> Lust, anger, vanity and covetousness are all paths leading to hell. Abjuring, all these adore the Hero of Raghu's line, whom saints worship.
> — Tulsidas, Ramayana

EDITORIAL

AI Reshapes Civilization

Artificial Intelligence (AI) and Machine Learning (ML) are no longer futuristic concepts confined to research laboratories or science fiction. They are active forces transforming how societies function, economies grow, governments govern, and individuals live. Much like the steam engine powered the Industrial Revolution and the internet reshaped the Information Age, AI and ML are defining the contours of the 21st century.

At their core, AI and ML enable machines to learn from data, identify patterns, and make decisions with minimal human intervention. This capability is revolutionising industries at an unprecedented scale. In healthcare, AI-driven diagnostics are detecting diseases earlier and more accurately. In agriculture, predictive analytics guide farmers on crop health and weather risks. In finance, algorithms monitor fraud in real time. Education, logistics, manufacturing, climate science-no sector remains untouched.

Yet the true significance of AI lies not merely in efficiency gains, but in its potential to augment human capability. AI can process vast datasets in seconds, uncovering insights that would take humans years to identify. It can personalise learning for students, optimise energy grids to reduce emissions, and assist doctors in remote areas through telemedicine tools. When aligned with human values, AI becomes a multiplier of human potential.

However, every transformative technology carries dual possibilities. The same algorithms that enhance productivity can deepen inequality if access is restricted to a few. Automation may displace certain jobs, particularly repetitive and routine roles, even as it creates new ones in data science, AI ethics, robotics, and digital services. The transition, if unmanaged, risks social disruption.

Bias in AI systems presents another profound challenge. Algorithms trained on skewed datasets may inadvertently reinforce social prejudices related to gender, race, language, or class. Privacy concerns also loom large in an era where data fuels intelligence. Without strong regulatory frameworks and ethical standards, the misuse of AI-through deepfakes, surveillance abuse, or autonomous weapons-could undermine democratic institutions and public trust.

The path forward, therefore, demands a balanced approach. Innovation must proceed hand in hand with accountability. Governments must invest in digital literacy, reskilling programmes, and inclusive infrastructure so that AI's benefits reach rural communities and marginalised populations. Industry must prioritise transparency, fairness, and safety-by-design principles. Academic institutions must cultivate interdisciplinary research that integrates technology with ethics, sociology, and public policy.

International cooperation is equally critical. AI does not respect borders. Establishing global norms for safety, data governance, and responsible deployment will be essential to prevent fragmentation and conflict. Just as aviation and maritime industries operate under shared standards, AI too requires a framework that safeguards humanity while enabling progress.

Ultimately, AI and ML are tools-extraordinarily powerful ones-but tools nonetheless. They reflect the intentions of those who design and deploy them. The central question is not whether AI will reshape civilisation; it already is. The real question is whether humanity can guide this transformation toward inclusion, dignity, and shared prosperity.

Challenges and Opportunities in Rural Entrepreneurship

■ DR. BANARSI LAL

India is popularly known as the country of villages. About 72.2 per cent of the India population is residing in rural areas out of which about 75 per cent of population is involved in agriculture and allied activities. The land is limited due to which it is difficult to absorb a huge workforce in agriculture. Entrepreneurship has attained importance in today's era. Entrepreneurship development is important for a country's progress as it augments economic and employment growth. Govt. is launching many schemes to start entrepreneurship in the rural areas. Setting up enterprise depends on one's capacity, which differs from person to person. Rural enterprises are the business entities which by means of effective use of local resources, promote revenue generation and act as the agents of social change at the grass root level. These entities not only play the significant role in the holistic development of the rural economy but also contribute to the economy of our nation. Agriculture forms the backbone of the Indian economy. In India about 70 per cent of population seeks employment in agricultural sector. Majority of the farmers in India are small, marginal and agricultural labourers and a number of them are either unemployed or underemployed. In India, total food grain production in 2024-25 was 353.96 million tonnes. India is the second largest producer of fruits and vegetables in the world after China and first in milk production in the world. India is also having largest cattle population in the world. These agricultural products are partially utilized by the food-processing industries. For example in India about two per cent of fruits and vegetables are processed as compared to 70 per cent in Brazil,30 per cent in Thailand,78 per cent in Philippines and 80 per cent in Malaysia. We lack proper storage and processing facilities due to which we have annual post-harvest fruit and vegetable losses of more than Rs. 2 lakh crores. We can reduce these losses by improving the transport facilities, storage and processing of agricultural products. If we look at the contribution of this sector to the total Gross Domestic Product (18 per cent), this percentage dependence on agriculture seems to be high and indicates to the intensity of disguised unemployment and under-employment in this sector. The employment opportunities in this sector have been declined due to the application of labour saving technology declined public investment and lifting of quantitative restrictions on imports of agricultural products. Also the urban organised sector does not appear to be promising in absorbing growing workforce. This is evident from decline in the absolute number of jobs in public sector enterprises due to retrenchment and disinvestment policy. Although, urban informal sector is growing very fast and a large numbers of youths are absorbed by it but the exodus of rural workers in urban areas is creating a serious problem, to the carrying capacity of urban sector. Under these circumstances, the viable option for providing gainful employment to the growing rural workforce and to lessen the burden of manpower in agriculture seems to be in generating more employment in the rural-non farm sector. During the planning period, rural development strategy has shifted from growth oriented to welfare oriented and further to empowerment oriented. Our development strategy was based on trickle-down theory up to the Fourth Plan in which emphasis was laid on acceleration of growth on the presumption that its benefits would percolate down to the lowest strata of society. This top down approach could not prove effective in alleviating rural poverty. From the Fifth Plan, Government of India tilted its development strategy towards the welfare of downtrodden and underprivileged sections of rural society. Since then, a large number of self-employment programmes have been launched by the Government of India.One of the drawbacks of these programmes was that the group entrepreneurship was not followed in them. Development of Women and Children in Rural Areas (DWACRA) was the only programme which was based on the group approach, covering 10-15 poor rural women in agroup.The major objective of DWACRA was to develop the income generating skills among the rural women. Training of Rural Youths for Self Employment (TRYSEM) was another self-employment programme. The major objective of which was to develop technical skills among rural youths. In 1999, Government of India started a new self-employment programme called as Swarnjayanti Gram Swarozgar Yojana (SGSY), which was based on group approach. This was a holistic programme covering all aspects of self-employment, viz., organisation of the rural poor in to the Self-Help Groups (SHGs). Review of all these self-employment schemes indicates that the policy focus has been largely on poverty alleviation rather than on creation of income and wealth on sustainable basis through investment in productive employment generating activities. Beneficiaries of most of these schemes is poor and illiterate who lack necessary skills to run the activities. A big or medium enterprise can easily hire the workers with different skills. It is not possible in micro enterprise to have access to all these skills and due to lack of necessary skills, many of them could not survive .Thus, development of rural industries under group entrepreneurship can be a good option in this regard. Expansion of rural industrialisation can play a big role in abating distress migration from rural areas and stopping drain, thus reducing the pressure on urban civic services and boosting rural income and employment. On the basis of demand and supply parameters, food industry in India can play a vital role in increasing rural income and employment through agricultural commercialisation, diversification and value addition. For promoting group entrepreneurship among the rural youths, there is need to identify the unemployed educated youths and organise them in groups for jointly taking up some enterprising projects. Each group would have 5-10 rural youths trained in different skills. Such type of groups may also be involved with Swarnjayanti Swarozgar Yojana by involving the beneficiaries of the programme. Agro and non-agro based rural small scale industries can be established by involving the unemployed youths. These industries should be based on the locally available resources. The funds of these industries would be mobilised through bank loans and subsidy to the target groups. Gram Panchayats should be entrusted the responsibility of identifying the different type of unemployed workers willing to join the group. It has been observed that various small scale enterprises could not survive due to lack of market support. Their growth or decline depends on markets, access to technology, credit and skills. There are need to develop a suitable market mechanism for the products of these enterprises. The marketing structure of KVIC and other government outlets can be utilized. There is need to build brand equity for their products. Cooperative marketing institutions can also be used. Efforts from NABARD, other commercial banks, rural local government and Non-Governmental Organisations (NGOs) promote group entrepreneurship. Transfer of cost-effective technology and its constant up gradation is necessary for raising productivity, improving product quantity, competitiveness and increasing profitability of the enterprises. The fast growing urban informal sector is putting pressure on the carrying capacity of urban sector due to influx of workforce from rural areas. Development of group entrepreneurship among the rural youths will be a good alternative strategy for rural industrialization. In order to create conducive environment for the promotion of group entrepreneurship in the rural areas, various interventions such as management of required inputs, finance, market mechanism, revitalizing the existing training infrastructure and use of modern technologies are essential.

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Bharat-VISTAAR@155261

■ DR. PARVEEN KUMAR

Consequent to the announcement made by Finance Minister of the country Ms. Nirmala Sitharaman regarding launch of Bharat-VISTAAR (Virtually Integrated System to Access Agricultural Resources); Union Minister for Agriculture and Farmers' Welfare, Government of India on Tuesday launched the Bharat-VIS-TAAR from Jaipur along with Mr. Bhajan Lal Chief minister of Rajasthan. Sitharaman while presenting her 9th budget on first Sunday of February this year had announced for a multilingual Artificial Intelligence (AI) tool that shall integrate the Agri-Stack portals and the ICAR package on agricultural practices with AI systems. The minister had also allocated a sum of rupees 150 crore for the Bharat-VIS-TAAR for the next financial year (2026-27). Bharat-VISTAAR will be available 24 hours a day as a 'digital agriculture expert' in two ways, and the talking AI assistant inside Bharat-VISTAAR has been named as Bharati. Farmers can also access Bharati by dialing 155261.

Let me deliberate upon what Bharat-VISTAAR means and what implications it has for Indian agriculture. Agriculture in India is the backbone of its economy. There are many issues confronting the farming community engaged in agriculture and allied sectors. The solution to many of these problems especially increasing timeliness, efficiency and precision of farming operations lies in use of Information and Communication Technologies (ICTs). ICTs work best when they are backed by effective and relevant data. The government is also now promoting data based policies and programmes through digitization of agriculture in order to address many issues of farming. The Ministry of Agriculture and Farmers' Welfare, Government of India is already working on an innovative solution to the problems of the farming community based on the data of the farming community through 'Agri-stacking'. An 'Agri-Stack' refers to a collection of technology based interventions in agriculture on which everything else is built. Agri-Stack may have a Farmers' Stack. A Farm Stack and a Crop Stack integrated on a technology platform linking existing digital land records, cadastral maps of farm and information. Farm stack would have geospatial information on each farm, owned by a farmer and Crop Stack can contain crop data linked to farms. The government will provide 'required data sets' of farmers' personal information to Microsoft to develop a farmer interface Unified Farmers Service Platform (UFSP) for 'smart and well-organized agriculture'. At the core of agri-stacks will be land records. The new initiative of creating UFSP would bring a paradigm change in accessing the data relating to farmers and can be used to develop customized solutions, make better plans and monitor their implementation. The Unified Farmers Service Interface/Agri-stack will have a data exchange which would bring in all data related to agriculture sector in a federated platform with the federated farmers' database as its core. The database is envisaged to facilitate online single sign on facilities for universal access and usher in personalized services to farmers such as direct benefit transfer, soil and plant health advisories, weather advisories, irrigation facilities, and seamless credit and insurance facilities. It will also provide information pertaining to seeds, fertilizers and pesticides, nearby logistic facilities, market access information and peer to peer lending of farm equipment, among others. There is also a provision of unique farmer ID (FID) to uniquely identify a farmer and to know benefits availed by a farmer under various schemes. UFSP is a combination of core infrastructure, data, applications and tools that enable seamless interoperability of various public and private IT systems in the agriculture ecosystem across the country. It is envisaged to act as a central agency in the agri ecosystem like UPI in the e Payments, enables registration of the service providers and of the Farmer Services Government to farmers (G2F), Government to Business (G2B), Business to Farmer (B2F) and Business to Business (B2B) and it shall also act as a medium of data exchange amongst various schemes and services to enable comprehensive delivery of services to the farmer. The integration of Agri-stack portals and ICARs Package of Practices for different crops with Artificial Intelligence (AI) systems will enhance farm productivity, enable better decisions for farmers and reduce risk by providing customized advisory support.

Bharat-VISTAAR as an AI-powered multilingual tool is designed to provide information to farmers' in their own language via mobile or a simple phone call on 155261. The tool will offer guidance on crop planning, packages of practices and pests, weather forecasts, markets, scheme information, eligibility, application, and grievance in their own language. Now, after the launch of Bharat-VISTAAR, farmers can get information about 10 major Central schemes, including PM-KISAN, PM Fasal Bima Yojana (PMFBY), Soil Health Card (SHC), Modified Interest Subvention Scheme, Sub-Mission on Agricultural Mechanization, Per Drop More Crop (PDMC), PM Krishi Sinchai Yojana (PMKSY), PM Annadata Aay Sanrakshan Abhiyan (PM-AASHA), Agriculture Infrastructure Fund (AIF) and Kisan Credit Card (KCC). Besides, they can receive alerts on weather and pests. The first version of Bharat VISTAAR will be launched in Hindi and English and gradually become capable of responding in regional languages.

Moreover two way communications in it wherein feedback flows back into government system will definitely help in evidence based policy making and prioritization of research and extension needs. It has been described not only an app, but a National Digital Backbone uniting Central and State systems, while preserving state autonomy. Bharat-VISTAAR will evolve through collaboration with not-for-profit organizations, AI startups, technology firms and AI Centres of Excellence. It aims to take Indian agriculture beyond fragmented digitization and toward institutionalized decision intelligence that converts data into timely, actionable choices at scale. The distinction is also n the purpose. The emphasis is not on expanding access to information, but on embedding intelligence into day to day execution. By integrating soil intelligence, weather data, crop science, and agronomic protocols into localized, real-time guidance, Bharat-VISTAAR signals a decisive shift from reactive practices to predictive, precision-led agriculture. Farmer does not have to depend on different websites, apps or middlemen for all such information. They can simply get it by dialing 155261 or downloading app. from Google play store.

(The author writes on agriculture and social issues)

Kashmir's Journey from Crisis to Recovery

■ ANKIT PATEL

The story of tourism in Jammu and Kashmir has always been more than just a collection of visitor statistics; it is the ultimate barometer of the region's heartbeat. In 2024, that heart was beating at a record pace, with over 2.36 crore tourists flocking to the Union Territory. It felt like a definitive era of "normalization" had arrived. However, the period between April 2025 and February 2026 served as a sobering reminder of how quickly the journey from peak to peril can unfold in this fragile landscape.

On April 22, 2025, the serene Baisaran Valley, known as "Mini Switzerland," became the site of a brutal terror attack that shattered the spring season's stability. Militants from The Resistance Front (TRF) executed a coordinated mass shooting, claiming 26 lives of predominantly Hindu tourists. The brutality was unique in its methodology, involving religious profiling and close-range execution. The fallout was instantaneous. In the digital age, videos of the panic, some captured by tourists mid-air on ziplines went viral, creating a massive psychological deterrent. Within just 48 hours, the Kashmir Valley saw a staggering 90% cancellation rate for hotel bookings. The government was forced into a massive evacuation effort, coordinating 59 flights in a single day to move stranded visitors out of Srinagar.

The incident quickly escalated beyond a local security failure. It became the catalyst for the most significant military tension between India and Pakistan since 2019. The diplomatic freeze was followed by Operation Sindoor in May 2025 a series of missile and aerial strikes by India targeting terrorist infrastructure.

This war-like situation effectively paralyzed the industry during what should have been the peak month of May. While a ceasefire was reached on May 10, the security stigma had already set in. International confidence evaporated as major Western nations, including the U.S. and UK, issued Do Not Travel advisories, shifting Kashmir's global image from a recovering paradise to a high-risk conflict zone.

The numbers for 2025 tell a story of stark regional disparities. Total arrivals for the year dropped to 1.77 crore, a 25% decline from the 2024 peak. However, the Jammu division remained relatively resilient, buoyed by the steady flow of pilgrims to the Shri Mata Vaishno Devi Shrine. In contrast, the Kashmir Valley bore the brunt of the crisis. Visitor numbers there plummeted by 68%, falling from 35 lakh in 2024 to just 11.16 lakh in 2025. The most dramatic missing peak occurred in May, where domestic arrivals crashed from 1.75 lakh in April to a mere 18,246. For local hospitality providers, this wasn't just a statistical dip; it was a systemic economic failure that left thousands of pony riders, guides, and artisans in debt.

By late 2025, the narrative began to change. Recognizing that traditional marketing couldn't erase the memory of the April attack, the administration launched a Winter Offensive focused on sports tourism and infrastructure. The Kashmir Marathon in November 2025 became a symbol of this defiance. With 1,100 runners from 11 countries participating, the event was designed to signal that the attempt to drive away visitors had failed. Simultaneously, the completion of the Z-Morph Tunnel ensured all-weather access to Sonamarg, transforming it from a summer retreat into a viable winter destination.

Amidst the traditional hubs' struggles, an unlikely hero emerged: the Gurez Valley. Located near the Line of Control, Gurez showed remarkable resilience, recording over 54,000 visitors in 2025. Interestingly, the vast majority were local visitors from within Jammu and Kashmir. This community-based tourism suggests that a strong local market can provide a vital buffer when external domestic and international markets shrink due to security concerns.

As of February 2026, the mood is one of guarded optimism. Heavy snowfall has turned Gulmarg into a winter wonderland, with hotels reporting 100% occupancy. On the international stage, the Tourism Department is fighting for credibility, using Virtual Reality (VR) technology at trade fairs like FITUR in hiMadrid to transport global travelers to the valleys and bypass negative headlines.

However, significant hurdles remain. Foreign travel advisories still categorize the region as high-risk. Furthermore, the harsh winter has highlighted environmental vulnerabilities, with Red Alert avalanche warnings and frequent highway closures reminding us that nature can be as disruptive as politics.

The past year has proven that the Indian traveler's desire for Kashmir is incredibly resilient; even a war-like situation could only suppress the urge for a few months. But for the industry to truly thrive, it must move beyond crisis management. Future policy must address the carrying capacity of ecological hotspots like Dal Lake to prevent environmental degradation from ruining the very beauty tourists come to see. It also requires consultative governance to heal stakeholder mistrust and balance security needs with economic survival.

Kashmir stands at a strategic inflection point. The resilience shown in late 2025 is inspiring, but it must be embedded into the permanent fabric of the region's policy. The goal for 2026 and beyond is clear to ensure that the journey from peak to peril becomes a thing of the past, replaced by a steady, sustainable, and safe ascent for all.