer of vegetables and eighth-largest producer of fruits in India, a natural resource advantage that underpins the food processing sector's continued classification as one of the state's fastest-growing industries alongside dairy, sugar, manufacturing, and healthcare (India Brand Equity Foundation, 2026a).

The Gaya Industrial Manufacturing Cluster, whose second phase was announced in the 2026-27 state budget, represents the most significant recent attempt to establish a new anchor industrial zone outside the traditional Patna-Hajipur corridor (PRS Legislative Research, 2026). Its success or otherwise over the coming years will be an important indicator of whether Bihar's industrial base can genuinely diversify geographically, a question directly relevant to the intra-state disparity concerns raised in Chapter 1.7.

4.4 Special Economic Zones, Industrial Corridors and Clusters

Bihar's participation in national industrial corridor initiatives remains at a comparatively early stage relative to states such as Gujarat, Maharashtra, and Haryana that have benefited more substantially from corridor-linked investment. The state's 2016 Industrial Investment Promotion Policy specifically identified opportunities under the proposed Amritsar-Kolkata Industrial Corridor, through which the state government would assist investors in identifying suitable land within designated corridor zones, while units located outside these zones would

need to source land independently (Government of Bihar, Department of Industries, 2016). Cluster-based development has been actively promoted for leather, small machinery, plastics, garments, jute and textiles, and food processing, sectors in which the state government has identified natural comparative advantage warranting concentrated infrastructure investment (Government of Bihar, Department of Industries, 2016). IT and IT-enabled services, along with electrical and electronic hardware manufacturing, have been prioritized for development in and around Bihta in Patna district and in Rajgir, reflecting an explicit strategy of establishing new-economy industrial nodes alongside the state's more traditional manufacturing clusters (Government of Bihar, Department of Industries, 2016).

4.5 Foreign Direct Investment: Inflows, Sectoral Distribution and Policy

Bihar's foreign direct investment inflows remain modest by national standards, reflecting the broader pattern in which India's FDI is heavily concentrated in states with stronger existing infrastructure and institutional capacity. According to Department for Promotion of Industry and Internal Trade data, cumulative FDI equity inflows into Bihar totaled approximately ₹1,915 crore, or US\$215.9 million, over the period from October 2019 to June 2025 (India Brand Equity Foundation, 2026b). A broader academic review of India's FDI landscape explicitly identified Bihar, alongside Jharkhand, Rajasthan, and much of eastern India, as a lagging state in terms of FDI attraction, a pattern the study attributed to infrastructure deficiency and institutional constraints rather than to any specific sectoral disadvantage (International Journal of Advanced Research, 2025). The same review noted that India's FDI structure overall continues to be dominated by knowledge-intensive and service-sector industries concentrated in a small number of states, with manufacturing FDI remaining comparatively modest even at the national level, a pattern that compounds the challenge for a state such as Bihar seeking to attract manufacturing-linked foreign investment specifically (International Journal of Advanced Research, 2025).

Addressing this gap will likely require the kind of sustained infrastructure investment discussed in Chapters 8 and 9, alongside continued policy signaling through instruments such as the Industrial Investment Promotion Package, before Bihar's FDI inflows can be expected to approach the scale seen in states with more established industrial ecosystems.

4.6 Public Sector Undertakings: Performance and Reform Agenda

Bihar maintains a portfolio of State Public Sector Enterprises whose financial performance has been the subject of detailed review under the Sixteenth Finance Commission's evaluation of the state's finances. That evaluation examined 37 working state public sector enterprises, assessing their turnover relative to GSDP by sector and documenting losses incurred across these entities between 2020-21 and 2022-23 (Fifteenth and Sixteenth Finance Commission Secretariat, 2025). While the evaluation's granular findings on individual enterprise performance extend beyond the sources available to this framework in full detail, the broader finding that a meaningful share of Bihar's public sector enterprise portfolio has continued to incur losses through the early 2020s indicates that PSU reform, whether through

restructuring, disinvestment, or improved corporate governance, remains an unresolved item on the state's economic policy agenda. This is particularly relevant for the power sector, where distribution companies NBPDC and SBPDCL, despite recent recognition through the Innovation and Impact Award for DISCOMs 2025 at the 19th India Energy Summit, and the transmission utility BSPTCL's five consecutive years of an A+ rating from the Power Finance Corporation between 2020 and 2025, continue to represent a segment where financial sustainability and service quality require ongoing attention, discussed further in Chapter 9 (Bihar Institute of Public Finance and Policy, 2026).

4.7 Public-Private Partnership Framework and Pipeline

Bihar's use of public-private partnerships remains at a relatively early stage of development compared to states with more mature PPP ecosystems, though the state has increasingly leveraged central government financing instruments, including interest-free capital loans, to support infrastructure projects that combine public and private execution. The Wire's fiscal analysis, discussed in Chapter 2.3, cautioned that the overwhelming majority of Bihar's capital receipts, 99.3 percent, are currently financed through borrowing rather than through revenue-generating mechanisms such as asset monetization or private co-investment, suggesting that the state's PPP pipeline has yet to meaningfully offset its reliance on debt-financed capital expenditure (The Wire, 2025). At the national level, the government's three-year PPP project pipeline, launched in January 2026, is reported to cover projects worth a substantial aggregate value, and Bihar's ability to secure a meaningful share of this pipeline, particularly in transport, urban infrastructure, and tourism circuit development, will be an important determinant of whether the state can accelerate capital formation without proportionately increasing its debt burden (Testbook, 2026d). The tourism sector in particular has already seen early PPP-style engagement through themed circuit development, including the Ramayana, Buddha, and Sufi circuits and new ropeway projects in Jehanabad and Rohtas, discussed further in Chapter 19 (India Brand Equity Foundation, 2026a).

4.8 Regional Cooperation: Shared Region and Growth

Bihar's economic geography places it at the center of an eastern Indian and cross-border growth region that includes Jharkhand, West Bengal, Uttar Pradesh, and the neighboring country of Nepal, with which Bihar shares its entire northern border. This positioning creates both opportunity and constraint. On the opportunity side, Bihar's rivers, road networks, and rail corridors serve as important transit links for trade between Nepal and the rest of India, and the state's proximity to Kolkata port via rail and road networks positions it as a potential logistics gateway for eastern and northern India, a theme explored further in Chapter 8.4's treatment of ports and inland waterways. On the constraint side, Bihar's shared river systems with Nepal, particularly the Kosi and Gandak, mean that flood management and water resource governance in the state are intrinsically linked to upstream developments and bilateral water-sharing arrangements that lie partly outside the state government's own control, a theme returned to in Chapter 14's treatment of disaster risk. Regional cooperation

frameworks involving neighboring states on shared infrastructure, particularly inter-state road and rail connectivity and coordinated industrial corridor planning, remain an underdeveloped but potentially significant lever for accelerating Bihar's industrial integration with the broader eastern Indian economy, a possibility this framework returns to in Chapter 21's discussion of inter-state cooperation and river boards.

Chapter 5: Education — Access, Quality and Future Readiness

5.1 Elementary Education: Enrolment, Retention, Dropout and Learning Outcomes

Bihar operates one of the largest school systems in India by sheer scale, with approximately 94,339 schools recorded in the Unified District Information System for Education Plus for 2024-25, representing 6.41 percent of all schools nationally, of which 81 percent are government-managed (Education for All in India, 2026a). Total enrolment across this system stood at 21.13 million students in 2024-25, but this figure represents a striking 23 percent decline from 27.47 million students recorded in 2021-22 (Education for All in India, 2026a; UDISE.net, 2026). Multiple sources attribute the bulk of this apparent decline not to genuine dropout but to the removal of duplicate or fictitious "ghost" student records through Aadhaar-based verification drives conducted between 2023-24 and 2024-25, a data quality correction rather than an actual collapse in school attendance (UDISE.net, 2026; Education for All in India, 2026a). This distinction matters considerably for policy interpretation: it suggests that Bihar's school enrolment figures prior to this correction had been substantially inflated for years, likely as a consequence of incentives tied to enrolment-linked funding under schemes such as Samagra Shiksha, and that genuine retention and dropout indicators need to be assessed independently of the top-line enrolment trend.

On genuine retention indicators, Bihar's position remains a matter of concern even after accounting for the ghost student correction. The state's upper primary dropout rate stood at 9.3 percent as of the 2024-25 UDISE+ cycle, among the highest recorded for any Indian state at that level of schooling (UDISE.net, 2026). Girls' enrolment share rose to 49.8 percent of the total, with a Gender Parity Index exceeding 1.0 across most stages, indicating that, where children remain enrolled, gender parity in Bihar's school system compares favourably to national benchmarks (Education for All in India, 2026a). Pupil-teacher ratios, while improved considerably from historical levels, with the state's overall ratio nearly halving over recent UDISE+ cycles, remain elevated relative to national norms, with Bihar's current ratio recorded at 26:1 against a national norm the state's own recent data flagged as a continuing area of scrutiny for post sanctioning decisions (UDISE.net, 2026). An earlier and more granular academic study using UDISE data from 2016-17 had found pupil-teacher ratios in Bihar's elementary schools as high as 44, compared to a national average of 25, illustrating how substantial the improvement over the subsequent decade has been, even if a gap with the national average persists (International Journal for Multidisciplinary Research, 2025).

5.2 Secondary and Senior Secondary Education: Transition and Achievement

Transition from elementary to secondary schooling remains one of the most significant leakage points in Bihar's education pipeline. The state's Class 8 to Class 9 transition rate stood at 71.8 percent as of the most recent UDISE+ data, below the national average, and a broader national analysis identified Bihar, alongside Uttar Pradesh, Rajasthan, Madhya Pradesh, and Assam, as a state requiring urgent intervention at the secondary level, with secondary dropout rates exceeding 15 percent, transition rates around 70 percent, and

retention rates in the range of 50 to 60 percent (UDISE.net, 2026; Education for All in India, 2026b). Nationally, secondary-stage retention stood at only 47.2 percent even after recent improvement, and Bihar's performance on this indicator falls within the lower band of states still needing intervention rather than among states such as Kerala and Tamil Nadu that are approaching universalization (Education for All in India, 2026b).

A separate academic analysis using earlier data found an even starker picture, recording a dropout rate as high as 83 percent at the secondary level in Bihar in a widely cited estimate, alongside pass rates of only 55.4 percent for Class X and 67.2 percent for Class XII examinations as of 2016-17, and a dropout rate of 39.7 percent for Classes VIII to X (Wikipedia, 2026d; International Journal for Multidisciplinary Research, 2025). While more recent UDISE+ data suggests meaningful improvement from these historical lows, the persistence of a large gap between elementary retention, which is comparatively strong, and secondary retention, which remains weak, indicates that the critical policy challenge for Bihar's school system lies specifically in keeping adolescents, and particularly adolescent girls, enrolled through the secondary stage. Girls' secondary dropout in Bihar has been linked in the research literature to child marriage and prevailing gender norms around adolescent girls' roles, with one estimate finding that over 24.5 percent of girls aged 7 to 18 drop out at the secondary stage for reasons connected to marriage preparation rather than access or academic failure alone (Wikipedia, 2026d).

5.3 Higher Education: Institutional Capacity, Gross Enrolment and Quality

Bihar's higher education capacity remains substantially below national benchmarks on almost every available metric. The state's Higher Education Gross Enrolment Ratio stood at only 15.9 percent as of 2021, compared to considerably higher national figures, and its Higher Secondary Gross Enrolment Ratio stood at 35.6 percent as of 2015-16, both well short of national standards recorded in the same UDISE reporting cycles (International Journal for Multidisciplinary Research, 2025). Institutional density compounds this access gap: according to All India Survey on Higher Education data for 2021, Bihar had only 8 colleges per 100,000 population, against a national average of 31, meaning the state's physical higher education infrastructure is barely a quarter as dense as the national norm (International Journal for Multidisciplinary Research, 2025).

This severe capacity constraint has produced a well-documented pattern of large-scale outward student migration, with Bihar's high demand for higher education among secondary school completers driving substantial numbers of students to seek undergraduate and graduate education in other states, including Delhi and Karnataka, a pattern that persists even for programmes that are technically available within the state (Wikipedia, 2026e). This outward migration represents both a symptom of Bihar's higher education capacity deficit and a contributing factor to the state's broader out-migration patterns discussed in Chapter 20.4, since a meaningful share of students who leave for higher education subsequently seek employment in the states or cities where they studied rather than returning to Bihar. Addressing this will require not only expanding the raw number of higher education

institutions but also improving the perceived quality and employability outcomes of degrees earned within the state, a theme connected to the skill development and knowledge economy priorities discussed in Chapters 17.

5.4 Technical, Vocational Education and Training (TVET) Ecosystem

Bihar's technical and vocational education ecosystem has expanded meaningfully in recent years through a combination of state and central schemes targeted at youth employability. The Bihar Economic Survey for 2024-25 documented several active skilling initiatives, including the Kushal Yuva Programme, which targets youth aged 15 to 28 and offers soft skills, IT, and communication training and has been recognized with a SKOCH Award and by NITI Aayog, and Recognition of Prior Learning schemes aimed at the 18 to 59 age group with informal skills, which enable certification under the National Skills Qualification Framework (BPSC Concept Wallah, 2025). A World Bank-supported skill development scheme has introduced additional innovative training programmes, and the Deen Dayal Upadhyaya Grameen Kaushalya Yojana continues to focus specifically on rural poor youth (BPSC Concept Wallah, 2025).

Despite this expanding programme architecture, the scale of formal vocational training penetration in the workforce remains limited both in Bihar and nationally. National PLFS 2025 data found that only 4.2 percent of workers nationally had received formal vocational training, a figure that, absent a Bihar-specific breakdown in the sources reviewed for this framework, likely understates the gap in a state where TVET institutional density lags the national average (Drishti IAS, 2026d). Bridging this gap will require not only continued expansion of programme enrolment but a parallel effort to strengthen linkages between TVET completion and actual formal-sector job placement, an area in which Chapter 17.6 examines skill development and workforce alignment in more depth.

5.5 Teacher Recruitment, Training and Professional Development

Teacher availability and quality remain persistent constraints on Bihar's education system despite substantial improvement in pupil-teacher ratios over the past decade. As noted above, Bihar's pupil-teacher ratio nearly halved across recent UDISE+ reporting cycles, reflecting a sustained state effort at teacher recruitment, yet the current ratio of 26:1 continues to sit above ideal norms, and the state's own recent guidance materials flag continued accuracy in teacher counting as directly determinative of future post sanctioning decisions, suggesting recruitment planning remains an active and unresolved administrative process rather than a completed one (UDISE.net, 2026). Historical data had found pupil-teacher ratios in Bihar's higher secondary schools reaching as high as 48 students per teacher, a level that would severely constrain individualized instruction and is likely to have improved only partially given the broader elementary-level improvements documented above (International Journal for Multidisciplinary Research, 2025).

The E-Shikshakosh digital platform has been deployed as part of the state's broader teacher support and training infrastructure, alongside the BHAVYA initiative aimed at improving foundational learning outcomes, though granular data on the scale and effectiveness of in-service teacher training coverage across Bihar's roughly 94,000 schools was not available in the sources consulted for this chapter and represents a data gap for future editions of this framework (Bihar Institute of Public Finance and Policy, 2026).

5.6 Digital Education, EdTech Integration and ICT in Schools

Bihar's digital education infrastructure continues to lag behind the state's overall progress in school access, reflecting the broader digital divide documented in Chapter 1 and Chapter 16. The Bihar Economic Survey 2025-26 recorded overall teledensity in the state at 57.23 percent and internet density at only 43.10 percent, figures that constrain the feasibility of any large-scale digital learning delivery model reaching students in their homes, particularly in rural areas where internet density is likely to be considerably lower than the state average (Bihar Institute of Public Finance and Policy, 2026).

The recent UDISE+ analysis of Bihar's school system explicitly identified digital gaps as one of the key factors hindering progress toward the National Education Policy 2020's universalization goals for the state, even as other indicators such as gender parity and basic facilities showed improvement (Education for All in India, 2026a). The state's E-Shikshakosh platform and the broader Bihar Student Credit Card Yojana, which provides financing to support continued education, represent early steps toward digital integration, but a comprehensive assessment of ICT infrastructure penetration at the individual school level, covering functional computer labs, internet connectivity, and digital literacy training for teachers, was not available with sufficient granularity in the sources reviewed here.

5.7 Special Education: Children with Disabilities and Inclusive Schooling

Data specific to special education provision and inclusive schooling for children with disabilities in Bihar was limited in the sources available for this chapter, reflecting a broader pattern in which disability-disaggregated education data remains less systematically published than headline enrolment and dropout figures even at the national UDISE+ level.

This represents a genuine data gap rather than an indication that the issue is unimportant, and this framework flags it explicitly as an area requiring dedicated primary research, potentially through direct engagement with Bihar's Department of Education and disability rights organizations operating in the state, before a credible sector assessment can be presented. Chapter 7.7 of this framework addresses the rights, accessibility, and empowerment of persons with disabilities more broadly at the state level, and any future revision of this education chapter should draw directly on that chapter's findings to ensure consistency.

5.8 State-Specific Educational Challenges and Reform Priorities

Taken together, the picture presented in this chapter suggests that Bihar's education system exhibits a distinctive profile: comparatively strong and improving performance at the elementary level, reflected in near-parity gender enrolment and substantially improved pupil-teacher ratios, combined with severe and persistent weaknesses at the secondary and higher education levels, where dropout, low transition rates, and acute institutional capacity shortfalls remain the norm. Bihar's overall literacy rate itself remains a subject of some measurement variation across sources: the 2011 Census recorded 61.8 percent, PLFS 2023-24 recorded 74.3 percent, ranking second lowest among Indian states after Andhra Pradesh, and the state's own 2023 caste-based survey recorded a considerably higher figure of 79.8 percent (Wikipedia, 2026d, 2026e; 21K School, 2026). This spread across sources, spanning nearly 18 percentage points, likely reflects differences in survey methodology, reference period, and age-group definitions rather than genuine year-on-year change of that magnitude, and readers should treat any single literacy figure for Bihar with appropriate caution regarding its precise source and definition.

The state-specific reform priorities that emerge most clearly from this evidence are threefold: first, sustaining and extending the data integrity improvements achieved through the ghost student verification exercise, so that future enrolment and dropout statistics reflect genuine student presence rather than administrative artifacts; second, concentrating intervention resources specifically at the secondary transition point, given that this is where the most severe and persistent leakage in the education pipeline occurs; and third, substantially expanding higher education institutional capacity, given that Bihar's current college density of 8 per 100,000 population against a national average of 31 represents one of the most severe infrastructure deficits documented anywhere in this framework. Chapter 21's medium-term action plan returns to these three priorities as part of the state's broader human capital strategy for Vision 2047.

Chapter 6: Health, Nutrition and Population

6.1 Public Health Infrastructure: Facilities, Human Resources and Gaps

Bihar's public health infrastructure remains among the weakest of any Indian state relative to population, despite recent, highly visible capital investment. An independent analysis published in late 2025 found that Bihar's hospital bed ratio stood at just 0.32 per 1,000 population, far below the national average of approximately 1.7 per 1,000, and that the state's doctor-to-patient ratio placed a single doctor in charge of caring for approximately 30,000 people (The Rise, 2026). This human resource shortfall compounds the infrastructure gap: the same analysis, drawing on a field investigation of Primary Health Centres in West Champaran district within Tirhut division, documented persistent staff absenteeism and repeated instances of medical negligence at the primary care level, even as private providers have stepped in to fill part of the resulting trust gap, albeit at a cost that remains unaffordable for a large share of Bihar's population (The Rise, 2026).

The state's capital expenditure on health has grown substantially, with Bihar's health budget for 2025-26 set at ₹20,335 crore, yet a review of the state's execution record found that between fiscal years 2016-17 and 2021-22, nearly 31 percent of health allocations went unspent, a pattern attributed to procurement delays, bottlenecks in fund flow, and weak district-level coordination (The Rise, 2026). The Prime Minister's inauguration of the Homi Bhabha Cancer Hospital and Research Centre at Muzaffarpur in August 2025 was presented as a landmark step toward bringing tertiary cancer care to North Bihar, and a 150-bed Critical Care Hospital Block has separately been approved for AIIMS Patna under the Pradhan Mantri Ayushman Bharat Health Infrastructure Mission (The Rise, 2026; Ministry of Health and Family Welfare, 2026). Nationally, PM-ABHIM has approved ₹33,081.82 crore of a total ₹64,180 crore outlay for infrastructure strengthening across states between 2021-22 and 2025-26, financing the construction of thousands of Ayushman Arogya Mandirs, Block Public Health Units, Integrated Public Health Labs, and Critical Care Blocks nationally (Business Standard, 2025; Ministry of Health and Family Welfare, 2026). The persistent gap this chapter documents between capital announcements and functional service delivery on the ground represents one of the more consequential findings of this framework, since it suggests that the constraint on Bihar's health outcomes is now as much about operational execution, staffing, and maintenance as about the availability of capital funding itself.

6.2 Epidemiological Profile: Communicable and Non-Communicable Disease Burden

Nationally, tuberculosis incidence has declined from 237 cases per 100,000 population in 2015 to 195 per 100,000 by 2023, though India continues to account for approximately 27 percent of the global TB burden, and the National TB Elimination Programme's TB Mukta Bharat Abhiyaan has conducted extensive community outreach through 2025, including in institutional and congregate settings such as tea gardens, mines, and hostels (Vajiram and Ravi, 2026; Ministry of Health and Family Welfare, 2026). Malaria cases nationally decreased by 13.28 percent in 2021 relative to 2020, with associated deaths falling 7.77

percent by 2023, and Kala-Azar, a disease with particular historical concentration in Bihar's Kosi and Seemanchal regions, was reported eliminated in 100 percent of previously endemic blocks nationally by 2023 (Vajiram and Ravi, 2026). State-disaggregated figures specific to Bihar's current disease burden across these communicable disease categories were not available with sufficient granularity in the sources reviewed for this chapter, representing a data gap that future editions of this framework should address through direct engagement with the Bihar Health Department and the National Centre for Disease Control.

On non-communicable disease, national data attributes approximately 61 percent of all deaths in India to non-communicable diseases, a burden that is rising even in states, such as Bihar, where communicable disease and maternal and child health challenges have historically dominated public health priorities (Anantam IAS, 2026). Given Bihar's still-elevated communicable disease and maternal mortality profile relative to national benchmarks, discussed in section 6.3 below, the state faces a genuine double burden of disease, in which investment must simultaneously continue addressing unfinished communicable disease and maternal health agendas while beginning to build capacity for non-communicable disease screening and management through platforms such as the Ayushman Arogya Mandir network.

6.3 Maternal and Child Health: MMR, IMR, Under-5 Mortality and Nutrition

Bihar's maternal and child health indicators, while showing genuine improvement in recent years, continue to lag national averages on most measures. National data from the Sample Registration System places India's Infant Mortality Rate at 28 per 1,000 live births as of 2020, Under-5 Mortality at 32 per 1,000, and Maternal Mortality Ratio at 97 per 100,000 live births for 2018-20, each representing substantial improvement from earlier decades but each also representing a national average that historically lagging states such as Bihar have taken longer to reach (Anantam IAS, 2026; Vajiram and Ravi, 2026). Local Bihar media reporting cited in a 2026 healthcare investigation referenced a state-level report of a sharp decline in Bihar's Maternal Mortality Ratio, though the specific updated figure was not independently verifiable within the sources consulted for this framework, and this framework accordingly reports the direction of the trend, a decline, without asserting a precise current MMR figure for the state pending confirmation from the Sample Registration System's most recent Bihar-specific bulletin (The Rise, 2026).

On nutrition, the National Family Health Survey-5 (2019-21) recorded that in Bihar, 42.9 percent of children under five were stunted, 22.9 percent were wasted, and 41 percent were underweight, each figure substantially above the corresponding national averages of 35.5 percent stunting, 19.3 percent wasting, and 32.1 percent underweight recorded nationally in the same survey round (International Institute for Population Sciences, 2021; Anantam IAS, 2026). National anaemia prevalence among women aged 15 to 49 stood at 57 percent as of NFHS-5, itself a regression from 53 percent in the previous survey round, and anaemia among children aged 6 to 59 months stood at 67.1 percent nationally, with Bihar's own rates, though not separately confirmed in the sources reviewed here, expected on the basis of its

overall nutrition profile to sit at or above these national figures (Anantam IAS, 2026). These nutrition indicators are directly relevant to the education outcomes discussed in Chapter 5, since chronic child malnutrition and anaemia are well established in the public health literature as contributing factors to impaired cognitive development and school retention, a linkage explicitly noted in the academic literature on Bihar's literacy gap reviewed in Chapter 5.8 (International Journal for Multidisciplinary Research, 2025).

6.4 Universal Health Coverage: State Health Assurance Schemes

Ayushman Bharat's Pradhan Mantri Jan Arogya Yojana provides ₹5 lakh in annual hospitalization coverage to more than 12 crore families nationally, and by September 2024 had issued over 35.4 crore Ayushman cards across India (Anantam IAS, 2026; The Rise, 2026). The scheme's portability feature, which in principle allows a beneficiary enrolled in Bihar to receive treatment in another state such as Tamil Nadu, has been highlighted as a particular advantage for a state with as significant an out-migrant population as Bihar's (Lukmaan IAS, 2026). In September 2024, coverage was further extended through the Ayushman Vay Vandana card, which covers all citizens aged 70 and above regardless of income (Lukmaan IAS, 2026).

Nonetheless, significant implementation gaps have been documented specifically in relation to states like Bihar. An analysis of the scheme's regional distribution found that approximately 60 percent of empanelled hospitals under PM-JAY are concentrated in a small number of more developed states, leaving beneficiaries in Bihar and Uttar Pradesh with comparatively limited choice of empanelled facilities (Lukmaan IAS, 2026). The Rise's healthcare investigation similarly found that in remote and tribal areas of Bihar, awareness of the scheme remains poor, empanelment of local hospitals is often delayed, and transport costs associated with referral to a distant empanelled facility typically remain uncovered by the scheme, a combination of factors that limits the practical value of the scheme's nominal coverage for the state's most vulnerable rural populations (The Rise, 2026).

6.5 Mental Health Services: Availability, Access and Stigma Reduction

Mental health service availability specific to Bihar was not extensively documented in the sources available for this chapter, again reflecting a broader national pattern in which mental health data collection lags other health indicators. Nationally, the National Mental Health Survey 2015-16 found that 14 percent of Indian adults have a diagnosable mental health condition, and the government's Tele-MANAS national tele-mental health service, launched in 2022, had become operational across 34 states and union territories by 2024, presumably including Bihar, though state-specific utilization data for the service was not available in the sources reviewed here (Anantam IAS, 2026). Given the well-documented human resource shortages affecting Bihar's general health system, discussed in section 6.1, it is reasonable to infer, though not to assert without direct evidence, that specialist mental health service availability in the state faces at least comparable constraints. This represents another explicit

data gap that this framework flags for further primary research rather than papering over with unsupported inference.

6.6 Nutrition Programmes: ICDS, Mid-Day Meal and Poshan Abhiyan

Bihar's principal nutrition intervention architecture operates through the national Integrated Child Development Services, delivered through Anganwadi Services, alongside the PM Poshan mid-day meal scheme and the Poshan Abhiyaan and Poshan Pakhwada campaigns targeting maternal and child nutrition specifically (Bihar Institute of Public Finance and Policy, 2026). The Bihar Economic Survey 2025-26 documented continued state investment in the Anganwadi Services programme alongside complementary child protection architecture, including the Mission Vatsalya framework and district-level Child Protection Units established under the Juvenile Justice Act, 2015 (Bihar Institute of Public Finance and Policy, 2026).

Given the elevated stunting, wasting, and underweight prevalence documented in section 6.3 above relative to national averages, the effectiveness of this nutrition programme architecture in Bihar specifically, measured through indicators such as Anganwadi functionality rates, supplementary nutrition delivery consistency, and POSHAN Tracker-based monitoring outcomes, represents an important area warranting continued independent evaluation, a theme this framework returns to in Chapter 7.5's treatment of child rights and nutrition.

6.7 Population Stabilisation and Family Planning

Bihar's demographic transition toward replacement-level fertility continues to lag the national trajectory. As documented in Chapter 1.3, the National Family Health Survey (2019-21) recorded Bihar's Total Fertility Rate at 3.0 children per woman, compared to a national TFR of 2.0 as of the same survey round, and the Bihar Economic Survey 2025-26 projects that the state will not reach replacement-level fertility of 2.1 until 2039 (Anantam IAS, 2026; Bihar Institute of Public Finance and Policy, 2026).

This places Bihar among the furthest states from the national fertility transition, alongside a small number of other high-fertility states, and has direct implications for the state's population growth trajectory discussed in Chapter 1.3, its dependency ratio evolution, and correspondingly for the multi-decade planning horizon required for health, education, and employment infrastructure to keep pace with population growth. Family planning service delivery in Bihar operates through the same National Health Mission architecture that delivers the state's broader maternal and child health services, and the persistent gap between Bihar's fertility trajectory and the national trend suggests continued underinvestment in accessible, quality family planning counselling and service provision, particularly in the state's rural and northern districts where health infrastructure gaps are most acute.

6.8 Health System Strengthening and Future Preparedness

The cumulative picture from this chapter is one of a health system in which substantial recent capital investment, through PM-ABHIM, Ayushman Bharat, and state budget allocations reaching ₹20,335 crore for 2025-26, has yet to translate into commensurate improvement in functional service delivery, staffing adequacy, or health outcomes at the population level. The core structural finding, that nearly a third of Bihar's recent health allocations have historically gone unspent due to procurement and coordination bottlenecks, points to public financial management and administrative capacity, rather than the availability of funding per se, as the binding constraint on health system strengthening in the state (The Rise, 2026). Addressing this will require the kind of public financial management reforms discussed in Chapter 2.8, applied specifically to health sector procurement and fund flow, alongside a sustained human resource strategy to close the doctor and bed density gaps documented in section 6.1. Future preparedness, including the integrated public health laboratory network and critical care block programme being rolled out under PM-ABHIM, offers a genuine opportunity for Bihar to build pandemic and disaster-resilient health infrastructure, provided the maintenance and staffing challenges already visible in the state's existing facilities are addressed before, rather than after, additional capital assets are commissioned.

Chapter 7: Social Justice, Inclusion and Community Welfare

7.1 Scheduled Castes: Demographic Profile, Deprivation and Development Programmes

Bihar's Scheduled Caste population, as enumerated in the 2022 Bihar Caste-Based Survey released on October 2, 2023, stands at 25,689,820 individuals, or 19.65 percent of the state's total population of 130,725,310 (Wikipedia, 2026f). This makes Bihar's Scheduled Caste share one of the higher such proportions among major Indian states, and the survey's accompanying socio-economic data revealed that impoverished families are disproportionately concentrated within this community. The caste survey found that 34.13 percent of all families in Bihar report a monthly income of ₹6,000 or less, and that such extreme poverty is most heavily concentrated among Scheduled Caste and Scheduled Tribe households, followed by Other Backward Classes and Extremely Backward Classes (NewsClick, 2026a). A separate Asian Development Research Institute study similarly found that approximately every third person belonging to the Scheduled Castes in Bihar remains multidimensionally poor, a rate exceeded only by Scheduled Tribes, among whom roughly every second person is classified as poor (Asian Development Research Institute, 2024).

Following the release of the caste survey, the Bihar government moved to increase the reservation quota for Scheduled Castes, Scheduled Tribes, Other Backward Classes, Extremely Backward Classes, and the Economically Weaker Section from 50 percent to 75 percent, with Scheduled Castes allocated 20 percent under the revised framework, up from a previous 16 percent (Study IQ, 2025; Wikipedia, 2026f). This expanded quota, enacted through the Bihar Reservation of Vacancies in Posts and Services Amendment Act, 2023, and a corresponding education admissions reservation act, was subsequently struck down by the Patna High Court on June 20, 2024, restoring the prior 50 percent ceiling and creating continued legal uncertainty regarding the state's reservation architecture for Scheduled Castes and other marginalized groups going forward (Wikipedia, 2026f). This judicial reversal represents an important and unresolved policy question for the state, since the underlying socio-economic rationale documented by the caste survey, namely the concentration of extreme poverty among Scheduled Caste households, remains valid regardless of the reservation quota's legal status.

7.2 Scheduled Tribes: Rights, Forest Dwelling Communities and Welfare Measures

Bihar's Scheduled Tribe population is comparatively small relative to many other Indian states, standing at 2,199,361 individuals, or 1.68 percent of the state's total population, according to the 2022 caste-based survey (Wikipedia, 2026f). Despite this small population share, Scheduled Tribe households in Bihar experience among the most severe deprivation of any social group in the state. The Asian Development Research Institute's socio-economic assessment found that approximately every second person belonging to Scheduled Tribes in Bihar remains multidimensionally poor, the highest deprivation rate recorded among any of the state's major social categories (Asian Development Research Institute, 2024). The revised

reservation framework enacted in 2023, before being struck down by the Patna High Court in 2024, had allocated Scheduled Tribes a 2 percent quota (Wikipedia, 2026f).

Bihar's tribal population is concentrated substantially in the state's southern districts bordering Jharkhand, an area that overlaps considerably with the forest and mineral resource zones discussed in Chapter 1.1 and Chapter 13. Forest-dwelling community rights, governed nationally through the Forest Rights Act, 2006, intersect directly with the mining and mineral resource governance questions examined in Chapter 13.4, given that Bihar's principal mineral reserves, including its pyrite deposits and the Jamui gold discovery, are located within or near areas of tribal habitation. A comprehensive assessment of Forest Rights Act implementation specific to Bihar, including individual and community forest rights titles granted to date, was not available in the sources reviewed for this chapter and represents an area for further primary research.

7.3 Other Backward Classes: Identification, Reservation and Social Mobility

Bihar's Other Backward Classes, encompassing both the Backward Classes and Extremely Backward Classes categories under the state's caste classification system, together constitute the largest share of the state's population by a considerable margin. The 2022 caste-based survey found that Backward Classes constitute 27.12 percent of the population and Extremely Backward Classes 36.01 percent, together accounting for 63.14 percent of Bihar's total population, with the remaining population comprising Scheduled Castes at 19.65 percent, Scheduled Tribes at 1.68 percent, and the Unreserved or General category at 15.52 percent (Wikipedia, 2026f). Among individual sub-castes, the Yadav community emerged as the largest single group within the OBC category, constituting approximately 14.27 percent of the state's total population (Study IQ, 2025). Independent national survey data corroborates the scale of Bihar's OBC concentration in comparative terms, with the ICE 360 Survey finding that, after adjusting for population, Bihar ranks second among major states in OBC population share at approximately 64 percent, behind only Tamil Nadu at approximately 68 percent (PRICE360, 2026).

This demographic weight has translated into a degree of political representation that national survey data suggests also correlates with disproportionate benefit from certain welfare schemes: the ICE 360 Survey found that OBC households received 54 percent of disbursements under the PM Kisan Samman Nidhi scheme nationally in 2020-21, compared to 21 percent for general category households, 20 percent for Scheduled Castes, and 5 percent for Scheduled Tribes, and that OBC households similarly received 49 percent of PM Jan Dhan Yojana cash transfers and 53 percent of Ayushman Bharat benefits distributed nationally (PRICE360, 2026). While these figures are national rather than Bihar-specific, given Bihar's outsized OBC population share, the pattern of substantial welfare scheme benefit accrual for this community likely holds directionally within the state as well, though a Bihar-specific breakdown of PM-JAY, PM Kisan, or Jan Dhan disbursement by caste category was not available in the sources reviewed for this chapter.

7.4 Gender Equity: Women's Participation in Education, Economy and Governance

Bihar's gender equity indicators present a genuinely mixed picture, with meaningful state-led progress in some domains alongside continuing severe gaps in others. As documented in Chapter 3.6 and 3.7, Bihar's female labour force participation rate remains among the lowest of any Indian state, recorded at only 15.6 percent under PLFS 2022-23 usual status estimates, though longitudinal research has found a striking recent improvement in rural married women's participation, with rural Bihar recording growth of approximately six-fold in recent years, among the largest gains recorded nationally even as the state's absolute level remains the lowest among eastern states (BPSC Concept Wallah, 2025; Ravi & Kapoor, 2024). On education, Chapter 5.1 documented that Bihar's Gender Parity Index in school enrolment now exceeds 1.0 across most stages, indicating that girls' enrolment, where retention is achieved, compares favourably to national benchmarks, even as secondary-stage dropout linked to child marriage remains a significant concern for adolescent girls specifically (Education for All in India, 2026a; Wikipedia, 2026d).

On state policy, the Bihar Economic Survey 2025-26 documented that total expenditure on women's welfare programmes increased 3.45 times between 2018-19 and 2023-24, a substantial fiscal commitment reflected in schemes such as the Mukhyamantri Kanya Vivah Yojana, which provides financial assistance of ₹5,000 to girls from below-poverty-line families who marry at age 18 or above, an incentive structure explicitly designed to discourage child marriage (Bihar Institute of Public Finance and Policy, 2026). Complementary initiatives include One-Stop Centres for survivors of violence, Palna Ghar childcare facilities to support working mothers, dedicated Mahila Thana police stations for women's safety, and the Pink Bus Initiative for safer public transport, alongside the Nayika Apne Jeevan Ki campaign (Bihar Institute of Public Finance and Policy, 2026). On political participation, Bihar's electoral turnout data shows a notable and sustained gender gap favouring women's participation, with female voter turnout at 60.48 percent in the 2015 state assembly election compared to 53.32 percent for men, a gap that, while narrowing somewhat by 2020, persisted with women's turnout at 59.6 percent against 54.7 percent for men (The Wire, 2025).

7.5 Child Rights, Protection and Development: POCSO, Child Labour and Nutrition

Bihar's child protection architecture operates through a combination of national legal frameworks and state-specific implementation mechanisms. The Protection of Children from Sexual Offences Act and the Juvenile Justice (Care and Protection of Children) Act, 2015, provide the legal foundation for child protection casework, and the Bihar Economic Survey 2025-26 documented the establishment of district-level Child Protection Units under this framework, alongside the Mission Vatsalya programme for child welfare (Bihar Institute of Public Finance and Policy, 2026). On child labour, Wikipedia's compilation of education-related statistics for Bihar found that approximately 0.54 million children in the state work more than six months per year, with an additional 0.58 million engaged in some form of child labour on a more limited basis, figures that underscore the continued scale of

the child labour challenge in a state where school retention, particularly at the secondary level, remains weak (Wikipedia, 2026d).

On nutrition specifically, the elevated stunting, wasting, and underweight prevalence documented in Chapter 6.3, with 42.9 percent of Bihar's children under five stunted as per NFHS-5, represents perhaps the single most consequential child rights and development indicator in this framework, given the well-established relationship between early childhood malnutrition and lifelong cognitive and economic outcomes (International Institute for Population Sciences, 2021). The state's Anganwadi Services, Poshan Pakhwada campaigns, and POSHAN Tracker-based monitoring, discussed in Chapter 6.6, represent the primary institutional response to this challenge, though their measured effectiveness in reducing Bihar's elevated malnutrition indicators relative to other high-burden states requires continued independent evaluation.

7.6 Welfare of Elderly Persons: Pension, Care Infrastructure and Policy

National-level senior care policy, including the September 2024 extension of Ayushman Bharat coverage to all citizens aged 70 and above regardless of income through the Ayushman Vay Vandana card, applies to Bihar's elderly population alongside all other states (Lukmaan IAS, 2026). Bihar-specific data on old-age pension coverage, dedicated elderly care infrastructure, and the scale of unmet need among the state's older population was not available in sufficient detail in the sources reviewed for this chapter.

Given Bihar's demographic profile, in which close to 58 percent of the population is under age 25 and the state's fertility transition remains among the slowest in the country, as documented in Chapter 1.3, the absolute number of elderly Biharis requiring dedicated care and pension support will grow only gradually over the coming two decades relative to states with more advanced demographic transitions, providing the state a somewhat longer planning horizon on this dimension than on youth employment, though this should not be read as license for delay in building elder care infrastructure given the low base from which the state starts.

7.7 Persons with Disabilities: Rights, Accessibility and Empowerment

As noted in Chapter 5.7, comprehensive, Bihar-specific data on disability rights implementation, accessibility infrastructure, and empowerment programming was not available in the sources reviewed for either this chapter or the corresponding education chapter. This is a genuine and significant gap in the evidence base available for this framework, not a reflection of the issue's importance, and it should be flagged as a priority area for dedicated primary research, ideally conducted in direct consultation with disability rights organizations operating within Bihar and the state's Department of Social Welfare, before any credible sector assessment can be presented in a future revision of this document.

7.8 Minority Communities: Development, Representation and Welfare

Bihar's Muslim population, its largest religious minority, stood at 17.70 percent of the state's total population according to the 2022 caste-based survey, up modestly from the 16.87 percent recorded in the 2011 Census, and Islam remains the second-largest religion in the state after Hinduism at 81.99 percent (Wikipedia, 2026f; CensusOfIndia.net, 2026). Christians, Buddhists, Jains, and Sikhs together account for a very small remaining share, with Buddhism holding particular cultural and historical, though not demographic, significance given Bihar's status as the birthplace of the faith, as discussed in Chapter 1.4.

Research from the Asian Development Research Institute focusing specifically on the socio-economic status of Bihar's Muslim community found that approximately every third Muslim in the state is multidimensionally poor, a rate the study situated in comparative context alongside the deprivation rates for Scheduled Castes and Scheduled Tribes discussed above, and identified non-possession of proper identity documentation, including Aadhaar and voter identification, as a contributing factor preventing eligible Muslim households from accessing intended welfare benefits (Asian Development Research Institute, 2024).

The same study's district-level analysis found substantial geographic concentration of Bihar's Muslim population in specific districts, particularly in the Seemanchal region bordering West Bengal, an area that, as documented in Chapter 1.7, also records among the lowest literacy rates in the state, with Purnia's 52.49 percent literacy rate standing as the lowest district-level figure recorded anywhere in Bihar (PopulationU, 2026; Asian Development Research Institute, 2024). This geographic and social overlap between religious minority concentration, low literacy, and elevated multidimensional poverty in the Seemanchal region represents one of the more pronounced intersectional deprivation patterns identified in this framework and merits continued targeted policy attention, potentially through extension of the aspirational blocks framework discussed in Chapter 1.7 to additional blocks within this specific region.

7.9 Social Security and Beneficiary-Linked Welfare Architecture

Bihar's social security architecture operates predominantly through a combination of centrally sponsored schemes, including PM-JAY health coverage, PM Kisan income support, and PM Jan Dhan financial inclusion, layered with state-specific schemes such as the Mukhyamantri Kanya Vivah Yojana and various caste and community-specific welfare programmes discussed throughout this chapter. The Asian Development Research Institute's research identified a persistent structural challenge across this beneficiary-linked architecture: eligible households, particularly among Muslims, Scheduled Castes, and Scheduled Tribes, frequently fail to access intended benefits due to gaps in identity documentation, awareness, and last-mile administrative capacity, a finding that echoes the implementation gaps documented for Ayushman Bharat specifically in Chapter 6.4 (Asian Development Research Institute, 2024). Addressing this implementation gap, rather than expanding the nominal scope or generosity of welfare schemes further, may represent the more immediately impactful policy lever available to the state government, given that the evidence reviewed throughout this

chapter suggests eligibility criteria and scheme design are generally adequate while last-mile delivery and beneficiary identification remain the binding constraints across almost every social justice domain examined here.

Chapter 8: Transport and Connectivity Infrastructure

8.1 Road Network: National Highways, State Highways and Rural Roads

Bihar's road network exceeds 3 lakh kilometers in total length once rural roads are included, reflecting the density required to serve the state's rural population of roughly 90 percent, though this scale coexists with well-documented quality and connectivity deficits (Grokikipedia, 2026). The state's National Highway network alone spans approximately 6,132 kilometers as of 2024, and Bihar has actively petitioned the central government to reclassify an additional 6,840 kilometers of state highways and major district roads as National Highways, alongside upgrading roughly 186 kilometers of single-lane National Highway to two-lane paved standard (Grokikipedia, 2026; Illustrated Daily News, 2025). The state government's own connectivity target, announced under a "Connectivity to Patna in Three Hours" initiative, aims to bring every part of the state within three to three and a half hours of the capital by 2027, supported by a pipeline of bypass, elevated corridor, and highway widening projects across cities including Muzaffarpur, Begusarai, Gopalganj, Sheikhpura, Jamui, and Banka (Illustrated Daily News, 2025; Bihar Say, 2025).

Major recent central government investment has focused on high-capacity corridors within the state. In 2025 alone, the Prime Minister laid foundation stones for the four-laning of the Patna-Arrah-Sasaram section of NH-119A, the six-laning of the Varanasi-Ranchi-Kolkata highway, and a new Ganga bridge between Buxar and Bharauli at Karakat, and separately inaugurated the four-laning of the Patna-Gaya-Dobhi section of NH-22, a project valued at approximately ₹5,520 crore (India Shipping News, 2026). The nationally significant Aunta-Simaria bridge on NH-31, including a 1.86 kilometer six-lane bridge over the Ganga constructed at a cost exceeding ₹1,870 crore, was inaugurated in August 2025, providing direct connectivity between Mokama in Patna district and Begusarai and reducing travel distance for heavy vehicles moving between North and South Bihar by more than 100 kilometers relative to the previous route via the aging Rajendra Setu (India Shipping News, 2026). Bihar's first six-lane National Highway, the approximately 192 kilometer Varanasi-Aurangabad route, valued at ₹4,100 crore, is targeted for completion in 2026 and is expected to substantially shorten travel time between Delhi and Bihar (Tractor Junction Infra, 2026). The Patna-Purnia Expressway, at approximately 282 kilometers and an estimated cost of ₹17,000 to 18,000 crore, is being developed under the Hybrid Annuity Model with 40 percent government funding and 60 percent private investment, representing one of the largest individual infrastructure projects currently underway in the state and a direct link to the historically underconnected North and East Bihar regions discussed in Chapter 1.7 (Tractor Junction Infra, 2026).

8.2 Railways: Existing Network, Pending Projects and Expansion Proposals

Bihar's rail network spans approximately 2,976 kilometers of route length and roughly 4,509 kilometers of track, predominantly broad gauge and managed by Indian Railways (Grokikipedia, 2026). The state achieved 100 percent rail electrification with 3,020 kilometers

of track electrified as of the most recent reporting, and currently operates twelve Vande Bharat trains and one Amrit Bharat Express service (India Brand Equity Foundation, 2026a). As of February 2025, Bihar was implementing 57 railway projects with a combined value of ₹86,458 crore, covering 5,346 kilometers of new line construction, track doubling, and gauge conversion, alongside the redevelopment of 98 Amrit Bharat stations at a cost of ₹3,164 crore (India Brand Equity Foundation, 2026a, 2026b). The 2025-26 railway budget allocated a record ₹10,066 crore to Bihar, a ninefold increase compared to the average annual allocation the state received during the 2004-14 period, reflecting a substantial acceleration in central rail investment directed toward the state over the past decade (India Brand Equity Foundation, 2026b).

8.3 Aviation: Airport Infrastructure and Air Connectivity

Air transport has emerged as one of Bihar's fastest-growing infrastructure segments, with the Bihar Economic Survey 2025-26 recording sector growth of approximately 20 percent, and separate industry data placing growth at 21 percent for 2023-24 with continued increases through 2025 (Bihar Institute of Public Finance and Policy, 2026; Grokipedia, 2026). Patna's Jayaprakash Narayan International Airport recorded total passenger traffic of 34,37,949 and freight handling of 8,354.4 metric tonnes in FY25 through February, and the airport's new domestic terminal building was more than 26.75 percent complete as of the most recent reporting available (India Brand Equity Foundation, 2026b). To relieve capacity pressure on Patna's airport, a new civil enclave is under construction at Bihta with an annual capacity of 2.5 million passengers (India Brand Equity Foundation, 2026a). Connectivity to North Bihar's Mithila region has been significantly strengthened through the ₹912 crore civil enclave project at Darbhanga Airport, for which the Prime Minister laid the foundation stone in October 2024, while Purnea Airport, discussed in Chapter 1.1, is under construction to serve some of the state's most historically underconnected northern and eastern districts (India Brand Equity Foundation, 2026a).

8.4 Ports, Inland Waterways and Logistics Hubs

Bihar's inland waterway infrastructure centers on National Waterway 1 along the Ganga, of which approximately 555 kilometers of the nationally navigable 1,620 kilometer stretch lie within Bihar, though utilization remains limited due to seasonal water level variation (Grokipedia, 2026). The Kahalgaon terminal in Bhagalpur district supports thermal power-related cargo movement, including fly ash shipments to other regions, while the Manihari terminal in Katihar district facilitates cross-border cargo connectivity toward Jharkhand and West Bengal (Grokipedia, 2026). Beyond freight, the Ganga's ferry network represents a critical passenger transport backbone for a river-divided state, with over 1,000 powered vessels operating from more than 50 major ghats, including key crossings at Patna, Bhagalpur, and Muzaffarpur, collectively carrying approximately 25 million passengers annually, equivalent to roughly 68,000 daily commuters during peak operation (Grokipedia, 2026). Bihar has also begun piloting a water metro service in Patna and has announced plans

to introduce Ro-Ro vessel services on the Ganga to boost river-based tourism, reflecting a broader effort to diversify the state's use of its river network beyond traditional ferry crossings (Grokikipedia, 2026).

On multimodal logistics, a Multimodal Logistics Park is planned for Patna under the national Sagarmala and Bharatmala frameworks, with the feasibility study report for this facility under preparation as of the most recent Ministry of Road Transport and Highways review, alongside similar planned facilities at Jammu, Coimbatore, and Hyderabad (India Shipping News, 2026). These parks are designed for development on a public-private partnership basis with a 45-year concession period and will include inland container depots, container yards, warehousing, cold storage, and integration with inland waterway terminals to reduce the cost of cargo movement relative to conventional road transport alone (India Shipping News, 2026).

8.5 Urban Mass Transit: Metro, Bus Rapid Transit and Integrated Mobility

The Patna Metro Rail Project represents Bihar's flagship urban mass transit initiative and is explicitly named among the state's priority infrastructure investments in the Bihar Economic Survey 2025-26 alongside broader urban development schemes such as the Mukhyamantri Samagra Shahari Vikas Yojana (Bihar Institute of Public Finance and Policy, 2026). The project has faced the kind of implementation timeline and budget challenges documented broadly across Indian metro rail projects, and its pace of completion will be an important determinant of Patna's capacity to manage growing urban congestion as the city's population and vehicle ownership continue to expand (Grokikipedia, 2026). Complementing the metro, the state government has planned expansion of the JP Ganga Path, Patna's primary traffic artery, in two phases: a 17.65 kilometer four-lane road from Sherpur to Koilwar, and an 18 kilometer elevated four-lane stretch from Digha to Sherpur, together intended to substantially ease east-west traffic flow through the capital (Tractor Junction Infra, 2026). Beyond Patna, the national PM e-Bus Sewa scheme and the state's own Mukhya Mantri Gram Parivahan Yojana have been identified in the Bihar Economic Survey as key initiatives extending organized public transport service into rural and semi-urban areas that have historically lacked any formal bus network (Bihar Institute of Public Finance and Policy, 2026).

8.6 Multimodal Logistics: Last-Mile Connectivity and Freight Corridors

Last-mile rural connectivity in Bihar continues to be addressed substantially through bridge construction, given the state's extensive river network and consequent fragmentation of rural road access. The Mukhyamantri Gramin Setu Yojana envisages construction of 700 rural bridges in FY26 alone, explicitly targeted at improving access in remote and flood-prone areas to support tourism, education, healthcare, and local market access (India Brand Equity Foundation, 2026a). At the national policy level, the Ministry of Road Transport and Highways has identified a public-private partnership project pipeline of 13,400 kilometers nationally, valued at approximately ₹8.3 lakh crore, to be developed over three years, alongside a planned national network of 35 Multimodal Logistics Parks under the Bharatmala

Pariyojana, representing an investment of approximately ₹46,000 crore and a combined handling capacity of around 700 million metric tonnes of cargo once operational (India Shipping News, 2026). Bihar's ability to capture a meaningful share of this national pipeline, building on projects already underway such as the Patna-Purnia Expressway and the planned Patna Multimodal Logistics Park, will be an important determinant of whether the state's recent industrial growth, discussed in Chapter 3.4, can be sustained by correspondingly improved freight logistics rather than being constrained by the state's historically road-and-ferry-dependent cargo movement patterns.

Chapter 9: Energy, Power and Renewable Transition

9.1 Power Generation: Installed Capacity, Mix and Dependence Profile

Bihar's power generation capacity remains heavily dependent on external sources rather than in-state generation. As of FY26, covering April to September 2025, Bihar's total installed power generation capacity stood at 8,339.08 megawatts, of which 7,017.02 megawatts, or approximately 84 percent, was contributed by central utilities, with only 70.70 megawatts from state utilities and 1,251.36 megawatts from private utilities (India Brand Equity Foundation, 2026a).

This dependence structure means Bihar's electricity supply security is substantially tied to its allocation from central generation stations rather than from assets under direct state control. Within this capacity mix, hydropower contributed 110 megawatts, while renewable sources accounted for 450.15 megawatts of installed capacity as of the same reporting period (India Brand Equity Foundation, 2026a). Per capita energy consumption in the state rose to 374 kilowatt-hours according to the Bihar Economic Survey 2025-26, an improvement from historical levels but still well below the levels associated with sustained industrial takeoff and considerably below the national average (Bihar Institute of Public Finance and Policy, 2026).

9.2 Transmission and Distribution: Infrastructure, Losses and Reliability

Bihar's transmission and distribution infrastructure continues to be characterized by persistently high technical and commercial losses, even as the state has made incremental gains in operational performance. A dedicated academic assessment of Bihar's energy transition found that high transmission and distribution losses persist despite ongoing infrastructure upgrades, and identified the weak financial position of the state's distribution companies as a continuing constraint on their capacity to fund critical grid strengthening initiatives (National Institute of Science Education and Research, Centre for Policy Research, 2025). Reliability challenges remain particularly acute in rural areas, where a solar market assessment characterized Bihar's grid reliability as among the weakest in India, with frequent outages that drive demand for hybrid and off-grid solar systems specifically because pure grid-tied systems lose all functionality during grid failures (SurgePV, 2026).

Despite these structural challenges, Bihar's two distribution companies, North Bihar Power Distribution Company Limited and South Bihar Power Distribution Company Limited, were recognized with the Innovation and Impact Award for DISCOMs 2025 at the 19th India Energy Summit in separate categories, and the state's transmission utility, Bihar State Power Transmission Company Limited, has been awarded an A+ rating by the Power Finance Corporation for five consecutive years, from 2020 through 2025, indicating meaningful improvement in transmission-level operational and financial performance even as distribution-level losses remain a challenge (Bihar Institute of Public Finance and Policy, 2026).

9.3 Rural and Household Electrification: Coverage and Quality

Bihar's rural electrification programme has been implemented substantially through the national Deen Dayal Upadhyaya Gram Jyoti Yojana, which has been the primary vehicle for extending grid connections to rural households, complemented by the Ujwal DISCOM Assurance Yojana aimed at strengthening the financial and operational performance of the state's distribution companies (National Institute of Science Education and Research, Centre for Policy Research, 2025). While formal household electrification coverage in Bihar has expanded substantially over the past decade in line with national programmes such as Saubhagya, the quality and reliability of that electrification, as distinct from mere connection status, remains constrained by the transmission and distribution weaknesses documented in section 9.2, meaning a meaningful share of nominally electrified rural households continue to experience frequent outages and unreliable supply.

9.4 Renewable Energy Potential: Solar, Wind, Hydro and Biomass

Bihar has historically lagged behind other Indian states in renewable energy deployment, but the state's newly adopted Bihar Renewable Energy Policy 2025 signals a substantial shift in ambition. The policy sets a target of 22 gigawatts of solar capacity by fiscal year 2030, supported by incentives including electricity duty exemptions, State GST waivers, and transmission charge exemptions for renewable energy developers (SurgePV, 2026). Bihar's solar resource potential is rated at between 4.5 and 5.5 kilowatt-hours per square meter per day, a level the industry assessment characterized as high relative to Bihar's historically limited solar adoption to date (SurgePV, 2026). Beyond utility-scale solar, the policy sets specific off-grid deployment targets over the next five years, including 110 megawatts through decentralized renewable energy livelihood applications, 50 megawatts via mini and micro grids, and 180 megawatts from standalone solar water pumps, together totaling 340 megawatts of off-grid capacity by 2030, one of the more aggressive off-grid deployment strategies among eastern Indian states (Down to Earth, 2025). By comparison, neighbouring Jharkhand's State Solar Policy 2022 targets a broadly comparable 280 megawatts of off-grid solar by 2027, on a more compressed timeline (Down to Earth, 2025).

The Bihar Renewable Energy Policy 2025 explicitly situates these targets within the state's broader climate commitments, referencing a detailed study commissioned by the state government to recommend a low-carbon development pathway toward national Net-Zero commitments by 2070 (Government of Bihar, Energy Department, 2025). The policy also extends beyond solar to include provisions for floating solar installations, rooftop solar with group net metering, and solar-based electric vehicle charging infrastructure, alongside continued development of pumped-storage capacity, with the state's Energy Secretary confirming in 2026 that work was advancing on a pumped-storage policy intended to support larger energy storage projects in coming years (Reconnect Energy, 2026; Patna Press, 2026). The Kajra Solar Project was cited by the state government as progressing steadily under the new policy framework as of the most recent reporting available (Patna Press, 2026).

9.5 Energy Efficiency, Conservation and Demand-Side Management

Formal demand-side management and energy efficiency programming specific to Bihar was addressed only briefly in the sources available for this chapter, largely in the context of smart metering deployment initiatives referenced in the Bihar Economic Survey 2025-26, which identified smart metering as one of several ongoing power sector modernization initiatives alongside floating solar and solar street lighting under the Mukhyamantri Solar Street Light Scheme (Bihar Institute of Public Finance and Policy, 2026). A more detailed, Bihar-specific assessment of energy efficiency programme coverage, industrial demand-side management uptake, and building energy code implementation would strengthen future editions of this framework, and is flagged here as a data gap consistent with this framework's practice of noting where the evidence base available is thin rather than presenting unsupported estimates.

9.6 State Electricity Regulatory Framework and Tariff Policy

The Bihar Electricity Regulatory Commission governs the state's tariff and net metering framework, having issued its original Rooftop Solar Grid Interactive Systems regulations based on net metering in 2015, with a draft amendment proposed in 2024 and further provisions introduced through the Bihar Renewable Energy Policy 2025 itself (SurgePV, 2026). Under the current framework, rooftop solar customers apply through their respective distribution company, either North Bihar Power Distribution Company Limited or South Bihar Power Distribution Company Limited depending on service territory, with net metering arrangements governed by Bihar Electricity Regulatory Commission regulations that determine how excess generation is credited against consumption, including specific time-of-day provisions under which generation first offsets consumption within the same time block before any surplus is treated as off-peak credit (SurgePV, 2026). The evolution of this regulatory framework toward supporting the more ambitious utility-scale and off-grid renewable targets set out in the 2025 policy, while simultaneously addressing the structural gaps in storage, open access, and metering infrastructure that an independent policy assessment identified as key implementation risks, will be an important determinant of whether Bihar's renewable energy ambitions translate into actual installed capacity over the coming five years (Reconnect Energy, 2026).

Chapter 10: Water, Sanitation and Solid Waste Management

10.1 Drinking Water Supply: Coverage, Quality and Infrastructure

Bihar's rural drinking water landscape has been transformed on paper by the national Jal Jeevan Mission, launched in August 2019 with the goal of providing Functional Household Tap Connections to every rural household in India, but a closer look at functional service delivery reveals a significant gap between formal connection coverage and actual water availability in the state. Nationally, the mission has connected over 15.72 crore rural households, representing more than 81 percent coverage, as of October 2025, a dramatic expansion from just 3.23 crore households, or 16.71 percent coverage, at the mission's launch in 2019 (Press Information Bureau, 2025; DD News, 2026). Bihar, along with Uttar Pradesh, Nagaland, and Sikkim, has been specifically identified as a lagging state on availability and quantity benchmarks under a 2024 government-commissioned functionality assessment, which found that Bihar reported actual tap water flow in only about 61 percent of nominally connected households, a considerably lower functional rate than the near-universal formal coverage figures might suggest (Sanskriti IAS, 2026). This gap between formal connection and functional service delivery is consistent with the broader national finding that although nearly 98 percent of rural households now have tap connections, only about three-quarters actually receive a regular, safe, and adequate water supply meeting the mission's standard of 55 litres per person per day under BIS:10500 quality norms (Sanskriti IAS, 2026).

In recognition of these shortfalls, the Ministry of Jal Shakti extended the mission's completion target from 2024 to 2028, with the Union Budget 2025-26 allocating ₹67,000 crore to the mission, a substantial increase from the revised estimate of ₹22,694 crore for 2024-25 (India Water Portal, 2025). The mission has also introduced enhanced quality assurance infrastructure nationally, with 2,843 water testing laboratories testing 38.78 lakh water samples across 4,49,961 villages during 2025-26, and 24.80 lakh rural women trained to conduct water quality testing using Field Testing Kits across more than 5 lakh villages (Press Information Bureau, 2025). Given Bihar's documented underperformance on functional water availability, continued close monitoring of the state's progress toward genuine, rather than merely nominal, Har Ghar Jal certification will be an important indicator to track through the mission's extended 2028 timeline.

10.2 Irrigation Infrastructure: Command Area, Efficiency and Water-Use Productivity

Bihar's irrigation infrastructure remains a significant constraint on agricultural productivity despite the state's exceptional natural water endowment from the Ganga and its tributaries, discussed in Chapter 1.1. As documented in Chapter 3.3, foodgrains dominate Bihar's cropping pattern, accounting for 95.2 percent of gross cropped area, a pattern that reflects, in part, the limited penetration of assured irrigation that would otherwise support diversification into higher-value, more water-intensive horticultural crops (Bihar Institute of Public Finance and Policy, 2026). Detailed, current data on Bihar's irrigation command area coverage, canal versus groundwater irrigation shares, and water-use efficiency at the state level was not

available with sufficient granularity in the sources reviewed for this chapter, representing a data gap that should be addressed through direct reference to the Bihar Water Resources Department's technical reports in any future revision of this framework. What can be stated with confidence is that the state's continued vulnerability to both flooding, discussed in Chapter 1.1 and Chapter 14, and, in its drier southern districts, periodic water stress, means that irrigation efficiency and water storage infrastructure represent a persistent and underexamined priority area for the state's agricultural strategy set out more fully in Chapter 18.

10.3 Sanitation and Open Defecation Free Status: Post-ODF Sustainability

Bihar's sanitation infrastructure has been built out substantially under the Swachh Bharat Mission-Grameen, which has supported the construction of 11.76 crore individual household latrines nationally since the programme's 2014 launch (Swarajya, 2024). As of the most recent national reporting, 95 percent of India's villages have declared themselves Open Defecation Free Plus status, a designation that includes solid and liquid waste management alongside basic latrine access, with 5,60,897 of the country's 5,86,707 villages having achieved this milestone (Swarajya, 2024).

State-specific ODF Plus achievement data for Bihar specifically was not broken out in the sources reviewed for this chapter, with the available reporting instead highlighting states such as Uttar Pradesh, Madhya Pradesh, and Maharashtra as having the largest absolute number of ODF Plus villages (Swarajya, 2024). Given Bihar's status as a lagging state on functional water service delivery, as documented in section 10.1, and its broader public health infrastructure gaps documented in Chapter 6.1, sustained post-ODF monitoring, ensuring toilets remain functional and are consistently used rather than simply having been constructed, represents an important and ongoing verification task for the state's sanitation programme, distinct from and arguably more challenging than the initial infrastructure construction phase.

10.4 Solid Waste Management: Municipal, Biomedical and Hazardous Waste

Comprehensive, Bihar-specific data on municipal solid waste collection efficiency, segregation at source, and scientific processing or landfill capacity was limited in the sources available for this chapter. This gap is significant given Bihar's rapid, if still comparatively low-base, urbanization trend documented in Chapter 1.3 and Chapter 11, since municipal solid waste generation typically rises faster than urban population itself as per capita consumption increases. Bihar's Urban Local Bodies, whose broader financial health and capacity constraints are discussed in Chapter 11.2, are the primary institutional actors responsible for solid waste management under the Swachh Bharat Mission-Urban framework, and their documented resource constraints likely extend to waste management infrastructure and staffing specifically, though this framework does not have sufficiently granular Bihar-specific data to quantify the scale of that constraint with confidence. This represents a

priority area for direct engagement with Bihar's Urban Development and Housing Department in any future revision of this framework.

10.5 Liquid Waste and Sewerage: Urban and Peri-Urban Treatment Infrastructure

Sewerage and liquid waste treatment infrastructure in Bihar's urban and peri-urban areas connects directly to the broader river water quality concerns addressed under the national Namami Gange Programme, given that a significant share of Bihar's urban population resides in towns and cities situated directly along the Ganga and its major tributaries. The Namami Gange Mission-II received an allocation of ₹3,400 crore under the Union Budget 2025-26, an increase from ₹3,000 crore the previous year, with ecological restoration activities under the programme including the reintroduction of 1,428 gharials and 1,899 turtles into the Ganga and its tributaries as part of broader efforts to improve river water quality, alongside conservation management plans developed for 387 wetlands specifically within Bihar (India Water Portal, 2025). This wetland conservation focus is particularly relevant to Bihar given the state's extensive network of chaur, or seasonal wetlands, discussed in Chapter 3.3 in the context of fisheries development, since sewerage and liquid waste discharge into these wetland systems has direct implications for both aquaculture productivity and downstream drinking water quality. A detailed, city-by-city assessment of Bihar's underground sewerage network coverage and sewage treatment plant capacity was not available in the sources reviewed for this chapter, and represents, alongside the solid waste management gap noted above, an area requiring dedicated primary research through the state's Urban Development and Housing Department and Bihar State Pollution Control Board records for any future, more granular edition of this framework.

Chapter 11: Urban Development, Housing and Smart Cities

11.1 Urbanisation Trends and Urban Governance Architecture

Bihar remains, by a considerable margin, the least urbanized major state in India, though the precise figure varies somewhat depending on methodology and reference year. The 2011 Census recorded Bihar's urbanization rate at just 11.3 percent, and academic real estate sector analysis published in 2026 continued to place the rate at between 11 and 15 percent, far below the national average of approximately 30 percent (Testbook, 2026e; Rani, 2026). The Bihar Economic Survey has separately indicated a more substantial rise in the estimated urbanization rate, attributed largely to the reclassification of numerous rural settlements into Urban Local Bodies rather than genuine rural-to-urban migration at that pace, a methodological point consistent with the ghost student data correction pattern discussed in Chapter 5.1, in which administrative reclassification and genuine underlying change need to be carefully distinguished (Testbook, 2026e). Chapter 1.3 of this framework cited a separate estimate placing rural residence at approximately 90 percent as of the Bihar Economic Survey 2025-26, broadly consistent with an urbanization rate in the range described here (Bihar Institute of Public Finance and Policy, 2026).

Bihar's urban governance architecture operates through a network of Urban Local Bodies spanning the state's major cities and towns, complemented by the more specialized Special Purpose Vehicles established for the state's four Smart Cities Mission cities, Patna, Bhagalpur, Muzaffarpur, and Bihar Sharif, each governed by a dedicated entity such as Patna Smart City Limited responsible for planning, appraising, and executing mission projects (Testbook, 2026f). In a significant governance change, the Government of Bihar approved a proposal on October 3, 2025, under which these four Smart City companies would transition to operate as government agencies directly under the state's Urban Development and Housing Department, rather than as independent Special Purpose Vehicles, a shift that may have implications for the pace and accountability structure of ongoing and future urban infrastructure projects in these cities (Wikipedia, 2026g).

11.2 Urban Local Bodies: Financial Health, Capacity and Service Delivery

As documented in Chapter 2.6, Bihar's local governance bodies, including its Urban Local Bodies, remain heavily dependent on Union and State Finance Commission transfers rather than own-source revenue, a pattern the Sixteenth Finance Commission's evaluation found extended to Panchayati Raj Institutions specifically, with broadly comparable structural dependence likely characterizing Urban Local Bodies as well, though the evaluation's most granular findings on this point were focused on rural local bodies (Fifteenth and Sixteenth Finance Commission Secretariat, 2025). This financial dependence has direct implications for the service delivery capacity of Bihar's ULBs, particularly in the solid waste management and sewerage functions discussed in Chapter 10.4 and 10.5, where this framework identified significant Bihar-specific data gaps that likely reflect, at least in part, genuine capacity constraints within the ULBs themselves rather than merely incomplete public reporting.

11.3 Housing: Demand Assessment, Affordability and Flagship Schemes

Bihar's residential real estate sector, while starting from a low base relative to India's more urbanized states, has entered what one 2026 sector study characterized as a steady growth trajectory, particularly in Patna, driven by improving connectivity from projects such as the Patna Metro and Ganga Path expressway, rising income levels, and regulatory reforms under the Real Estate Regulatory Authority framework (Rani, 2026). The same study identified affordability constraints, urban infrastructure deficits, and land-related hurdles as continuing to limit faster growth in the sector, even as tier-two cities including Gaya, Muzaffarpur, and Bhagalpur have begun showing early signs of commercial real estate development, albeit at a moderate pace (Rani, 2026). Beyond market-driven residential development, the state's affordable housing needs continue to be addressed substantially through the national Pradhan Mantri Awas Yojana in both its urban and rural components, with the rural component, PMAY-Gramin, examined in greater detail in Chapter 12.3 given its particular relevance to Bihar's overwhelmingly rural population.

11.4 Smart Cities Mission and AMRUT: State-Level Implementation Review

Bihar has four cities designated under the national Smart Cities Mission, launched in June 2015: Patna, Bhagalpur, Muzaffarpur, and Bihar Sharif, operating under a 50:50 central-state funding model (Testbook, 2026f). As of late 2024, the state's Urban Development and Housing Minister reported that 74 of the mission's 129 total projects across these four cities had been completed, with approximately 70 percent of the remaining 55 projects nearing completion and full completion targeted within a subsequent five-month period (News on Projects, 2024). Patna, as the state capital, holds the largest share of projects, including redevelopment of the area around Patna Junction and beautification of the Ganga riverfront, while Bhagalpur, known as the Silk City, was the first Bihar city selected in the Fast-Track round of the mission nationally, and Muzaffarpur, known as the Lychee Capital, has focused its smart city investments on urban mobility and drainage management (Testbook, 2026f).

The mission's most visible and consequential individual project remains the Patna Metro Rail Project, spanning a planned 32.5 kilometers across 25 stations, 12 elevated, 12 underground, and one at-grade transit station, at an estimated total cost of ₹13,365.77 crore, of which the Bihar government has so far contributed ₹4,296 crore (News on Project, 2024). A 6.5 kilometer priority corridor connecting Patliputra bus terminal to Malahi Pakadi was prioritized for early completion ahead of the 2025 Bihar Assembly elections, and the state government has proposed extending metro rail systems to Darbhanga, Muzaffarpur, Bhagalpur, and Gaya as part of its broader urban transport strategy (News on Project, 2024).

Complementing the Smart Cities Mission, the Atal Mission for Rejuvenation and Urban Transformation extends comprehensive urban infrastructure development, covering water supply, sewerage, and drainage systems, to a considerably broader set of 26 Bihar cities beyond the four smart cities, including Gaya, Muzaffarpur, Katihar, Darbhanga, Purnea, Munger, and Bhagalpur among others, with AMRUT 2.0 specifically targeting 100 percent

water supply coverage across all statutory towns in the state (Bihar PSC Notes, 2024; Testbook, 2026e).

11.5 Heritage Cities, Cultural Landscapes and Urban Tourism

Bihar's urban landscape includes several cities of exceptional heritage and religious significance, most notably Gaya, whose associated site of Bodh Gaya, the location of the Buddha's enlightenment discussed in Chapter 1.4, continues to attract substantial religious tourism investment, including hotel and retail development around the site and a mall-cum-hotel project reflecting the scale of pilgrimage-driven commercial activity in the area (Rani, 2026). Patna itself carries considerable heritage weight as an ancient city with continuous habitation dating back over two millennia, and the state government's ongoing construction of a subway link between the Bihar Museum and Patna Museum, budgeted at ₹542 crore, reflects a deliberate strategy of integrating the capital's cultural heritage assets into its broader urban redevelopment and tourism strategy (News on Project, 2024). The interplay between heritage preservation and urban tourism development in Bihar's cities is examined in greater depth in Chapter 19's dedicated treatment of tourism, culture, and the creative economy, given the Standardized Document Format's allocation of a full chapter to that theme.

11.6 Urban Poverty, Slum Rehabilitation and In-Situ Upgradation

Detailed, current data on the scale of Bihar's urban slum population, in-situ upgradation programme coverage, and urban poverty rates disaggregated from the state's overall multidimensional poverty figures discussed in Chapter 1.6 was not available with sufficient specificity in the sources reviewed for this chapter. Given Bihar's historically low urbanization rate and its correspondingly modest scale of large informal settlements relative to states with much larger urban populations, this data gap is perhaps less consequential in absolute terms than similar gaps identified elsewhere in this framework, but it remains an area that would benefit from direct reference to Bihar's Urban Development and Housing Department records and its state-level implementation data for schemes such as the historical Rajiv Awas Yojana and its successor slum rehabilitation components under PMAY-Urban, in any future, more granular revision of this framework.

Chapter 12: Rural Development and Decentralised Governance

12.1 Panchayati Raj Institutions: Structure, Devolution and Capacity

Bihar's rural governance operates through a three-tier Panchayati Raj system, comprising Gram Panchayats at the village level, Panchayat Samitis at the intermediate block level, and Zila Parishads at the district level, consistent with the structure established under the 73rd Constitutional Amendment. As documented in Chapter 2.6, Bihar had 8,624 Panchayati Raj Institutions in operation as of March 2024, formally assigned self-governance functions spanning 29 subjects across 20 state government departments (Fifteenth and Sixteenth Finance Commission Secretariat, 2025).

Despite this formal functional devolution, the Sixteenth Finance Commission's evaluation found that as of April 2021, no taxes were being levied or collected by Panchayati Raj Institutions in Bihar because the state government had not notified applicable tax rates, leaving these bodies dependent on Union Finance Commission grants, which constituted approximately 46 percent of their total revenues, and Fifth State Finance Commission grants, which constituted a further 25 percent (Fifteenth and Sixteenth Finance Commission Secretariat, 2025). This near-total absence of own-source revenue at the Panchayat level represents one of the more significant unresolved gaps between the formal architecture of decentralization in Bihar and its practical functional and fiscal autonomy, a theme this framework first raised in Chapter 2.6 and which recurs here as the central structural constraint on rural governance capacity across almost every programme area discussed in the remainder of this chapter.

12.2 MGNREGA: Coverage, Wage Trends and Livelihood Outcomes

The Mahatma Gandhi National Rural Employment Guarantee Act continues to function as a central pillar of rural income support in Bihar, though detailed, Bihar-specific person-days and wage payment data at the granularity needed for a full sectoral assessment was not available with sufficient specificity in the sources reviewed for this chapter. Nationally, the Rural Development Ministry's 2025 year-end review recorded 161 crore person-days of employment generated under the scheme, alongside the introduction of a new Work Monitoring Module designed to identify high-risk or suspicious works requiring closer field verification, with material payments frozen for flagged works until verification is completed (Global Agriculture, 2026).

Most significantly for Bihar specifically, the state government launched the Viksit Bharat-Gramin Rozgar Evam Aajeevika Guarantee Adhiniyam, 2025, referred to as VB-G RAM-G, in 2025, described by state officials as a new rural employment and livelihoods guarantee framework, though the specific relationship between this new state legislation and the existing central MGNREGA architecture, including whether it supplements or restructures the state's implementation of the national scheme, was not fully clarified in the sources available for this chapter and represents an important area for direct clarification

from the Bihar Rural Development Department in any future revision (Patna Press, 2026). Given Bihar's documented high rates of informal and casual employment, discussed in Chapter 3.6, and its correspondingly weak rural non-farm employment base, MGNREGA's continued role as a wage floor and employment guarantee for the state's rural poor remains of particular importance relative to states with more diversified rural economies.

12.3 Rural Housing: PMAY-Gramin and State Schemes

The Pradhan Mantri Awaas Yojana-Gramin continues to be the principal vehicle for rural housing delivery in Bihar as elsewhere in India, operating under a national target, extended through Cabinet approval on August 9, 2024, to construct 4.95 crore pucca houses by 2029, up from an original target of 2.95 crore houses that was to be achieved by March 2024 (Global Agriculture, 2026). As of December 9, 2025, a cumulative target of 4.14 crore houses had been allotted nationally, of which 3.86 crore had been sanctioned and 2.92 crore completed (Global Agriculture, 2026).

Bihar's own supplementary Mukhyamantri Awas Yojana-Gramin specifically targets below-poverty-line families who are not covered under the central PMAY-Gramin scheme, reflecting the state government's recognition that eligibility criteria under the national programme leave a residual population of housing-insecure rural households requiring a state-funded alternative (Bihar Sarkari Naukri, 2025). A precise, current count of houses completed under either the central or state rural housing schemes specifically within Bihar was not available in the sources reviewed for this chapter, and this figure would be a valuable addition sourced directly from the PMAY-Gramin dashboard maintained by the Ministry of Rural Development in any future revision.

12.4 Livelihood Promotion: SHGs, Cooperatives and Rural Enterprise

Bihar's rural livelihood promotion architecture is anchored by JEEViKA, formally the Bihar Rural Livelihoods Promotion Society, which mobilizes rural women into Self-Help Groups, Village Organizations, and Cluster-Level Federations as its core institutional model, complemented by state-specific programmes including the Satat Jeevikoparjan Yojana, targeted specifically at the state's ultra-poor population through a graduation approach designed to move households from acute deprivation toward sustainable livelihoods (Toppersexam, 2026a, 2026b).

JEEViKA operates within the broader national framework of the Deendayal Antyodaya Yojana-National Rural Livelihoods Mission, and its SHG-based model has been widely credited, alongside similar institutions in other states, as a significant contributing factor to the striking rural female labour force participation gains documented in Chapter 3.6 and Chapter 7.4, where research from the Economic Advisory Council to the Prime Minister found rural Bihar recorded among the largest gains in married women's labour force participation of any state in recent years (Ravi & Kapoor, 2024). Precise, current membership figures for JEEViKA's SHG network, its cumulative bank credit linkage volume, and

disaggregated outcome data on income gains among member households were not available with sufficient specificity in the sources reviewed for this chapter, and represent a priority area for direct engagement with the Bihar Rural Livelihoods Promotion Society's own published annual reports in any future, more granular revision of this framework.

12.5 Rural Infrastructure: PMGSY, Connectivity and Market Linkages

Rural road connectivity in Bihar has been substantially advanced through the Pradhan Mantri Gram Sadak Yojana, which marked its 25th anniversary in 2025 having been launched on December 25, 2000. Nationally, the scheme has sanctioned approximately 8,25,114 kilometers of rural roads since inception, of which nearly 7,87,520 kilometers, or 95 to 96 percent, had been completed as of December 2025, with the scheme's fourth phase, covering 2024 to 2029, targeting an additional 62,500 kilometers to connect 25,000 previously unconnected habitations at an estimated outlay of ₹70,125 crore (Drishti IAS, 2026e). Bihar has been explicitly identified, alongside Uttar Pradesh, Madhya Pradesh, and Rajasthan, as one of the states leading rural road completion under the scheme's third phase, with these four states collectively contributing more than 60 percent of all roads completed under PMGSY-III as of mid-2025 (Timr24, 2025).

This connectivity expansion carries direct market linkage benefits, since PMGSY-III has specifically prioritized connections to Gramin Agricultural Markets, schools, and health centres, complementing the broader agricultural marketing improvements discussed in Chapter 18.3 and directly supporting the reduction in transport costs for smallholder farmers moving produce to market, a factor an IIM-Ahmedabad outcome study of PMGSY implementation across seven states including Bihar found brought about measurable socio-economic change in the lives of the rural poor comparable to, and in some cases exceeding, gains experienced by other sections of rural society (Ministry of Rural Development, 2025).

12.6 Community-Based Development Institutions and Participatory Planning

Beyond the formal Panchayati Raj structure and JEEViKA's SHG federation model, Bihar's rural development architecture incorporates a range of community-based institutions designed to support participatory planning and skill-linked livelihood transitions, including the Rural Self Employment Training Institutes network, which nationally comprises 625 institutes across 27 states and union territories covering 612 districts, having trained 59 lakh rural youth and settled 43 lakh of them through self or wage employment as of the most recent national reporting (Global Agriculture, 2026). The extent of Bihar's specific participation in and outcomes from this national RSETI network, along with a more granular assessment of how effectively the state's Gram Panchayats currently exercise genuine participatory planning authority given the fiscal dependency documented in section 12.1, remain areas warranting further primary research. The cumulative picture from this chapter is one of a rural development architecture that has made genuine and measurable progress in physical connectivity, women's economic mobilization through JEEViKA, and housing

delivery, but which continues to operate within a Panchayati Raj governance structure whose fiscal and functional autonomy remains substantially incomplete, a structural gap that Chapter 21's roadmap for decentralized governance reform returns to as a priority for the state's Vision 2047 planning horizon.

Chapter 13: Environment and Natural Resource Governance

13.1 Forest Cover, Biodiversity and Wildlife Conservation

As documented in Chapter 1.1, Bihar's forest cover has followed a positive trajectory in recent years, with the Bihar Economic Survey 2025-26 recording an increase of 689 square kilometers of forest cover over the preceding twelve years, and the forestry sector registering average annual growth of 10.6 percent between 2011-12 and 2024-25 at the sectoral output level (Bihar Institute of Public Finance and Policy, 2026). Bihar's forest resources remain concentrated substantially in the state's southern districts along the Chota Nagpur plateau fringe, an area that, as discussed in Chapter 7.2, overlaps considerably with the state's Scheduled Tribe population and its principal mineral reserves. The state's biodiversity and wildlife conservation infrastructure includes protected areas such as Valmiki Tiger Reserve in West Champaran district, situated along the Nepal border, which represents Bihar's principal habitat for tiger conservation and one of the state's few areas of substantial contiguous forest cover, though a detailed, current assessment of species population trends, protected area management effectiveness, and biodiversity indicators specific to Bihar's forest ecosystems was not available with sufficient granularity in the sources reviewed for this chapter and represents an area for further primary research through the Bihar Forest and Environment Department's own technical reporting.

13.2 Land Use Change, Soil Degradation and Land Resource Management

Bihar's land use pattern remains dominated by agriculture, with Chapter 3.3 documenting that foodgrains account for 95.2 percent of the state's gross cropped area, a concentration that has direct implications for soil health given the limited crop rotation and diversification this pattern implies. Comprehensive, current data on soil degradation trends, groundwater depletion rates, and land resource management outcomes specific to Bihar was not available with sufficient detail in the sources reviewed for this chapter. This represents a meaningful data gap given the centrality of land and soil quality to the state's broader agricultural productivity challenges discussed in Chapter 3.3 and Chapter 18, and would benefit from direct reference to the Bihar Remote Sensing Application Centre's land use and land cover monitoring data in any future, more granular revision of this framework.

13.3 Water Bodies, Wetlands and River Ecosystem Health

Bihar's extensive network of chaur, or seasonal wetlands, discussed in Chapter 3.3 in the context of fisheries development and in Chapter 10.5 in the context of liquid waste management, represents one of the state's most ecologically significant and, from a governance perspective, most underexamined natural resource categories. As documented in Chapter 10.5, conservation management plans have been developed for 387 wetlands specifically within Bihar under the broader Namami Gange Programme framework, reflecting growing institutional attention to these ecosystems, which serve simultaneously as

flood buffers, aquaculture resources, and biodiversity habitat (India Water Portal, 2025). The Ganga's own ecological health within Bihar is being addressed through the Namami Gange Mission-II, allocated ₹3,400 crore under the Union Budget 2025-26, which includes species reintroduction efforts such as the release of gharials and turtles into the river and its tributaries as indicators of improving water quality (India Water Portal, 2025). The river's dual role as both an ecological asset and a flood hazard, discussed further in Chapter 14, means that river ecosystem health governance in Bihar cannot be separated from the state's disaster risk management architecture, a linkage this framework returns to explicitly in the following chapter.

13.4 Mining and Mineral Resource Governance

Bihar's mineral resource base, discussed in Chapter 1.1 and Chapter 3.4, remains substantially underexploited relative to its scale. The state holds an estimated 95 percent of India's known pyrite reserves, and the 2022 discovery of gold deposits in Jamui district is estimated to represent more than 44 percent of the country's total gold reserves, at approximately 223 million tonnes of ore (Wikipedia, 2026b).

As noted in Chapter 3.4, mining's contribution to Bihar's Gross State Value Added remains minimal, at approximately 0.2 percent in the reference year examined, indicating that the sector remains at an early stage of development relative to its underlying resource potential (NITI Aayog, 2025). The governance challenge in bringing these mineral assets into productive use while safeguarding the environmental and social interests of the Scheduled Tribe communities concentrated in the mineral-rich southern districts, discussed in Chapter 7.2, represents an important and largely unresolved policy question for the state, requiring careful navigation of Forest Rights Act protections, environmental clearance processes, and benefit-sharing arrangements with affected local communities before large-scale extraction of these reserves, particularly the Jamui gold deposit, can proceed.

13.5 Pollution: Air, Water, Noise and Soil — Status and Regulatory Response

Air pollution has emerged as one of the most acute and well-documented environmental governance challenges in Bihar's urban centers. A multi-source academic assessment covering 2021 to 2024 found alarming air quality deterioration across the state, particularly during winter and post-monsoon seasons, driven by biomass burning, vehicular emissions, and meteorological stagnation, with spatial pollution hotspots identified in Patna, Gaya, Muzaffarpur, and Bhagalpur (ScienceDirect, 2025). The study found that PM_{2.5} consistently emerged as the most hazardous pollutant, with annual average concentrations exceeding World Health Organization guidelines throughout all four years studied, and the highest annual mean recorded in 2022 at 91.3 micrograms per cubic meter, corresponding to an average Air Quality Index of 162 for that year (ScienceDirect, 2025). Real-time monitoring has documented episodes of considerably more severe pollution in Patna specifically: independent air quality tracking recorded the city's AQI reaching 373 during a particularly acute pollution episode, with the Samanpura monitoring station registering a reading of 441,

deep within the hazardous category, and PM2.5 concentrations reaching 13.1 times the World Health Organization's annual guideline value during that period (EcoHubMap, 2026). In response, the Bihar State Pollution Control Board has implemented a graded response system for winter pollution management and issued compliance notices to factories using coal or furnace oil as fuel within the Patliputra Industrial Estate in Patna, while the Patna High Court has directed the Board to file detailed reporting on air pollution status and mitigation measures across twelve of the state's cities (EcoHubMap, 2026). The Bihar State Pollution Control Board's own action plan for Patna, designated a non-attainment city under national ambient air quality standards, identifies road dust, vehicular emissions, domestic fuel burning, open waste burning, construction activity, and industrial emissions as the principal contributing sources, with continuous ambient air quality monitoring stations operating at multiple sites across the city including the Indira Gandhi Science Complex and Gandhi Maidan (Central Pollution Control Board, 2018). Given that this action plan's underlying vehicle registration data predates the most recent reporting period, an updated inventory of Patna's vehicle fleet and industrial emission sources would strengthen the evidentiary basis for the city's ongoing pollution control strategy.

13.6 Coastal and Marine Resource Management (Where Applicable)

This section of the Standardized Document Format does not apply to Bihar, as the state is entirely landlocked and possesses no coastline or marine resources. Bihar's water resource governance challenges are instead concentrated in its river, wetland, and groundwater systems, addressed in sections 13.3 above and in Chapter 10's dedicated treatment of water supply and sanitation, and this framework notes the non-applicability of this section explicitly rather than omitting it silently, consistent with the Standardized Document Format's instruction to address each numbered section.

Chapter 14: Climate Change and Ecological Security

14.1 State Climate Vulnerability and Risk Profile

Bihar's climate vulnerability is shaped decisively by its physical geography: a flat, low-lying alluvial plain bisected by the Ganga and fed by high-sediment Himalayan rivers descending rapidly from Nepal. The State Action Plan on Climate Change and Human Health, prepared under the National Programme on Climate Change and Human Health, documents that Bihar has been traditionally highly vulnerable to heatwaves and heat-related illness, with most areas of the state recording maximum temperatures exceeding 40 degrees Celsius and some southeastern locations reaching the high 40s during peak summer months (National Centre for Disease Control, 2025).

The same plan records a long-term warming trend of 0.6 degrees Celsius per hundred years for the state, alongside 29 of Bihar's districts falling into a "high normal" vulnerability category for climate-sensitive vector-borne disease transmission (National Centre for Disease Control, 2025). Nationally, the summer of 2025 saw India record its highest number of heatwave days in fourteen years, with the National Centre for Disease Control recording 7,192 suspected heatstroke cases and 14 confirmed deaths between March and June, though independent tracking by HeatWatch, using media-reported deaths, found 84 deaths in the same period, a discrepancy that public health researchers believe understates the true toll in both cases (Countercurrents, 2026). Heatwaves are notably not classified as notified disasters under Indian law, a classification gap that a recent policy analysis argued removes any requirement for compensation or mandated government response, a gap with direct relevance to Bihar given its documented heat vulnerability (Countercurrents, 2026).

Bihar's flood risk, however, remains the dominant and most consequential dimension of the state's overall climate and disaster vulnerability profile. The Bihar State Disaster Management Authority records that an estimated 73 percent of the state's total land area, approximately 68,800 of 94,160 square kilometers, is vulnerable to flooding, that Bihar accounts for 22.1 percent of India's total flood-affected population despite the state's much smaller share of national land area, and that annual flooding in Bihar accounts for 30 to 40 percent of all flood damage recorded nationally (Bihar State Disaster Management Authority, 2026; Nalanda District Administration, 2026).

Twenty-eight of Bihar's 38 districts fall within the most flood-prone or flood-prone district categories, and the state additionally sits within a high seismic zone along the boundary of the Himalayan tectonic plate, with six sub-surface fault lines running toward the Gangetic plains near the Bihar-Nepal border, adding earthquake risk to the state's flood and heat vulnerability profile (Nalanda District Administration, 2026).

14.2 State Action Plan on Climate Change: Review and Second Generation Reforms

Bihar's climate adaptation planning architecture includes both a broader State Action Plan on Climate Change and the sector-specific State Action Plan on Climate Change and Human Health referenced above, the latter explicitly designed as a long-term vision and planning document from which district-specific action plans are intended to be developed, highlighting current and projected climate vulnerabilities, associated disease burden, and the initiatives required to build a climate-responsive and sustainable healthcare ecosystem for the state (National Centre for Disease Control, 2025). A comprehensive, current assessment of the broader State Action Plan on Climate Change's implementation status, including its alignment with national Nationally Determined Contribution targets and its integration with the Bihar Renewable Energy Policy 2025 discussed in Chapter 9.4, was not available with sufficient detail in the sources reviewed for this chapter, and represents an important area for direct engagement with the Bihar Environment, Forest and Climate Change Department's own published planning documents in any future, more detailed revision of this framework.

14.3 Disaster Risk Profile: Hazard, Exposure and Vulnerability Mapping

Bihar's disaster risk profile is dominated overwhelmingly by riverine flooding, with a formal classification system maintained by the state's Flood Management Information Systems Cell distinguishing among flood types, including Class I flash floods originating from rainfall in Nepal, which carry a short lead time of approximately eight hours and recede relatively quickly (Bihar State Disaster Management Authority, 2026). The scale of recent flood impact in the state has been substantial: in a communication to the Ministry of Home Affairs dated June 23, 2025, the Bihar Disaster Management Department reported that 3,662 village panchayats across 27 districts were submerged during the 2024 flood season, with 19 deaths and 5.6 million people affected (PreventionWeb, 2025). Over the longer period from 2015 to 2024, the state's own disaster management department recorded that floods claimed 1,752 lives and affected more than 67.6 million people cumulatively (PreventionWeb, 2025). Beyond flooding, Bihar's hazard profile additionally includes drought, particularly affecting the drier southern and southwestern districts, along with cold waves, heat waves, cyclonic storms, and human-induced hazards including fire, epidemics, and transport accidents (Nalanda District Administration, 2026).

A particularly consequential finding from independent disaster policy analysis concerns the embankment strategy that has underpinned Bihar's flood management approach since the 1950s. Embankments have been constructed along 3,732 kilometers of riverbanks in the state since India's first National Flood Control Policy was formulated in 1954, beginning with the Kosi river, but this strategy has been found by independent researchers to have failed to shrink the overall area prone to flooding, and in some documented cases to have concentrated and worsened flood impact for communities living within the embanked floodplain itself, since embankments placed far enough from the main river channel to enclose portions of the floodplain can trap entire villages inside the embankment, leaving them more vulnerable to flooding than they would be without the structure (PreventionWeb, 2025). This finding

directly informs the disaster risk reduction discussion in the following section, since it suggests that further reliance on the embankment-centric approach without independent effectiveness evaluation may not represent the most resilient path forward for the state's flood management strategy.

14.4 Disaster Risk Reduction: Institutional Mechanisms and Preparedness

The Bihar State Disaster Management Authority serves as the state's principal institutional mechanism for disaster risk reduction, operating in coordination with district-level disaster management authorities and the Bihar Disaster Management Department (Bihar State Disaster Management Authority, 2026). Despite this institutional architecture, independent field research conducted through the Kosi Navnirman Manch, a local advocacy organization, found significant gaps between formal preparedness protocols and actual on-the-ground evacuation effectiveness. A February survey of 1,081 families in the Kosi flood-prone area found that of 760 families who reported having received prior flood warning information, only 357 actually reached safer locations, and only 14 families reached a formal government relief camp, with the remainder either sheltering on the embankments themselves or with relatives (PreventionWeb, 2025).

The Bihar Disaster Management Department's own data corroborates the scale of this evacuation gap at the state level, recording that between 2015 and 2024 only 4.652 million people were evacuated during floods, representing just 6.94 percent of the 67.6 million total flood-affected population over that period (PreventionWeb, 2025). This finding indicates that Bihar's disaster risk reduction challenge lies less in the formal existence of protocols and mandates, such as the department's own boat deployment mandate for severe flood zones, and more in their consistent, last-mile field implementation, a pattern that echoes the broader implementation gap this framework has identified across health service delivery in Chapter 6.1 and welfare scheme access in Chapter 7.9.

14.5 Post-Disaster Response, Relief and Reconstruction Framework

Bihar's post-disaster reconstruction framework has, in the case of major flood events, drawn on international financing and technical assistance, most notably through the World Bank-supported Bihar Kosi Flood Recovery Project, initiated following the catastrophic 2008 Kosi flood that displaced over 3.3 million people and caused approximately 500 deaths after an embankment breach (Earth5R, 2025; World Bank Group for Disaster Reduction and Recovery, 2010). That project's design incorporated owner-driven housing reconstruction of approximately 100,000 houses, construction of roughly 90 bridges and culverts, reconstruction of 290 kilometers of rural roads, strengthening of flood forecasting and erosion management capacity, and livelihood restoration support delivered in part through the JEEViKA institutional platform discussed in Chapter 12.4, reflecting a deliberate integration of disaster recovery with the state's existing rural livelihoods infrastructure (World Bank Group for Disaster Reduction and Recovery, 2010). The project additionally supported the establishment of a Center of Excellence for Water Resources and Flood and Sediment

Management Research and Development at Birpur, intended to build long-term technical capacity for embankment asset management and integrated flood and sediment management planning, informed in part by comparative international experience such as that of the Mississippi River in the United States (World Bank Group for Disaster Reduction and Recovery, 2010). The continuing recurrence of major flood events well after this project's completion, including the 2024 flood documented in section 14.3, suggests that the underlying structural and institutional reforms envisaged under the Kosi recovery framework may not yet have been fully realized or sustained.

14.6 Green Economy Transition: Opportunities and Structural Challenges

Bihar's green economy transition intersects directly with both its renewable energy ambitions, discussed in Chapter 9.4, and its acute environmental degradation challenges along its major rivers. The Kosi river itself illustrates this intersection starkly: Bihar State Pollution Control Board monitoring has found dangerously high levels of Biological and Chemical Oxygen Demand in the river's waters, indicating substantial organic pollution, while a 2018 study by the National Institute of Technology Patna found that more than 80 tonnes of solid waste, much of it plastic, were being disposed of daily along the Kosi's tributaries and embankments due to inadequate waste management infrastructure and weak enforcement of environmental regulations (Earth5R, 2025).

Research by the National Institute of Cholera and Enteric Diseases has linked unsafe water sources in the Saharsa and Supaul districts to disease incidence rates two to three times higher than the state average, while Central Ground Water Board reports have documented toxic heavy metal contamination linked to long-term neurological and kidney illness in affected populations (Earth5R, 2025). Addressing this combination of water pollution, plastic waste, and climate-driven flood and heat risk while simultaneously pursuing the state's ambitious renewable energy targets represents the core green economy transition challenge for Bihar, one that will require the kind of integrated riparian restoration, waste management infrastructure investment, and community-based environmental stewardship programming that organizations such as Earth5R have proposed through models including riverkeeper programmes and adopt-a-river schemes, alongside the institutional flood management reforms discussed in section 14.4, if the state's ecological security is to improve in step with its economic growth trajectory documented throughout this framework.

Chapter 15: Administrative Governance Reform

15.1 Structure of State Administration and Inter-Departmental Coordination

Bihar's administrative structure, as introduced in Chapter 1.2, operates through a hierarchy running from the state secretariat in Patna down through Divisional Commissioners, District Magistrates, Sub-Divisional Magistrates, and Block Development Officers, with parallel structures for police, revenue, and judicial administration. This layered structure spans 20 state government departments, the same set of departments across which the 29 subjects formally devolved to Panchayati Raj Institutions are distributed, as documented in Chapter 12.1 (Fifteenth and Sixteenth Finance Commission Secretariat, 2025). The scale of coordination this implies, across 38 districts, 9 divisions, and thousands of gram panchayats and urban local bodies, represents a genuine administrative management challenge, and the recurring pattern identified throughout this framework, in which well-designed schemes and adequate budget allocations repeatedly encounter last-mile implementation gaps, from the 31 percent of health budget allocations that went unspent between 2016-17 and 2021-22 documented in Chapter 6.1, to the flood evacuation shortfall of just 6.94 percent of the affected population documented in Chapter 14.4, points toward inter-departmental coordination and field-level administrative capacity, rather than policy design or financing, as a recurring binding constraint across multiple sectors of Bihar's governance.

15.2 Anti-Corruption Framework: Lokayukta, Vigilance and Enforcement

Bihar maintains a Lokayukta institution and a state Vigilance Investigation Bureau as its principal anti-corruption enforcement mechanisms, operating alongside central agencies such as the Central Bureau of Investigation and the Enforcement Directorate for cases falling within their jurisdiction. Detailed, current data on Bihar's anti-corruption case disposal rates, the Lokayukta's caseload and conviction outcomes, and comparative corruption perception indicators specific to the state was not available with sufficient granularity in the sources reviewed for this chapter. This represents a genuine data gap that should be addressed through direct reference to the Bihar Vigilance Investigation Bureau's annual reports and Transparency International's state-level corruption perception data, where available, in any future, more detailed revision of this framework, rather than being filled with unsupported general claims about the state's anti-corruption performance.

15.3 Legal and Judicial Administration: Pendency, Access and Reform

Bihar's judicial administration faces a documented and severe capacity crisis, concentrated most visibly at the Patna High Court. As of September 2025, the Patna High Court had a sanctioned strength of 53 judicial posts but only 35 judges in active service, leaving 18 positions vacant, a vacancy rate exceeding one-third of the court's sanctioned capacity (The Daily Jagran, 2025). This judge shortage coincides with an overwhelming case backlog: National Judicial Data Grid figures cited in the same reporting placed the Patna High Court's pending caseload at approximately 215,000 cases, comprising roughly 110,000 civil and 104,000 criminal matters, with nearly 68 percent of civil cases and over 60 percent of criminal cases pending for more than a year (The Daily Jagran, 2025). This pattern is

consistent with a broader, well-documented national judicial capacity crisis: a 2018 NITI Aayog strategy paper found that at the prevailing rate of case disposal nationally, clearing India's then-backlog of 29 million pending cases would take more than 324 years, and case pendency has been estimated to cost the Indian economy more than 2 percent of GDP annually (Wikipedia, 2026h). India's overall sanctioned judicial strength stood at 21.03 judges per million population as of 2022, well below the 50 judges per million population recommended by the Law Commission of India and the Justice V.S. Malimath Committee (Wikipedia, 2026h).

Bihar's own judicial recruitment process has itself been a documented source of delay: in 2022, the Bihar Public Service Commission took 30 months to complete a single judicial services examination cycle, an extended timeline that a national review identified as a contributing factor to the state's persistent lower judiciary vacancies (Wikipedia, 2026h).

The state has continued efforts to address this gap through ongoing recruitment cycles, including the 33rd Bihar Judicial Services Preliminary Competitive Examination for 173 Civil Judge, Junior Division posts, announced in early 2026, alongside a separate direct recruitment drive for District Judge positions through the Bar examination route (Result Bharat, 2026; ALEC, 2026). The severity of Bihar's judicial pendency crisis has had documented human consequences: a widely reported 2022 case saw a man acquitted of murder for lack of evidence after having spent 28 years in pre-trial and trial detention, an outcome directly attributable to prolonged case pendency within the state's judicial system (Wikipedia, 2026h).

15.4 Police Modernisation and Internal Security Management

Bihar Police operates under the state's Department of Home Affairs through six functional divisions: Human Resource Development and Training, Law and Order, Establishment and Legal, Personnel and Welfare, Headquarters, and Modernisation, Crime Records and Provision (AffairsCloud, 2021). The department has undertaken substantial recent recruitment activity, with reported vacancy drives in 2026 spanning constable, sub-inspector, inspector, and driver positions, with some reporting indicating a prospective recruitment drive of more than 65,000 positions across ranks (Job Marg, 2026).

The scale of this recruitment activity suggests that closing existing staffing vacancies within the police force remains an active and substantial undertaking for the state, though a precise, current assessment of Bihar Police's sanctioned strength against actual deployed strength, and of the state's police-to-population ratio relative to the Bureau of Police Research and Development's recommended benchmarks, was not available with sufficient specificity in the sources reviewed for this chapter.

15.5 Regulatory Governance: Quality, Consistency and Independence

Bihar's regulatory governance framework has been shaped substantially by the national Business Reforms Action Plan process discussed in Chapter 4.1, with the eighth edition, BRAP 2026, rolled out in November 2025 to promote regulatory transparency and simplification across all states including Bihar (Press Information Bureau, 2026). Sector-specific regulatory bodies operating within the state include the Bihar Electricity Regulatory Commission, discussed in Chapter 9.6, which governs tariff and net metering policy, and the Bihar State Pollution Control Board, discussed in Chapter 13.5, which regulates industrial emissions and environmental compliance. A comprehensive, comparative assessment of the independence, staffing adequacy, and enforcement consistency of Bihar's various sectoral regulators, benchmarked against other Indian states, was not available in the sources reviewed for this chapter and represents an area warranting further primary research.

15.6 Reduction of Red-tapism: Simplification and Way Forward

Bihar's efforts to reduce administrative red tape have been pursued substantially through the ease of doing business reforms discussed in Chapter 4.1, including the UDYOG SAMWAD grievance redressal portal, single window clearance systems, online inspection systems, and differentiated compliance inspection requirements calibrated to industry risk profiles (Government of Bihar, Department of Industries, 2016). At the national level, more than 47,000 compliance requirements had been reduced as of November 2025 through simplification, digitization, and decriminalization efforts that apply to businesses and citizens operating in Bihar as elsewhere in the country (Press Information Bureau, 2026). The persistence of significant implementation gaps documented throughout this framework, however, from health budget underutilization to judicial recruitment delays, suggests that simplifying formal regulatory requirements at the policy level has not yet been matched by equivalent gains in the speed and reliability of actual administrative processing at the field level, an observation that should temper overly optimistic readings of Bihar's ease of doing business reform progress until field-level implementation data becomes more consistently available.

15.7 Civil Service Strength: Vacancy Rates and Training Institutions

Bihar's civil service recruitment continues to be conducted primarily through the Bihar Public Service Commission for civil administrative posts and separate dedicated boards, such as the Central Selection Board of Constables, for police recruitment specifically. The scale of ongoing recruitment activity across multiple cadres, including the BPSC's 72nd Combined Competitive Examination and the large-scale police recruitment drives noted in section 15.4, indicates that Bihar continues to carry substantial vacancy levels across its civil service cadres that the state government is actively working to address through sustained examination cycles (Bihar Public Service Commission, 2026). A precise, consolidated figure for the state's overall civil service vacancy rate across all departments, along with a detailed assessment of the capacity and throughput of Bihar's civil service training institutions, was not available with sufficient specificity in the sources reviewed for this chapter, and this represents an

important area for direct engagement with the Bihar Department of Personnel and Administrative Reforms in any future, more granular revision of this framework. Taken together with the judicial vacancy crisis documented in section 15.3, the picture that emerges across this chapter is one in which administrative capacity constraints, arising from a combination of lengthy recruitment cycles, sanctioned-versus-actual staffing gaps, and inter-departmental coordination challenges, represent as significant a constraint on Bihar's development trajectory as any single policy or financing gap identified elsewhere in this framework, and warrant treatment as a first-order priority in the Vision 2047 roadmap set out in Chapter 21.

Chapter 16: Technology-Enabled Service Delivery

16.1 Digital Infrastructure: Broadband, Optical Fibre and Connectivity Coverage

Bihar's digital infrastructure continues to lag the state's progress in other domains, a pattern this framework has flagged repeatedly, including in Chapter 5.6's discussion of digital education and Chapter 1.8's overall development ranking. The Bihar Economic Survey 2025-26 recorded the state's teledensity at 57.23 percent and internet density at only 43.10 percent, both well below national averages (Bihar Institute of Public Finance and Policy, 2026). At the national level, the first National Broadband Mission, launched in December 2019, saw broadband subscribers grow from 66 crore to 94.49 crore and optical fibre cable length more than double to 42.13 lakh route kilometers, and the government launched National Broadband Mission 2.0 on January 17, 2025, explicitly aimed at fast-tracking digital infrastructure expansion to close the remaining digital divide, a divide within which Bihar figures prominently given its below-average connectivity indicators (Digital Initiatives Report, 2026). Bihar's own digital infrastructure buildout has included the establishment of Bihar State Data Centre 2.0, developed under the state's Department of Information Technology, established in 2007, and recognized through international Uptime Institute award consideration for government data center infrastructure (Uptime Institute, 2026). The state's participation in the National Informatics Centre's broader digital backbone includes a Mini Cloud setup operational as part of NIC's national cloud services architecture, and the state has separately attracted investment in data center and drone manufacturing units under its new IT Policy (Drishti IAS, 2026f).

16.2 e-Governance Architecture and Digital Public Infrastructure

Bihar's e-governance architecture is anchored by the Right to Public Services Act framework, under which the state delivers more than 40 citizen services online and has disposed of over 6 to 7 crore applications digitally since the framework's launch, substantially reducing the need for physical visits to government offices (BPSC Pathshala, 2026). Land administration has been a particularly significant focus of digitization efforts: the Bihar Bhumi portal provides online access to land records, jamabandi, and mutation status, with over 90 percent of jamabandi records digitized, a development with direct relevance to the land governance questions raised throughout this framework, including in Chapter 1.4's discussion of the historical role of land reform obstruction in Bihar's development trajectory (BPSC Pathshala, 2026). Direct Benefit Transfer, integrated with the national Public Financial Management System, now channels scholarships, pensions, and welfare payments directly to beneficiary bank accounts, a mechanism directly relevant to the welfare scheme implementation gaps discussed in Chapter 7.9, since DBT is specifically designed to reduce the kind of last-mile leakage and diversion this framework has identified as a recurring challenge across multiple welfare programmes.

Building on this foundation, the state government has committed ₹87 crore to the BiharOne platform, awarded to CIPL and supported by BELTRON, the state's electronics and

information technology corporation, with the explicit goal of integrating both RTPS and non-RTPS citizen services into a single unified digital ecosystem (OneIndia, 2026). This platformization strategy mirrors the broader national trend, identified in independent digital governance analysis, toward integrating previously fragmented government digital services into cohesive, one-stop platforms, a trend the same analysis characterized as part of a deliberate evolution from government acting as a passive infrastructure provider toward becoming an active, intelligence-driven service orchestrator (Digital Initiatives Report, 2026).

16.3 Citizen Service Delivery: CSCs, Service Portals and Mobile Governance

Common Service Centres serve as a critical last-mile delivery channel for Bihar's digital government services, particularly in rural areas where individual household internet access remains limited given the connectivity gaps documented in section 16.1. However, an independent assessment of Bihar's e-governance ecosystem specifically identified inadequate infrastructure and frequent power supply issues as ongoing constraints on CSC functioning, noting that National Power Portal data shows continuing power supply instability in rural Bihar that directly affects the operational reliability of Common Service Centres and broader online service delivery (BPSC Pathshala, 2026).

This finding connects directly to the transmission and distribution reliability challenges documented in Chapter 9.2, illustrating how Bihar's power sector weaknesses create downstream constraints on the effectiveness of its digital governance investments, a cross-sectoral linkage that underscores the importance of the integrated, cross-cutting policy approach this framework's concluding chapter argues for. The same assessment identified language barriers as a further constraint, noting that many government portals remain insufficiently vernacular-friendly for a population in which Hindi, Bhojpuri, Maithili, and Magahi are all in wide use, as documented in Chapter 1.4 (BPSC Pathshala, 2026). Mobile governance applications deployed by the National Informatics Centre's Bihar State Centre span functions including mobile-based monitoring for the state's power infrastructure and other departmental tracking applications, reflecting a broader strategy of extending digital service delivery beyond fixed-location Common Service Centres toward mobile-first citizen interfaces (National Informatics Centre, 2026).

16.4 Data Governance, Open Data Policy and Privacy Framework

Bihar's data governance architecture operates within India's national Digital Personal Data Protection framework and the broader "MeghRaj" Government of India Cloud Initiative, under which the National Informatics Centre provides cloud hosting, security, and data management services to state government departments, including Bihar's, from National Data Centres located at Bhubaneswar, Delhi, Hyderabad, and Pune, supplemented by Bihar's own state-level data center infrastructure (National Informatics Centre, 2026). Independent policy analysis of India's digital transformation strategy for the 2023 to 2025 period identified data privacy and security regulation as one of three symbiotic pillars, alongside infrastructure and digital literacy, necessary for citizens to engage confidently with sensitive government digital

services (Digital Initiatives Report, 2026). A detailed, Bihar-specific assessment of open data policy implementation, including the scope and accessibility of any state-level open data portal, was not available with sufficient specificity in the sources reviewed for this chapter, and represents an area for further primary research.

16.5 Cybersecurity: State-Level Institutional Mechanisms

Cybersecurity for Bihar's government digital infrastructure is supported substantially through the National Informatics Centre's Bihar State Centre, which explicitly lists cybersecurity among its core service functions alongside biometric attendance systems, cloud services, e-Office, messaging, networking, and video conferencing support for state government departments (National Informatics Centre, 2026). The National Knowledge Network, which serves as the backbone connectivity infrastructure for e-governance nationally, incorporates dedicated network security divisions pursuing confidentiality, integrity, and availability objectives for government ICT assets, a framework within which Bihar's own state data infrastructure operates (National Informatics Centre, 2026). A more granular, Bihar-specific assessment of cybersecurity incident response capacity, staffing, and any dedicated state-level Computer Emergency Response Team function was not available in the sources reviewed for this chapter, representing a data gap given the increasing centrality of digital service delivery documented throughout this chapter and the corresponding rise in the state's exposure to cybersecurity risk as its digital footprint expands.

16.6 Emerging Technologies: AI, Geospatial Systems and Smart Governance

Bihar's engagement with artificial intelligence and emerging technology in governance remains at an early stage relative to the national trajectory. Independent analysis of India's digital transformation strategy identified the 2023 to 2025 period as an inflection point during which artificial intelligence transitioned nationally from a niche technology to a central pillar of government strategy, a trend that Bihar's own digital governance initiatives are beginning to incorporate, for instance through the AI-related discussion referenced in connection with the January 2026 India AI Impact Summit and its implications for state-level digital public infrastructure more broadly (Digital Initiatives Report, 2026). Geospatial systems have been applied within Bihar's governance architecture principally through disaster and infrastructure monitoring applications, including the Flood Hazard Atlas maintained through the Bhuvan geospatial platform discussed in Chapter 14.3, and through PM Gati Shakti-integrated infrastructure planning referenced in Chapter 10.1's discussion of Jal Jeevan Mission asset geo-tagging. A comprehensive, Bihar-specific roadmap for AI adoption in citizen service delivery, predictive governance analytics, or geospatial planning integration across departments was not available in the sources reviewed for this chapter, suggesting that, consistent with the broader digital infrastructure gaps documented in section 16.1, Bihar's emerging technology adoption in governance remains at a comparatively nascent stage relative to states with stronger baseline digital infrastructure, an area Chapter 17's discussion

of the state's innovation ecosystem returns to in the context of building the human capital and institutional foundations that more advanced technology adoption would require.

Chapter 17: Innovation, Research and Knowledge Economy

17.1 State Innovation Ecosystem: Startups and Accelerators

Bihar's startup ecosystem, while still nascent relative to India's established hubs, has developed a genuine institutional foundation over the past decade. The Bihar Startup Policy, administered by the state's Department of Industries through the startup.bihar.gov.in portal and launched under Industry Minister Syed Shah Nawaz Hussain, has registered over 1,522 startups with a total disbursement of ₹62.50 crore as of the most recent reporting, offering seed funding, incubation support, coworking spaces, patent assistance, and investor-matching programmes across priority sectors including agri-tech, health-tech, handloom, and digital services (StartupFeed, 2026). The policy's seed grant structure disburses ₹7 lakh on initial approval with a further ₹3 lakh following milestone review, and its matching loan provision allows a startup that raises capital from a SEBI-registered angel investor to receive a government loan equal to 100 percent of that amount, up to ₹50 lakh, without equity dilution, a mechanism specifically designed to compensate for the state's comparatively thin private angel and venture capital base (StartupFeed, 2026; Rahul.biz, 2026).

The centerpiece of Bihar's institutional startup infrastructure is the Incubation Centre at IIT Patna, established in 2015 on the institute's Bihta campus with backing of approximately ₹47.10 crore from central and state government sources, including the Ministry of Electronics and Information Technology and the Bihar Department of Information Technology (Rahul.biz, 2026; Incubation Centre IIT Patna, 2026). As of the most recent reporting, the centre had supported more than 180 founders with over ₹47 crore in cumulative support, recorded at least one successful exit, and focused particularly on hardware and deep-technology ventures spanning electronics, medical devices, the Internet of Things, robotics, and automation, sectors in which the centre's access to institutional-grade laboratory and prototyping infrastructure fills a gap that would otherwise be largely absent in eastern India outside major metropolitan centers (Startup Grants India, 2026). An independent, on-the-ground assessment of Patna's startup scene published in early 2026 characterized the ecosystem as "real but early," noting that following the state's IT Policy 2024, more than 30 companies had committed ₹1,500 crore in information technology investment, with an additional ₹470 crore in proposals announced, against a state target of ₹4,000 crore in IT investment by March 2025, while cautioning that a significant portion of these figures represent investment commitments rather than yet-realized operational investment (Rahul.biz, 2026).

17.2 Research and Development: Academic-Industry Linkages

Bihar's research and development ecosystem centers substantially on IIT Patna and NIT Patna, whose faculty and laboratory infrastructure underpin the deep-technology incubation activity described in section 17.1. The Incubation Centre at IIT Patna has explicitly structured its academic-industry linkage model around specific technical verticals, including a collaboration programme with Sharp's Indian research and development arm inviting

early-stage startups to co-develop smart work and enterprise solutions, illustrating a nascent but genuine model of corporate-academic co-innovation emerging from within the state (Startup Grants India, 2026). Independent commentary on Bihar's broader startup reform agenda has identified continued expansion of university-incubator collaboration, specifically between incubation centers and Bihar's leading technical institutions including IIT Patna and NIT Patna, as a key lever for nurturing student-led startups and building the state's research-to-commercialization pipeline (Animesh Ka Bihar Udyog Sankalp, 2026). A comprehensive, quantitative assessment of Bihar's overall research output, including publication counts, sponsored research funding volumes, and the scale of formal industry-sponsored research contracts across the state's higher education institutions, was not available with sufficient detail in the sources reviewed for this chapter, and represents a priority area for direct engagement with the Bihar Department of Science and Technology and individual institutional research offices in any future, more granular revision of this framework.

17.3 Intellectual Property: Awareness, Registration and Commercialisation

The Bihar Startup Policy explicitly incorporates intellectual property support as one of its core stakeholder benefits, providing patent cost coverage under which fees associated with filing both domestic and foreign patents are reimbursed to registered startups, an incentive structure explicitly designed to encourage innovation while lowering the financial barrier to formal intellectual property protection for early-stage ventures with limited capital (Jaagruk Bharat, 2026). The Startup Bihar portal separately offers direct expert advisory support on copyrights, patents, and trademarks as part of its broader startup support ecosystem (Startup Bihar Portal, 2026). Despite these formal support mechanisms, a quantitative assessment of actual patent filing rates, grant rates, and commercialization outcomes specific to Bihar-based innovators and institutions was not available in the sources reviewed for this chapter, and given Bihar's documented higher education capacity constraints discussed in Chapter 5.3, including a college density of only 8 per 100,000 population against a national average of 31, it is reasonable to expect that the state's aggregate patent filing volume remains modest relative to states with denser research institution networks, though this inference should be treated as directional rather than as a precise quantitative finding pending confirmation from Intellectual Property India's state-disaggregated filing data.

17.4 Knowledge Institutions as Engines of Development

Bihar's principal knowledge institutions, IIT Patna, NIT Patna, the Chandragupt Institute of Management Patna, and AIIMS Patna, together with a growing network of state and central universities, represent the institutional backbone through which the state's innovation ecosystem, discussed in section 17.1, and its broader higher education capacity, discussed in Chapter 5.3, are being built out. IIT Patna in particular has emerged as the most consequential single knowledge institution for Bihar's innovation economy specifically, given its role hosting the state's most active deep-technology incubation centre and its planned expansion

of dedicated verticals in agri-tech, health-tech, and deep-tech over the coming three years, alongside planned extension centers in colleges across Bihar intended to extend incubation support to early-stage innovators from smaller cities beyond Patna (Rahul.biz, 2026). This extension strategy directly addresses the geographic concentration concern raised throughout this framework, including in Chapter 1.7's discussion of intra-state disparity, since without deliberate extension efforts, knowledge economy infrastructure in Bihar would otherwise remain concentrated almost entirely within the Patna metropolitan area.

17.5 Building a Youth Innovation and Research Ecosystem

The YUVA Action Plan, embedded within the broader Bihar Startup Policy framework, is specifically designed to build a youth-oriented innovation pipeline by partnering with educational institutions, incubators, and government bodies to integrate entrepreneurship education directly into the state's academic environment, while also incorporating regulatory streamlining to reduce red tape for young, first-time founders (Jaagruk Bharat, 2026). This youth-focused innovation strategy connects directly to the demographic dividend discussion in Chapter 1.3, since Bihar's exceptionally young population, with close to 58 percent of residents under age 25, represents both the state's greatest long-term innovation asset and, absent adequate local opportunity, its greatest continuing source of talent outflow, a tension an independent policy commentary characterized starkly: Bihar's talented students continue to move to cities such as Bengaluru and Pune for better job opportunities, a pattern of brain drain that makes it correspondingly difficult for local startups to find and retain skilled workers within the state itself (Animesh Ka Bihar Udyog Sankalp, 2026). Addressing this outflow will require not only the innovation infrastructure investments described in this chapter but also the kind of higher education capacity expansion discussed in Chapter 5.3 and the broader employment generation discussed in Chapter 3.7, since young innovators are unlikely to remain in or return to Bihar's startup ecosystem if they perceive better-resourced opportunities as consistently available only outside the state.

17.6 Skill Development, Employability and Workforce Alignment

Bihar's skill development architecture, introduced in Chapter 5.4, includes the Kushal Yuva Programme targeting youth aged 15 to 28 with soft skills, IT, and communication training, alongside Recognition of Prior Learning schemes and the World Bank-supported skill development initiative discussed previously (BPSC Concept Wallah, 2025). Independent analysis of Bihar's startup ecosystem specifically identified the availability of skilled labour as a distinct and separate policy lever from funding and infrastructure, noting that startups scaling within the state require dedicated training programmes calibrated to their specific talent needs, a linkage the YUVA regulatory framework attempts to address through its integration of skill development directly within the broader startup support ecosystem (Jaagruk Bharat, 2026). The persistent gap between Bihar's demographic scale and its comparatively thin venture capital and mentorship density, noted in the independent Patna startup ecosystem assessment, which found no venture capital fund headquartered in Patna

and no local equivalent of established angel investor networks such as Mumbai Angels or the Indian Angel Network, suggests that workforce skill alignment alone will not be sufficient to retain Bihar's innovation talent without complementary progress on capital access, a gap the state's matching loan and SIDBI-backed Bihar Startup Scale-up Financing Fund mechanisms represent an initial, if still partial, attempt to address (Rahul.biz, 2026).

Chapter 18: Agriculture, Allied Sectors and Food Security

18.1 Cropping Pattern, Agricultural Productivity and Input Use

As documented in Chapter 3.3, Bihar's cropping pattern remains heavily concentrated in foodgrains, which accounted for 95.2 percent of the state's gross cropped area between 2020-21 and 2024-25, with cereals alone comprising 89.2 percent and pulses only 6.0 percent, indicating limited diversification toward higher-value or more nutritionally diverse crops despite the state's favourable alluvial soil base described in Chapter 1.1 (Bihar Institute of Public Finance and Policy, 2026). This concentration reflects the historical dominance of paddy, wheat, and maize in Bihar's farming systems, a pattern reinforced by the state's monsoon-dependent water availability, discussed further in section 18.2, and by longstanding market and storage infrastructure built around these staple crops rather than higher-value horticultural alternatives. Bihar's overall agricultural productivity, measured in yield per hectare across its major staple crops, continues to lag the national average for several key crops, a gap this framework attributes in part to the irrigation and mechanization constraints discussed below, though a fully disaggregated, crop-by-crop yield comparison against national benchmarks was not available with sufficient granularity in the sources reviewed for this chapter.

18.2 Irrigation and Water Use Efficiency in Agriculture

As discussed in Chapter 10.2, Bihar's irrigation infrastructure remains a significant constraint on agricultural diversification and productivity, despite the state's exceptional water endowment from the Ganga and its tributaries. The dominance of foodgrain cultivation documented in section 18.1 is, in substantial part, a function of limited assured irrigation coverage, since foodgrains, particularly paddy grown during the monsoon season, are comparatively better suited to rain-fed cultivation than the higher-value horticultural crops that would otherwise benefit from crop diversification. Bihar's paradoxical position, holding among the most abundant surface water resources of any Indian state while continuing to experience seasonal water stress in its drier southern and southwestern districts, discussed in Chapter 1.1, underscores that the state's core irrigation challenge lies in water storage, canal command area development, and distribution infrastructure, rather than in any underlying scarcity of the water resource itself. A detailed, current assessment of Bihar's irrigation command area coverage and canal versus groundwater irrigation shares was flagged in Chapter 10.2 as a data gap requiring direct reference to the Bihar Water Resources Department's technical reporting, and that gap applies equally to this chapter's treatment of irrigation's role in agricultural productivity specifically.

18.3 Agricultural Marketing, Price Realisation and Farmer Income

Bihar occupies a distinctive position in India's agricultural marketing landscape, having abolished its Agricultural Produce Market Committee Act in 2006, well ahead of the national deregulation debates that followed the since-repealed 2020 central farm laws, making Bihar one of the earliest and longest-running natural experiments in APMC-free agricultural marketing in the country. This deregulated marketing environment, combined with the rural connectivity improvements discussed in Chapter 12.5, particularly the Pradhan Mantri Gram Sadak Yojana's prioritization of Gramin Agricultural Market connections, has aimed to improve farmers' direct market access and price realization, though a rigorous, current comparative assessment of whether Bihar's farmers achieve better or worse price realization than farmers in states retaining regulated mandi systems was not available with sufficient specificity in the sources reviewed for this chapter. What can be stated with confidence is that Bihar's farmer income levels remain constrained by the same structural factors documented throughout this framework, including limited irrigation coverage, low mechanization, and the state's broader per capita income position as the lowest of any Indian state, discussed in Chapter 3.2, all of which bear directly on farmers' capacity to invest in productivity-enhancing inputs and to weather price volatility without formal marketing regulation as a backstop.

18.4 Food Processing Industry and Value Chain Development

Food processing has been consistently identified as one of Bihar's fastest-growing industrial sectors, alongside dairy, sugar, manufacturing, and healthcare, as documented in Chapter 4.3, with the state's status as the fourth-largest producer of vegetables and eighth-largest producer of fruits in India providing a substantial raw material base for value-added processing (India Brand Equity Foundation, 2026a). The Bihar Industrial Investment Promotion Package 2025, discussed in Chapter 4.1, explicitly extends its land, capital subsidy, and interest subvention incentives to food processing units alongside other priority sectors, reflecting a deliberate state strategy to capture more of the value chain locally rather than exporting raw agricultural produce for processing elsewhere. Despite this policy support, a comprehensive assessment of Bihar's current food processing capacity utilization, cold chain infrastructure coverage, and post-harvest loss rates, indicators that would directly measure the sector's actual value chain development progress rather than its policy framework alone, was not available in the sources reviewed for this chapter and represents a priority area for direct engagement with the Bihar Department of Industries and the Ministry of Food Processing Industries' state-level data in any future revision.

18.5 Animal Husbandry, Dairy and Poultry: Economic Contribution

Bihar's allied agricultural sectors have shown consistently stronger growth momentum than crop agriculture in recent years, as documented in Chapter 3.3. Milk production rose by 4.2 percent and egg production by 10.0 percent according to the Bihar Economic Survey 2025-26, reflecting sustained growth in the state's dairy and poultry sub-sectors even as crop agriculture growth has remained comparatively modest (Bihar Institute of Public Finance and

Policy, 2026). This dairy sector momentum has been supported through cooperative dairy federation infrastructure and government schemes aimed at expanding milk procurement and processing capacity, complementing the broader food processing value chain development discussed in section 18.4. The relatively stronger performance of these allied sectors relative to core crop agriculture suggests that Bihar's agricultural growth strategy may find more immediate returns by continuing to prioritize investment in animal husbandry, dairy, and poultry value chains, where growth momentum is already well established, alongside the longer-term structural reforms needed in irrigation and marketing to improve crop agriculture productivity.

18.6 Fisheries: Inland, Marine and Aquaculture

Bihar's fisheries sector, discussed in Chapter 3.3, has recorded particularly strong recent growth, with total fish production reaching 960 thousand tonnes and a growth rate of 9.9 percent, with Madhubani district emerging as the state's leading producer (Bihar Institute of Public Finance and Policy, 2026). As Bihar is entirely landlocked, its fisheries sector is exclusively inland and aquaculture-based, drawing substantially on the state's extensive network of chaur, or seasonal wetlands, discussed in Chapter 1.1 and Chapter 13.3, which the state government has targeted for development through the Mukhyamantri Samekit Chaur Vikas Yojana, alongside the River Ranching Programme and the Jalashay Matsyiki Vikas Yojana for reservoir-based fisheries (Bihar Institute of Public Finance and Policy, 2026). This chaur-based aquaculture model represents one of the more distinctive and successful examples of Bihar converting an ecological asset, seasonal wetlands that might otherwise be viewed primarily as a flood management liability, into a productive economic resource, and its continued expansion could serve as a template for similarly integrating ecological and economic objectives elsewhere in the state's natural resource management strategy discussed in Chapter 13.

18.7 Horticulture, Floriculture and Medicinal Plants

Bihar's horticultural sector benefits from the state's fertile alluvial soils and favourable climate, with the state ranking as the fourth-largest producer of vegetables and eighth-largest producer of fruits nationally, as noted in section 18.4 (India Brand Equity Foundation, 2026a). Despite this productive capacity, the cropping pattern data reviewed in section 18.1 indicates that horticultural crops remain a comparatively small share of Bihar's total cropped area relative to foodgrains, suggesting significant untapped potential for further horticultural expansion, particularly if irrigation coverage, discussed in section 18.2, and cold chain and food processing infrastructure, discussed in section 18.4, continue to improve. Bihar's litchi production, particularly the Shahi litchi variety centered in Muzaffarpur district and referenced in Chapter 11's discussion of the city's economic profile, represents a globally recognized horticultural specialty product for the state, though its production remains vulnerable to climate volatility, with reported instances of heatwave-related price spikes affecting the crop (Wikipedia, 2026g). A detailed, current assessment of medicinal plant

cultivation and floriculture specifically within Bihar was not available in the sources reviewed for this chapter and represents an area for further primary research.

18.8 Agricultural Credit, Insurance and Risk Management

Bihar's approach to agricultural risk management diverges notably from the national default framework. While the central government's Pradhan Mantri Fasal Bima Yojana remains India's flagship crop insurance scheme, offering heavily subsidized premiums of 2 percent for Kharif crops and 1.5 percent for Rabi crops, Bihar is among a group of states, alongside West Bengal, Jharkhand, Gujarat, Andhra Pradesh, and Telangana, that have opted out of the central scheme at various points, citing the fiscal burden of the associated premium subsidy obligations on state budgets (Anantam IAS, 2026; PMF IAS, 2025). In place of PMFBY, Bihar operates its own state-specific crop assistance scheme, though a detailed, current comparative assessment of the coverage, claims settlement speed, and farmer satisfaction under Bihar's own scheme relative to PMFBY's national performance benchmarks, including PMFBY's cumulative claims paid exceeding ₹1.6 lakh crore against premiums collected of over ₹1.5 lakh crore nationally since 2016, was not available in the sources reviewed for this chapter (Anantam IAS, 2026). This represents an important gap, since Bihar's opt-out decision has direct implications for the risk protection available to the state's farmers, particularly given Bihar's well-documented flood vulnerability discussed in Chapter 14, and a rigorous, independent evaluation of whether Bihar's state-run alternative provides comparable or superior protection to farmers relative to what PMFBY would have offered is an important open question for the state's agricultural policy going forward. On agricultural credit more broadly, as documented in Chapter 3.5, Bihar's overall credit-to-deposit ratio remains comparatively low, at approximately ₹3.04 lakh crore in credit against ₹5.69 lakh crore in deposits as of March 2025, suggesting continuing gaps in credit penetration that likely extend to the agricultural sector specifically, though a disaggregated, agriculture-specific credit penetration figure was not available in the sources reviewed for this chapter.

Chapter 19: Tourism, Culture and Creative Economy

19.1 Tourism Asset Inventory: Natural, Heritage, Religious and Adventure

Bihar's tourism asset base is anchored by its status as the birthplace of Buddhism and Jainism, home to sites of extraordinary global religious significance including the Mahabodhi Temple in Bodh Gaya, where Gautama Buddha attained enlightenment, and the ancient ruins of Nalanda University, a UNESCO World Heritage Site that functioned as a global center of learning from the 5th to 13th centuries CE (Grokikipedia, 2026). Beyond Buddhism, the state hosts significant Jain, Hindu, Sikh, and Sufi pilgrimage sites, including Pawapuri, associated with Mahavira's nirvana, Vaishali, linked to both the Buddha's last sermon and Jain tradition, and Sitamarhi, associated with the Ramayana tradition (Grokikipedia, 2026; History Journal, 2026). This tourism landscape is deliberately organized around specialized thematic circuits, most prominently the Buddhist Circuit tracing sites including Rajgir, Nalanda, and Vaishali, the Jain Circuit, and eco-tourism routes centered on the Valmiki Tiger Reserve discussed in Chapter 13.1 (Grokikipedia, 2026). Bihar's natural and adventure tourism assets remain comparatively less developed than its heritage and religious offerings, with eco-tourism and adventure tourism, including trekking and rural tourism initiatives, showcased at national platforms such as SATTE 2026 but still representing a small share of overall visitor activity, with religious tourism continuing to dominate at 60 to 70 percent of trips, historical tourism at approximately 20 percent, and ecological visits at around 10 percent (SocialDhara, 2026; Grokikipedia, 2026).

19.2 Tourism Infrastructure: Hotels, Connectivity and Facilitation

Bihar's tourism infrastructure has benefited from substantial recent connectivity investment discussed in Chapter 8, with Vande Bharat Express services now linking Patna to Gaya in under 1.5 hours, directly improving access to Bodh Gaya, and IRCTC-operated special Buddhist Circuit trains, including the Mahaparinirvan Express, offering themed tours covering Rajgir, Nalanda, and Vaishali, with over 12,000 special trains announced to handle pilgrim influx during the 2025 festival season (Grokikipedia, 2026). Road connectivity has been strengthened through projects such as the 120-kilometer, four-lane Patna-Arrah-Sasaram Corridor, approved in March 2025 at a cost of ₹3,712 crore under the Hybrid Annuity Model, explicitly designed to link Patna's international airport to Sasaram and improve access to southern Bihar's historical sites (Grokikipedia, 2026). On accommodation, the revised Bihar Tourism Policy of 2025 introduces capital subsidies and land allotments to encourage private hospitality investment, targeting the addition of thousands of new hotel rooms, while budget accommodation at pilgrimage sites is supported through government-run Yatri Niwas guesthouses offering rooms at rates under ₹500 per night for devotees visiting Gaya and Bodh Gaya (Grokikipedia, 2026). The state's tourism department budget allocation itself rose more than 2.5-fold, from approximately ₹462.44 crore in 2024-25 to over ₹1,103 crore in the 2025-26 budget, reflecting a substantial escalation in state government commitment to tourism infrastructure and services (SocialDhara, 2026).

19.3 Domestic and International Tourist Flows: Trends and Targets

Bihar recorded approximately 49.35 million domestic tourists and 507,142 foreign visitors in 2024, for a total of roughly 49.86 million arrivals, with the state ranking 9th nationally for international visitor numbers despite this total representing a stabilization following the sharper post-pandemic recovery figure of 82.1 million total tourists recorded in 2023 (Grokikipedia, 2026). Early 2024 data indicated 48 percent growth in arrivals for the January to May period compared to the same months in 2023, and projections for 2025 estimated tourist numbers reaching 70 to 75 million, supported by the ongoing air and road connectivity improvements documented in Chapter 8 (Grokikipedia, 2026). A persistent structural challenge identified by Bihar tourism officials is that despite strong footfall at major sites such as Bodh Gaya and Rajgir, relatively few visitors extend their stays overnight, prompting a new state tourism master plan explicitly aimed at developing Gaya-Bodh Gaya and Rajgir-Nalanda as integrated "twin city" destinations, with the goal of encouraging tourists to extend visits to two to four days through improved inter-destination connectivity and a more continuous overall travel experience (Patna Press, 2026).

19.4 Cultural Heritage Preservation and Institutional Framework

Bihar's cultural heritage preservation framework operates through both national and state-level institutional channels, including the Ministry of Tourism's Pilgrimage Rejuvenation and Spiritual Heritage Augmentation Drive, under which a Convention Centre construction project at Bodh Gaya has been sanctioned as part of the broader national PRASHAD scheme, which had approved 54 projects across 28 states and union territories with assistance exceeding ₹116 crore as of August 2025 (Press Information Bureau, 2025). At the state level, Bihar's own institutional framework includes the Bihar State Tourism Development Corporation, which manages eco-resort lodging within protected areas such as the Valmiki Tiger Reserve, and the state government's newly announced tourism master plans for five heritage cities, including Gaya and Rajgir, which place explicit emphasis on eco-tourism alongside the promotion of local handicrafts and handloom products (Grokikipedia, 2026; Patna Press, 2026). The state's cultural heritage institutional framework also intersects directly with the urban development priorities discussed in Chapter 11.5, particularly the ongoing Bihar Museum and Patna Museum subway link connecting the state capital's two major cultural institutions.

19.5 Creative Industries: Handicrafts, Performing Arts and Cultural Economy

Bihar's creative economy encompasses a rich tradition of handicrafts and handloom products, including the internationally recognized Madhubani painting tradition centered in the district of the same name, alongside other folk art, textile, and craft traditions that the state's new heritage city master plans explicitly aim to integrate into the broader tourism experience for visitors to sites such as Gaya-Bodh Gaya and Rajgir-Nalanda (Patna Press, 2026). This deliberate integration of handicraft promotion with heritage tourism development reflects a strategy of extending the economic benefit of tourist visitation beyond hospitality and

transport into the broader creative and artisanal economy, potentially providing income diversification opportunities in the same historically underdeveloped districts identified as aspirational districts in Chapter 1.7, several of which, including Nawada, Gaya, and Jamui, sit within or near Bihar's major tourism circuits. A detailed, quantitative assessment of the current scale of employment and revenue generated by Bihar's handicraft and handloom sector specifically was not available in the sources reviewed for this chapter and represents an area for further primary research through the state's Department of Industries and Khadi and Village Industries Commission data.

19.6 Film, Media and Content Industries as Economic Drivers

Detailed, current data on Bihar's film and media industry specifically, including any dedicated state film policy, production incentive schemes, or the scale of the sector's contribution to the state's creative economy, was not available with sufficient specificity in the sources reviewed for this chapter. This represents a genuine gap in the evidence base available for this framework rather than an indication that the sector is undeveloped, and it should be flagged as a priority area for direct engagement with the Bihar Art, Culture and Youth Department's published policy documents in any future, more granular revision of this framework. Given the strong regional identity and linguistic diversity documented in Chapter 1.4, spanning Bhojpuri, Maithili, and Magahi speaker populations, and given the well-established scale of the Bhojpuri film industry more broadly, which draws substantially on audiences and cultural material originating in Bihar even though much of its production infrastructure is historically based in Mumbai, there is a plausible case that dedicated state-level film and media investment could serve as an underexploited lever for Bihar's creative economy, though this framework does not have sufficient current data to make a substantiated assessment of the sector's present scale or trajectory.

Chapter 20: Cross-Cutting Themes and Integrated Policy Imperatives

20.1 Sustainable Development Goals of the State

Bihar's performance on the Sustainable Development Goals, as tracked through NITI Aayog's SDG India Index, places it consistently among the lowest-ranked Indian states. Independent analysis of India's SDG trajectory has identified Bihar, alongside Jharkhand, Meghalaya, and Nagaland, as one of four states that have recorded the least improvement since the index's base year evaluation, distinguishing it even from other lagging states such as Assam, which has shown meaningful improvement over the same period (GFST, 2025).

Bihar's most acute SDG gaps are concentrated in SDG 1, No Poverty, SDG 2, Zero Hunger, and SDG 3, Good Health and Well-Being, a pattern entirely consistent with the multidimensional poverty, nutrition, and health findings documented in Chapters 1.6, 6.3, and 7.1 of this framework (GFST, 2025). Notably, national analysis found little correlation between per capita income and SDG performance across Indian states, with none of the states holding the highest per capita income ranked among the top five SDG performers, a finding that somewhat complicates any simple narrative in which Bihar's SDG performance would be expected to improve automatically as a direct consequence of the GSDP growth acceleration documented in Chapter 3.1 (GFST, 2025). This reinforces the central argument of this framework's executive summary: that Bihar's growth momentum, while genuine, requires deliberate policy direction toward human development outcomes rather than passive expectation that growth alone will resolve the state's SDG deficits.

20.2 Gender Mainstreaming Across Sectors

Gender considerations recur as a cross-cutting theme throughout this framework, from the striking recent gains in rural women's labour force participation documented in Chapter 3.6 and Chapter 7.4, to the persistent gender gap in secondary school retention linked to child marriage documented in Chapter 5.2, to the substantial 3.45-fold increase in women's welfare programme expenditure documented in Chapter 7.4. A distinctive feature of Bihar's gender landscape, noted in Chapter 7.4, is the state's consistent pattern of higher female than male voter turnout in state elections, a political participation indicator that stands in some contrast to the state's comparatively low female labour force participation and educational retention indicators. This divergence between political participation and economic and educational participation suggests that gender mainstreaming in Bihar cannot be addressed through a single policy lever, but requires coordinated action across the electoral, economic, and educational domains simultaneously, an integration this framework's Vision 2047 roadmap in the following chapter attempts to reflect explicitly rather than treating gender as a siloed sectoral concern confined to Chapter 7 alone.

20.3 Youth Policy and Demographic Dividend Realisation

Bihar's youth policy imperative, discussed throughout this framework including in Chapter 1.3's demographic profile and Chapter 17.5's discussion of youth innovation, centers on the fundamental tension between the state's exceptionally young population, with close to 58 percent of residents under age 25, and its comparatively limited local employment generation capacity, reflected in the elevated and rising urban youth unemployment rate documented in Chapter 3.7, which reached 26.4 percent in recent PLFS quarterly data. Nationally, the Skill India Mission has trained and upskilled over 1.4 crore youth and reskilled a further 54 lakh, while the PM Mudra Yojana has sanctioned 43 crore loans totaling ₹22.5 lakh crore in support of youth entrepreneurial aspirations, a national skilling and financing infrastructure within which Bihar's own Kushal Yuva Programme and Startup Policy, discussed in Chapters 5.4 and 17.1 respectively, operate as state-level complements (Press Information Bureau, 2024). Whether Bihar succeeds in converting its demographic dividend into a genuine growth accelerant, rather than a continued source of out-migration pressure, discussed in the following section, will depend substantially on whether the state's youth employment generation capacity, particularly in manufacturing and formal services, can be scaled at a pace commensurate with the roughly 1.81 million people the state adds to its population annually, as documented in Chapter 1.3.

20.4 Migration: Internal, Inter-State and International Dimensions

Migration represents one of the most economically and socially consequential cross-cutting themes in Bihar's development story, and recent evidence suggests the state's migration pattern may be entering a genuinely new phase. Bihar has historically been among India's largest net-sending states for internal migration, alongside Uttar Pradesh, Madhya Pradesh, Rajasthan, and Odisha, with migrant workers from the state disproportionately represented in the most precarious segments of destination labour markets, including daily contract and unregistered construction work, even in high-Human-Development-Index destination states such as Kerala, Tamil Nadu, and Himachal Pradesh (Ministry of Statistics and Programme Implementation, 2026; PMC, 2025). Field research on circular migration from rural Bihar found that migrant workers at destination worked an average of 26 days per month, with 23 percent working all 30 days without a weekly day off, and recorded a median monthly destination income of ₹9,000, with those at the bottom of the social and economic hierarchy, including agricultural labourers, Scheduled Castes, and Scheduled Tribes, disproportionately represented in the most casualized, unprotected forms of this work (PMC, 2025). Female migration from Bihar remains predominantly associational rather than employment-driven, with one study finding 80.9 percent of female migrants aged 15 to 64 classified as non-workers accompanying migrating family members, compared to overwhelmingly employment-driven male migration (PMC, 2025).

A striking and more recent development is the observation, made by political economist Devesh Kapur in a December 2025 interview, that Bihar's migration pattern may increasingly resemble Kerala's historical remittance-driven development model. Kapur noted that while

Kerala's Gulf migrants once dominated India's international labour migration, that share has shifted dramatically, with approximately 50 percent of India's Gulf migrant workforce now originating from Uttar Pradesh and Bihar combined, compared to just 5 percent from Kerala, and that Bihar's migrant workers have begun expanding their geographic reach well beyond the traditional Gulf destinations into Africa, where Bihari workers have been documented erecting electrical transmission lines, as well as into Greece and South Korea (Business Today, 2025). Kapur explicitly characterized this as Bihar and West Bengal beginning to exhibit "elements of the Kerala story," in which a state without substantial industrialization or IT services development instead builds economic momentum through remittance inflows from an internationally mobile workforce, a development model distinct from, though potentially complementary to, the industrial and services growth trajectory discussed in Chapter 3 (Business Today, 2025). If this remittance-driven pattern continues to deepen, it would represent a genuinely novel dimension of Bihar's development story not fully captured by the GSDP and sectoral output data examined in earlier chapters of this framework, since remittance inflows accrue directly to migrant-sending households and communities in ways that may not be fully reflected in conventional state income accounts.

20.5 Science, Technology and Innovation for Development

Bihar's science, technology, and innovation ecosystem, discussed comprehensively in Chapter 17, remains at an early stage of development relative to the state's demographic scale, anchored principally by the IIT Patna Incubation Centre's deep-technology focus and the broader Bihar Startup Policy framework. The cross-cutting relevance of STI extends beyond the dedicated innovation chapter into nearly every other sector examined in this framework, from the AI-based yield estimation technology being deployed under national crop insurance schemes discussed in Chapter 18.8, to the geospatial and remote sensing applications underpinning flood hazard mapping discussed in Chapter 14.3, to the digital public infrastructure discussed in Chapter 16. A coherent state STI strategy would need to explicitly connect these currently siloed technology applications across departments, an integration challenge that returns to the inter-departmental coordination weaknesses identified as a recurring theme in Chapter 15.1.

20.6 Statistical System Strengthening and Evidence-Based Policymaking

This framework has, in the course of its chapter-by-chapter review, repeatedly encountered gaps, inconsistencies, and methodological ambiguities in Bihar-specific data, from the nearly 18-percentage-point spread across different literacy rate estimates documented in Chapter 5.8, to the significant post-verification correction in school enrolment figures documented in Chapter 5.1, to the multiple data gaps flagged explicitly in Chapters 6, 10, 13, 15, and 19 where Bihar-specific figures simply were not available with sufficient granularity in the sources reviewed. This recurring pattern points to a genuine need for statistical system strengthening within the state, encompassing more frequent, more granular, and more consistently methodologically documented data collection across health, education, disability,

and local governance finance domains in particular. Given that evidence-based policymaking depends fundamentally on the reliability and currency of the underlying data, this framework treats statistical system strengthening not as a narrow technical concern but as a foundational precondition for the effective implementation of virtually every other policy priority discussed elsewhere in this document, a point the concluding chapter's monitoring and evaluation framework returns to directly.

20.7 Public Participation: Behavioural Change and Citizen Engagement

Citizen engagement mechanisms discussed throughout this framework, including the Right to Public Services Act's digital service delivery model examined in Chapter 16.2, the e-Gram Swaraj portal for participatory panchayat planning, and the various grievance redressal mechanisms embedded within schemes from Ayushman Bharat to the Bihar Startup Policy, together represent a genuine, if uneven, institutional foundation for public participation in Bihar's governance. The persistent implementation gaps this framework has documented across multiple sectors, however, from the flood evacuation shortfall in Chapter 14.4 to the welfare scheme access gaps in Chapter 7.9, suggest that formal citizen engagement channels have not yet consistently translated into the kind of responsive, two-way accountability relationship between citizens and government that genuine public participation implies. Behavioural change campaigns, such as those associated with the Swachh Bharat Mission discussed in Chapter 10.3 and the Jal Jeevan Mission's community water quality testing initiatives discussed in Chapter 10.1, offer a more grassroots model of citizen engagement built around direct community involvement in monitoring and service delivery, a model this framework's concluding chapter suggests could usefully be extended to other sectors, including flood preparedness and welfare scheme beneficiary verification, where community-based monitoring could help close some of the last-mile implementation gaps identified as this framework's most recurrent structural finding.

Chapter 21: State Vision 2047 — Strategic Priorities and Development Roadmap

21.1 Long-Term Vision and Flagship Missions

Bihar's long-term development vision is framed explicitly within the national Viksit Bharat 2047 initiative, the Government of India's roadmap to transform the country into a developed nation by the centenary of independence, targeting a national economy of USD 30 to 40 trillion and per capita income between USD 15,000 and USD 18,000, built around the four pillars of Yuva, Garib, Mahilayen, and Annadata, youth, the poor, women, and farmers (Viksit India, 2026). For Bihar, translating this national vision into a state-specific roadmap requires confronting the central paradox this framework has documented throughout: a state economy now growing faster than the national average for three consecutive years, as established in Chapter 3.1, combined with human development indicators, examined in Chapters 1, 5, 6, and 7, that remain among the weakest of any Indian state. Bihar's own state-level articulation of this vision takes the form of the Saat Nishchay-3 roadmap, covering 2025 to 2030, which sets out targets including doubling per capita income, accelerating industrialization, raising farmer incomes, improving education and medical services, developing new planned cities, and improving ease of living, as documented in Chapter 2.9 (PRS Legislative Research, 2026).

The flagship missions that emerge as most consequential from this framework's chapter-by-chapter review are threefold. First, a human capital mission integrating the education reforms discussed in Chapter 5.8, the health system strengthening discussed in Chapter 6.8, and the nutrition programming discussed in Chapter 6.6, recognizing that Bihar's HDI position, documented in Chapter 1.5, will not close through economic growth alone. Second, an industrial and infrastructure mission building on the manufacturing and construction growth documented in Chapter 3.4, the transport connectivity investments documented in Chapter 8, and the renewable energy ambitions documented in Chapter 9.4, aimed at sustaining and broadening the structural transformation already underway. Third, a governance capacity mission addressing the fiscal architecture constraints documented in Chapter 2, the judicial and administrative vacancy crises documented in Chapter 15, and the last-mile implementation gaps this framework has identified as its single most recurrent structural finding, appearing in health financing, disaster evacuation, welfare scheme access, and digital service delivery alike.

21.2 Medium-Term Priority Action Plan (2025–2030)

Bihar's medium-term action plan, as reflected in the Saat Nishchay-3 framework and the sector-specific findings of this document, should prioritize interventions where this framework has identified both high stakes and demonstrated feasibility. In education, Chapter 5.8 identified three concrete priorities: sustaining the data integrity gains achieved through ghost-student verification, concentrating intervention resources at the secondary transition

point where dropout is most severe, and expanding higher education institutional capacity from its current base of 8 colleges per 100,000 population toward the national average of 31. In health, Chapter 6.8 identified public financial management reform, specifically addressing the nearly one-third of health allocations that historically went unspent, as a higher-leverage near-term intervention than further capital expansion alone. In fiscal policy, Chapter 2.9 identified own-revenue mobilization, particularly SGST compliance and registration expansion discussed in Chapter 2.7, as necessary to reduce Bihar's structural dependence on central transfers, which currently constitute roughly three-quarters of total state revenue.

In infrastructure, the medium-term plan should prioritize completion of the major connectivity projects already underway and documented in Chapter 8, including the Patna-Purnia Expressway, the Patna Metro's priority corridor, and the PMGSY-IV rural road expansion, since Chapter 12.5 established that completed rural connectivity produces measurable and rapid socio-economic returns. In governance, Chapter 15.3's documentation of the Patna High Court's 18 judicial vacancies against a backlog of 215,000 pending cases represents a specific, quantifiable target for the medium term: closing this vacancy gap and accelerating the state's own judicial recruitment examination cycle, which took 30 months to complete in 2022, would directly address one of the more measurable governance capacity deficits identified anywhere in this framework.

21.3 Financing Strategy: Resource Mobilisation, Revenue Enhancement and Expenditure Rationalisation

The financing strategy for Bihar's Vision 2047 must confront directly the debt sustainability finding presented in Chapter 2.4: NITI Aayog's own macro-fiscal assessment concluded that under prevailing trends in debt levels, primary deficit, growth, and interest rates, Bihar's debt-to-GSDP ratio is not projected to decline over a five-year horizon without either higher growth, a lower primary deficit, or both (NITI Aayog, 2025). Given that Bihar's own tax revenue constitutes only around 5 percent of GSDP, as documented in Chapter 2.1, well below the all-state average of approximately 6.9 percent, revenue enhancement represents the most direct lever available to the state government, achievable through continued SGST compliance improvement, property tax modernization, and non-tax revenue mobilization from underexploited assets including the mineral resources discussed in Chapter 13.4. Expenditure rationalization should focus on the committed expenditure constraint documented in Chapter 2.2, where salaries, pensions, and interest payments consume 42 percent of revenue receipts, by pursuing productivity gains in service delivery rather than expansion of establishment costs. On the capital side, Chapter 2.3 documented that debt currently finances 99.3 percent of Bihar's capital receipts, indicating substantial room to diversify capital financing through the public-private partnership pipeline discussed in Chapter 4.7 and through more aggressive pursuit of the central government's interest-free capital loan scheme, which has already nearly doubled Bihar's Gross Fixed Capital Formation over five years, as documented in Chapter 2.3.

A further, less conventional financing dimension emerges from Chapter 20.4's discussion of Bihar's evolving migration and remittance pattern. If Devesh Kapur's observation that Bihar is beginning to exhibit "elements of the Kerala story" through international remittance-driven household income proves durable, this represents a financing channel largely outside direct state fiscal control but one the state government could actively support through improved migrant worker protection, skill certification recognized by destination-country employers, and formal remittance channel promotion, potentially amplifying a development dynamic already underway at the household level.

21.4 Centre-State Partnership: Centrally Sponsored Schemes and Special Grants

As documented throughout this framework, Bihar's development trajectory remains deeply intertwined with central government schemes and transfers, from the Jal Jeevan Mission discussed in Chapter 10.1, to PM-ABHIM health infrastructure financing discussed in Chapter 6.1, to the PMGSY rural roads programme discussed in Chapter 12.5, to Finance Commission tax devolution discussed in Chapter 2.6. This dependence, while a genuine fiscal constraint as discussed in section 21.3, also represents a partnership asset that Bihar has, on the evidence reviewed in this framework, generally utilized effectively at the level of scheme uptake, even where downstream implementation has lagged. The state's continued and active engagement with the Seventeenth Finance Commission cycle, when constituted, and with sector-specific central missions including PM-ABHIM's continuation, the National Broadband Mission 2.0 discussed in Chapter 16.1, and the national PPP project pipeline discussed in Chapter 4.7, will remain essential to sustaining the capital investment levels documented throughout this framework, given Bihar's own constrained fiscal capacity.

21.5 Inter-State Cooperation: Regional Development Councils and River Boards

Bihar's geography, discussed in Chapter 1.1 and Chapter 4.8, places river and water resource governance at the center of its inter-state cooperation requirements, given that the Kosi, Gandak, and other major rivers originate in Nepal and cross state boundaries within India before reaching Bihar. The flood management challenges documented in Chapter 14, including the embankment strategy's documented limitations, cannot be resolved through Bihar's unilateral action alone, since upstream developments in Nepal and coordinated action with neighbouring states on shared river systems are prerequisites for any meaningfully improved flood management outcome. Strengthening formal river basin management mechanisms, potentially through an expanded role for river board-type institutions with genuine cross-border and inter-state authority, represents an important and currently underdeveloped dimension of Bihar's regional cooperation agenda. Beyond water resources, the industrial corridor cooperation discussed in Chapter 4.8, particularly Bihar's position along potential eastern Indian logistics and manufacturing corridors linking Kolkata port to the broader Gangetic plain, offers a further avenue for inter-state cooperation that could help diversify Bihar's industrial base beyond its current Patna-Hajipur concentration, discussed in Chapter 4.3.

21.6 International Collaboration: Common Development Agenda and Global Partnership

Bihar's most distinctive international collaboration asset, discussed in Chapter 19.1, is its status as the birthplace of Buddhism, which positions the state uniquely among Indian states to deepen cultural and tourism partnerships with Buddhist-majority nations across Asia, building on the international pilgrimage delegations already visiting Rajgir, Nalanda, and Bodh Gaya documented in Chapter 19.3. Beyond tourism, the international migration and remittance dynamics discussed in Chapter 20.4, with Bihari workers increasingly present not only in traditional Gulf destinations but also in Africa, Greece, and South Korea, suggest a growing international dimension to the state's labour market that formal government-to-government labour mobility agreements, skill certification recognition, and worker protection frameworks could usefully support and formalize. Bihar's engagement with international development finance institutions, exemplified by the World Bank-supported Bihar Kosi Flood Recovery Project discussed in Chapter 14.5, similarly represents a model worth extending to other sectors, including water resource management, healthcare infrastructure, and climate adaptation, where international technical assistance and concessional financing could supplement the state's constrained own-fiscal capacity documented in Chapter 2.

21.7 Monitoring, Evaluation and Results Framework

The single most consistent methodological finding across this entire framework, flagged explicitly in Chapters 5, 6, 10, 13, 15, 17, and 19, is the persistent gap in reliable, current, granular, Bihar-specific data across numerous policy domains. This is not merely an inconvenience for framework authors; it represents a genuine constraint on the state government's own capacity to monitor implementation, identify underperforming programmes early, and correct course before problems compound, as evidenced by the health budget underutilization documented in Chapter 6.1 and the flood evacuation shortfall documented in Chapter 14.4, both of which persisted across multiple years before being identified through external audit and journalism rather than proactive internal monitoring. A results framework for Bihar's Vision 2047 should therefore prioritize, as a foundational investment rather than an afterthought, the statistical system strengthening discussed in Chapter 20.6, including more frequent household-level surveys, standardized cross-departmental data definitions, and public, disaggregated dashboards for the key indicators this framework has tracked, including school retention by stage, health budget utilization rates, flood evacuation coverage, and Panchayati Raj Institution own-revenue collection, each currently near zero as documented in Chapter 12.1.

21.8 Accountability Architecture: Legislature, Civil Society and Citizens

Ultimate accountability for the priorities set out in this framework rests with Bihar's elected legislature, its civil society organizations, including the JEEViKA network discussed in Chapter 12.4 and advocacy groups such as the Kosi Navnirman Manch discussed in Chapter 14.4, and its citizens directly. The evidence reviewed throughout this framework suggests that

Bihar's citizens already engage actively with formal accountability mechanisms where they exist and function, reflected in the state's notably high female voter turnout documented in Chapter 7.4 and the substantial digital citizen service uptake documented in Chapter 16.2, with 6 to 7 crore applications processed through the Right to Public Services framework. Sustaining and deepening this civic engagement, while simultaneously closing the implementation gaps between formal policy commitment and last-mile delivery that this framework has documented as its most recurrent finding, from health financing to disaster response to welfare scheme access to judicial capacity, represents the central governance challenge standing between Bihar's current growth momentum and the genuinely transformed, human-development-aligned state envisioned by 2047. This framework's cumulative evidence suggests that Bihar possesses the economic momentum, the demographic scale, and, increasingly, the institutional building blocks required for that transformation. Whether that potential is realized over the next two decades will depend less on any single policy instrument than on the state's sustained capacity to translate documented intent into consistently delivered outcomes, district by district, block by block, and household by household.

End Note

The **Comprehensive Development Framework Report of Bihar** represents the Youth Peace and Development Forum's commitment to evidence-based policymaking, inclusive development, and youth-led nation-building. It is not merely a policy document, but a strategic vision that seeks to unlock Bihar's immense potential by aligning governance, economic transformation, social development, environmental sustainability, and institutional innovation within a coherent long-term framework.

Bihar possesses a unique civilizational legacy, a young and dynamic population, fertile agricultural resources, and an emerging entrepreneurial ecosystem. With appropriate reforms, investments, and collaborative governance, the state has the capacity to become one of India's leading contributors to national economic growth while ensuring equitable opportunities and improved quality of life for all its citizens.

The recommendations presented in this report are intended to serve as a reference for policymakers, public institutions, academia, civil society organizations, private enterprises, and citizens. Their successful implementation requires a whole-of-government and whole-of-society approach founded upon transparency, accountability, innovation, and cooperative federalism. Sustainable development can only be achieved when institutions, communities, and stakeholders work collectively towards shared objectives.

The Youth Peace and Development Forum firmly believes that meaningful public policy is strengthened through continuous dialogue, research, monitoring, and adaptive governance. Accordingly, this framework should be viewed as a living document capable of evolving alongside changing socio-economic realities, technological advancements, and emerging developmental priorities.

As a youth-led public policy organization, the Youth Peace and Development Forum remains committed to supporting research, policy innovation, stakeholder engagement, and constructive collaboration that contribute to Bihar's long-term development and India's broader vision of becoming a developed nation by 2047.

We express our sincere gratitude to all scholars, researchers, policy experts, government officials, development practitioners, volunteers, and members of civil society whose knowledge, experience, and dedication continue to inspire this initiative.

**Council for Comprehensive Development Framework
Youth Peace and Development Forum (YPD Forum)**

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