

January 2026

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Kurukshetra

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Startup India
Catalysing Entrepreneurship

Startups Powering
Future Skills

Startups Sowing
Farmer Success

Social Startups
Creating Impact

Innovations Turning
Waste into Opportunity



Start-ups Transforming the Landscape of Education & Skill Development

India has emerged as the world's third-largest startup ecosystem, boasting 118 unicorns by 2025. Driven by the Start-up India initiative and National Education Policy (NEP) 2020, these ventures are revolutionizing education and skilling through AI-driven personalised learning and digital infrastructure. By bridging the gap between academia and industry, startups are transforming India into a hub of job creators, fostering an inclusive, future-ready workforce to achieve the *Viksit Bharat 2047* vision.

Jai Prakash Pandey
Raja Pandit

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startup is an ecosystem designed to develop and scale innovative products or services. Startups identify various opportunities in all walks of life and envision innovative solutions. They use technology & artificial intelligence, collaborate with stakeholders to provide comprehensive outcome. Prime Minister Shri Narendra Modi has rightly quoted startups as job creators rather than job seekers.

Start-up Culture in India

In the late 1990s and early 2000s, India witnessed the rise of information technology giants like Infosys, Wipro, and TCS which laid the groundwork for a new wave of innovation and entrepreneurship. Rise of tech-savvy young entrepreneurs and advent of internet ignited the sparks in India's startup culture. Success of startups such as MakeMyTrip, Flipkart, and Zomato have paved the way of Indian startups culture to new height.

The author is an IRPS officer who has worked as Director in Ministry of Education, GoI. Email: jppandeyirps@gmail.com
The author is Consultant in Ministry of Education, GoI.

Start-up India Initiative

To foster a more inclusive entrepreneurial ecosystem, the Government of India has undertaken multiple initiatives focused on entrepreneurship education, training, advocacy, and access to support networks. Start-up India has transformed the country's innovation landscape by forming a strong "innovation stack". Initiatives such as Digital India, Aadhaar, UPI and BharatNet have created a robust digital public infrastructure that lowers entry barriers for entrepreneurs, expands access, reduces costs, and supports an inclusive innovation ecosystem.

Launched in 2016, Start-up India initiative, supports entrepreneurs by fostering a strong innovation ecosystem through tax benefits, simplified compliance and funding access to drive economic growth and employment. These interventions have collectively developed a multi-layered innovation ecosystem that enables startups to scale quickly. India witnessed a sharp rise in unicorns—from just 4 in 2014 to 118 by mid-2025. This startup boom has yielded substantial economic dividends creating over 12 lakh direct jobs and millions of indirect opportunities, reducing import dependence, enhancing exports, and strengthening India's economic influence globally. Today, India is home to the world's third-largest startup ecosystem with more than 1.4 lakh registered startups and a new unicorn emerging every 20 days.

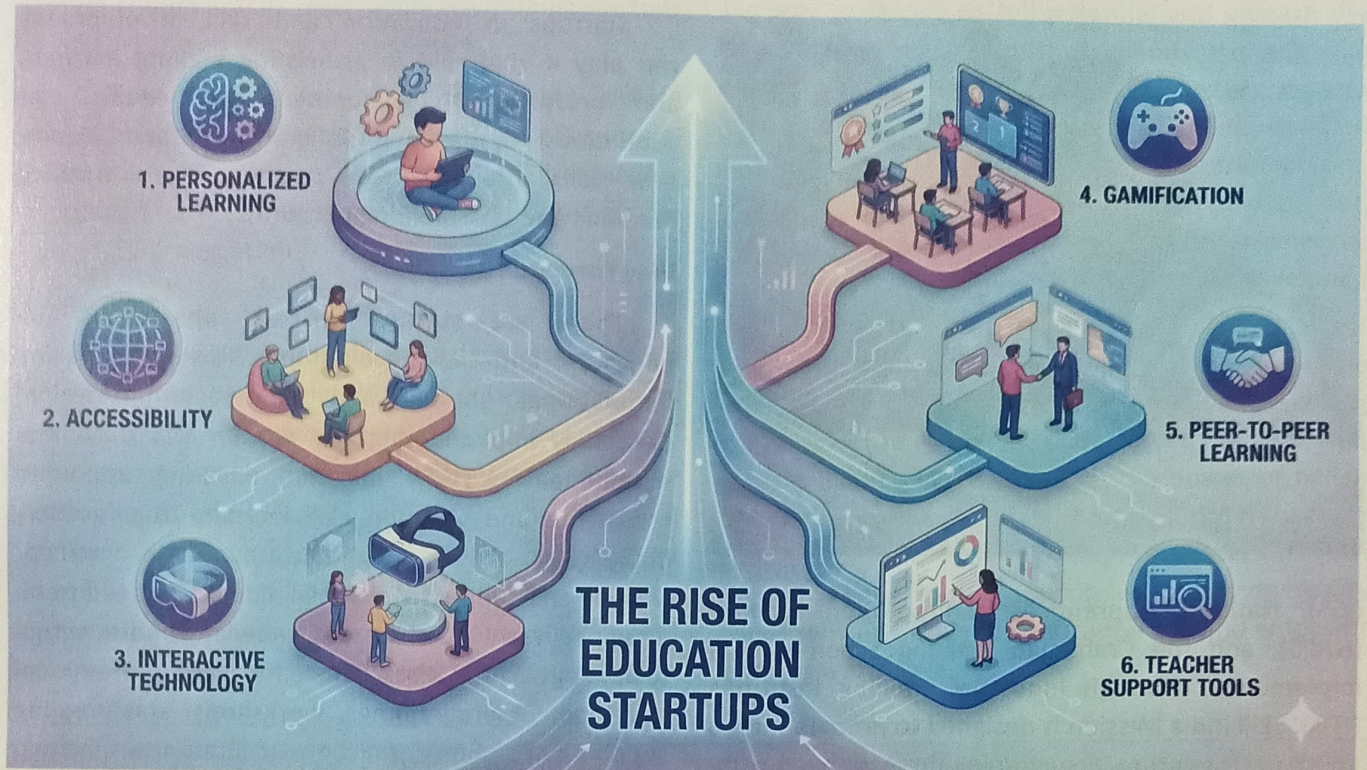
Start-up in Education

India's National Education Policy (NEP) 2020 strongly advocates for a shift from rote learning to a system that cultivates an innovation and entrepreneurship culture and resonate with *Viksit Bharat*. The policy aims to produce job creators, not just job seekers, by integrating skill-based, hands-on, and multidisciplinary learning from an early age and offers a clear direction for understanding past shortcomings and taking corrective measures. It seeks to address the long-standing disconnect between education and livelihood opportunities. NEP 2020 introduces flexible entry and exit options, allowing students to choose and modify subject combinations based on their interests. This flexibility removes the stigma associated with 'dropouts' and empowers learners to explore skills, innovations, or ideas they wish to pursue at any stage of their academic journey thereby enabling to explore new horizon of startups.

While Startup growth has been fuelled by strong academic linkage, it also played significant role in changing the educational landscape right from school education to higher-education and research institutions. Covid pandemic led to a huge opportunity in innovations across education delivery models in India and shifting priorities in education to make India. Startups played a transformative role in reshaping education by introducing innovative tools and approaches that make learning more engaging, accessible, and relevant to future needs. They are developing creative digital platforms enriched with multimedia content, gamification, and interactive quizzes that enhance both learning effectiveness and enjoyment.

Start-ups also provide hands-on learning opportunities through robotics programmes, coding camps, and workshops, enabling students to apply theoretical knowledge in real-world contexts while nurturing creativity and critical thinking. With the support of data analytics and artificial intelligence, personalised learning solutions are helping cater to diverse learning styles and paces, thereby improving student engagement and retention. By offering affordable online courses and resources, startups are democratising access to high-quality education resources, especially to socially and economically disadvantaged group. Collaborations with educational institutions are further integrating these innovations into mainstream curricula, giving teachers access to cutting-edge teaching tools. Mentoring initiatives connect students with industry professionals, helping them gain insights into future careers and develop essential skills.

National Education Policy 2020 recommends integration of technology in learning and education system. Startups such as BYJU'S, Physics Wallah, Karkhana, Cuemath, Vedantu are playing a transformative role in reshaping India's educational landscape by expanding digital access through their learning platforms, making quality education available to learners across demographics. In the STEM domain, platforms like Cuemath etc encourage inquiry-based learning, robotics, and coding, fostering scientific temperament and problem-solving skills. Start-ups like KYT, SpeakX (formerly Yellow Class), and Flintobox are revolutionising early childhood education through play-based and experiential content that builds foundational



literacy, numeracy, and socio-emotional skills. Kalam Labs, represents a bold leap in K-12 education by blending gaming with immersive learning, creating a unique game-streaming environment where students learn academic concepts through play and has pivoted from kids' edtech to advanced defense-tech, building stratospheric UAVs (drones) for high-altitude surveillance and defence.

Alongside such innovations, the rise of online learning has also reshaped academic support services, with professional paper-writing and AI-enabled platforms like Essay Service catering to the needs of learners and are further transforming student learning and research, enabling more efficient academic preparation and support in an increasingly digital educational landscape. Meanwhile, assistive-technology startups such as Tinkerbelle Labs are empowering Children with Special Needs (CwSN) by offering accessible devices, assistive technologies, AI-based learning support and inclusive educational tools. Many Start-ups provides Learning Labs across education, industry and community domains and empower learners, educators and organisations to transform ideas into reality through hands-on exploration, digital fabrication, and emerging technologies. Collectively, these startups are driving a more inclusive, digital, and future-ready education ecosystem in India.

NEP 2020 recognises that every child is unique, thereby learning pace and trajectory of each child is different and specific. Start-ups have greatly focusing on personalised learning and reimagining traditional classroom settings by tailoring learning experiences to individual students. Through adaptive algorithms and AI-powered platforms, students can access customised content, progress at their own pace, and receive real-time feedback. This approach enhances student engagement, boosts motivation, and ultimately improves learning outcomes.

Educational Start-ups have placed strong emphasis on inclusivity by designing programmes for under-represented groups, including girls and marginalised communities to build a diverse talent pool. By fostering entrepreneurial mindsets, encouraging innovation, and empowering students to devise creative solutions to societal challenges, startups are significantly contributing to strengthening education in India and preparing learners to thrive in a rapidly evolving world.

Start-up in Skill Development

Under the Skill India Mission led by the Ministry of Skill Development and Entrepreneurship (MSDE) the Government of India provides skill, re-skill, and up-skill training through a wide network of centres operating under schemes such as the *Pradhan Mantri Kaushal Vikas Yojana* (PMKVY), Jan Shikshan Sansthan



(JSS), National Apprenticeship Promotion Scheme (NAPS), and the Craftsman Training Scheme (CTS) implemented through Industrial Training Institutes (ITIs). Skill India Mission is designed to prepare India's youth for the future by equipping them with industry-relevant skills.

India's skilling startups are playing a key role in transformation and preparation for the need of the hour and future of work by bridging the gap between academic learning and industry/organisation skills. Platforms such as UpGrad, Coursera India, Unacademy, SudoLearn Technologies, WhiteHat etc., offer specialised courses such as in coding, AI-ML, data science, digital marketing, communication skills, and emerging technologies. These startups provide flexible, experiential, and project-based learning pathways through live classes, micro-credentials, and industry mentorship.

These startups also provide platform to collaborate with corporates to offer internships, apprenticeships, and job-linked programmes, helping students build employability early. Skillshare provides solutions for creative skills i.e.-design, writing, photography by providing Short project-based lessons and entrepreneurial skill development. Internshala offers online skill training programmes, internship and job opportunities and employability-focused courses. By focusing on digital literacy, STEM education, soft skills, and domain-specific expertise, these startups empower learners from diverse backgrounds, including rural youth and CwSN to access quality training, enhance confidence, and stay competitive in a rapidly evolving job market.

Startups in education and skill development can play a vital role in promoting lifelong learning and professional development. Individuals can continuously enhance their knowledge and acquire new skills through online courses, micro learning modules and skill-building platforms.

Way Forward

There are startups in all spheres of the education and skill development. They are making foundational literacy and numeracy interesting, effectively implementing *PM Poshan Shakti Nirman* scheme, easing STEM education, ensuring support to researcher and vocation skill learner. To effectively implement these solutions, adequate teacher training and support are crucial. Educators need to be equipped with the skills and knowledge to leverage technology in the classroom effectively. Professional development programmes, workshops, and ongoing support can empower teachers to adopt new teaching methods, incorporate edtech tools, and leverage data-driven insights to enhance student learning outcomes. Collaboration between edtech startups and educational institutions can facilitate comprehensive teacher training programmes.

Startups in the education sector often face challenges related to scalability and sustainability. Developing and maintaining robust technological infrastructure, providing ongoing updates and support, and sustaining financial viability are key considerations. Collaborating with investors, education-focused organisations, and government bodies can provide the necessary resources and support to scale operations, expand reach, and ensure long-term sustainability.

Edtech startups have to collaborate with educators, institutions, and other stakeholders to co-create innovative educational solutions. By working closely with teachers and educational experts, edtech companies can gain valuable insights, align their offerings with pedagogical principles, and develop solutions that meet the evolving needs of learners. Collaborative partnerships enable the development of more effective and relevant edtech tools, ensuring their applicability in real-world educational settings.

Startups in education and skill development need to integrate their innovative solutions into traditional education systems. Time tested Indian knowledge

system should find its place while envisioning startups in education and skill development.

Collaborative efforts are needed to bridge the gap between edtech startups and educational institutions, fostering partnerships, providing training, and creating supportive environments for successful integration.

Conclusion

Startups in education and skill development have the potential to accelerate India's economic and social transformation by building a lifelong learner, future-ready workforce aligned with emerging technologies and industry demands. Digital learning platforms, skilling edtech and AI-driven personalised learning systems will bridge the skill gap, enhance employability, and improve productivity across sectors. Start-up ecosystem need to be promoted in

big way to realise its full potential and unleash the potential of Indian's youth dividend. It is essential to address regulatory hurdles, foster deeper collaboration between academia and industry, and ensure equitable access to funding and infrastructure. By integrating education, entrepreneurship, and employment, India can unlock its entrepreneurial potential and move closer to becoming a developed nation by 2047.

Apart from this, Educational startups have the opportunity to make a global impact by reaching students in remote areas, underserved communities, and developing countries. With the power of online platforms, mobile apps and accessible technology Educational and Skill development startups can transcend geographical boundaries to provide quality education and bridge the education gap and empower learners worldwide. □

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Empowering Farmers through Agri Startups

India's agricultural sector is witnessing a paradigm shift as agri-startups leverage innovation, technology, and entrepreneurial energy to address critical challenges in farming and rural livelihoods. Supported by proactive government policies, targeted development programmes, and a robust network of incubators and accelerators, these startups are scaling solutions that enhance productivity, reduce post-harvest losses, and strengthen market linkages. Together, they are driving inclusive growth and shaping a resilient and sustainable future of Indian agriculture.

Dr. Achiransu Acharyya
Prof. Souvik Ghosh

Agri-startups have emerged as a transformative force within India's evolving entrepreneurial landscape, blending innovation with the country's enduring agricultural foundations.

Startups—whether structured as companies, partnerships, or temporary organisations—play a pivotal role in introducing novel, scalable business models that evolve into economically sustainable enterprises. Globally, innovation remains the cornerstone of startup success, and India has rapidly emerged as one of the world's top five startup hubs. Through flagship initiatives

such as Startup India, the government aims to integrate India's domestic entrepreneurial ecosystem with global networks, resulting in remarkable achievements and positioning the country as the world's third-largest unicorn hub.

The Indian agricultural sector remains the primary source of livelihood for 42.3% of the country's population, contributing around 18% to the GDP. The agriculture sector has registered an average annual growth rate of 4.18% over the last five years (Ministry of Finance Economic Survey, 2023-24). Over the past decade, a transformative shift has emerged with the

The author is a Senior Faculty of Economics and Deputy Director (Honorary) of Agro-Economic Research Centre, Visva-Bharati, Santiniketan, West Bengal. Email: achiransu@visva-bharati.ac.in

The author is Head, Department of Agricultural Extension, and Director (Honorary) of Agro-Economic Research Centre, Visva-Bharati, Santiniketan, West Bengal. Email: souvik.ghosh@visva-bharati.ac.in

Table 1: Investment into agri-startups in India

Year	Total Investment (USD Million)
2018	66.3
2019	112.6
2020	142.0
2021	250.2
2022	178.4
2023	199.8
2024*	~215.0 (Estimated)

Source: Invest India (2024)

Agriculture Sector Profile. Invest India

rise of agri-startups and innovation-driven enterprises that apply modern technologies and business models to address critical bottlenecks across the agricultural value chain. Data-driven agri-tech startups are significant in countries like India, where they address issues such as supply chain inefficiencies, input price volatility, and labour shortages. These startups leverage technologies to ensure food security, enhance productivity, and build resilience in various agro-ecological zones and farming systems.

Growth of Agricultural Startups in India

India has experienced a remarkable surge in its startup ecosystem in recent years, emerging as the third fastest-growing hub for budding entrepreneurs globally, following the USA and China. According to the Economist Intelligence Unit (EIU) report of April 2023, India ranks tenth in the Business Environment Ranking (BER) among 82 countries for the period 2023–2024. Moreover, in the World Bank's Ease of Doing Business Index 2020, India secured the 63rd position among 190 countries (Press Information Bureau, 2024). To realise the vision of *Aatmanirbhar Bharat* and achieve a \$5 trillion Indian economy by 2024–2025, startups are identified as major drivers of development. They have the potential to generate impactful solutions through innovation, thereby serving as vehicles for socio-economic development and transformation.

The Startup India initiative, launched in 2016, has witnessed remarkable success, with the recognition of 131,211 startups by the Department for Promotion of Industry and Internal Trade (DPIIT) in May 2024, resulting in the creation of employment for 0.89 million individuals. India is also home to 107 unicorns. The Indian startup ecosystem experienced a 7.5% increase

in the number of venture capital deals, resulting in a \$27.5 billion rise in investment.

The agriculture sector of India witnessed a robust growth phase between 2018 and 2021, with investment surging nearly four-fold from USD 66.3 million to USD 250.2 million. This remarkable increase reflects a discernible shift in investor confidence, driven by extensive digital transformation, supportive government initiatives such as Start-up India and the Agri Infrastructure Fund, as well as the emergence of scalable agri-tech business models. Investor confidence is evident through consistent participation from firms like Omnivore across multiple years, signalling sustained interest and faith in the Indian agri-tech landscape. Other repeat investors, including Ankur Capital, Sequoia, and Accel, further underscore the deepening sectoral involvement.

The past decade has seen a significant increase in the number of agri-startups, driven by rising demand for technology-driven solutions in agriculture, government support schemes, and increasing investor interest. According to Start-Up India (2024), more than 3,000 agri-startups have been registered, with a growth rate of approximately 25% per annum since 2016 (Table 2). These startups operate across various areas, including precision agriculture, post-harvest management, input delivery, digital platforms, supply chain management, traceability solutions, and agri-fintech, reflecting increasing technological penetration in rural India.

Table 2. Growth of agri-startups in India

Year	Number of Registered Agri-Startups	Year over Year Growth (%)
2016	180	-
2018	540	40.0
2020	1,250	58.3
2022	2,300	38.4
2024	3,200	28.3

Source: Startups India Portal, Ministry of Agriculture Reports (2024)

Proactive Government Policies & Supportive Agri-Startup Ecosystems

India has progressively built a vibrant and innovation-driven startup landscape, propelled by a series of proactive government policies aimed at transforming the country from a population of job seekers to a nation of job creators.

The **Make in India** initiative was launched in 2014 to promote India as a global hub for manufacturing and design. By prioritising investments, skill development, intellectual property protection, and modern infrastructure, it has laid the foundation for technology-led innovations, including those in agri-tech manufacturing. Complementing this effort, the **Startup India** initiative, introduced in 2016 through a comprehensive 19-point action plan, has significantly expanded the startup ecosystem.

Further strengthening the pipeline of innovation, the **Atal Innovation Mission (AIM)** has played a catalytic role in nurturing startups and addressing national challenges through incubators, tinkering labs, and entrepreneurial support systems. Likewise, programmes such as the NewGen Innovation and Entrepreneurship Development Centre (NewGen IEDC), supported by the Department of Science & Technology, enable academic institutions to nurture young innovators by funding early-stage projects.

A major shift in the agricultural startup domain occurred with the launch of the Innovation and Agri-Entrepreneurship Development Programme under RKVY-RAFTAAR (Rastriya Krishi Vikas Yojana-Remunerative Approaches for Agriculture and Allied Sectors Rejuvenation) in the 2018–19 fiscal year. This initiative focuses specifically on fostering agri-entrepreneurship by providing incubation support and financial grants to promising startups. With a network of Knowledge Partners and 24 R-ABIs, the programme has supported over 1,100 agri-startups and trained more than 3,500 entrepreneurs. It has played a critical role in translating innovative ideas—from smart irrigation systems to precision farming tools—into viable businesses that contribute to farmers' income and rural employment generation.

Parallel to policy interventions, the agri-startup ecosystem has flourished due to the emergence of incubators, accelerators, and innovation platforms dedicated to agriculture. Institutions such as MANAGE's Centre for Innovation and Agri-preneurship, a-IDEA at NAARM, and the ICRISAT Agribusiness and Innovation Platform offer end-to-end support for entrepreneurs—from ideation and prototype development to commercialization. These platforms bridge gaps in knowledge, technology, and finance, helping startups reduce gestation periods and achieve

scalability. Accelerators such as AGRI UDAAN, CIEE of IIM Ahmedabad, and CIE-IIIT Hyderabad, as well as the MANAGE accelerator, have further expanded opportunities by offering mentorship, market linkages, and investment readiness support. Today, India hosts over 100 agriculture-focused incubators, supported by DST, ICAR, Startup India, and RKVY-RAFTAAR, collectively nurturing hundreds of early-stage ventures in the agri-food domain.

The government has also encouraged innovation through national-level platforms such as the Agri India Hackathon, which brings together startups, scientists, and industry leaders to co-create solutions leveraging AI, IoT, and advanced mechanisation. With agri-tech solutions ranging from digital market platforms and weather forecasting tools to solar-powered cold storage, vertical farming, and biogas systems, startups are increasingly able to address structural constraints in Indian agriculture.

Functional Domains of Agricultural Start-ups in India

The agricultural domain, encompassing crops, livestock, and fisheries, has experienced the emergence of numerous startups commonly referred to as "agri-startups." These ventures are further classified based on their specific focus areas, including agri-tech, fisheries, dairy farming, animal husbandry, food processing, organic agriculture, and others. Similarly, they are categorized according to their developmental stages: Ideation, Validation, Early Traction, and Scaling (NAAS, 2022).

Agri-startups have disrupted traditional supply chains, empowered smallholders, reduced post-harvest losses, and improved market linkages through digital platforms and value-added services. The key areas of impact include: (i) Precision Agriculture which involves the use of IoT, drones, and satellite imaging. Examples include Fasal, CropIn, etc. (ii) Supply Chain and Logistics which optimises farm-to-fork delivery. Examples include DeHaat, Ninjacart, etc. (iii) Input Retailing and Advisory that includes App-based Agri-inputs, crop advisory. Examples include Agro Wave and Agri Bazaar, and (iv) Fintech and Insurance provide access to credit, and weather-based insurance. Examples include Samunnati and Gram Cover, among others. Table 3 shows the Functional categories and impact areas of agri-startups in India.

Table 3. Functional categories and impact areas of agri-startups

Category	Examples	Key Impact
Precision Farming	Fasal, CropIn	Increased yield, water use efficiency
Supply Chain	DeHaat, Ninjacart	Reduced wastage, better price realization
Digital Marketplaces	AgriBazaar, BigHaat	Transparent pricing, direct farmer-buyer link
Agri-Fintech	Samunnati, Jai Kisan	Credit access, transaction digitization

Source: FICCI Report on Agri-Tech in India (2023);
NABARD Agri Startup Report (2024)

The dominance of supply chain and marketplace startups suggests that market inefficiencies and post-harvest losses remain the primary challenges in agriculture sector. Precision agriculture, though still emerging, shows promise in regions like Punjab and Telangana, where drone-based spraying and sensor-based irrigation are being adopted. However, its higher investment requirements limit adoption among marginal farmers, reinforcing the need for custom hiring centres and subsidies. Agri-fintech is an emerging segment that addresses financial inclusion, a persistent bottleneck in rural India. Startups like *Samunnati* provide collateral-free loans using AI-based risk profiling, which can significantly reduce dependence on informal credit.

Regional variation of Agricultural startups in India

Agri-startups in India exhibit significant regional variation, with a concentration in Western and Southern states, such as Maharashtra, Karnataka, and Gujarat. Since 2018, the DPIIT of MoC&I, has been conducting the States’ Start-up Ranking Exercise. Karnataka and Maharashtra collectively contribute nearly 50% of all agri-tech startups established in the past five years (NAAS, 2022). Noteworthy is Gujarat’s status as the “best-performing state” in the Indian startup ecosystem, despite holding only a 7% share in agri-tech startups (DIPP, MoC, 2018). According to the ranking of states on support to startup ecosystems, Gujarat and Karnataka emerged as the best performers (MoC&I, 2022). In contrast, the Northern and Eastern regions generally lag in terms of startup quality and integration into global

value chains. The focus areas of these startups are often tied to the specific agricultural infrastructure and challenges of their respective regions. Table 4 illustrates the geographical spread of agri-startups across Indian states, with a focus on their engagements and dominant operational domains.

Table 4: State-wise distribution of agri-startups in India

State/UT	Registered Agri-Startups	Key Focus Areas
Maharashtra	265	Logistics, Fintech, Cold Chain
Karnataka	212	Precision Ag, Export Facilitation
Telangana	189	Farm-to-Fork, Blockchain, Traceability
Andhra Pradesh	177	Input Platforms, Export Aggregation
Uttar Pradesh	156	Credit, Advisory Services
Tamil Nadu	151	Agro-processing, Fintech
Gujarat	138	IoT, Certification
Rajasthan	121	Agri-Education, Soil Mapping
Madhya Pradesh	117	Crop Monitoring, Logistics
Others (Combined)	458	Extension, Insurance, Climate Services

Source: Startup India (2024) Start-up India Portal-Agri-Startups Database. Department for Promotion of Industry and Internal Trade

Conclusion

Agri-startups in India are steadily reshaping the agricultural landscape by fostering innovation, improving rural livelihoods, and contributing meaningfully to national and global sustainability goals. Their growing focus on environmentally responsible practices—alongside rising global demand for climate-resilient food systems—positions India’s agri-startups to play a decisive role in the future of agriculture. With sustained policy support, targeted investment, and continuous capacity-building, these ventures hold the potential to accelerate inclusive growth and enhance the resilience of India’s farming communities. As the sector evolves, agri-startups will remain key drivers in steering Indian agriculture toward a more sustainable, productive, and future-ready trajectory. □



Social Startups : Catalyst of Change

India's social startups, exemplified by Barefoot College's empowerment of 10 million lives through solar engineers and rural professionals, blend purpose with enterprise for sustainable change. Ventures like OurGuest Travels boost rural tourism in Northeast India, while initiatives in health-tech, agri-innovation, and inclusive skilling address poverty and exclusion. Backed by Startup India, Atal Innovation Mission, and digital infrastructure, they drive *Viksit Bharat* by enhancing women-led livelihoods and global-scale impact.

Jyoti S. Verma

In the sandy village of Tilonia, Rajasthan, stands one of India's most powerful demonstrations of what a mission-led, enterprise-driven social startup can achieve when purpose meets sustainability. Barefoot College, founded in 1972, began with a radical yet simple belief that the poorest communities already possess the resilience and

capability to transform their own lives, and that what they often lack are platforms, skills and opportunities to participate in economic systems. Over five decades, this belief has evolved into a global development model that has trained thousands of Barefoot Solar Engineers, Barefoot Teachers, Barefoot Doctors, Barefoot Dentists and rural professionals across water, environment, livelihoods, communication and health. Today, with

The author is a freelance journalist. Email: jyotisverma2912@gmail.com

over 10 million lives improved, 5,000 last-mile villages presence and a reach across 96 countries, Barefoot College shows the world that enduring social impact is strongest when communities are empowered through sustainable enterprise and ownership.

The movement pioneered by visionaries such as Bunker Roy has expanded dramatically over the past decade, finding new expression in a new generation of social startups. One such example emerges from Gangtok, Sikkim. OurGuest Travels (www.ourguest.in), conferred the D2C (Direct-to-Consumer) Award at Startup Mahakumbh in April 2025, is the first Online Travel Aggregator from Northeast India. It offers a curated collection of homestays, farm stays, resorts and guided experiences across Sikkim, North Bengal, Assam, Meghalaya, Arunachal Pradesh and Jammu & Kashmir. With over 600 homestays, more than 50 trained local guides, and over 6,000 travellers served, the platform demonstrates how tourism-led startups can strengthen rural livelihoods, preserve local culture and promote responsible eco-tourism while remaining commercially viable.

A New Force in Nation-Building

Social startups such as these have carved out a distinctive identity within India's vibrant startup

landscape, contributing to the country's position as the world's third-largest startup ecosystem. These ventures combine the rigour of business with a deep commitment to solving pressing societal challenges including poverty, education, healthcare, climate resilience, clean energy, skilling, accessibility and gender inclusion. Led by founders who recognise opportunity in addressing systemic problems, social startups redefine success by measuring outcomes not only in revenue, but also in tangible, measurable social impact.

Today, social startups operate across a wide range of sectors, from ed-tech platforms serving underserved students and health-tech innovations reaching last-mile populations, to financial inclusion models, sustainable agriculture solutions, disability-focused technologies, rural livelihood enterprises, climate-tech innovations and circular economy ventures. Many have demonstrated scale and resilience, proving that profit and purpose are not opposing forces but complementary drivers of growth. Social impact accelerators have supported enterprises like *Haqdarshak*, which helps citizens access welfare entitlements and has served over 7.6 million families and reached more than 1,12,000 businesses; Frontier Markets, which empowers rural women entrepreneurs through last-mile supply chains, has recorded a Gross Merchandise Value of INR 12

billion; and Trestle Labs, whose assistive technologies for the visually impaired are now used by over 600 institutions, including leading IITs, IIMs, and state and central universities. Across India, thousands of similar ventures are addressing challenges once considered complex, risky and unviable to solve through market-based approaches.

Equally significant is the changing profile of the social entrepreneur. Founders now emerge not only from elite institutions such as the IITs and IIMs, but also from the very communities they seek to serve. Women from rural districts, young innovators from tribal belts, persons with disabilities designing accessibility solutions, and transgender entrepreneurs creating inclusive livelihood models are increasingly shaping India's social startup ecosystem.



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To strengthen India's innovation & entrepreneurship ecosystem in 3 ways:

- **Increasing Input** (ushering innovators & entrepreneurs)
- **Improving throughput** (helping more startups succeed)
- **Improving output** (producing better jobs, products, & services)



The Rise of Inclusive Startup Ecosystem

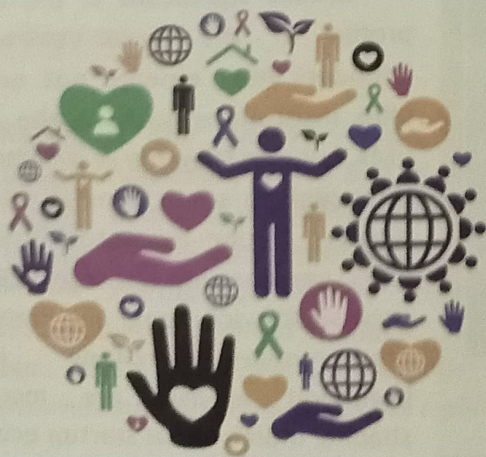
At the heart of this transformation is the Startup India initiative, launched in 2016, and established a national framework for startup recognition, tax benefits and incubation support. As of 2025, India has 1.9 lakh DPIIT-recognised startups, collectively generating more than 17 lakh jobs and producing 118 unicorns. Within this ecosystem, a growing proportion of startups operate with a social mission, particularly in sectors such as healthcare, agriculture, skilling, climate action, education and livelihoods.

Access to finance has been strengthened through multiple government-backed instruments tailored for early-stage, high-impact ventures. These include the

Parallely, digital inclusion has emerged as a powerful catalyst for scale. Through initiatives such as Digital India, India Stack, Unified Payment Interface (UPI) and JAM trinity reforms, millions have been connected to payments, welfare delivery and essential services. This digital backbone has created fertile ground for social startups to expand rapidly, particularly in underserved geographies.

Building Viksit Bharat Through Social Startups

Women-led entrepreneurship stands out as a defining force. As women emerge as micro-entrepreneurs, solar engineers, e-commerce sellers, agri-innovators, financial agents, digital facilitators and community health workers, they not only strengthen household incomes but also address deeper challenges such as migration, intergenerational poverty and educational access. Evidence shows that women reinvest up to 90 per cent of their income into their families, compared to 30-40 per cent by men, resulting in improved nutrition, education and health outcomes. Reflecting this shift, the Female Labour Force Participation Rate has risen from 23.3 per cent in 2019-20 to 41.7 per cent in 2023-24, driven largely



by rural women. As of January 2025, over 40 per cent of UDYAM-registered MSMEs are women-owned, supported by startups such as Frontier Markets, Mann Deshi, Barefoot College and Rang De.

Innovation-led empowerment has also transformed opportunities for the differently-abled community. Enterprises such as Trestle Labs, BleeTech, Thinkerbell Labs and ventures like Atypical Advantage focused on employability for all demonstrate how assistive technologies and inclusive skilling can create dignified, independent livelihoods. These efforts align closely with national initiatives including the Accessible India campaign, the Rights of Persons with Disabilities Act, 2016, and Skill India's inclusive skilling programmes.

For transgender entrepreneurs, who have long excluded from mainstream education and employment, social startups have opened new pathways in skilling, beauty and wellness, digital literacy, sustainable crafts, community kitchens, financial inclusion and small enterprises. Supported by schemes such as SMILE and the National Transgender Welfare Board, these ventures combine social transformation with sustainable business models, echoing the Barefoot College philosophy of building competence, confidence and self-reliance from within communities.

From India to the World

In a country defined by diversity, entrepreneurship itself has become more diverse. Increased access to technology, skills, finance and digital knowledge has emboldened individuals to launch ventures across sectors. Healthcare startups deploy telemedicine, AI-based diagnostics, and mobile health units to bridge access gaps. Agricultural startups enable small farmers through precision farming, climate-smart practices and market linkages. Fintech ventures are expanding credit access for unbanked populations using digital identity and alternative data, while ed-tech platforms deliver vernacular, curriculum-aligned learning tools to government school students. Sustainability startups convert waste into value, develop biodegradable alternatives and build decentralised renewable energy systems.

The connective thread across these sectors is a shared entrepreneurial mindset where scale, sustainability and social benefit reinforce rather than contradict one another. Increasingly, Indian social startups are designing solutions with global relevance,

creating models that can be replicated across developing economies worldwide.

India is also witnessing the rise of impact investors, CSR partnerships, philanthropic venture funds and blended finance models. The Social Stock Exchange, launched by SEBI, provides a transparent platform for social enterprises and non-profits to raise capital, signalling India's commitment to building a new financial architecture for high-impact innovation.

Keep Pushing to the Next Level

The emergence of social startups has delivered far more than business-led empowerment. It has reshaped how development itself is understood. Traditional models based solely on charity, relief and welfare proved insufficient to address deeply interconnected socio-economic challenges. In contrast, enterprise-driven models rooted in scale, sustainability and market discipline have demonstrated greater resilience and long-term impact. The participation of private enterprise and market forces has brought capital, accountability and innovation into spaces once dominated by aid.

With ideas from change-makers, policy support from government and capital from markets, entrepreneurship has become a powerful engine of social transformation. The results are already visible: village-level solar grids operated by women engineers, health devices designed by young innovators for ageing populations, climate solutions tailored for drought-prone regions and skilling programmes that enable transgender persons and differently-abled youth to build dignified careers. And this momentum is only a beginning.

Yet, social startups must also navigate a defining challenge—time. Solving complex social problems requires patience, persistence and a willingness to engage with layered, interconnected realities. Quick fixes and stop-gap solutions rarely suffice. Continuous learning, collaboration and adaptation are essential. Inclusive growth demands participation from all stakeholders: communities, entrepreneurs, corporates, government, academia and investors. Social entrepreneurship advances the idea that development cannot endure unless people are active contributors, not passive beneficiaries. When communities pay for and participate in services, they become equal stakeholders, ensuring solutions remain participatory, iterative and sustainable. □



Startups Promoting Entrepreneurship in Rural India

Innovation and entrepreneurship have been the backbone of the rural economy. The startup culture has developed new business models in the rural parts of the country. This journey of technology- and information-driven entrepreneurship extends beyond agricultural startups. While ensuring the availability of many daily-use goods and services, these startups are entering new information- and technology-based sectors.

Arvind Kumar Mishra

Entrepreneurship is a vital economic and social activity. Even the ancient Rigveda states: "Work is accomplished through effort, not mere wishes" (*Udyamen hi siddhyanti karyani na manorathah*). From ancient and medieval times to the modern era, entrepreneurship forms the foundation of the Indian economy. Rural India is no laggard in entrepreneurial innovations. Entrepreneurship-based ventures, services, and products simplify people's lives and serve as powerful means of livelihood. Inspired by entrepreneurship, innovations play a key role in job creation in both urban and rural areas. Supportive policy initiatives by the central and state governments are

fostering an ecosystem that strengthens employment generation, supply-demand chains, self-employment, and the vision of *Aatmanirbhar Bharat*.

Startup Village Entrepreneurship Programme

A key component of the *Deen Dayal Antyodaya Yojana*-National Rural Livelihoods Mission (DAY-NRLM), launched by the Ministry of Rural Development, is the Startup Village Entrepreneurship Programme (SVEP) aims to assist rural entrepreneurs in establishing inclusive local systems for production, distribution, and exchange. Under this programme, 3,02,825 enterprises have created approximately 6,26,848 jobs opportunities.

The Ministry of Agriculture and Farmers Welfare provides financial and technical support to agricultural startups. Since 2018-19, the “Innovation and Agripreneurship Development” programme under the *Rashtriya Krishi Vikas Yojana* (RKVY) has been implemented. 5 Knowledge Partners (KPs) and 24 RKVY Agribusiness Incubators (R-ABIs) have been appointed till date for training, incubation, and programme implementation. Under the programme, agri-entrepreneurs and startups receive up to ₹5 lakh at the idea/pre-seed stage and up to ₹25 lakh at the seed stage to market their products, services, business platforms, and scale operations. Self-Help Groups (SHGs) and their family members also receive support to establish small non-farm enterprises under SVEP.

NIDHI-PRAYAS Programme

The Department of Science and Technology (DST)’s NIDHI-PRAYAS programme plays a crucial role in strengthening the startup ecosystem and promoting entrepreneurship in rural India. It supports early-stage innovators, including those developing agri-tech solutions for rural districts, at the national level. The programme converts innovative ideas into working prototypes, promotes rural technology adoption, and facilitates commercialization through a network of PRAYAS centres in technology business incubators across rural, semi-urban, and urban India. Key features include prototype development funding, incubation infrastructure, and business plan support for youth aspiring to launch startups. Startups are trained and incubated by appointed Knowledge Partners (KPs) and RKVY Agribusiness Incubators (R-ABIs). Supported agricultural startups contribute to economic growth by directly or indirectly creating jobs.



Institutional Training at the District Level

Training and courses play a pivotal role in fostering entrepreneurship through startups. Under Rural Self-Employment Training Institutes (RSETIs), entrepreneurial light has illuminated the lives of rural youth from one to another village. Today, rural youth are becoming successful entrepreneurs through RSETI’s various courses. One RSETI has been established in every district of the country. Each RSETI conducts 30-40 skill development programmes annually, lasting from one week to six weeks. These cover agriculture and allied activities such as dairy farming, poultry, beekeeping, horticulture, sericulture, mushroom cultivation, floriculture, and fisheries.

Production-oriented programmes include dress designing, rexine products, *agarbatti* making, football manufacturing, bags, bakery products, leaf-based cups, and recycled paper initiatives for men and women. Additionally, youth are trained in repairing two-wheelers, radios/TVs, motor rewinding, electrical transformers, irrigation pump-sets, tractors and power tillers, mobile phones, beauty courses, photography and videography, screen printing, household electrical repairs, and computer hardware/DTP—blending traditional and modern skills. At least 70% of trainees must be from rural BPL categories. Certificates issued by RSETIs are recognized by all banks for loan purposes, enabling trained rural youth to access credit from any scheduled bank.

The agriculture sector in India offers boundless entrepreneurial opportunities. The Government of India has launched the NABARD’s Agri-SURE initiative to promote growth in agri-startups and enterprises for:

- Creating an investment-friendly environment for startups in agriculture and allied activities.
- Increasing and sustaining sector-specific capital commitments to enable equity support for agri and agri-tech startups serving farmers, FPOs/FPCs, and primary cooperatives.
- Encouraging entrepreneurs to adopt modern technologies in agriculture and agri-tech.

State Policy Initiatives Building the Entrepreneurship Ecosystem

States like Gujarat and Karnataka exemplify technology-driven best practices in creating new employment opportunities in rural areas through startups. In Gujarat, agritech startups use IT and

emerging technologies to boost productivity, optimize resource use, and improve farmers' decision-making statewide. Under the Industrial Policy-2020, the state government provides financial aid via the Startup Innovation Assistance Scheme. The Student Startup and Innovation Policy (SSIP) 2.0 offers creation grants to promote innovation at educational levels.

Karnataka has launched its own initiative in startups. Its AVGC-XR Policy opens new doors for youth in animation, visual effects, gaming, and extended reality. First introduced in 2012 Karnataka is the only state to launch a five-year AVGC-XR Policy for the third consecutive term.

Easy and affordable internet access has laid the foundation for India's creative economy. Millions of youth now provide content creation and digital services. The creator economy energizes efforts to build a \$5 trillion economy. The rise of short-video platforms in non-metro areas has added new dimensions to content consumption. Local enterprises and multinational companies alike recognize the creator economy's power. FMCG, automobile, and service sectors leverage local platforms. Renowned stage OTT platforms are offspring of India's startup innovation ecosystem, blending technology with heritage to transform entertainment potentials into opportunities. This OTT platform offers web series, films, and original content in dialects like *Haryanvi*, *Rajasthani*, and *Bhojpuri*.

The Madhya Pradesh government has implemented the Startup India Policy-2022 to inspire rural youth toward startups and innovation. In Chhindwara district's Rajakoh village, four women launched a startup making cookies and biscuits from *mahua* flowers which is now in demand nationwide. Inspired, many other village women have joined them. Prime Minister praised this innovation in *Mann Ki Baat*. Uttar Pradesh's Startup Policy 2020 (first amendment 2022) targets at least one incubator per district, totaling 100. It provides capital grants of ₹1-1.25 crore to incubators in Purvanchal/Bundelkhand for technology infrastructure.

Lifestyle changes and climate crises have heightened health awareness, boosting demand for organic products. In Rajasthan's Sri Ganganagar, Naturaland Organic startup directly links with 10,000 farmers. Among i-Start registered startups, over 2,600 are led by women and 288 by young students. Student registrations on i-Start exceed 1,16,000. Atal Innovation Studios and Accelerators

are being established to create opportunities in new technologies.

Entrepreneurship Creating Jobs in Tribal Areas

Best practices in rural entrepreneurship via startups are being written in tribal-dominant states like Chhattisgarh. In Dhamtari district, farmers are inspired toward medicinal farming entrepreneurship, especially women, for agri-based ventures. NRLM has motivated 300 SHG (Bihan) members to cultivate medicinal crops on 130 acres in areas like Kurud, Kuhkuha, Gudguda, and Magarlod. Crops like bach, khas, patchouli, sindoor, brahmi, and lemongrass are successfully grown. ~4,000 medicinal plants have been planted along the Mahanadi riverbanks, promising significant income growth. This medicinal crop-based model exemplifies livelihood enhancement. The Medicinal Plants Board provides eligible farmers with grants, training, and seed links.

Startups Promoting Eco-Tourism

Tourism and services offer new opportunities for rural entrepreneurship-based startups. In Chhattisgarh's Bastar, homestay services like Dhurwa Dera are gaining popularity, attracting domestic and international tourists. Notably, Dudhmaras in Chhattisgarh is among 60 global sites selected for the UN Tourism Village Upgradation Programme. Bastar Food startup processes forest produce into products like mahua laddus, mahua tea, and tamarind pickle, creating local jobs.

Social Entrepreneurship through Entrepreneurship

The UN Development Programme (UNDP) advances entrepreneurship in rural India via startups. In partnership with Atal Innovation Mission since 2019, it launched *Digi-Swasthya* in Bihar, linking telemedicine (phone/video consultations) to communities. Now active in six states, it has delivered over 80,000 tele-consultations. Gurugram's Dump-in-Bin startup promotes entrepreneurship via plastic waste management, converting it into cement-free, eco-friendly building materials. It has recycled over 700 tons of plastic and established a pilot facility.

Conclusion

Success stories of entrepreneurship in India go beyond metros. Youth in small towns and villages are accelerating the economy through startups and innovation. Notably, rural initiatives generate employment and livelihoods while addressing challenges like cleanliness, plastic waste, and climate crises—fostering social enterprises. □



Emerging Startups in Sanitation Sector

In recent years, India has witnessed noteworthy transformation in the field of sanitation. Initiatives such as the *Swachh Bharat Mission*, AMRUT, the Smart Cities programme, along with rising public awareness, have turned sanitation from merely a government responsibility into a sector filled with potential for innovation and entrepreneurship. Today, several young entrepreneurs across the country are experimenting with new ideas in waste management, recycling, water conservation, wastewater treatment, and the development of eco-friendly products. These startups are not only linking sanitation with technological solutions but also bringing communities, municipal bodies, and the private sector together on a common platform.

Many sanitation startups have challenged traditional waste-management structures and promoted the idea of treating waste as a resource. For example, ReCircle collects plastic, metal, and dry waste from cities and towns and delivers it to recycling units, thereby

helping reduce plastic pollution and strengthening the circular economy. Similarly, Saahas Zero Waste assists large residential societies, offices, and industries in segregating waste and safely using recyclable materials.

Hasiru Dala Innovations has introduced a unique model by connecting sanitation with social justice. This startup not only trains waste-picker communities but also provides them with formal employment, better safety, healthcare benefits, and dignified recognition. As a result, waste management has become more organised, and a long-neglected community has gained opportunities for self-reliance. Likewise, Waste Ventures India has successfully experimented with converting organic waste into compost and biogas, which is proving useful for energy security and sanitation in both urban and rural regions.

Digital technology has also begun to play a major role in the sanitation sector. Several startups are using mobile apps, GPS, and data analytics to make waste collection more transparent and efficient. Technology developed by Banyan Nation purifies recycled plastic,



collection, and payment facilities in urban areas, greatly improving the quality of sanitation services.

The influence of these startups is not limited to cities alone. In rural areas, innovations such as bio-toilets, composting from cattle waste and agricultural residue, rainwater harvesting, and plastic-free village campaigns have linked sanitation with livelihood generation and environmental conservation. Several startups are working closely with local panchayats, NGOs, and women's self-help groups, creating rural sanitation models that are more sustainable and community-driven.

Sanitation startups have demonstrated that waste is not merely a problem—but an opportunity. Their innovations have encouraged fresh thinking, technology adoption, employment creation, and environmentally-friendly growth. In the future, with support from government policies, private investment, CSR partnerships, and citizen participation, these startups can play a crucial role in building zero-waste cities, advancing the circular economy, and strengthening green entrepreneurship. □

making it suitable for industrial use—helping reduce environmental pressure and enabling industries to adopt sustainable alternatives. App-based services now provide convenient waste pick-up, door-to-door

NATIONAL COMMISSION FOR WOMEN (Government of India) New Delhi

Draft Vacancy Notice – Foreign Service Terms Basis

The National Commission for Women (NCW), New Delhi invites applications from eligible officers for appointment on Foreign Service Terms basis to the following levels/ positions:

- Level-12:** Deputy Secretary, Senior Principal Private Secretary;
- Level-11:** Under Secretary, Pay & Accounts Officer, Law Officer;
- Level-8:** Assistant Law Officer, Section Officer, Research Officer, Private Secretary, Assistant Public Relations Officer;
- Level-7:** Legal Assistant, Research Assistant, Assistant Section Officer;
- Level-6:** Junior Hindi Translator, Personal Assistant

Complete details of eligibility, tenure, and application procedure are available on the Commission's website: www.ncw.gov.in.

Under Secretary
Email: shalini.rastogi@gov.in

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India's Startup Revolution



India has firmly established itself as the third-largest startup ecosystem in the world, with over 1.57 lakh certificates issued by Department for Promotion of Industry and Internal Trade (DPIIT) for recognition of startups as of December 31, 2024. The nation's entrepreneurial landscape, fuelled by more than 100 unicorns, is redefining innovation and creating new opportunities across sectors. Major hubs like Bengaluru, Hyderabad, Mumbai, and Delhi-NCR have been at the forefront of this transformation, while smaller cities are increasingly contributing to the momentum with over 51% of the startups emerging from Tier II/ III cities. Through initiatives like Startup India, the government has played a pivotal role in nurturing this growth and empowering the next generation of entrepreneurs.

Key Schemes and Initiatives for Startups

Startup India

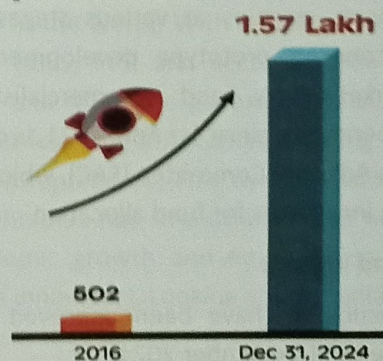
Launched on 16th January 2016, Startup India is a flagship initiative by the Government of India to foster innovation and create a thriving startup ecosystem. Its

goal is to drive economic growth and generate large-scale employment opportunities. By supporting startups in their growth journey, the initiative encourages innovation and design. Through various schemes, it aims to empower startups to scale and succeed.

Progress and Impact:

- **Startup Growth:** The number of DPIIT-recognised startups has risen from around 502 in 2016 to 1,57,706 as of December 31, 2024.

DPIIT-Recognised Startups Growth



1.57 Lakh
Startups Recognised
by DPIIT

17.28 Lakh
Employment Generated*

75,935 Lakh
Startups with at least
one woman director*



- **Job Creation:** Startups have created over 17.28 lakh direct jobs as of December 31, 2024, with the IT Services sector leading at 2.10 lakh jobs, followed by Healthcare & Lifesciences (1.51 lakh) and Professional & Commercial Services (96,474).
- **Women-Led Startups:** As of December 31, 2024, a total of 75,935 recognised startups include at least one-woman director (as per self-reported data of recognized startups), showcasing the rise of women entrepreneurs in India.
- **Ease-of-Doing Business & Tax Benefits:** Simplified compliance, self-certification, and tax exemptions for three years have streamlined operations for startups.

Startup India Seed Fund Scheme (SISFS)

Launched in 2021 with a corpus of ₹945 crore, the SISFS supports startups at various stages, including proof of concept, prototype development, product trials, market entry, and commercialisation. The scheme, operational since 1st April 2021, is overseen by the Experts Advisory Committee (EAC), which evaluates and selects incubators for fund allocation.

Progress and Impact:

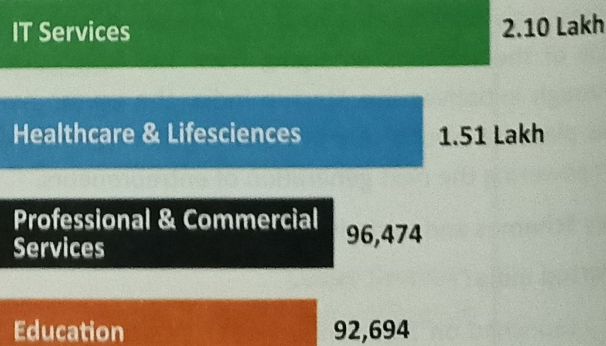
- 213 incubators have been approved under the scheme as of December 2024.

- A total of 2,622 startups have benefited from ₹467.75 crore in funding as of December 2024.

Fund of Funds for Startups (FFS) Scheme

Launched in June 2016 with a corpus of ₹10,000 crore, the Fund of Funds for Startups (FFS) aims to boost access to domestic capital for startups. Managed by SIDBI, it funds SEBI- registered Alternative Investment Funds (AIFs), which then invest in startups through equity and equity-linked instruments.

Industries Leading Job Creation in Startup



Progress and Impact:

- By 2024, ₹6,886 crores have been committed by DPIIT to SIDBI and ₹11,687 crore was committed by SIDBI to AIFs under the FFS scheme as of December 2024.
- This commitment catalyzed investments of ₹21,276 crore in 1,173 startups.

Credit Guarantee Scheme for Startups (CGSS)

The Credit Guarantee Scheme for Startups (CGSS) provides credit guarantees for loans to DPIIT-recognised startups from Scheduled Commercial Banks, NBFCs, and Venture Debt Funds. Implemented by the National Credit Guarantee Trustee Company Limited (NCGTC), it aims to offer credit guarantees up to a specified limit, easing access to funding for startups.

Progress and Impact:

- As of January 3, 2025, the scheme has guaranteed 260 loans worth ₹604.16 crore to 209 startups.
- Among these, ₹27.04 crore has been allocated to 17 women-led startups.

Other Notable Schemes

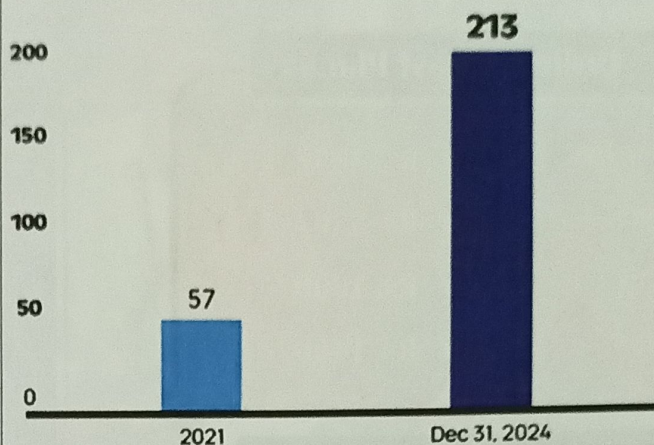
Atal Innovation Mission (AIM)

Launched in 2016 by NITI Aayog, the Atal Innovation Mission (AIM) aims to promote innovation and entrepreneurship across India. It includes initiatives like Atal Tinkering Labs at the school level to foster creativity, Atal Incubation Centres to build a robust startup ecosystem, and Atal Community Innovation Centres to serve unserved and underserved regions. The Atal New India Challenges focus on product and service innovations with national impact. All initiatives are monitored through real-time MIS systems, with third-party reviews for continuous improvement.

Progress and Impact:

- Till date, 10,000 Atal Tinkering Labs have been established in schools across India under AIM.
- As of December 18, 2024, a total of 3,556 startups have been incubated in 72 Atal Incubation Centres (AICs), creating 41,965 jobs.

Cumulative Growth of Incubators Under SISFS



MeitY Startup Hub (MSH)

India is home to one of the most vibrant startup ecosystems with close to 30,000+ tech startups, making it the 3rd largest startup ecosystem in the world. The MeitY Startup Hub (MSH) aims to foster a vibrant innovation and startup ecosystem by uniting technology innovation stakeholders and promoting economic growth through innovation and technological advancement. It serves as a central hub, ensuring synergies among incubation centres, Centres of Excellence on Emerging Technologies, and other platforms supported by the Ministry of Electronics and Information Technology. MSH facilitates the sharing of resources, best practices, and ideas across the entire innovation and startup ecosystem.

Progress and Impact:

- 5,310+ startups, 495+ incubators, and 328+ labs are part of the MeitY Startup Hub (MSH) scheme.

Conclusion

Over the last 10 years, India's startup ecosystem has experienced tremendous growth, becoming the third-largest in the world. With initiatives like Startup India, SISFS, CGSS, FFS, and sector-specific schemes such as AIM and MSH, the government has played a pivotal role in fostering innovation, creating jobs, and supporting entrepreneurs. This dynamic collaboration among stakeholders has strengthened the ecosystem, driving economic growth and empowering the next generation of innovators. Looking ahead, India's startup landscape is set to reach even greater milestones. □

Source: PIB



New Labour Laws 2025

Paradigm Shift in Employment Regulation

India's New Labour Codes 2025 mark a paradigm shift by consolidating 29 outdated laws into four modern codes: Wages, Industrial Relations, Social Security, and Occupational Safety, Health & Working Conditions. Addressing colonial-era fragmentation, they introduce minimum wages for all, social security for gig/platform workers, mandatory appointment letters, night shifts for women, and formal recognition of flexible employment. These reforms enhance worker rights, simplify compliance, and boost *Aatmanirbhar Bharat's* resilient workforce.

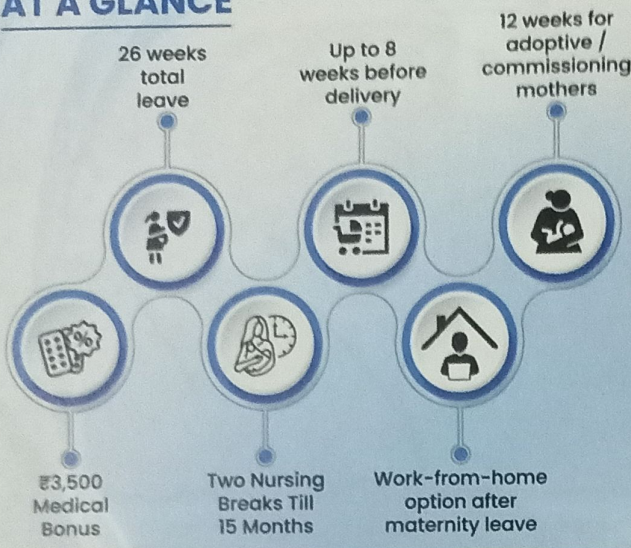
Manjula Wadhwa

India's labour landscape is witnessing one of the most significant transformations in decades. With a view to modernise and streamline the country's complex web of labour laws, the Government of India while merging 29 separate laws, has notified the following four major labour codes: The Code on Wages 2019, the Industrial Relations Code, 2020; the Code on Social Security, 2020 and the

Occupational Safety, Health and Working Conditions Code, 2020. New Labour Codes lay the foundation for a protected, future-ready workforce and resilient industries, boosting employment and driving labour reforms for *Aatmanirbhar Bharat*. They have been designed to align India's labour ecosystem with global standards, ensuring social justice for all workers. The implementation of the four Labour Codes will address the long-pending need to move beyond colonial-

The author is Deputy General Manager NABARD. Email: manjula.jaipur@gmail.com

MATERNITY BENEFITS AT A GLANCE



era structures and align with modern global trends. Together, these Codes empower both workers and enterprises, building a workforce that is protected, productive and aligned with the evolving world of work - paving the way for a more resilient, competitive and self-reliant nation. The New Labour Codes of 2025 represent a significant shift toward a more inclusive and employee-friendly labour environment in India. From enhanced social security to improved workplace rights, these changes are designed to benefit both the workforce and employers.

Why were New Labour Codes needed?

India's old labour laws (many from the British era and 1950s–80s) were fragmented across central and state laws, leading to: Overlapping compliances, Inconsistent rules across states, Heavy paperwork and inspector raj, Difficulty in adapting to gig economy and modern work models.

According to ILO, over 2.78 million workers die annually from occupational accidents and diseases, highlighting the relevance of Occupational Safety and Health provisions. The ILO's global wage report shows persistent gender gaps worldwide making India's gender-neutral wage provisions significant. In June 2025, ILO committed to binding global standards for platform work which reinforces India's progressive vision of including platform workers in the codes.

Now, let us cast a glance on the 12 game-changing reforms, envisioned through the new labour laws, every employee and employer should know:-

1. Minimum Wages for All Employees
2. Revised Definition of Wages
3. Social Security for Gig and Platform Workers
4. Faster Gratuity Eligibility for Fixed-Term Workers
5. Mandatory Appointment Letters for All Employees
6. Double Wages for Overtime
7. Reduced Leave Eligibility Period
8. Women Permitted to Work Night Shifts
9. Work from Home Made Official
10. Free Annual Health Check-Ups for Employees Over 40
11. Mandatory Timely Wage Payments
12. Compensation for Commuting Accidents

Thus, the biggest advantage of the new labour codes 2025, is formal recognition of gig, platform and fixed-term employment. Companies now have legal clarity on flexible and modern workforce models. National Floor Wage removes state-wise uncertainty in compensation planning. Single registration/licensing

For a clear understanding, it would be worthwhile to compare the condition of labourers before vs after new labour codes:-

Area	Before	After labour codes 2025
Employment proof	Appointment Letters not mandatory	Mandatory letters for all
Social Security	Gig and unorganised workers not covered	Universal social security
Minimum wage	Only for scheduled industries	National floor wage applies to all
Working hours	inconsistent	Uniform 48 hr week, flexible days
Women in force	Night shifts restricted	Allowed with safeguards
ESIC coverage	Limited to notified areas	Pan India, even single worker in hazardous job
Compliance	Multiple licenses and forms	Single license, single form

and the facilitator model drastically cut delays. These codes shift balance towards stronger worker rights and predictable environment for scalable growth.

From a business perspective, in the long run, simplified and digitized compliance will reduce administrative burden and litigation risk, improving investors' confidence. Formalisation of employment will enhance tax compliance and social security coverage. In Parallel, digital transformation initiatives of the Government such as EPFO 3.0 complement these reforms, promoting transparency and trust.

Let us assess the benefits of Labour Reforms across Key Sectors:

Fixed-Term Employees: They will receive all benefits equal to permanent workers, including leave, medical, and social security. Also, the Gratuity eligibility will be after just one year, instead of five. Equal wages as permanent staff, increasing income and protection, promoting direct hiring and reducing excessive contractualisation are expected to be the key benefits to fixed term employees.

Gig & Platform Workers: 'Gig work', 'Platform work', and 'Aggregators' have been defined for the first time. Aggregators must contribute 1-2% of the annual turnover, capped at 5% of the amount paid/payable to gig and platform workers. Aadhaar-linked Universal Account Number will make welfare benefits easy to access, fully portable, and available across states, regardless of migration.

Contract Workers: While increasing employability, the new code ensures, contract workers become eligible for benefits equal to permanent employees as well. The Principal employer will provide health benefits and social security benefits to contract workers also.

Women Workers: The new code will legally prohibit Gender discrimination and ensure Equal pay for equal work. Under the new labour laws, the women have been permitted to work night shifts and in all types of work (including underground mining and heavy machinery), subject to their consent and mandatory safety measures. Women's representation in grievance redressal committees has been made mandatory. Provision to add parents-in-law in family definition for women employees, expanding dependent coverage and ensuring inclusivity, has also been made.



GOVERNMENT OF INDIA
MINISTRY OF
LABOUR AND
EMPLOYMENT

INDIA'S LABOUR REFORMS

SIMPLIFICATION, SECURITY & SUSTAINABLE GROWTH



The Occupational Safety, Health & Working Conditions Code 2020

- ▶ Introduces **one license, one registration, one return framework** for establishments
- ▶ **Free annual health check-ups** for employees
- ▶ **Mandatory appointment letters** to all workers
- ▶ **Women** allowed to work in **night shifts** with consent

MSME Workers: All MSME workers have been covered under the Social Security Code, 2020, guaranteeing the minimum wage for all. Provision for standard working hours, double overtime wages, and paid leave has also been made.

Plantation workers: The workers have now been brought under the OSHWC Code (Occupational Safety, Health and Working Conditions Code) and the Social Security Code. Labour Codes apply to plantations with more than 10 workers or 5 or more hectares. Mandatory safety training on handling, storing and using chemicals, Protective equipment mandatory to prevent accidents and chemical exposure, has been covered. Their families to get full ESI medical facilities and also Education facilities for their children.

Mine Workers: The Social Security Code treats certain commuting accidents as employment-related, subject to conditions of time, and place of employment. The Government of India has notified standards to standardise workplace occupational safety and health conditions. Limit on working hours set to 8 to 12 hours per day, maximum 48 hours per week to ensure health and work-life balance.

Hazardous Industry Workers: The workers will receive free annual health check-ups. The Government of India will frame national standards for better safety of workers. Mandatory safety committee (Factories

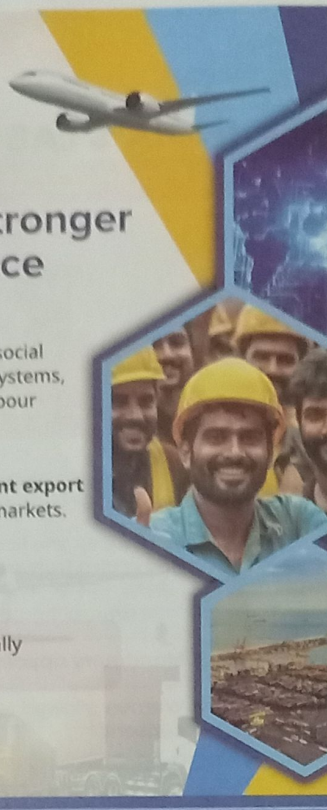
Modern Labour Governance = Stronger Global Confidence

From digitised records to portable social security and structured grievance systems, the Labour Codes elevate India's labour governance to global standards.

This strengthens India's image as a **responsible, ethical, and compliant export hub**, supporting expansion in key markets.

KEY BENEFIT

A more resilient and internationally competitive export ecosystem.



with more than 500 workers, Construction with more than 250 and Mines with more than 100) at each site for on-site safety monitoring and safe handling of hazardous chemicals will be ensured.

Textile Workers: All migrant workers (direct, contractor-based and self-migrated) to get Equal wages, welfare benefits and Public Distribution System portability benefits. Workers can raise claims for up to 3 years for settlement of pending dues, facilitating flexible and easy resolution. Also, a provision has been made for double wages for workers for overtime work.

Dock workers: Mandatory medical facilities, first aid, sanitary and washing areas etc., to ensure decent work conditions.

Media Employees: Journalists, OTT workers, digital creators, dubbing artists and crew members will now receive formal appointment letters detailing wages, working hours and entitlements.

There may, however, be a need to navigate some short-term challenges. A key one being aligning to the new and critical definition of wages, as the ambiguities surrounding its interpretation continue, especially with respect to variable/one time payments, stock benefits etc. Employers would also need an immediate catch up on cost provisioning/recalculation of benefits

such as gratuity, leave encashment etc. which, in the absence of any clarification otherwise, may have a retro-active effect. For example, gratuity is calculated based on the average of last drawn pay for every completed year. With the change in the definition of wages under the new codes, it could lead to an enhancement in the gratuity liability for employee's termination post commencement of the code. Also, gratuity obligations towards Fixed Term Employees (including the existing) would need to be provided for. Organisations need to undertake a comprehensive classification of employees, workers, gig workers, based on the profiles and salary levels, to ensure compliance and work force clarity. They also need to ensure that the documentation is watertight. Organisations that depend extensively on contract labour need to analyse market trends and regulatory shifts under the codes, which restrict outsourcing in core functions while introducing a unified registration framework. It may help them to reshape work force strategies, enabling more dynamic planning across various sectors like IT, logistics, manufacturing, engineering where contract staffing remains the critical component.

What next? The companies must update HR policies, contracts and payroll systems immediately, issue appointment letters to existing employees where missing, register on the new *Shram Suvidha*/labour portals under the new codes, train teams on compliance under the inspector-cum-facilitator regime.

To conclude, by unifying 29 old laws into four cohesive codes, India moves closer to a labour ecosystem that supports both economic growth and worker welfare and strengthens the foundation of a futuristic, digitally enabled and inclusive work force. The full rollout of these Labour Codes on November 21, 2025 (which are supposed to be fully implemented by April 2026), ends decades of regulatory fragmentation. By simplifying compliance, recognising modern work arrangements and ensuring minimum national standards, these reforms aim to create a transparent, worker-friendly and investment-attractive labour ecosystem. Yet, their success hinges on stakeholder collaboration, robust enforcement and continuous adaptation to global best practices. All these, if achieved, will be key to leveraging the reforms for sustainable growth. □



Funding the Rural Startups

A World of Opportunities

India's rural startups, spanning AgriTech, fintech, and clean energy, face funding hurdles due to infrastructure gaps but drive employment, curb migration, and bridge disparities. Government schemes like PMMY (collateral-free loans up to 10 lakh), Stand-Up India, SVEP, and PM FME provide holistic support. Impact investors (Villgro, Acumen, Aavishkaar) and grants from Gates Foundation fuel scalable models, fostering *Aatmanirbhar* rural economies.

Bhuwan Bhaskar

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ccess to capital is a critical determinant of startup viability. For early-stage for-profit enterprises, securing investment fundamentally depends on demonstrating long-term profitability potential, commonly evaluated through Return on Investment (RoI) metrics. Consequently, startup entities must satisfy a series of prerequisites to obtain sufficient funding. A principal criterion is business viability, which is largely governed by enabling environmental factors such as reliable infrastructure—encompassing utilities, transportation, and legal

security—as well as cost-effective labor.

Startups operating in rural locations frequently face deficits in these essential amenities. Such constraints not only elevate operational expenditures but also impede productivity, thereby adversely affecting projected RoI. This competitive disadvantage often undermines the ability of rural startups to attract venture capital or angel investment, placing them at a distinct disadvantage in the funding landscape.

While a precise definition of “rural startups” remains formally undefined, the term broadly encompasses

The author is the CEO of an AgriTech startup. Email: bhaskarbhuwan@gmail.com



new enterprises founded by rural entrepreneurs and/or those that operate within and serve rural populations with their products or services. Exemplary categories include agritech, rural fintech, dairy-tech, perishable supply chains, rural e-commerce, clean energy access, and edtech for local skills development.

Although these ventures operate on the fundamental principle of generating shareholder profit, their significance extends far beyond financial returns into the broader socio-economic fabric of the nation. This gives rise to a narrative that transcends conventional metrics of success and return on investment, focusing instead on the profound impact and importance of rural enterprises. They are instrumental in generating employment for rural youth, curbing migration to urban centers, reducing economic disparities between rural and urban areas, and fostering financial empowerment among under-served rural communities. For these reasons both central and state governments actively pursue policies and initiatives to facilitate funding and support for startups emerging in rural regions.

A range of government initiatives are currently operational to address the funding needs of rural startups, including the following key schemes:

Pradhan Mantri Mudra Yojana (PMMY)

Designed for non-corporate, non-farm micro and small enterprises, this scheme aligns closely with the profile of most rural startups, which typically operate as small-scale manufacturing, service, or trading units. The scheme offers collateral-free loans across three tiers:

- **Shishu:** Loans up to ₹50,000, suitable for early-stage ventures to support prototyping, basic tool acquisition, or initial working capital requirements.
- **Kishore:** Loans ranging from ₹50,001 to ₹5 lakh, intended for established startups seeking

expansion, procurement of equipment, or inventory enhancement.

- **Tarun:** Loans from ₹5 lakh to ₹10 lakh, targeted at well-established rural businesses with a proven track record for significant growth initiatives. The absence of collateral requirements is a particular advantage for rural entrepreneurs, who often lack formal assets.

Stand-Up India Scheme

Launched in 2016, this scheme facilitates bank loans between ₹10 lakh and ₹1 crore for enterprises promoted by Scheduled Caste, Scheduled Tribe, and women entrepreneurs. While not exclusively for rural startups, it substantially empowers marginalised groups in rural areas. Scheduled commercial banks and Small Industries Development Bank of India (SIDBI) provide composite loans covering up to 75% of the project cost, which can be utilised for establishing new enterprises in manufacturing, services, or trade.

NABARD's Rural Entrepreneurship Development Programme (REDP)

This cornerstone initiative focuses on identifying, training, and nurturing entrepreneurial talent in rural and semi-urban regions. Although not a direct funding programme, REDP serves as a critical capacity-building platform that prepares aspiring entrepreneurs by imparting sector-specific skills, knowledge, and mentorship. The programme aims to create sustainable micro-enterprises and self-employment opportunities in locally relevant sectors such as agro-processing, artisan crafts, small-scale manufacturing, repair services, and livestock-based enterprises.

PM Formalisation of Micro Food Processing Enterprises (PM FME) Scheme

Launched under the *Aatmanirbhar Bharat Abhiyan*, this scheme supports the formalisation, modernisation, and competitiveness of unorganised micro food processing enterprises, many of which are rural. It provides financial, technical, and business support, including a credit-linked capital subsidy of 35% up to ₹10 lakh. Eligible beneficiaries include small-scale food businesses, Self-Help Groups (SHGs), and Farmer Producer Organizations (FPOs) engaged in activities such as dairy processing, pickle making, honey production, and millet-based product manufacturing.

Start-up Village Entrepreneurship Programme (SVEP)

As a critical component of the National Rural Livelihoods Mission (NRLM), this programme is aimed at creating a sustainable ecosystem for rural enterprises with a goal to foster and support entrepreneurship in rural areas. Its core mission is to support entrepreneurs in rural India by providing them with access to finance through linkages with banks and the NRLM's own community funds. SVEP encompasses a large spectrum of sectors under its ambit. Agri-allied services include organic farming, seed processing, drip irrigation services, custom hiring centers for farm machinery; food processing includes mini rice mills, *dal* mills, fruit & vegetable dehydration, pickles, spices, and regional snacks; handloom & handicrafts include leveraging traditional skills with modern designs and online marketplaces; rural services include Digital Service Centers (DSCs), repair & maintenance, beauty parlors, tailoring units, EV charging stations, rural tourism homestays; green enterprises include solar appliance repair, biogas plant installation, waste management (plastic recycling, composting) and livestock & dairy includes poultry, goatry, fishery and dairy processing (curd, paneer, ghee etc).

SVEP is unique in the way that it doesn't only provide funding to startups. Rather it takes care of the rural startups in a holistic way. It supports rural startups by:

Identification & Mobilisation: Entrepreneurship Development Managers (EDMs) and Community Resource Persons for Enterprise Promotion (CRP-Eps), often successful local entrepreneurs themselves, identify potential entrepreneurs from Self-Help Groups (SHGs) and their families.

Entrepreneurship Development: Basic training on idea generation, business plan preparation, bookkeeping, and regulatory compliance.

Business Planning & Handholding: Intensive support in developing a viable business model and a Detailed Project Report (DPR). Continuous handholding for at least the first 2-3 years.

As far as funding is concerned, this programme puts forth finance option in multiple stages and through multiple channels, like

a. **Seed Capital:** Provided through the Revolving Fund (RF) and Community Investment Fund (CIF) under NRLM.

- b. **Bank Credit:** Facilitated linkages with banks for term loans.
- c. **Credit Guarantee:** Cover through the Credit Guarantee Fund for SHGs.
- d. **Technology & Infrastructure:** Facilitates access to appropriate technology, common facility centers, and incubation spaces where possible.
- e. **Market Linkages:** Helps with branding, packaging, e-commerce onboarding (on platforms like GeM, Amazon Karigar, etc.), and connecting to local government supply chains (mid-day meals, *anganwadis*).

Apart from the above government initiatives, there are many private funding sources too available for rural enterprises. These may further be categorised under following headlines:

1. Impact Investors and Social Venture Funds

Several prominent impact investors and social venture funds actively support rural enterprises, including the Villgro Innovations Foundation (VIF), the Acumen India Fund (AIF), the Bharat Inclusion Seed Fund (BISF), Omnivore, and Aavishkaar Capital.

Villgro Innovations Foundation (VIF) focuses on incubating and funding innovation-driven social enterprises with scalable models designed to create deep impact within underserved, low-income communities in rural and semi-urban India. Its key sectors include Agriculture & Food Security and Skilling & Livelihoods, encompassing agri-tech, post-harvest solutions, Farmer Producer Organization (FPO) support, climate-smart farming, dairy and livestock, and technologies that enhance employability and foster sustainable rural livelihoods. VIF provides seed funding ranging from ₹10 Lakh to ₹1 Crore in equity or grant-based capital. Additionally, it offers a structured 12-24 month incubation programme, mentorship from sector experts, assistance with business model refinement, and support for product and technology development.

Acumen India Fund (AIF) employs a distinct patient capital model that has significantly influenced the impact investing landscape for rural entrepreneurship. In contrast to traditional venture capital, which typically seeks high financial returns within 5-7 years, Acumen provides debt or equity investments with extended horizons of 10-15 years, accepting lower financial returns in pursuit of substantial social impact. The fund

targets early-stage, purpose driven business models that address critical challenges—such as agricultural supply chains, clean energy access, water, and healthcare—thereby bridging a critical ‘pioneer gap’ often overlooked by conventional banks and venture capitalists.

Bharat Inclusion Seed Fund (BISF) is an early-stage venture fund managed by CIIE.CO at IIM Ahmedabad, with support from the Bill & Melinda Gates Foundation, the J.P. Morgan Chase Foundation, and the Michael & Susan Dell Foundation. Its core mission is to advance financial inclusion, livelihood enhancement, and economic empowerment in India, with a dedicated focus on underserved communities, including rural populations.

Omnivore adopts a flexible, sector-agnostic investment strategy, supporting startups across diverse technology sectors, geographies, and business models. This approach is particularly beneficial for rural entrepreneurship, as it prioritises talent and scalability over traditional sector constraints. By funding ventures such as rural logistics software or health-tech solutions, Omnivore encourages innovation beyond conventional rural industries. Furthermore, its patient capital structure—often facilitated through family offices, impact funds, or decentralised networks—accommodates the longer scalability timelines typical of rural startups, enabling them to build sustainable models, foster community integration, and refine products without premature growth pressures.

Aavishkaar Capital has been instrumental in developing the rural startup landscape, offering not just financial investment but also strategic counsel to ventures that fill vital needs in peri-urban and rural economies since its founding. As one of the earliest institutional investors to intentionally target these underserved segments—areas traditionally neglected by mainstream venture capital—Aavishkaar demonstrated that enterprises focused on low-income communities could achieve both scalability and profitability. This pioneering approach significantly contributed to establishing impact investing as a credible and viable asset class within India. The firm provides patient equity and debt financing, structured to meet the specific requirements of early and growth-stage rural businesses. Its investment timeframe accommodates the extended development cycles typical of rural markets, enabling startups to cultivate

sustainable operations, strengthen supply chains, and secure sound unit economics, free from excessive pressure for rapid, premature expansion. Aavishkaar’s investment portfolio spans a broad spectrum of sectors essential to rural progress, such as:

- **Agriculture & Agri-Tech:** Innovations in supply chains, farm productivity tools, and enhanced market linkages.
- **Financial Inclusion:** Accessible credit, insurance, and savings solutions for underserved households.
- **Essential Services:** Healthcare, education, clean energy, water, and sanitation initiatives.
- **Livelihood Enhancement:** Skill development, employment platforms, and support for micro, small, and medium enterprises (MSMEs).

2. Grants and Philanthropic Funds

Non-repayable grants are offered by global and domestic philanthropic organisations, including:

- **Bill & Melinda Gates Foundation:** Grants (₹50 lakh–₹5 crore) for agri-tech, sanitation, and rural health innovations.
- **United Nations Development Programme (UNDP) India:** Funding (₹10 lakh–₹2 crore) for sustainable farming, water conservation, and clean energy initiatives.
- **Tata Trusts Social Alpha:** Seed grants (typically ₹25 lakh+) for rural healthcare, edtech, waste management, and eco-friendly manufacturing ventures.

3. Crowdfunding and Alternative Finance

Platforms such as Milaap, Ketto, and Impact Guru enable community-backed fundraising for women entrepreneurs, artisans, and social enterprises, while CrowdWorks provides microloans tailored to rural businesses.

4. Microfinance Institutions (MFIs) and Self-Help Groups (SHGs)

These entities deliver small-ticket loans (Rs. 10,000–Rs. 2 lakh) at reasonable interest rates to support livelihoods and local enterprises. Notable providers include Grameen Bank (women-focused microloans), SKS Microfinance (livelihood and dairy financing), and Ujjivan Small Finance Bank (loans for rural SMEs). □

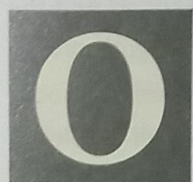


Rural Women Entrepreneurs

The Foundation of 'Aatmanirbhar Bharat'

Rural women entrepreneurs are the cornerstone of *Aatmanirbhar Bharat*, driving socio-economic progress through sustainable innovation. By leading climate-resilient initiatives like community seed banks, organic farming, and cottage industries, they preserve biodiversity and ensure food sovereignty. Government-backed Self-Help Groups (SHGs) and the National Rural Livelihoods Mission (NRLM) have empowered millions, transforming regions like Kalahandi into hubs of prosperity. Their leadership in the green economy and digital inclusion is essential for India's transition into a developed nation by 2047.

Dr. Ritu Saraswat



Over the past decades, the role of small industries in accelerating economic development has been widely recognised. International institutions such as the World Bank, the International Monetary Fund, and the Global Entrepreneurship Monitor are consistently striving to promote entrepreneurship in emerging global economies. The Government of India is creating a

strong framework through budget provisions, policy formulation, and constructive reforms, ensuring that the path of entrepreneurship becomes easier and accessible across all levels and regions of the country.

Since more than 60 per cent of India's population still resides in rural areas, the Government of India aims to reach every such region where the true essence of development can be established. It is noteworthy that women's empowerment has been at the core of India's

*The author is working in a college affiliated with the Rajasthan Higher Education Department, Jaipur.
Email: dr.ritusaraswat.ajm@gmail.com*

policy-making, India can realise its dream of becoming a developed nation only with the participation of half the population.

The expansion of women's entrepreneurship facilitates socio-economic progress and also encourages innovation, creativity, and economic dynamism. Naturally, this makes a positive impact on the country's overall economic landscape.

Across India, women have traditionally sustained the unique heritage of transforming soil, water, and household energy into valuable resources. Many women-led enterprises work in green sectors such as organic farming, decentralised waste management, eco-friendly tourism or ecotourism, and clean energy. These enterprises are usually deeply rooted in their communities and often preserve and promote traditional ecological sustainability.

In many states of India, the work of women as seed savers is deeply embedded in the ethos of agroecology. Agroecological farming depends on diverse cropping systems, open-pollinated seeds, and local ecological knowledge—areas where women are key innovators. In Telangana, Dalit women farmers have established more than 80 community-managed seed banks, preserving over 80 varieties of millets, pulses, and vegetables. These seed banks safeguard food sovereignty. Through their 'community media trust', these women document their work, celebrate seed festivals, and educate others about agricultural practices.

Women-led seed-saving movements in Chhattisgarh and Odisha are reviving traditional varieties of rice, brinjal, and millets that are drought-resistant, pest-tolerant, and nutritionally rich—traits that are becoming increasingly crucial in an era of climate change and soil degradation. By prioritising biodiversity over uniformity, these women are building resilient seed systems.

In Odisha, Chhattisgarh, and Telangana, women-led seed banks have played a crucial role in preserving climate-resilient crop varieties—those capable of withstanding climate-induced stresses such as drought, floods, extreme temperatures, and pest-disease outbreaks. These include flood-resistant rice, drought-tolerant millets, and pest-resistant pulses. Institutions such as Navdanya have documented how women-led seed networks promote biodiversity conservation and protect rural communities from the risks associated with dependence on commercial seed markets.

Beyond production, women's groups also support community-level food access through home gardens, community kitchens, and improvements in the Public Distribution System (PDS). In Madhya Pradesh, a key initiative under the National Rural Livelihoods Mission—the *Mahila Kisan Sashaktikaran Pariyojana* (MKSP)—has empowered women to grow their own food, share surplus with neighbours, and lead nutrition awareness campaigns at the village level.

These women-centered agricultural systems are naturally resilient to climate stress, particularly through local food chains, rainwater harvesting, and crop diversification. Such strategies help reduce dependence on external markets and resources. Women in agriculture are now leading the production of organic inputs such as vermicompost, bio-enzymes, liquid fertilizers, and natural pesticides, which are becoming increasingly popular among small farmers shifting toward chemical-free farming.

Numerous NGOs and government programmes are training hundreds of women to produce and market these products through green micro-enterprises. These eco-friendly inputs not only replace chemical alternatives but also improve soil health and enhance carbon sequestration, making them vital tools in the fight against climate change.

Beyond the agricultural sector, women across the country are rapidly moving toward cottage industries after receiving training from government and non-government organisations. In Tamil Nadu, women—supported by self-help groups—are producing organic repellents, herbal teas, and value-added food products such as millet-based items and pickles. Women in Rajasthan and Gujarat are entering eco-enterprises, which include upcycled products made from agricultural waste, such as agri-waste paper, biodegradable packaging, and textiles. Initiatives like EkoKari and the Barefoot College have demonstrated that with proper training, women can achieve remarkable success.

Women's groups such as SEWA (Self-Employed Women's Association), the Timbaktu Collective, and Navdanya are forming farmer-producer organizations that market certified organic and traditional products, giving women access to markets and fair-trade networks. These models challenge the extractive supply chains dominated by corporate agribusiness. Today, rural women are not only producers but also entrepreneurs



and climate leaders, contributing steadily to the development of a green economy.

The shining stars in the picture of *Aatmanirbhar Bharat* are the women entrepreneurs who have written golden chapters through their tireless hard work. In Odisha's Kalahandi district—which was infamous in the 1980s for hunger and starvation-related deaths—Kutenpadar village has today transformed into a model village, where mushroom cultivation has opened pathways to social development and individual progress.

The story of this transformation began when Bandei Manjhi, a resident of the village, started mushroom cultivation after receiving basic training and conducting two years of experimental farming. Decades ago, villagers depended on forests and daily wage labor for survival, but now, inspired by Bandei, they have adopted mushroom cultivation and are earning nearly fifty thousand rupees annually.

Similarly, in Jharkhand, Manju Kacchap from Deori village in Ranchi has turned her village into the "Aloe Vera Village." After receiving training from Birsa Agricultural University, Ranchi, she started aloe vera cultivation. Today, a group of forty women works with her, cultivating aloe vera across several acres. Even during the Covid-19 pandemic, their income did not

decline because sanitizer manufacturing companies contacted them directly for supply.

In Rajasthan, Ruma Devi turned her talent for traditional craftsmanship into a source of livelihood. Starting with a group of ten local women, she formed and organised her own self-help group, which now benefits more than 22,000 women. The success of India's welfare schemes has enabled women to participate actively in financial inclusion and entrepreneurship. With the central government strengthening the existing self-help group infrastructure, rural women are confidently embracing financial and digital resources.

The ability to transform even clay into a source of income reflects a bright future for *Aatmanirbhar Bharat*. In Bharatpur district of Rajasthan, the village of Poonchhri, located on the Deeg-Nagar road, is now famous as the "Tawa Village." The clay griddles made in this village are sold not only across various districts of Rajasthan but also in Madhya Pradesh, Uttar Pradesh, Delhi, and Haryana.

Somoti, a woman from the village, learned to make clay griddles despite facing harsh opposition. When she succeeded, others joined her, and now every family in the village earns an average monthly income of 18,000–20,000 rupees per month.

RISE OF NARI SHAKTI

Schemes to turn women into leaders across sectors

Loans between
Rs 10 lakh-
Rs 1 crore



Loans for greenfield enterprises in manufacturing, services, trading etc



Supports SC/STs and women in setting up new businesses



Indian rural women are well aware of how to create new dimensions of innovation by swimming against the tide. No one understands the importance of environmental protection better than them, for they know that if the environment is not protected, we too cannot survive.

Odisha's Ganjam district is known for its fertile soil and agricultural productivity. Agriculture is a traditional occupation and a way of life for most residents of the district. The region has two distinct geographical divisions—coastal plains in the east and hills and plateau land in the west. The Odisha Livelihoods Mission (OLM) is making dedicated efforts to help rural communities meet their household needs through sustainable agricultural practices. In Ganjam district, women farmers from self-help groups are adopting sustainable agro-ecological practices in floriculture, paving the way for economic upliftment of other women, and strengthening the financial independence of women across the state.

High autonomy among rural women entrepreneurs reflects their ability to choose enterprises of their interest. 'Personal development' among women entrepreneurs determines the direction of their growth. The upliftment of rural women has the potential to transform local communities and the nation as a whole. Sobita Tamuli of Telana village in Assam, created a revolution in entrepreneurship—from producing *keshuhar* (organic manure) to crafting customised *japis* (traditional conical Assamese hats)—all without involving middlemen. By forming a self-help

group named 'Seuji,' Sobita made organic manure easily accessible to farmers in the region, and today, it is in very high demand.

Anita Moody of South Kamalpur village in Bankura, West Bengal had long faced recurring crop failures and pressure to migrate. In 2020, she took a bold step and began cultivating watermelons on barren land—something that had never been attempted in her area. After joining a self-help group, Anita transformed from a farmer into a community leader. She encouraged women to form a Farmer Producer Company (FPC) that promotes collective marketing, shared resources, and sustainable practices such as solar irrigation. Within three years, her income rose from ₹26,100 to ₹2.8 lakh. Across the village, watermelon cultivation increased tenfold. Anita's journey proves that when women move forward, they uplift their entire community.

In Mandla district of Madhya Pradesh, Siya Maravi leads the Narmada Organic Manure Committee, where a team of 10 women runs a Bio-Resource Centre (BRC). They produce and sell liquid '*Jeevamrut*', super compost, and vermicompost, helping farmers reduce dependence on chemical fertilizers. Their greatest innovation is a solar-powered automatic Jeevamrut unit capable of preparing 2,000 litres of organic manure in just four days. Under Siya's leadership, the women have increased their incomes, gained direct access to markets, and encouraged the community to adopt sustainable farming.

Women's autonomy is a vital pillar in strengthening the nation's economy and also a major source of happiness and personal satisfaction. It represents the freedom to choose activities that bring personal fulfilment and the ability to work in an environment free from social and familial pressure. Recently, a study was conducted among women entrepreneurs in rural India under NRLM, the Ministry of Rural Development, and the Government of India's SVEP scheme to assess their levels of happiness. The findings revealed that autonomy, personal development, self-acceptance, purpose in life, authenticity, connectedness, competence, and mastery are key factors that enhance happiness. This study clearly shows that the central government's continued efforts to empower women entrepreneurs will not only become the foundation stones of *Aatmanirbhar Bharat* but will also serve as a strong pillar for building a happier India. □



Waste Management Innovations in Himalayan States

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s the first light of the day touches the Himalayan ranges, life begins quietly across the majestic mountains. In hill towns, sanitation workers navigate narrow pathways to collect household

waste. On school campuses, students segregate waste as part of routine practice, while at pilgrimage sites, visitors use designated collection points. These everyday actions reflect a growing emphasis on organised waste management in the Himalayan region, which is further shaped by high-altitude settlements, difficult terrain, climatic variability, and limited land availability.

Seasonal tourism and pilgrimage activities add to these operational demands, requiring locally adapted and decentralised solutions. Recognising these conditions, governments at all levels have strengthened waste management efforts under *Swachh Bharat Mission—Urban 2.0*, with a focus on source segregation, scientific waste management, and remediation of legacy dumpsites and active citizen and institutional participation.

Kedarnath Fights Plastic Waste With Digital Refund System

Kedarnath, a prominent pilgrimage destination in Uttarakhand, witnesses a seasonal influx of thousands of devotees, requiring structured arrangements for plastic waste management. To address the concern, the state government introduced a Digital Deposit Refund System (DRS) in May 2022 in collaboration with Recycle.

Under the system, plastic bottles and Multilayered Plastic (MLPs) items are issued with Unique Serialised Identification (USI) QR codes, against which a refundable deposit of ₹10 is collected. Pilgrims can return used items at designated points or at two Reverse Vending Machines (RVMs) installed at Gaurikund and the Kedarnath temple. The deposit amount is refunded digitally through UPI.

Collected plastic waste is channelled to Material Recovery Facilities (MRF) for processing and recycling. The initiative promotes responsible disposal practices and supports organised plastic waste management during the pilgrimage season.



Outcomes:

- DRS being employed at the other *Chardham*, including: Gangotri, Yamunotri, & Badrinath
- Over 20 lakhs bottles recycled
- Prevented 66 MT of CO₂ emissions
- Created 110+ jobs

Green Campus Framework: J&K Institutes Towards Responsible Waste Management

In Jammu & Kashmir, conversations around cleanliness and sustainability are increasingly becoming part of everyday institutional life. Across schools, offices, hospitals, and public spaces, simple practices like separating waste or choosing reusable alternatives are now being adopted as daily habits.

Led by the Housing and Urban Development Department, the initiative brought 1,093 campuses under a structured certification process, with support from 80 Urban Local Bodies across 20 districts. Institutions progressed through a three-stage process: identification, preparation, and declaration, focusing on waste segregation, on-site composting, and the reduction of single-use plastics. Students, staff, and visitors were encouraged to shift towards reusable alternatives, reinforcing everyday behavioural change.

Improvements in sanitation facilities, along with creative initiatives such as 'Waste to Art' spaces and green corners, added to the programme's impact. *Anantnag* became the first urban local body to declare all its campuses Green.

Waste into Impact: Dharamshala Reflects on Innovation & Collaboration

Set in the hills of Himachal Pradesh, Dharamshala has been strengthening its waste management

systems through a series of coordinated initiatives led by the Municipal Corporation since 2021. As the city responds to the demands of urban growth and tourism, the municipal corporation introduced a slew of measures that encourage participation across businesses, neighbourhoods, and institutions.

The Clean Business Programme supports local establishments through regular training and certification, helping them integrate sustainable practices. At the community level, the Model Ward Programme enables residents to improve segregation and cleanliness in their

neighbourhoods, supported by a dedicated Material Recovery Facility (MRF) that enhances recycling across the city.

An innovative element of Dharamshala's approach is the "Waste Under Arrest" initiative at the Lala Lajpat Rai District Correctional Home, where inmates participate in waste processing while gaining practical skills. Together, these initiatives reflect a multipronged, collaborative approach to urban waste management in a hill city.

Impact of Urban Waste Management Initiatives:

- 25% increase in waste segregation
- 30% reduction in road littering
- 40% reduction in landfill waste through the "Waste Under Arrest" initiative
- Recycling strengthened through a dedicated MRF

Technology and Innovation Strengthen Waste Management in Leh

In Leh, managing waste in a high-altitude and remote setting requires solutions that are reliable and





locally suited. To address this, the Ladakh Autonomous Hill Development Council (LAHDC) introduced a solar-powered solid waste management initiative in 2020.

The facility, designed to process up to 30 tonnes of waste per day, uses solar energy to support waste operations with reduced dependence on conventional power. Emphasis is placed on source segregation, with collected waste directed towards recycling and composting. The initiative aims to achieve 100 per cent source segregation and a 90 per cent material recovery rate, with recovered waste repurposed into products such as compost and pavement tiles for local use.

Revenue generated from the sale of recyclables and compost contributes to ongoing operations. The initiative reflects an approach to waste management that aligns renewable energy use with Ladakh's geographic and climatic conditions.

Why Leh's Model Is Distinct

- The initiative follows a circular economy approach
- Operates in a remote, high-altitude setting
- Uses renewable energy to support waste operations
- Integrates recycling, composting and reuse
- Supports local use of recovered materials

Women of the Himalayas: SHG Drive Sustainable Waste Solutions

In Bageshwar, a hill town in Uttarakhand with limited road access and challenging terrain, waste management has been strengthened through a community-led approach anchored by women's participation. In 2017–18, under the National Urban Livelihood Mission

(NULM) and in partnership with Nagar Palika Parishad Bageshwar, the Sakhi Autonomous Cooperative Society took responsibility for door-to-door waste collection across 11 wards.

Members of the Sakhi SHG carry waste along narrow and steep pathways where conventional vehicles cannot operate, while also engaging households on the importance of segregating wet and dry waste. Over time, this approach contributed to improved cleanliness and greater awareness at the household level.

The initiative expanded from 18 to 47 women, with two members assuming supervisory roles. Participants earn ₹100 per day, supporting financial independence while contributing to municipal service delivery. The initiative received recognition under *Swachh Survekshan* 2019 and from the National Institute of Urban Affairs, highlighting the role of women-led collectives in strengthening waste management systems in small hill towns.

Conclusion

These initiatives in Himalayan states point towards a future where waste management systems evolve in step with India's development priorities. By integrating community participation, institutional responsibility, and technology suited to local conditions, Himalayan states are contributing to the national vision of a developed and sustainable India. Anchored under *Swachh Bharat Mission–Urban 2.0*, these efforts reflect a gradual shift towards resource efficiency, circular economy practices, and citizen-led stewardship. □

Source: PIB



North East India The Emerging Startup Hub

North East India is stepping into the national spotlight as a vibrant new hub of entrepreneurship. With more than 2,000 recognised startups, the region is blending its strengths in agriculture, crafts, tourism, IT, and green innovation to create a distinct startup identity. Young founders are shaping bold ideas, supported by improving connectivity and state-driven startup policies. Yet, challenges in funding, mentorship, skills, and market reach continue to hold back full-scale growth. Even with these hurdles, the region's talent, creativity, and cultural richness position North East India as one of the country's most exciting emerging startup destinations.

Dr Sriparna B Baruah

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he startup ecosystem in North East India is rapidly evolving, with about 2,054 DPIIT (Department for Promotion of Industry and Internal Trade) recognised startups from the region.

While the region is part of India's broader emergence as the world's third largest startup hub with close to two lakh recognised startups, North East startups face unique challenges such as limited access to funding,

infrastructure gaps, scarcity of skilled manpower, and inadequate mentorship. The main sectors driving innovation here include agriculture, handloom and textiles, tourism, IT, health, and green technologies, reflecting the region's natural strengths and cultural heritage.

Despite multiple government and central sector schemes like the North East Venture Fund (NEVF), many startups remain in early stages with mostly 'me too'

The author is a Development Professional. Email: sriparnannaruah@gmail.com

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business models due to ecosystem gaps like insufficient seed funding and limited market access. Incubation infrastructure is growing but is heavily concentrated in academic institutions, and private sector investment remains limited. Addressing these challenges requires a multi-dimensional approach focusing on building entrepreneurial talent pipelines, strengthening incubation and acceleration systems, expanding funding access, and improving market connectivity, infrastructure, and regulatory support.

The roadmap emphasises convergence with traditional industry schemes like One District One Product (ODOP), digital integration for market expansion, and fostering inclusive growth targeting women entrepreneurs and marginalised groups. Coordinated public-private efforts and sustained capacity building can transform North East India's startup ecosystem into a vibrant growth engine aligned with India's vision for *Aatmanirbhar Bharat* and innovation-led economic development in Tier II cities with cultural depth and resilience.

India's startup ecosystem has grown tremendously, with close to 2 lakh recognised startups and around 122 unicorns. In the coming years, Tier II cities will redefine India's innovation map. They will not just support the ongoing innovation, but also lead it. They will unlock distributed R&D, offer companies a wider canvas of growth and crucially retain the kind of talent that is increasingly choosing purpose over proximity. Tier II cities can offer everything that the metros promise, they also provide not only resilience and cost savings but also cultural alignment, talent depth and chance to build something truly meaningful.

In the North East region, entrepreneurship has evolved significantly with each state formulating distinct startup policies. Assam and Manipur lead the ecosystem in the region, supported by infrastructure improvements, government incentives, and central-sector schemes. Though the pace of growth in the North East is slower than metropolitan hubs, young entrepreneurs

are increasingly embracing innovation and risk-taking, driven by evolving aspirations and technological adoption. Startups in North East India are emerging across diverse sectors, reflecting the region's unique strengths and opportunities.

Key Sectors of Startups Activity:

- **Agriculture and Allied:** The largest share of startups focuses on agri-tech solutions, food processing, animal husbandry, and allied agricultural activities, leveraging the region's rich natural resources.
- **Handloom and Textiles:** Startups are innovating in traditional handloom crafts and textile product development, aiming at market expansion and value addition.
- **Tourism:** With the region's natural beauty and cultural heritage, tourism-focused startups provide travel services, eco-tourism ventures, and hospitality innovations.
- **IT & ITES (Information Technology and IT-enabled Services):** A significant number of startups operate in software services, AI, digital platforms, and technology-based solutions.
- **Retail and Logistics:** Startups are addressing supply chain issues, local retail, and last-mile delivery challenges, improving market connectivity for regional products.
- **Health and Wellness:** Innovative startups focus on affordable healthcare solutions, wellness products, and telemedicine services.
- **Edutech:** Educational technology startups are emerging to offer digital learning, skill development, and vocational training platforms.



- **Waste Management and Renewables:** Startups in this sector work on sustainable waste disposal, recycling technologies, and renewable energy projects.
- **Media and Entertainment:** Startups focus on regional content creation and digital media platforms.

These sectors highlight balance between traditional industries and modern technology-driven innovation, with agriculture and allied sectors consistently leading startup formation.

Most startups are in nascent stages, often in ideation or launch phases, with about 80% being 'metoo' models rather than highly scalable or disruptive innovations. The region's startup ecosystem includes about 2,054 DPIIT-recognised startups and incubator presence is strong especially in academic institutions. Despite growing numbers, access to funding (particularly seed and Venture Capital), mentorship, skilled manpower, market access, and professional services such as regulatory guidance remain significant challenges.

The region has around thirty incubators, of which 80% located within academic institutions. A small number of incubators focus on specific industries and are at different stages of development. Each state has its own provisions under the startup policy to provide grant funds for startups at the idea stage as well as at the proof of concept stage. Numaligarh Refinery Ltd (NR) has created an NRL startup Ideation Fund and North Eastern Council (NEC) has also funded startups at the idea and POC stage through grant funds by various organisations like Assam startup incubator. There is also a dedicated VC fund for the region—North East Venture Fund (NEVF), which is a 100 crore corpus managed by NEDFi Venture Capital. However, it is observed that very small percentage of startups/entrepreneurs are fit for accessing VC funding. Considering the type of startups in North East, there is a need for a seed grant or seed fund.

Apart from NEVF, some other reputed private VC firms have invested in NER based startups. These startups are from diverse sectors such as affordable healthcare, eco-friendly products, food processing etc. Among the startups which raised VC funds, food processing, food and beverages and food tech have the

highest share of deals, followed by Artificial Intelligence based solution, healthcare and IT. Other sectors include biotech, service aggregator, animal husbandry, wellness, design, logistics and edtech.

Startups in North East India face a range of significant issues and concerns that hamper their growth and scalability. Access to funding remains the most critical challenge, with many startups unable to secure seed grants or venture capital due to early-stage maturity and limited investor awareness. Market access is another major concern, as startups struggle to expand beyond regional boundaries due to logistical and connectivity constraints. Additionally, there is a scarcity of skilled manpower, particularly in technical and managerial roles, which limits operational effectiveness and innovation capacity.

Mentorship support is notably inadequate in the region, with a wide gap in the availability of experienced mentors to guide startups on business strategy, marketing, compliance, and technical product development. Access to professional services such as regulatory compliance, patent filing, and legal advice is also limited, creating barriers in formalising and protecting innovations. Many startups remain in the ideation or launch stage without progressing to scale, partly due to these ecosystem weaknesses. Addressing these issues require structured interventions focused on funding, market connectivity, mentorship, skill development, and comprehensive ecosystem support.

A suggestive roadmap for supporting startups in North East India should focus on strengthening the ecosystem across multiple dimensions to address current challenges and enable sustainable growth:

Build Entrepreneurial Talent Pipeline

- Introduce outcome-oriented entrepreneurship education and skill development programmes in schools, colleges, and vocational institutes.
- Promote awareness and motivation among youth to shift the mindset from job-seeking to job-creating.
- Facilitate access to ideation and pre-incubation platforms to nurture innovative ideas early.

Expand and Strengthen Incubation and Acceleration

- Develop more sector-specific and multi-disciplinary incubators and accelerators with industry collaborations.



- Support incubation centers with sufficient funding, infrastructure, and access to technology labs. Professionalise incubator leadership and build capacities of mentors and support staff.

Enhance Funding Access

- Increase seed grant availability and ease access to early-stage funding via government and private sector partnerships.
- Strengthen venture capital networks focused on the region, promoting investor awareness about local opportunities.
- Facilitate alternative financing models such as crowdfunding and impact investing.

Provide Continuous Mentorship and Technical Support

- Develop a robust pool of mentors covering business strategy, technical innovation, legal and regulatory compliance, marketing, and finance.
- Encourage partnerships with national and global mentors for knowledge exchange.
- Strengthen access to professional services like patent filing, licensing, and tax advisory through dedicated support hubs.

Improve Market Access and Ecosystem Connectivity

- Leverage digital platforms and e-commerce to overcome geographical barriers.
- Promote participation in national and international startup fairs, exhibitions, and investor meets.
- Integrate ecosystem efforts through networking events, industry linkages, and public-private collaboration for knowledge sharing.

Develop Infrastructure and Policy Support

- Enhance physical connectivity (road, rail, air) and digital infrastructure, including broadband penetration.
- Simplify regulatory and compliance procedures tailored to startups.
- Provide attractive incentives and streamline government grant and subsidy processes

Focus on Innovation and Scalability

- Encourage research and development partnerships among startups, higher education institutions, and industry.
- Foster innovation clusters in key sectors such as agri-tech, handloom, tourism, health, and renewable energy.
- Support scaling startups with business advisory, export facilitation, and global market integration.

Promote Inclusive and Sustainable Startup Culture

- Emphasise startups addressing local socio-economic issues and sustainability challenges.
- Support women entrepreneurs and underrepresented groups through targeted programmes.
- Align startup growth with regional development plans like Act East Policy to maximise impact.

Implementing this roadmap requires coordinated effort from government agencies, academic institutions, industry, investors, and civil society to create a vibrant, supportive, and scalable startup ecosystem in North East India. The government should not only be framing policies but also giving wings to the ideas of youth, entrepreneurs and scientists. 'Every research should become a product, every product an industry and every industry the strength of India' should be the *mantra*.

The eco-system of startup and standup India should become the foundation of Aatmanirbhar Bharat. In a region like North East, there is a need of looking at convergence with schemes like ODOP. With initiatives like Traditional industries and MSME's getting connected with technology, design, packaging and markets, the region holds immense potential to emerge as a major startup hub. □



Echoes of the Hills: The Resilient Journey of the Naga Tribes

Nagaland's Naga tribes represent a rich mosaic of culture, tradition and resilience shaped by life in the northeastern hills. While jhum cultivation remains central to identity, livelihoods are steadily diversifying into horticulture, forest-based enterprises, crafts and tourism. Festivals like Hornbill strengthen cultural preservation while generating economic opportunities. Government initiatives aligned with SDG Vision 2030 and community institutions, especially women-led groups, support inclusive development. Together, these efforts aim to balance cultural heritage, environmental sustainability and modern economic growth.

N

agaland, perched in India's northeastern hills, is home to a mosaic of Naga tribes—Angami, Ao, Konyak, Sema, Lotha, Chakhesang and many others—each with distinct languages, customary laws and cultural practices. Over generations these communities have balanced life on steep terrain with deep social traditions, and today they are navigating change: modern education, tourism, government programmes and community-led

initiatives are reshaping livelihoods while striving to retain cultural identity.

Livelihoods: From *Jhum* Cultivation to Diversified Income Sources

Traditionally, many Naga communities practised shifting cultivation (*jhum*), a cyclical system of clearing and farming forest patches. *Jhum* remains culturally important and continues to support many households, but its area and productivity have changed as

population pressures and environmental concerns grew. Terrace cultivation, horticulture (cardamom, oranges, pineapples), livestock rearing, forestry-based gathering and artisanal crafts have long complemented jhum; over the last two decades there's been a gradual shift towards more settled agriculture, horticulture and non-farm activities. Recent state planning documents and academic studies note both the persistence of jhum and the growing importance of alternative, sustainable livelihood options promoted by government and development agencies.

Market linkages, value-addition and small enterprise are increasingly visible: forest produce processing, handloom and handicrafts, and hospitality tied to cultural tourism are providing cash income for village-level producers. Schemes that target tribal forest economies (like *Van Dhan* clusters) aim to convert raw forest produce into marketable products—helping reduce dependence on subsistence cropping while raising incomes.

Festivals and Cultural Economy: Hornbill and the Living Tapestry of Naga life

Festivals are central to the social and economic life of the Nagas. The Hornbill Festival, organised by the state government each December at Kisama Heritage Village, was conceptualised to showcase Naga culture to a wider audience and to promote tourism across the state. Over ten days it brings together tribal dances, crafts, food, sports and music—both preserving traditions and creating livelihoods for performers, artisans and small vendors. The festival is now an anchor for cultural tourism and a platform where traditional skill meets market demand.

Beyond Hornbill, each tribe celebrates its own seasonal festivals—rice harvest, sowing rites and warrior commemorations—that structure village life, strengthen social bonds and create periodic opportunities for intra- and inter-tribal trade.

Government Initiatives and Inclusive Development

Nagaland's policymakers have articulated an inclusive development agenda that intersects with national programmes. In 2021 the state launched the "Nagaland SDG Vision 2030: Leaving No One Behind", aligning planning with the UN Sustainable Development Goals and emphasising access, equity and sustainability across health, education, infrastructure and livelihoods. This

vision provides a framework for coordinated interventions across departments and for tracking priority indicators.

At the grassroots, several targeted schemes support tribal livelihoods and forest economies. The *Pradhan Mantri Van Dhan Yojana* and related *Van Dhan* tribal startup initiatives foster value-addition clusters for non-timber forest products—training gatherers, providing processing facilities and linking groups to markets. These cluster models are intended to raise incomes for forest-dependent households, particularly in remote areas. Road construction, electrification, and improved market access continue to remain key priorities, as connectivity directly affects producers' ability to sell their goods and access essential services.

Empowering Community and Women: Civil Society Leadership

One of Nagaland's distinctive strengths is vibrant community institutions—village councils, women's groups, and inter-tribal networks—that shape social outcomes. The Naga Mothers' Association (NMA), founded in the 1980s, is a powerful example: beyond family welfare work it has been an influential voice for peace-building, anti-drug campaigns, public-health outreach and the protection of customary community life. Women's collectives and federations have also played critical roles in conflict mediation and public-health drives, demonstrating how grassroots social capital can translate into political influence and social change.

Women's economic empowerment is pursued through self-help groups, skill-training in handicrafts and entrepreneurship, and inclusion in *Van Dhan*-type value chains. While patriarchal customary practices still shape formal representation in some spaces, community-led movements and civil society are steadily expanding women's visibility in governance and economic decision-making.

Sustainable Growth: Environmental Stewardship and Green Opportunities

Nagaland's ecological setting—dense forests, high rainfall, and fragile slopes—means sustainability is not optional. Programmes now increasingly promote climate-sensitive agriculture (improved jhum practices, soil conservation), afforestation and community forestry, and diversification into less land-intensive income sources such as beekeeping, mushroom



cultivation, spices and eco-tourism. NABARD's and other development partners' climate and livelihood strategies are being adapted to local realities to strengthen resilience. These efforts aim to balance traditional land-use systems with modern conservation science and market opportunities.

Tourism, when managed responsibly, offers another route to sustainability: community-run homestays, cultural tourism circuits that respect local norms, and value-chains for handicrafts can create incentives to conserve culture and environment. However, sustainable tourism requires careful regulation—road building, waste management and benefit-sharing must favour village communities rather than external actors.

Vision for the Future: Inclusive, Cultural-led, and Sustainable development

The future many Nagas envision is one where cultural identity and modern prosperity are complementary, not conflicting. Key elements of the vision include:

1. **Inclusive economic growth** — strengthened market linkages for small producers, growth of micro- and small-enterprises (particularly in agro-processing, handloom, handicrafts and forest products), and better rural infrastructure so producers can reach markets year-round. Government schemes like Van Dhan and state startup policies are building blocks; ongoing work is needed to scale and sustain them.
2. **Women-led development and stronger civil society** — continued support for women's groups, capacity-building, and representation in governance so women actors translate social leadership into economic and political power. The example of the Naga Mothers' Association shows how women's collective mobilization can be transformative.
3. **Sustainable land-use and climate resilience** — adopting improved agricultural practices, investing in soil and water conservation, and expanding non-land-intensive livelihoods that reduce pressure on forests while enhancing household incomes. Alignment with the SDG Vision 2030 signals a commitment to these goals.
4. **Cultural preservation through responsible tourism** — making festivals like Hornbill drivers of community income while ensuring cultural displays are respectful, properly remunerated, and controlled by local stakeholders. Tourism policy reforms (including discussions about easing permit regimes during festival periods) indicate a push to make Nagaland more accessible while balancing security and cultural concerns.
5. **Youth engagement and technology** — equipping young Nagas with digital skills, entrepreneurship training and access to finance to retain talent locally and build enterprises that link tradition with modern markets (e.g., e-commerce for handloom, digital marketing for eco-tourism).

Challenges and cautious optimism

Obstacles persist: remoteness and uneven infrastructure, environmental fragility, the need to reconcile customary governance with formal institutions, and the challenge of ensuring that growth benefits women and marginalised villages. Additionally, managing tourism and extractive pressures requires robust local planning and enforcement. Yet Nagaland's strengths viz. rich cultural capital, resilient communities, proactive women's networks and emerging policy alignment with SDGs—create grounds for cautious optimism.

Conclusion

The Naga tribes of the state stand at a crossroads where culture, conservation and commerce intersect. By blending community-led stewardship, women's leadership, market-oriented value chains and an SDG-aligned policy framework, Nagaland can pursue a development model that is inclusive, sustainable and culturally rooted. The task ahead is practical and political: to scale interventions that raise incomes, protect the environment, preserve culture, and ensure that the gains of development are shared across communities—so that "leaving no one behind" becomes a lived reality in the hills. □

No. of Pages: 52
ISSN: 0021-5660
Published on 1 January, 2026

PRGI No. 702/57
Postal Reg. No. DL (S)-05/3232/2024-26
U (DN)-52/2024-26 (Licensed to post
without pre-payment at RMS, Delhi)
DL(DS)-39/MP/2025-26-27 (Magazine Post)



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