



State Led Innovations and Digital Governance in Advancing SDG 1: A Multidimensional Analysis of Poverty Alleviation in India

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Abstract Poverty alleviation in India has increasingly evolved into a multi-dimensional and decentralized policy challenge, requiring both national frameworks and state specific innovations. While centrally sponsored schemes provide a broad foundation, the role of states in adapting, integrating, and delivering these schemes is critical to achieving Sustainable Development Goal 1 (No Poverty).

This study examines selected state level initiatives across India, highlighting how diverse governance models, institutional mechanisms, and community participation strategies contribute to poverty reduction. The analysis focuses on states such as **Goa, Himachal Pradesh, Kerala, Gujarat, Uttarakhand, Andhra Pradesh, Chhattisgarh, Assam, Bihar, Uttar Pradesh, and Madhya Pradesh**, offering insights into their unique approaches and outcomes.

Furthermore, the paper explores the transformative role of Information Technology (IT) in accelerating SDG 1 outcomes through various IT initiatives. It examines how digital platforms, data analytics, mobile applications, and e governance initiatives have enhanced the delivery of welfare schemes, improved transparency and enabled real time monitoring of poverty alleviation programs.

Keywords MPI Index, NITI Aayog, SDG, UNDP, SSM, SIT, IT, AI

1. Introduction

The Sustainable Development Goals (SDGs) [1] were formed in the year 2015 with Vision 2030. The agenda was formed and adopted by all United Nations Member States, including India, and came into effect on January 1, 2016. The Sustainable Development Goals are a universal agenda that applies to all the UN member countries. At the conference held at the Sustainable Roadmap Development Strategies (SDG) in India: Paving the Way for a Better Future all the member countries took an oath to transform their land

for their peoples into a better place to live with adoption implementation and achieving 17 universal global goals in the best way possible by minimizing the adverse impact of climate change.

There are 17 SDGs [2] which are as follows (UNDP, 2025): SDG 1 No Poverty; SDG 2 Zero Hunger; SDG 3 Good Health and Well Being; SDG 4 Quality Education; SDG 5 Gender Equality; SDG 6 Clean Water and Sanitation; SDG 7 Affordable and Clean Energy; SDG 8 Decent Work and Economic Growth; SDG 9 Industry, Innovation and Infrastructure; SDG 10 Reducing Inequality; SDG 11 Sustainable Cities



and Communities; SDG 12 Responsible Consumption and Production; SDG 13 Climate Change; SDG 14 Life Below Water; SDG 15 Life on Land; SDG 16 Peace, Justice, and Strong Institutions; SDG 17 Partnerships for the Goals.

India, home to over 1.4 billion people, has made significant strides in economic development over the past few decades. However, poverty remains a persistent challenge, especially in rural and marginalized urban communities.

Sustainable Development Goal 1 (SDG 1) *End poverty in all its forms everywhere* calls for innovative, scalable, and inclusive solutions with formulation of new policies and use of Information Technology (IT) and Artificial Intelligence (AI) solutions with State Integrated Financial Management Systems which offers transformative tools to accelerate poverty alleviation by enhancing service delivery, improving access to resources, and enabling data driven policymaking and efficient utilisation of funds across the welfare schemes for the betterment of state.

In nutshell, India's commitment to Sustainable Development Goal 1 (SDG 1) requires innovative, scalable, and inclusive strategies which includes future policy making departments with latest state of art Information Technology (IT) solutions like Artificial Intelligence (AI) enabled dashboards for management of fund allocation, dispersal for monitoring and evaluation of the funds across the schemes. IT with AI offers powerful tools to enhance the efficiency, reach, and impact of poverty alleviation programs. This paper outlines how policymakers can leverage digital technologies to improve welfare delivery, empower communities, and foster economic resilience, while addressing ethical and infrastructural challenges.

2. Related Work

SDG 1 aims to eradicate poverty everywhere by 2030. In India, poverty is multidimensional encompassing lack of income, education, healthcare and access to basic services. Despite significant progress, challenges remain due to regional disparities, urban rural divides, and systemic issues.

Patni R. [3], highlighted that poverty is based on income and non income variables and based on the 2005 purchasing power parity poverty was measured to \$1.25 per person per day. To achieve the SDG 1 this paper proposed acknowledgement of

multidimensionality poverty index with adoption of capacity building in human resources development to reduce all aspects of poverty. Further poverty in India is multidimensional which involves income and non income factors like access to food, water, sanitation, housing, education, and healthcare facilities. The chapter emphasis on Global Multidimensional Poverty Index (MPI) to achieve SDG 1 highlights major government schemes such as MGNREGA, PM Awas Yojana, Jan Dhan Yojana and Atal Pension Yojana.

Raghu Raman et al. [4] in his paper proposed systematic and thematic analysis of sustainable development goals in India. This study revealed the significant increase in achieving SDGs in India from 2015 to 2023. The results shown significant improvement in SDG 1 (no poverty). This paper focuses systematic frameworks for collaboration facilitation by national level policy makers after consulting with various stakeholders. This paper provides comprehensive analysis of SDG studies in India since adoption of the UN SDGs in 2015.

National Multidimension poverty index (MPI) [5] "India: A Progress Review 2023" published by Niti Ayog in 2023 shows the remarkable progress made by India in eradication of poverty between 2015 2016 and 2019 2021, report emphasis country's commitment to achieving the SDGs and its determined efforts to address poverty to improve the lives of its citizens. It is worth to say that India's rural areas and the poorest states of India have shown the fastest decline in poverty index.

Uttar Pradesh, Bihar, and Madhya Pradesh showed the most significant reductions.

Kerala, Goa and Sikkim had the lowest MPI values.

Dr. Dominic Dixon [6] in his publication "India's stance on SDG 1 No Poverty" address that ending poverty in all its form should be the first goal for 2030 sustainability development goals. It calls for ensuring social protection, enhancing access to basic services and building resilience against the impacts of natural disasters which can cause severe damage to people's resources and livelihoods. He emphasizes that inclusive economic growth, gender sensitive policies and international cooperation are essential to achieving SDG 1 in India.

Justice Mensah [7] in his research work provides a framework for understanding sustainable development including SDG 1. The research paper



based on PRISMA and Recursive Content Abstraction (RCA) methods to analyse literature review on SDG 1. This paper emphasizes the three pillars of sustainability i.e. economic, social and environmental and their interdependency in poverty alleviation. It proposes that decision makers must understand the trade-offs and synergies among these pillars to promote responsible and sustainable actions.

World Bank Report [8] the World Bank in collaboration with the UNDP, released a report titled "Transitioning from the Millennium Development Goals (MDGs) to the SDGs", emphasizing the need for integrated, cross sectoral collaboration to avoid siloes implementation of the 17 SDGs

The National Multidimensional Poverty Index (MPI) was created by NITI Aayog, the Government of India, and published through the Press Information Bureau [9]. It is meant to look at poverty in more than just income and consumption measures. The index is based on the Global MPI framework, but it has been changed to fit India's social and economic situation. The National MPI looks at poverty in three main ways: health, education and living standards.

Devdeep Banerjee [10], in his study, examines India's progress toward Sustainable Development Goal 1 (No Poverty) by analysing state wise SDG Index reports spanning the period 2018 to 2021. The study highlights that India has made notable progress in ensuring access to necessities, healthcare services, education, and employment security. Despite these improvements, significant disparities persist among different states and union territories, indicating uneven development across regions. The study employs a descriptive research methodology, relying on secondary data sources to evaluate trends and variations in SDG 1 performance at the sub national level.

Sanjeet Singh and R. Jayaram [11], in their research, perform an extensive analysis of 41 peer reviewed articles published since 2015 that investigate Sustainable Development Goal 1 (No Poverty) within the Indian framework. The paper integrates principal themes derived from the literature, emphasising public policy initiatives including the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), slum rehabilitation programs, and health insurance schemes. The review lists the most important signs that people use to see how well they are doing on SDG 1, such as the rate of poverty, the

state of housing and the number of jobs created. The authors suggest that India should use more inclusive and context specific indicators as well as stronger mechanisms for implementation and monitoring, to make its efforts to reduce poverty more effective.

3. Research Analysis

The nature of this research paper is both exploratory and descriptive. Information predicated on data gathered from secondary sources. Analytical study is founded on gathered data from research journals, newspaper articles and official and non-official reports including NITI Aayog, the United Nations SDG Reports and India's SDG Index Reports.

Study is based on analysis of Government of India and State Initiative schemes targeting multidimensional poverty.

3.1. "Big Nine" GOI Integrated schemes

3.1.1. Pradhan Mantri Awas Yojana (PMAY):

Provides affordable housing to urban and rural poor. Focuses on "Housing for All"

3.1.2. Ayushman Bharat PM JAY:

Offers free health insurance up to ₹5 lakhs per family per year. Targets over 50 crore beneficiaries.

3.1.3. Pradhan Mantri Ujjwala Yojana (PMUY):

Provides free LPG connections to women from BPL households. Reduces health risks from indoor air pollution.

3.1.4. Saubhagya Scheme

Ensures last mile electricity connectivity for all households.

3.1.5. Swachh Bharat Mission (SBM)

Focuses on sanitation and hygiene, especially in rural areas. Declared over 600 districts open defecation free.

3.1.6. Pradhan Mantri Jan Dhan Yojana (PMJDY)

Financial inclusion through zero balance bank accounts. Enables Direct Benefit Transfers (DBT).

3.1.7. National Rural Livelihood Mission (NRLM)

Empowers rural poor through self-employment and skill development

3.1.8. POSHAN Abhiyaan

Targets malnutrition among children and women. Uses digital tools for monitoring and outreach.

3.1.9. Jal Jeevan Mission

Aims to provide piped water to every rural household by 2025.



3.2. State Level Key Initiatives Supporting SDG 1

3.2.1. Goa

Swayampurna Goa Initiative: A Decentralized Approach to Inclusive Development

The *Swayampurna Goa Initiative* represents a significant policy effort by the Government of Goa to strengthen decentralized governance while ensuring last mile delivery of essential public services. Conceived as a flagship programme, it seeks to move beyond conventional top down development models by empowering local institutions and communities to actively participate in planning and implementation processes.

At its core, the initiative focuses on achieving universal access to critical basic amenities namely sanitation, electricity, piped drinking water, and adequate housing. These components reflect not only infrastructural priorities but also the broader objective of improving quality of life and human dignity. By addressing such foundational needs, the programme tackles multidimensional poverty in a direct and tangible manner.

What distinguishes the Swayampurna framework is its integrated approach to welfare delivery. Rather than operating in silos, various social protection schemes such as pensions, insurance coverage, and food security programmes are converged at the local level. This convergence reduces administrative fragmentation and enhances efficiency, while simultaneously ensuring that benefits reach intended beneficiaries in a timely and coordinated manner. Importantly, the initiative also fosters community engagement by involving local stakeholders, including panchayats and citizen groups, thereby creating a sense of ownership and accountability.

From a broader development perspective, the initiative aligns closely with the **Sustainable Development Goals (SDGs)**, particularly SDG 1 (No Poverty). Its design reflects an attempt to localize global development targets within the specific socio economic context of Goa. At the same time, it complements national level flagship schemes, illustrating how state level innovation can reinforce federal policy frameworks.

Goa's experience is further strengthened by its comparatively effective implementation of centrally sponsored schemes that directly contribute to poverty alleviation and social inclusion. For instance, the **Pradhan Mantri Jan Dhan Yojana (PMJDY)** has expanded financial inclusion by enabling access to formal banking services, which is critical for reducing

vulnerability and facilitating direct benefit transfers. Similarly, **Ayushman Bharat (PM JAY)** addresses the economic risks associated with healthcare expenditure by providing insurance coverage to vulnerable populations, thereby preventing households from falling into poverty due to medical emergencies.

The **Skill India Mission** plays a complementary role by enhancing employability, particularly among youth, and linking skill development with emerging economic opportunities. Meanwhile, the **National Food Security Act (NFSA)** ensures a basic level of nutritional security, which remains a crucial determinant of both health and productivity. Finally, the **Jal Jeevan Mission (JJM)** addresses water accessibility, a key factor influencing health outcomes and gender equity, especially in rural households.

While these initiatives collectively demonstrate a robust framework for poverty reduction, it is important to recognize certain challenges. The success of decentralized models like Swayampurna depends heavily on institutional capacity at the local level, data driven planning, and continuous monitoring. Variations in implementation efficiency across regions, potential gaps in awareness among beneficiaries, and issues of administrative coordination may limit the full realization of intended outcomes.

In human terms, however, the initiative reflects a shift toward governance that is more responsive and grounded in everyday realities. By prioritizing basic needs, integrating welfare systems, and involving citizens directly, the Swayampurna Goa Initiative moves closer to a model of development where policy is not merely designed for the people, but increasingly shaped with them.

3.2.2. Himanchal Pradesh

Key Social Protection and Livelihood Initiatives

The state's approach to inclusive development is further reflected in a series of social protection and livelihood oriented programmes that aim to address the needs of vulnerable and marginalized populations in a holistic manner.

Social Security Pension Schemes form an essential pillar of this framework, providing financial assistance to the elderly, widows, and persons with disabilities. For many beneficiaries, these pensions are not merely a form of economic support but a source of dignity and independence, enabling them to



meet basic needs without complete reliance on family or informal networks. By ensuring a minimum level of income security, these schemes act as a crucial safety net against extreme poverty.

Complementing this safety net approach is the Mukhya Mantri Swavalamban Yojana, which focuses on promoting self-reliance through entrepreneurship. Targeted especially at youth and women, the scheme provides financial subsidies, technical guidance, and capacity building support for establishing small businesses. Beyond income generation, such initiatives foster confidence, innovation, and local economic activity, helping individuals transition from welfare dependence to sustainable livelihoods.

In the domain of housing, the implementation of Pradhan Mantri Awas Yojana (PMAY) both in urban and rural areas reflects a strong commitment to ensuring “housing for all.” The programme goes beyond the mere construction of houses by aiming to improve overall living conditions, particularly in tribal and geographically remote areas where vulnerabilities are often more pronounced. Secure housing not only provides physical safety but also contributes to improved health, educational stability, and social inclusion.

Health and nutrition interventions further strengthen the state’s poverty reduction strategy. Through Ayushman Bharat and state supported health schemes, efforts have been made to move toward universal health coverage, reducing the financial burden of medical expenses on households. At the same time, a sustained focus on maternal and child health seeks to address the root causes of intergenerational poverty. Ensuring proper nutrition and healthcare during early stages of life has long term implications for human capital development, productivity, and overall societal well-being.

Finally, skill development and livelihood missions play a critical role in bridging the gap between education and employment. Institutions such as the *Himachal Pradesh Kaushal Vikas Nigam (HPKVN)* provide vocational training, skill certification, and job placement support, aligning workforce capabilities with market demands. These efforts are particularly important in a rapidly changing economic landscape, where employability depends increasingly on specialized skills and adaptability.

Taken together, these initiatives reflect a balanced development strategy one that combines immediate social protection with long term capacity building. While financial assistance provides stability in the

short term, investments in skills, health, and entrepreneurship pave the way for sustainable and self-driven growth. At a human level, this integrated approach acknowledges that poverty is not just a lack of income, but a complex condition shaped by limited opportunities, vulnerabilities, and structural barriers and seeks to address it in a comprehensive and empathetic manner.

3.2.3. Kerala

Community Led Development and Health System Strengthening

An important dimension of inclusive development is reflected in community driven initiatives that combine economic empowerment with social transformation. The **Kudumbashree Mission**, a pioneering programme based on women led self-help groups, stands out as a notable example in this regard. By enabling women to collectively engage in micro enterprises, the mission not only creates sustainable livelihood opportunities but also strengthens their role in household and community decision making.

What makes Kudumbashree particularly impactful is its emphasis on social mobilization alongside economic activity. Women, many from economically vulnerable backgrounds, gain access to credit, training, and market linkages, allowing them to build small businesses and achieve financial independence. Over time, this has translated into broader social outcomes, including enhanced confidence, improved social status, and greater participation in local governance. The initiative’s success has been widely recognized at both national and international levels as a model for inclusive poverty alleviation and women’s empowerment.

Parallel to economic initiatives, strengthening healthcare systems remains central to long term human development. The **Aardram Mission** represents a focused effort to transform primary healthcare delivery by improving infrastructure, ensuring the availability of essential services, and enhancing the quality of patient care. By revitalizing primary health centres and making them more accessible and responsive, the mission seeks to reduce dependence on higher level medical facilities and ensure early diagnosis and treatment.

From a human perspective, initiatives like Aardram directly impact everyday lives making healthcare more approachable, affordable, and dignified. When combined with broader health coverage programmes, such efforts contribute to reducing out of pocket



expenditure, improving health outcomes, and ultimately breaking cycles of poverty linked to illness.

Together, these initiatives illustrate the importance of a balanced development strategy one that simultaneously empowers communities, especially women, and strengthens critical public services like healthcare. By addressing both economic and social dimensions, such programmes move closer to creating a development model that is inclusive, participatory, and sustainable.

3.2.4. Gujarat

Gujarat's Sustainable Development Framework and Poverty Alleviation Initiatives

The Gujarat Sustainable Vision 2030 serves as a comprehensive policy roadmap that aligns the state's development priorities with the United Nations Sustainable Development Goals (SDGs). By outlining sector specific targets for both 2022 and 2030, the framework provides a structured pathway for inclusive and sustainable growth. It combines clearly defined strategies with a robust monitoring mechanism, ensuring that progress is not only planned but also systematically tracked. This long term vision reflects a shift toward evidence based policymaking, where measurable outcomes guide governance.

Institutionally, the Gujarat Social Infrastructure Development Society (GSIDS) plays a pivotal role as the nodal agency for SDG implementation. It acts as a coordinating body responsible for planning, data collection, and monitoring of development programmes, particularly those related to poverty alleviation. By streamlining information flows and fostering inter departmental coordination, GSIDS helps bridge the gap between policy formulation and on ground execution. This institutional arrangement strengthens accountability and enables timely policy adjustments based on real time data.

An important innovation in Gujarat's governance approach is the Outcome Budget Monitoring System, which links financial allocations with measurable development outcomes. Unlike traditional budgeting methods that focus primarily on expenditure, this system tracks both the physical and financial progress of schemes. By doing so, it enhances transparency and ensures that public spending is aligned with tangible improvements in people's lives. In the context of SDG 1 (No Poverty), such mechanisms are particularly valuable, as they allow policymakers to

assess whether schemes are effectively reaching and benefiting vulnerable populations.

Gujarat's strategy is further reinforced through the effective integration of multiple centrally sponsored schemes that collectively address different dimensions of poverty. For instance, the Pradhan Mantri Awas Yojana (PMAY) contributes to housing security, which is fundamental to social stability and improved living standards. The Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (PM JAY) reduces the financial risks associated with healthcare, preventing households from slipping into poverty due to medical expenses.

Financial inclusion is strengthened through the Pradhan Mantri Jan Dhan Yojana (PMJDY), which facilitates access to banking services and supports direct benefit transfers. Meanwhile, the Pradhan Mantri Ujjwala Yojana (PMUY) addresses energy poverty by providing clean cooking fuel, significantly improving health outcomes, particularly for women. The Swachh Bharat Mission (SBM) and Saubhagya Scheme further enhance quality of life by ensuring sanitation and electricity access, respectively.

In addition, the Pradhan Mantri Mudra Yojana (PMMY) plays a critical role in promoting entrepreneurship by providing microfinance support to small and informal businesses. This not only fosters self-employment but also stimulates local economic activity, creating a multiplier effect in poverty reduction.

From a broader perspective, Gujarat's development model illustrates how strong institutional frameworks, data driven monitoring, and convergence of schemes can collectively accelerate progress toward poverty reduction. While challenges such as regional disparities and implementation capacity persist, the state's emphasis on accountability, integration, and measurable outcomes offers valuable insights for other regions.

At a human level, these efforts translate into everyday improvements secure homes, access to healthcare, financial stability, and opportunities for self-reliance. Together, they represent a governance approach that seeks not only to reduce poverty statistically, but also to improve the lived experiences of people in a meaningful and sustained manner.



3.2.5. Uttarakhand

Uttarakhand: SDG Aligned Development and Inclusive Growth Strategies

Uttarakhand has made notable efforts to align its development trajectory with the Sustainable Development Goals (SDGs) through a comprehensive State SDG Vision Document. This framework integrates global development priorities with local realities by emphasizing decentralized planning and district level monitoring. By bringing planning closer to the ground, the state aims to ensure that development interventions are more responsive to regional needs, particularly in geographically challenging and underserved areas.

A key component of Uttarakhand's strategy is the effective implementation of major national flagship schemes, which together address multiple dimensions of poverty and vulnerability. The Pradhan Mantri Awas Yojana (PMAY), in both its urban and rural forms, contributes to housing security by providing affordable homes to economically weaker sections. Secure housing, especially in hilly terrains prone to environmental challenges, plays a critical role in enhancing resilience and improving quality of life.

Healthcare access has been significantly strengthened through Ayushman Bharat (PM JAY), which provides financial protection against medical expenses. This is particularly important for populations in remote areas, where access to affordable healthcare has traditionally been limited. Similarly, the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) ensures livelihood security by generating wage employment opportunities in rural regions, thereby helping households manage seasonal and structural unemployment.

Efforts to address energy and financial inclusion are reflected in the implementation of the Pradhan Mantri Ujjwala Yojana (PMUY) and the Pradhan Mantri Jan Dhan Yojana (PMJDY). While Ujjwala promotes the use of clean cooking fuel improving health outcomes and reducing the burden on women Jan Dhan enhances access to formal banking services, enabling savings, credit access, and efficient delivery of government benefits.

In addition to these welfare measures, Uttarakhand has placed considerable emphasis on skill development programmes, particularly targeting youth and women in hilly and remote regions. These initiatives aim to equip individuals with modern,

market relevant skills, thereby improving employability and encouraging entrepreneurship. By bridging the gap between traditional livelihoods and emerging economic opportunities, such programmes seek to create sustainable pathways out of poverty.

From an analytical perspective, Uttarakhand's approach reflects a careful balancing of social protection and capacity building measures. While welfare schemes provide immediate relief and security, investments in skills and employment generation address the structural causes of poverty. However, the state continues to face challenges related to difficult terrain, migration, and uneven access to infrastructure, which can affect the uniform implementation of programmes.

At a human level, these initiatives represent more than policy interventions they are mechanisms for improving everyday life. Whether it is a family gaining access to a secure home, a worker finding employment through public works, or a young person acquiring new skills, these efforts collectively contribute to building resilience, dignity, and opportunity across communities.

3.2.6. Andhra Pradesh

Andhra Pradesh: Community Driven Poverty Reduction and Social Protection

Andhra Pradesh has adopted a comprehensive and community centred approach to poverty alleviation, combining large scale welfare programmes with grassroots institutional strengthening. The flagship campaign "Pedarikam Pai Gelupu" (Winning Over Poverty) reflects the state's commitment to eradicating poverty through participatory development. Rather than relying solely on top down interventions, the campaign emphasizes community engagement, local empowerment, and convergence of resources to address the multidimensional nature of poverty.

At the heart of this approach is the Society for Elimination of Rural Poverty (SERP), which has played a transformative role in mobilizing and strengthening Self Help Groups (SHGs). By organizing women into collective institutions, SERP promotes financial inclusion, access to credit, and livelihood diversification. These SHGs serve not only as economic platforms but also as spaces for social support, capacity building, and collective decision making. Over time, they have contributed significantly to enhancing resilience and reducing vulnerability among rural households.



Targeting extreme deprivation more directly, the Unnati Program focuses on the *poorest of the poor (PoP)* through customized interventions. These include livelihood support, skill development, and access to social security schemes. The program recognizes that the most marginalized populations often require tailored, sustained support to break free from chronic poverty, rather than generic, one size fits all solutions.

In terms of social protection, Andhra Pradesh has implemented several large scale welfare schemes that provide a strong safety net. The NTR Bharosa Pension Scheme reaches over 44 lakh beneficiaries, offering regular financial assistance to elderly persons, widows, and individuals with disabilities. For many households, this pension serves as a critical source of income stability and basic security.

Healthcare access is strengthened through NTR Vaidya Seva, which provides annual medical coverage of up to ₹2.5 lakh per family for Below Poverty Line (BPL) households. Covering over 1,000 medical procedures at zero premium, the scheme significantly reduces the financial burden of healthcare and helps prevent distress driven impoverishment due to medical emergencies.

Additionally, Chandranna Bima addresses the vulnerabilities of workers in the unorganized sector by offering insurance coverage against accidental death, disability, and natural death. This scheme is particularly important in a context where informal employment dominates and social security mechanisms are often limited.

The state's efforts are further reinforced through effective integration with national flagship programmes. Initiatives such as MGNREGA provide wage employment and livelihood security in rural areas, while the Pradhan Mantri Jan Dhan Yojana (PMJDY) enhances financial inclusion. The National Rural and Urban Livelihood Missions (NRLM/NULM) support self-employment and skill development, and the National Social Assistance Programme (NSAP) strengthens the social safety net for vulnerable groups. Complementary skill development initiatives further enhance employability and economic participation.

From an analytical standpoint, Andhra Pradesh's model illustrates the importance of combining community based institutional frameworks with targeted welfare interventions. By strengthening local collectives such as SHGs while simultaneously expanding access to pensions, healthcare, and

insurance, the state addresses both the structural and immediate dimensions of poverty.

At a human level, these initiatives represent tangible improvements in everyday life steady income for the elderly, financial protection during illness, opportunities for women to build livelihoods, and support for vulnerable workers. Together, they reflect a governance approach that not only seeks to reduce poverty statistically but also to enhance dignity, security, and agency among the people.

3.2.7. Chhattisgarh

Chhattisgarh: Last Mile Delivery and Inclusive Development

Chhattisgarh's approach to poverty alleviation is deeply rooted in the Antyodaya philosophy, which emphasizes reaching the most marginalized sections of society and ensuring that the benefits of development extend to the last person in the social hierarchy. This guiding principle shapes the state's policies and programmes, placing a strong emphasis on equity, inclusion, and last mile service delivery.

To support this commitment, the state has developed a robust SDG Dashboard and Monitoring System, which institutionalizes evidence based governance. Chhattisgarh has adopted 106 SDG targets at the state level, supported by 275 indicators, along with 45 district level targets and 82 indicators. This multi-tiered framework enables continuous monitoring and evaluation, ensuring that progress toward sustainable development is measurable and transparent. Importantly, district level tracking allows for context specific interventions, particularly in tribal and underdeveloped regions where development challenges are more acute.

A key pillar of the state's strategy is the strengthening of Rural Livelihood Missions, which focus on empowering women and tribal communities through Self Help Groups (SHGs) and micro enterprises. These communities based institutions provide access to credit, skill development, and income generating opportunities. Beyond economic benefits, they foster social empowerment and collective resilience, enabling marginalized groups to actively participate in the development process.

Health and nutrition interventions form another critical component of Chhattisgarh's poverty reduction efforts. A range of health and nutrition schemes target maternal and child health, sanitation, and access to clean drinking water. These initiatives aim to address the underlying causes of



multidimensional poverty, recognizing that poor health and malnutrition often perpetuate cycles of vulnerability and deprivation across generations.

In parallel, the state has made significant investments in housing and basic infrastructure. The expansion of the Pradhan Mantri Awas Yojana (PMAY) has improved access to secure housing, particularly for rural and economically weaker households. Efforts in rural electrification and sanitation under the Swachh Bharat Mission have further enhanced living conditions, contributing to improved health outcomes and overall quality of life.

From an analytical perspective, Chhattisgarh's model reflects a strong integration of philosophical commitment (Antyodaya), institutional monitoring, and grassroots empowerment. While structural challenges such as regional disparities and accessibility in remote areas continue to pose difficulties, the state's focus on targeted interventions and data driven governance provides a solid foundation for inclusive growth.

At a human level, these initiatives translate into meaningful changes whether it is a tribal woman accessing credit through an SHG, a family moving into a safe home, or improved health services reaching remote villages. Together, they illustrate a development approach that seeks not only to reduce poverty but also to restore dignity, opportunity, and hope to those most in need.

3.2.8. Haryana

Targeted Welfare and Inclusive Development Initiatives

The state's poverty alleviation strategy reflects a combination of targeted welfare programmes and region specific development interventions designed to address both urban and rural vulnerabilities. These initiatives illustrate a multidimensional understanding of poverty, recognizing the interconnected roles of health, education, livelihoods, gender equity, and infrastructure.

One of the key health related interventions is the Rashtriya Mazdoor Swasthya Bima Yojana, which provides health insurance coverage to Below Poverty Line (BPL) families. By reducing out of pocket healthcare expenses, the scheme helps prevent vulnerable households from falling into deeper poverty due to medical emergencies. Complementing this effort is the Arogya Kosh, which offers financial assistance for critical medical treatment, especially in cases where insurance coverage may be insufficient.

Together, these initiatives strengthen financial protection and improve access to healthcare for the most disadvantaged.

Urban poverty is addressed through programmes such as the Deen Dayal Upadhyaya Sewa Basti Utthaan Yojana, which focuses on improving infrastructure and living conditions in slums and underdeveloped urban settlements. This is further supported by the National Urban Livelihoods Mission (NULM), which promotes skill development, self-employment, and access to credit among the urban poor, thereby creating pathways for sustainable livelihoods.

Recognizing the long term importance of education, the Monthly Stipend Scheme provides financial support to BPL students in Classes IX–XII. Such interventions help reduce dropout rates and encourage continued education, particularly among economically weaker sections, thereby contributing to human capital development.

A notable addition to the state's social welfare framework is the Deen Dayal Upadhyaya Lado Laxmi Scheme, which focuses on empowering the girl child by providing financial support for her education and well-being. By addressing gender disparities from an early stage, the scheme plays a crucial role in promoting social inclusion, delaying early marriages, and enhancing future economic participation of women. At a human level, such initiatives not only reduce financial barriers but also reshape societal attitudes toward girls' education and empowerment.

The state has also undertaken region specific initiatives such as the Integrated Development of Mewat and Shivalik Areas, targeting socio economically backward and geographically disadvantaged regions. These programmes aim to reduce regional disparities through focused investments in infrastructure, livelihoods, and access to basic services.

At the grassroots level, Panchayati Raj Support Schemes strengthen decentralized governance by providing financial assistance for rural development projects. This enables local bodies to identify and address community specific needs, ensuring that development is both participatory and context sensitive.

From an analytical perspective, these initiatives reflect a well balanced approach that combines immediate social protection with long term developmental outcomes. While health coverage, pensions, and financial assistance provide a safety net, investments in education, skills, and gender



empowerment create sustainable pathways out of poverty.

At a human level, the impact of these programmes is deeply visible whether it is a young girl continuing her education through support from Lado Laxmi, a worker accessing healthcare without financial stress, or families benefiting from improved infrastructure and livelihood opportunities. Together, these efforts represent a holistic and empathetic model of governance that seeks not only to alleviate poverty but also to promote dignity, equity, and opportunity for all.

3.2.9. Assam

Assam: Gender Centric Welfare and Direct Benefit Delivery

Assam's approach to poverty alleviation reflects a strong emphasis on women centric welfare, targeted assistance, and efficient delivery mechanisms. By focusing on vulnerable households particularly women from economically weaker sections the state has aimed to create a more inclusive and responsive development framework.

A cornerstone of this approach is the Orunodoi Scheme, which provides direct financial assistance to nearly 20 lakh women beneficiaries. The scheme is designed to support essential household expenditures, including health, nutrition, and utility costs. By placing financial resources directly in the hands of women, Orunodoi not only strengthens household level economic security but also enhances women's agency and decision making power within families. This gender responsive design has significant implications for improving overall wellbeing and reducing intra household inequalities.

In the housing sector, the Mukhya Mantri Awaas Yojana supplements national efforts by providing support to Below Poverty Line (BPL) families who are not covered under the Pradhan Mantri Awas Yojana (PMAY). This ensures that gaps in coverage are addressed and that more households can access safe and secure housing an essential foundation for improved living conditions and social stability.

To address unemployment and improve livelihood opportunities, the state has also strengthened its Skill Development Mission, which offers vocational training and employment support to youth from economically disadvantaged backgrounds. These initiatives are particularly relevant in a context where employability is increasingly linked to skill acquisition. By equipping young people with market

relevant skills, the programme helps bridge the gap between education and employment, enabling sustainable income generation.

A key governance innovation underpinning these initiatives is the integration of Direct Benefit Transfers (DBT). Through DBT, pensions, scholarships, and various subsidies are transferred directly into beneficiaries' bank accounts, reducing leakages, delays, and administrative inefficiencies. This not only enhances transparency and accountability but also ensures that benefits reach intended recipients in a timely and reliable manner.

From an analytical perspective, Assam's model highlights the importance of combining targeted welfare schemes with efficient delivery systems. While financial assistance programmes like Orunodoi provide immediate relief, complementary interventions in housing and skill development contribute to long term resilience and economic mobility.

At a human level, the impact is deeply tangible women gaining financial independence, families securing better housing, and youth finding pathways to employment. Together, these initiatives reflect a development approach that prioritizes dignity, empowerment, and inclusion, moving beyond mere poverty reduction toward a more equitable and sustainable society.

3.2.10. Jharkhand

Inclusive Welfare Measures and Crisis Response Mechanisms

The state's poverty alleviation framework reflects a combination of employment generation, food security, social protection, and responsive crisis management. These measures collectively aim to address both chronic poverty and sudden economic vulnerabilities, particularly among rural and marginalized populations.

At the core of livelihood security is the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), which provides a legal guarantee of wage employment to rural households. By ensuring a minimum number of workdays, the programme acts as a stabilizing force for income, especially during periods of agrarian distress or limited economic activity. Beyond income support, MGNREGA also contributes to the creation of rural assets, thereby supporting long term development.

Food security is reinforced through the Public Distribution System (PDS), which ensures the



availability of subsidized food grains to economically vulnerable households. For many families, particularly in rural and remote areas, PDS functions as a lifeline, safeguarding against hunger and malnutrition while stabilizing household consumption patterns.

The state also prioritizes social protection through Social Security Pension Schemes, which cater to widows, the elderly, and persons with disabilities. These pensions provide a predictable source of income, helping vulnerable individuals meet basic needs and maintain a sense of dignity and independence in their daily lives.

Recognizing the importance of sustainable livelihoods, Skill Development Missions have been implemented with a focus on tribal and rural youth. These initiatives aim to equip individuals with market relevant skills, enabling them to transition from subsistence based occupations to more stable and diversified sources of income. Such interventions are crucial in bridging regional and socio economic disparities.

A noteworthy aspect of the state's approach is its emphasis on adaptive and responsive governance, particularly during times of crisis. During the COVID 19 pandemic, innovative measures such as community kitchens and advance ration distribution were introduced to ensure that no household was left without access to food. These initiatives demonstrated the importance of flexibility and rapid response in public policy, especially when addressing sudden shocks that disproportionately affect the poor.

From an analytical standpoint, these programmes highlight a balanced strategy that combines immediate relief with long term development goals. While employment schemes and food distribution systems provide essential safety nets, investments in skills and social protection contribute to building resilience against future vulnerabilities.

At a human level, the impact of these initiatives is profound ensuring that families have food on the table, individuals have access to work opportunities, and vulnerable groups receive consistent support. Together, they represent a compassionate and practical approach to governance that prioritizes both economic security and human dignity.

3.2.11. Bihar

Bihar: Education, Livelihoods, and Sustainable Rural Development

Bihar's poverty alleviation strategy reflects a combination of human capital development, livelihood generation, and environmental sustainability, aimed at addressing both immediate vulnerabilities and long term structural challenges.

A key initiative in this regard is the Mukhyamantri Kanya Utthan Yojana, which provides financial assistance to girls pursuing education at various stages. By supporting female education, the scheme seeks to address deep rooted gender disparities and break the cycle of intergenerational poverty. At a human level, such interventions not only ease the financial burden on families but also empower young women to aspire to better economic and social opportunities.

The Jal Jeevan Hariyali Abhiyan represents an integrated approach to environmental sustainability and livelihood generation. By focusing on water conservation, afforestation, and climate resilience, the programme addresses ecological vulnerabilities that directly impact rural livelihoods. At the same time, it creates employment opportunities and strengthens community participation, thereby linking environmental protection with economic well-being.

Complementing these efforts is the state's Skill Development Mission, which focuses on providing vocational training to youth, particularly in rural and backward regions. By equipping individuals with market relevant skills, the initiative aims to improve employability, reduce migration pressures, and create sustainable livelihood options within the state.

Food security remains a critical pillar of Bihar's welfare strategy, ensured through the Public Distribution System (PDS). By providing subsidized food grains to Below Poverty Line (BPL) households, PDS acts as a vital safety net against hunger and nutritional insecurity, particularly in vulnerable rural areas.

Additionally, the implementation of MGNREGA plays a crucial role in providing wage employment to rural households. Beyond ensuring income support, the programme contributes to the creation of rural assets such as roads, water conservation structures, and irrigation facilities, which have long term developmental benefits.

From an analytical perspective, Bihar's approach reflects a balanced integration of social protection and capacity building. While schemes like PDS and



MGNREGA provide immediate relief, investments in education, skills, and environmental sustainability contribute to long term resilience and poverty reduction.

At a human level, these initiatives represent meaningful change whether it is a young girl continuing her education, a rural worker finding employment close to home, or a community benefitting from improved natural resources. Together, they highlight an approach to development that seeks not only to reduce poverty but also to expand opportunities, dignity, and hope for the future.

3.2.12. Uttar Pradesh

Uttar Pradesh: Employment Led Growth and Welfare Delivery

Uttar Pradesh's approach to poverty alleviation reflects a strategic blend of employment generation, livelihood promotion, and efficient welfare delivery mechanisms. By combining targeted schemes with broader economic initiatives, the state seeks to address both immediate needs and long term development challenges.

A key intervention in the housing sector is the Mukhyamantri Awas Yojana (Urban and Rural), which aims to provide safe and affordable housing to families not covered under the Pradhan Mantri Awas Yojana (PMAY). By filling these gaps, the scheme ensures wider coverage and supports vulnerable households in achieving basic living security. Access to adequate housing not only improves physical well-being but also enhances social stability and dignity.

Employment generation remains a central priority under the Mission Rozgar, which focuses on creating job opportunities for youth and rural workers. The initiative emphasizes both public sector recruitment and facilitation of private employment avenues. In a state with a large and youthful population, such efforts are critical for reducing unemployment and fostering inclusive economic growth.

The One District One Product (ODOP) programme represents an innovative approach to local economic development. By promoting region specific traditional industries and products, ODOP strengthens local entrepreneurship, supports small and medium enterprises, and generates employment opportunities within districts. This localized strategy helps retain skills, reduce migration, and stimulate rural economies through value addition and market linkages.

Efficient service delivery is ensured through the widespread use of Direct Benefit Transfers (DBT). By channelling pensions, scholarships, and subsidies directly into beneficiaries' bank accounts, DBT reduces leakages, enhances transparency, and ensures timely support to Below Poverty Line (BPL) families. This technological integration has significantly improved governance outcomes and public trust.

Complementing these initiatives are Skill Development Programs, which target youth, women, and marginalized communities. These programmes aim to enhance employability by providing vocational training aligned with industry demands. By equipping individuals with relevant skills, the state seeks to bridge the gap between education and employment, enabling sustainable livelihoods.

From an analytical perspective, Uttar Pradesh's model reflects a multi-pronged strategy combining welfare support, employment generation, and local economic development. While housing and DBT mechanisms provide immediate relief and security, initiatives like ODOP and skill development create long term pathways for income generation and economic self-reliance.

At a human level, these policies translate into meaningful changes families gaining secure homes, young people accessing jobs or starting businesses, and beneficiaries receiving timely financial support. Together, they represent a development approach that aims not only to reduce poverty but also to enhance opportunity, dignity, and economic participation across diverse communities.

3.2.13. Madhya Pradesh

Madhya Pradesh: Targeted Welfare and Rapid Progress in Poverty Reduction

Madhya Pradesh has demonstrated a focused approach to poverty alleviation through targeted welfare schemes combined with measurable progress in development outcomes. The state's strategy reflects a strong commitment to reaching the most vulnerable sections of society, in line with the broader objective of achieving SDG 1 (No Poverty).

A key initiative in this regard is the Mukhyamantri Antyodaya Awas Yojana, which aims to provide housing support specifically to the poorest households who may not be adequately covered under national schemes. By prioritizing the "last mile," the programme ensures that even the most marginalized families gain access to safe and secure housing an



essential foundation for improving living standards and social dignity.

Addressing urban poverty, the Deendayal Antyodaya Rasoi Yojana provides affordable and nutritious meals to the urban poor at subsidized rates. For daily wage earners, migrant workers, and economically vulnerable individuals, this scheme offers not just food security but also a sense of stability and assurance. At a human level, such initiatives play a critical role in reducing hunger and supporting livelihoods in urban settings.

What makes Madhya Pradesh particularly noteworthy is its significant improvement in SDG 1 performance, with the state recording a remarkable increase of approximately 25 points between 2018 and 2023. This progress indicates not only the expansion of welfare schemes but also improvements in their implementation and outreach. It reflects a governance approach that increasingly emphasizes results, monitoring, and targeted delivery.

From an analytical perspective, Madhya Pradesh's model highlights the effectiveness of focused interventions aimed at basic needs housing and food security combined with outcome driven governance. While challenges such as regional disparities and economic vulnerabilities persist, the state's rapid progress suggests that well targeted schemes, when effectively implemented, can lead to substantial improvements in poverty indicators.

At a human level, these initiatives translate into tangible benefits secure shelter for the poorest families and access to affordable meals for those struggling to make ends meet. Together, they illustrate a development approach that not only addresses statistical measures of poverty but also improves everyday life with dignity and care.

4. COMPARATIVE ANALYTICAL INSIGHTS

The comparative analysis across states shows that the effectiveness of poverty reduction strategies largely depends on how strong the institutions are and how well policies are implemented on the ground. States with better monitoring systems and governance frameworks tend to achieve more transparent, efficient, and impactful results. This highlights that not just policies, but **how they are executed and tracked**, plays a crucial role in real outcomes.

Key features for successful policy implementation

4.1. Community Driven and Women Centric Development

States like Kerala, Andhra Pradesh, and Assam clearly demonstrate how empowering communities especially women can bring lasting change. Kerala's Kudumbashree model shows the strength of women led self-help groups in improving both livelihoods and social status. Similarly, Andhra Pradesh's structured SHG networks and targeted programmes support the poorest sections, while Assam's Orunodoi scheme strengthens women's financial independence at the household level.

Insight: When women are given financial and social help, and when communities are actively involved, development becomes more inclusive, sustainable, and deeply rooted at the grassroots level.

4.2 Targeted Welfare and Social Protection

Chhattisgarh and Madhya Pradesh highlight the importance of reaching the most vulnerable populations through focused welfare measures. Their efforts in food security, housing, and social assistance schemes ensure that even the last person in the line benefits. These initiatives are often supported by improved monitoring and tracking systems.

Insight:

Strong social protection systems act as a safety net, reducing vulnerability and giving people the stability needed to improve their economic conditions over time.

4.3. Livelihood Promotion and Skill Development

States such as Himachal Pradesh, Uttarakhand, Bihar, and Uttar Pradesh focus on creating opportunities rather than just providing support. Skill development programmes, local enterprise promotion like ODOP, and environmentally linked livelihood schemes are helping people move toward self-reliance.

Insight:

Long term poverty reduction depends on enabling people to earn sustainably. Skill development and local economic opportunities are key to breaking the cycle of dependency.

4.4. Convergence with National Schemes

Across all states, central government schemes like MGNREGA, PMAY, Ayushman Bharat, and others form the backbone of poverty alleviation efforts. However, the difference lies in how effectively states



adapt and implement these schemes according to local needs.

Insight:

Better coordination and integration of national programmes at the state level significantly improve their reach and impact, making poverty reduction efforts more effective.

4.5. Governance Innovation and Digital Systems

States such as Assam and Uttar Pradesh show how technology is transforming welfare delivery. Direct Benefit Transfers, digital monitoring systems, and data based planning have improved transparency and reduced leakages.

Insight:

The use of technology and real time data not only makes systems more efficient but also builds trust by ensuring benefits reach the right people at the right time.

Comparative Summary Table

Dimension	Leading State Practices	Key Takeaway
Decentralized Governance	Goa, Gujarat	Strong institutions improve delivery
Women Empowerment	Kerala, AP, Assam	SHGs and DBT enhance inclusion
Social Protection	Chhattisgarh, MP	Safety nets reduce vulnerability
Employment & Skills	UP, Bihar, HP, Uttarakhand	Skills drive long term poverty reduction
Scheme Convergence	All states	National schemes remain core drivers
Governance Innovation	Gujarat, Assam	Data and DBT ensure efficiency

Key Findings

No single model fits all – states adopt context specific strategies based on geography, demographics, and institutional capacity.

Women centric and community driven approaches show the most sustainable results.

Integration of welfare schemes is more effective than isolated interventions.

Technology and data systems significantly improve targeting and transparency.

Balanced strategies (relief + empowerment) are essential for long term poverty reduction.

5. Role of Information Technology and Artificial Intelligence in achieving SDG Goal 1

AI has strengthened the real time monitoring of SDG progress through interactive dashboards and automated reporting tools. States like Kerala and Goa have developed advanced monitoring systems that integrate AI analytics, enabling continuous assessment of development outcomes. At the national level, the SDG India Index developed by NITI Aayog serves as a comprehensive tool for tracking state wise progress on SDG indicators.

5.1 Common AI/IT Applications Across States

Despite variations in implementation, several common technological applications are emerging across states:

- DBT systems integrated with Aadhaar enabled platforms for efficient benefit delivery
- AI in agriculture for yield prediction, pest management, and cost optimization
- Digital financial services, including mobile banking and UPI, for unbanked populations
- Data analytics for targeted welfare delivery
- Mobile based platforms for skill training and employment access

These applications collectively enhance the reach and effectiveness of poverty alleviation programmes.

5.2 AI & IT Solutions for Poverty Eradication

5.2.1. Targeted Welfare Delivery

AI enables precise beneficiary identification by integrating Aadhaar data with socio economic indicators and satellite imagery. Predictive analytics further helps identify at risk populations, while emerging technologies like blockchain can ensure transparent and tamper proof distribution of benefits.

5.2.2. Inclusion and Digital Empowerment

Digital platforms such as mobile banking and UPI extend financial services to previously excluded populations. AI chatbots, particularly in regional languages, improve financial literacy and access to information. Additionally, alternative credit scoring models based on transaction history and mobile usage



facilitate access to microfinance for underserved groups.

5.2.3. Smart Agriculture and Rural Livelihoods

AI driven tools support crop forecasting, pest control, and weather prediction, helping farmers reduce risks and improve productivity. Technologies like IoT enable real time monitoring of soil and water conditions, while digital platforms such as e NAM connect farmers to broader markets, enhancing income opportunities.

5.2.4. Skill Development and Employment

AI powered learning systems provide personalized vocational training, while job matching algorithms connect individuals with suitable employment opportunities. Advanced tools like virtual reality (VR) are also being used for immersive skill training in sectors such as construction and technical trades.

5.2.5. Healthcare Access for the Poor

AI enabled telemedicine and diagnostic systems have expanded healthcare access in remote and underserved regions. Early disease detection and data driven health monitoring reduce long term vulnerability and prevent poverty induced by health shocks.

5.2.6. Monitoring and Impact Evaluation

Real time dashboards and AI based analytics support continuous monitoring of poverty indicators at district and village levels. Satellite data and large scale surveys enable impact evaluation of government programmes, while crowdsourced feedback systems improve responsiveness and service quality.

The integration of AI and IT into poverty alleviation strategies marks a significant shift toward smart, inclusive, and accountable governance. These technologies not only improve efficiency but also empower individuals by enhancing access to services, opportunities, and information.

At a human level, this transformation is visible in everyday experiences benefits reaching accounts without delays, farmers making informed decisions, youth finding employment through digital platforms, and patients accessing healthcare remotely. While challenges such as digital divides and data privacy concerns remain, the growing use of technology offers a powerful pathway toward achieving **SDG 1: No Poverty** in an equitable and sustainable manner.

Conclusion:

The adoption of the Sustainable Development Goals (SDGs) in 2015 under the Vision 2030 framework represents a paradigm shift in global development

discourse, emphasizing inclusivity, sustainability, and multidimensional progress. Within this context, India's commitment to SDG 1 (No Poverty) reflects both the scale of the challenge and the depth of policy innovation required to address it. Despite measurable progress in reducing poverty levels, the persistence of regional disparities, socio economic inequalities, and structural vulnerabilities underscores the complexity of achieving comprehensive poverty eradication.

This study demonstrates that India's poverty alleviation strategy has evolved toward a multi layered and integrated policy architecture, combining centrally sponsored schemes with state specific innovations. The analysis reveals that poverty reduction outcomes are significantly influenced by institutional capacity, governance quality, and implementation efficiency, rather than policy intent alone. States with stronger monitoring mechanisms, decentralized governance structures, and outcome oriented frameworks consistently exhibit more effective delivery and measurable improvements.

A key finding of this research is the critical role of **community driven and gender responsive interventions** in fostering inclusive development. Initiatives such as self-help group (SHG) based models and direct benefit transfers targeting women have not only enhanced economic participation but also strengthened social agency and household resilience. Simultaneously, **targeted social protection systems** continue to serve as essential safeguards, mitigating vulnerability and enabling marginalized populations to engage in broader economic processes.

The analysis further highlights the importance of **livelihood diversification, skill development, and localized economic strategies** in transitioning from welfare dependence to sustainable self-reliance. Programmes that integrate employment generation with capacity building and market linkage mechanisms demonstrate greater long term impact. Additionally, the convergence of national flagship schemes with localized implementation frameworks emerges as a critical factor in enhancing policy coherence, optimizing resource utilization, and improving outreach.

A significant contribution of this study lies in examining the transformative role of **Information Technology (IT) and Artificial Intelligence (AI)** in poverty governance. The integration of digital platforms, Direct Benefit Transfer (DBT) systems, and real time monitoring dashboards has substantially



improved transparency, targeting accuracy, and administrative efficiency. AI driven analytics further enable predictive identification of vulnerable populations and support evidence based policymaking. However, the effectiveness of these technological interventions remains contingent on addressing challenges related to digital infrastructure gaps, data governance, and equitable access.

From a policy perspective, the findings underscore the necessity of adopting a **holistic and systems based approach** to poverty alleviation, wherein social protection, economic empowerment, institutional strengthening, and technological innovation are treated as complementary components rather than isolated interventions. The interlinkages between these dimensions highlight the need for continuous coordination, adaptive policymaking, and context sensitive strategies.

In conclusion, India's progress toward achieving SDG 1 reflects a dynamic interplay between policy innovation and implementation realities. While substantial advancements have been observed, sustained efforts are required to address underlying structural inequalities and ensure that growth translates into inclusive development outcomes. The strategic integration of governance reforms, community participation, and emerging technologies provides a viable pathway for accelerating progress. Achieving the goal of "No Poverty" by 2030 will ultimately depend on the ability to translate these frameworks into equitable, scalable, and human centred outcomes that enhance not only economic security but also dignity and opportunity for all.

Data Availability

Various Government of India schemes, State Initiatives, IT systems adopted, NITI Aayog MPI index 2023, UNDP sustainability reports

Conflict of Interest

Authors do not have any conflict of interest in publication of this paper

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