"Education is the best friend. An educated person is respected everywhere."
— Chanakya

ARTIFICIAL INTELLIGENCE

Artificial Intelligence (AI) is rapidly transforming industries and everyday life, but its rise also brings complex ethical challenges that require careful consideration. As AI systems become more integrated into various aspects of society, from healthcare and finance to entertainment and governance, the ethical implications of their use become increasingly critical. One of the most pressing ethical concerns with AI is the potential for bias. AI systems often learn from historical data, which can include inherent biases based on race, gender, socioeconomic status, and more. For instance, if an AI model is trained on historical hiring data, it might perpetuate existing biases and unfairly disadvantage certain groups. This issue has been highlighted in cases where facial recognition technology has been shown to have higher error rates for people of color compared to white individuals. Addressing these biases requires developing more robust and fair data collection methods and implementing rigorous testing to ensure that AI systems do not reinforce discrimination.

AI technologies, especially those involving data collection and analysis, pose significant privacy concerns. AI systems can analyze vast amounts of personal data, often without individuals' explicit consent or knowledge. This raises questions about how data is collected, used, and protected. For example, AI-driven surveillance systems can track individuals' movements and activities, potentially infringing on their privacy rights. Ethical AI development must prioritize data protection and transparency, ensuring that users are informed about how their data is used and have control over their personal information. As AI systems become more autonomous, determining accountability becomes more complex. When an AI system makes a decision that leads to harm, such as a wrongful arrest due to flawed predictive policing algorithms, who is responsible? The lack of transparency in how AI systems reach their decisions can make it difficult to hold parties accountable. To address this, AI systems should be designed with explainability in mind, allowing users and stakeholders to understand the decision-making process and ensure that there is clear accountability for any negative outcomes. AI's impact on employment is another major ethical concern. Automation and AI technologies have the potential to displace a significant number of jobs, leading to economic disruption and increased inequality. While AI can create new opportunities and efficiencies, there is a moral obligation to address the displacement of workers. This includes investing in retraining programs, supporting transition policies, and fostering a dialogue about the future of work to ensure that the benefits of AI are equitably distributed. AI systems that operate autonomously, such as self-driving cars or drones, raise important safety and ethical questions. Ensuring that these systems operate safely and make ethical decisions in complex, real-world scenarios is crucial. For instance, self-driving cars must navigate dilemmas such as choosing between the safety of passengers versus pedestrians. Developing ethical guidelines and safety standards for these systems is essential to prevent accidents and ensure that AI technologies are deployed responsibly. AI can be used to create and spread misinformation, which has significant ethical implications for democracy and public trust. Deepfakes, AI-generated fake news, and manipulated media can deceive and mislead people, potentially undermining informed decision-making. Addressing this issue involves developing technologies to detect and counteract misinformation and implementing policies to regulate the ethical use of AI in media and communication. As AI technology advances, there are concerns about the long-term implications of creating super intelligent systems that could surpass human control. Ensuring that AI developments align with human values and interests is crucial for preventing unintended consequences. This requires a collaborative effort between technologists, ethicists, policymakers, and the public to establish frameworks for safe and ethical AI development.

Mr. Prime Minister, a boon for India

■ SUNAINA MALIK

It has rightly been said that political leaders decide the fate of people of any country so did our great prime minister shri Narendra bhai Modi during the reign of his rule over India. Our honourable Prime Minister not only blessed Indian masses by implementing innumerable innovative public friendly schemes but also cherished India by popularizing Indian customs and civilization across the globe.

*It is only under the commendable governance of honourable Modi that our Indian scientists have succeeded to crown India as world space power.

*It is only Modi, who with his impressive speeches has convinced the world community about the benefits of yoga and succeeded to declare 21 June as yoga day by UN to be celebrated by 177 countries of world.

*It is only Modi, who because of his commendable efforts to raise the standard of poor people of India, who because of his efforts to raise the economy of country and who because of his appreciable moves to maintain the regional and world peace, has got Seoul peace award from south korea for the year 2018.

*It is only Modi, who because of his deep environmental concerns and his individual involvement in cleanliness of roads of India with broom in his hands, has enabled him to get united nation's highest environmental award " The champion of earth" for the year 2018 from the hands of UN secretary general Antonio Guteress

*It is only Modi, who has bought india on 77th rank from 142th amid countries doing high business

*It is only Modi, who has turned illegally saved black money by corrupt people in to a hand full of ash by announcing demonitisation.

*It is only Modi, who has raised country's economy to infinity.

*It is only Modi, who has reduced the distance between a common man and a prime minister of a country to almost zero by starting a communicative program (MAAN KI BAAT)

*It is only Modi, who came up with an idea of high tech digital India.

Undoubtedly, Modi era can be called as golden era in the history of Indian civilization. Unlike UPA govt. Which has robbed indian economy by innumerable seams like Adarsh seam, Bofos, CWG seam, Dewas entries, Employment gurantee scheme seam, Fooder seam, Gaziabad provident fund seam, Harshad Mehta stock market seam, IPL seam, LIC housing seam Madhu koda seam, satyam seam, Telecom seam, 2 G seam, Manerga seam and Non banking financial companies seam etc, Modi Govt. appeared as a clean and seam free Govt.

Modi led NDA govt. has revolutionized every sector of country by bringing schemes like, Pradhan Mantri Jan dan yojana, Make in india, Sawach bharat Abhiyan, Mission inder danush, Beti bachao beti padho, Sukanya samridhi yojana, Stand up india, Pradhan Mantri Mudra yojana, pradhan Mantri jeevan jyoti Bima, Atal pension yojana, pradhan Mantri suraksha Bima yojana, Pradhan Mantri awas yojana, Digital India, Pradhan Mantri kosal vikas yojana, Start up India, Ujavala yojana and Deen Dayal upadhyaya gram jyoti yojana.

In the conclusion, I want to emphasis that schemes brought by NDA govt. has set new horizons of development and prosperity for our country.

Significance of Self-employed Women: A Life Turning Point

■ DR RAJKUMAR SINGH

The concept of self-employed women originated from the need to empower women economically, particularly in informal sectors, and to give them independence and control over their livelihoods. Historically, women have been central to informal economies, contributing through small-scale farming, artisanal work, petty trade, and home-based services. But in many societies, women faced systemic barriers to formal employment, including gender discrimination, lack of access to education, cultural norms, and legal restrictions. These barriers led many women, especially those from marginalized communities, to seek economic opportunities through self-employment.The informal sector, which includes unregulated and unregistered employment, became a natural space for women to engage in income-generating activities. Women in rural and urban areas alike took up roles such as artisans, street vendors, farmers, and home-based workers.Starting in the mid-20th century, feminist and economic justice movements began advocating for the economic rights of women, particularly those in low-income communities. These movements highlighted the need for women to have financial independence and the ability to control their income. As a result, organizations like the Self-Employed Women's Association (SEWA) in India were formed in response to these challenges.It was one of the earliest and most successful models supporting self-employed women, SEWA began in India as a trade union of women working in the informal sector. SEWA focused on organizing women workers, advocating for their rights, and providing them with access to credit, training, and markets. Its success highlighted the importance of self-employment as a means for women to achieve economic security.Importance of Self-Employed Women: a. Economic Independence: Self-employment allows women to have control over their work, schedule, and income, giving them a degree of independence they may not experience in traditional jobs.b. Flexibility and Accessibility: Self-employment offers flexibility, making it more accessible for women who have caregiving responsibilities or who live in areas with limited formal job opportunities.c. Entrepreneurship and Innovation: It encourages women to engage in entrepreneurship, turning their skills and knowledge into business ventures, whether it's through handicrafts, agriculture, or small-scale industries.d. Financial Inclusion: Many women entrepreneurs in self-employment benefit from programs aimed at improving financial inclusion, such as microfinance and self-help groups that provide loans, training, and networking opportunities.e. Social Empowerment: Beyond economics, self-employment often empowers women socially by boosting their confidence, improving their status in the community, and providing a platform for collective organizing.In summary, the concept of self-employed women has its roots in the historical exclusion of women from formal economies, feminist movements, and the development of the informal sector.

Need of self-employed women

The need for self-employment, particularly among women, arises from several socio-economic, structural, and cultural factors. These causes are often interconnected and reflect the limitations of formal employment sectors in accommodating diverse populations: a. Lack of Formal Job Opportunities: High Unemployment Rates: In many regions, formal employment opportunities are scarce due to economic conditions, industrial decline, or limited job creation. Self-employment becomes a necessary alternative for individuals who cannot find formal jobs.Structural Adjustment and Downsizing: In some countries, economic reforms such as privatization or government downsizing reduce public sector jobs, compelling individuals to seek self-employment for survival.b. Economic Necessity and Poverty: Poverty and Lack of Resources: For individuals living in poverty, self-employment may be the only option for generating an income. Whether it's farming, small-scale vending, or informal labour, self-employment allows people to engage in economic activities despite their limited financial means.c. Flexibility and Work-Life Balance: Need for Flexibility: Self-employment offers individuals, especially women and parents, the flexibility to work according to their schedules. This flexibility allows them to balance their personal, familial, and professional responsibilities, which is often difficult in traditional jobs with fixed hours.Desire for Independence: Many people are drawn to self-employment for the autonomy it provides. They prefer being their own boss, having control over their work environment, and making decisions without the constraints of formal employment structures.d.Limited Access to Formal Financial Systems: Credit and Finance Barriers: In many cases, individuals-especially women-face barriers in accessing formal financial systems, including loans and credit. Self-employment, particularly in informal sectors, allows them to generate income without needing large amounts of capital or access to formal credit systems.Microfinance Solutions: The growth of microfinance institutions has made it easier for individuals to start small businesses or self-employment ventures. These institutions often target self-employed individuals who lack access to traditional banks.e. Technology and the Gig Economy: Access to Online Platforms: In recent years, technological advancements and the rise of the gig economy have created new opportunities for self-employment. Platforms like ride-sharing apps, freelance marketplaces, and online stores enable individuals to become self-employed with minimal investment.In summary, the need for self-employment arises from a combination of economic pressures, lack of formal employment opportunities, social barriers, and the desire for autonomy and flexibility.

Status in India

The status of self-employed women in India reflects both progress and ongoing challenges. Women in India have long been involved in informal and self-employed work, particularly in rural areas and lower-income communities. An overview of the status of self-employed women in India include:a. Prevalence of Self-Employment: According to various reports, around 94% of women workers in India are employed in the informal sector, with a significant proportion engaged in self-employment.b. Key Sectors for Self-Employed Women: Agriculture: A majority of rural women are engaged in agriculture and related activities. Many work as small-scale farmers, laborers, or in animal husbandry. They are responsible for tasks like sowing, harvesting, and post-harvest processing, often without formal recognition as workers.Artisanal Work and Handicrafts: In rural areas, self-employed women are involved in traditional crafts such as weaving, embroidery, pottery, and other handicrafts. These products are sold in local markets or through cooperatives and NGOs.Retail and Vending: Women in urban areas often work as street vendors or run small shops, selling goods ranging from vegetables to clothes.National Rural Livelihood Mission (NRLM): Aimed at reducing poverty through enhanced livelihoods, NRLM supports SHGs and provides training, capacity-building, and access to credit for rural women.Pradhan Mantri Ujjwala Yojana: This program, though not specifically focused on self-employment, indirectly benefits women by providing free LPG connections, allowing them more time for income-generating activities.c. Economic and Social Impact:

Economic Contribution: Self-employed women contribute significantly to household incomes, particularly in rural areas, and play a crucial role in local economies. In some cases, their earnings help lift families out of poverty.Social Empowerment: Beyond financial independence, self-employment has empowered women socially. It enhances their decision-making power within households and communities, boosts their confidence, and encourages them to participate in collective movements for their rights.Self-employed women in India are critical contributors to the economy, particularly in informal sectors. The future holds potential for further advancements, especially through technology, skill development, and stronger social protection systems.

(The writer is a youth motivator)

Environmental Challenges in Jammu and Kashmir

■ MOHAMMAD HANIEF

Jammu and Kashmir is a popular travel destination and the tourism industry has led to the economic growth of this region. Infrastructural development and industrialization have got a boost in recent years. However, these factors have also increased the environmental problems due to the construction of roads, industrial and residential complexes, and resorts, has led to the loss of forest cover and farms. Industrial growth and the rising population have resulted in environmental pollution and climate change.

Environmental degradation is mostly a result of human activities such as deforestation, vehicular pollution, and industrialization, which has led to environmental pollution and loss of biodiversity. Educating the masses about the importance of protecting the environment is an effective way to restore the ecological balance.

The climate change is the biggest environmental emergency that the earth faces today. This inevitable disaster has a multitude of serious implications for both environment and human society. Efforts are being made to develop a better scientific understanding of this complex problem by generating better future projections of climate change. The climate change has potential implications on different sectors including glaciers and permafrost, rivers, forests, soils, ecosystems, society and economy etc.

Effects of climate change are already being felt on the ground. Erratic snowfall and snowfall pattern and unusual warm winters are some of the characteristics of the climate change in Jammu and Kashmir. The diverse types of ecosystems and communities, especially the poor rural people, living in the mountains across the state are among the most affected by the climate change.

Depending on the nature of pollutants, they can belong to three major categories - biological (pathogenic organisms, products of biological origin), chemical (toxic metals, agrochemicals, gaseous pollutants, particulates, hazards chemicals, carcinogenic substances, petroleum products, acidic or basic substances and radiation (ionizing and non-ionizing), radioactive substances, sound waves, foul odours.

In the last 100 years, the temperature rise in Jammu and Kashmir has been 1.2 degree Celsius, which is more than the world average. This may be detrimental to some native crops of Kashmir. Global warming in the region has also led to a change in snowfall patterns and warmer winters, affecting the ecosystem at large.

In recent years, there has been a drastic reduction in the forest cover in Jammu and Kashmir. Around 14,000 hectares of forest area has been encroached upon, and as per a 2017 report published by the Forest Survey of India, the forested area in J&K is just 10.46%. Increasing requirement for housing and infrastructure and the rise in industrial development have led to the felling of trees. Deforestation has caused soil erosion and floods, further damaging forest resources.

Due to habitat destruction and animal poaching, many animal species in Jammu and Kashmir are facing the threat of extinction. Cutting of trees and depletion of the forest cover is threatening the existence of some plant species.

Jammu and Kashmir has several lakes and streams. The disposal of human and animal waste in these water bodies has obstructed their flow and degraded water quality.

Dal Lake, one of the largest water bodies in Kashmir and a world-famous tourist attraction, contributes significantly to its economy through tourism, agriculture, and fisheries. In addition, it has been a major source of food and water for the people residing in the area.

However, pollution in Dal Lake has become a concern in recent times as the water characteristics have drastically changed. Pollutants and contaminants from sources such as sewage, waste from houseboats, animal waste, commercial establishments, and agricultural run-off have deeply impacted the water quality, making it unfit for domestic and reuse purposes.

The infrastructural and industrial growth in Kashmir has boosted its economy but resulted in air pollution. Burning of stubble in the harvesting season degrades air quality and throwing of wastes in open spaces further pollutes the air. Brick kilns in many districts of Jammu and Kashmir are adding to air pollution.

The glaciers in the western Himalayas, source of water for Jammu, Kashmir and Ladakh, have been melting at a significant rate due to the growing amount of black carbon aerosol and greenhouse gases, which is leading to the darkening of the region's snowpack, researchers have found in various studies.

In a recent study, around 77 glaciers in the Drass basin of the Ladakh region were evaluated using satellite data. The study was used to investigate the shrinkage, snout retreat, ice thickness changes, mass loss and velocity changes of these glaciers between 2000 to 2020. Land which was once used for farming, is being used for non-agricultural purposes, thus leading to a food grain deficit. Farmlands are fast being used for construction of roads, buildings and industries. Many plantation drives were organized to let the masses participate in afforestation. Agro-based businesses have been encouraged so that plants native to Kashmir can be commercially cultivated. Strict laws have been formulated against timber smuggling and other mal-practices, which result in the cutting down of trees.

Water conservation and management programmes have been launched for the lakes in J&K, in which their water quality is assessed and remedial measures like weed removal are implemented. Volunteers take up projects for cleaning up of rivers and surrounding areas to curb pollution caused by garbage.

To reduce air pollution in Jammu and Kashmir, the state administration is taking measures like checking of vehicular emissions, traffic management, and introduction of cleaner fuels, among others. To combat loss of biodiversity, several sanctuaries, national parks and conservational reserves have been established and poaching of certain endangered animals has been prohibited by law.

If natives and tourists act responsibly towards the environment and strike a balance between economic growth and environmental protection, Jammu and Kashmir will stay beautiful, befitting its nickname, Paradise on Earth.

PM Vishwakarma

■ SUSHRI SHOBHA KARANDLAJE

India has been a nation of various forms of traditional arts and crafts. These arts and crafts are not only a part of our glorious heritage, but they also contribute immensely in creating engagement and employment for a number of persons. The artisans and craftspeople engaged in these trades like pottery, boat making, shoe making, etc. touch the lives of the people around them and their contribution is pivotal in the economy of the rural India. Most of these artisans and craftspeople have been a part of informal economy and work with their hands and tools.

In this background, PM Vishwakarma, was launched by Hon'ble Prime Minister on Vishwakarma Jayanti on 17.09.2023 by the Government of India for transforming the lives of these artisans and craftspeople, known as Vishwakarmas through a number of positive interventions.

PM Vishwakarma Scheme is a holistic scheme that provides an end-to-end support to artisans and craftspeople. Under the Scheme, the traditional trades covered are Carpenter (Suthar/Badhai), Boat Maker, Armourer, Blacksmith (Lohar), Hammer and Tool Kit Maker, Locksmith, Goldsmith (Sonar), Potter (Kumhaar), Sculptor (Moortikar, stone carver), Stonebreaker, Cobbler (Charmakar)/ Shoesmith/ Footwear artisan, Mason (Rajmistri), Basket/Mat/ Broom Maker/Coir Weaver, Doll & Toy Maker (Traditional), Barber (Naai), Garland Maker (Malakaar), Washerman (Dhobi), Tailor (Darzi), and Fishing Net Maker.

The Scheme is based on the "Whole of Government" approach. This Scheme is being co-implemented by three Ministries of Government of India namely, Ministry of Micro, Small and Medium Enterprises, Ministry of Skill Development and Entrepreneurship and Department of Financial Services. There is continuous coordination and constructive collaboration among these Ministries and the State Governments, which makes it as one of the most unique schemes ever launched and implemented in the country. The State Governments play a very important role in the three-tier verification process of the beneficiaries of the Scheme.

The response to the Scheme has been extremely positive. When the Scheme was launched in 2023, it was expected that a number of 30 lakh beneficiaries would onboard in a time period of five years. It is heartening to see that within 11 months, 2.36 crore enrolments have already taken place and out of these, 17.16 lakh beneficiaries have successfully registered, after the three-stage verification process.

Karnataka is home to a number of Vishwakarmas having their own unique creativity and potential. They are engaged in various art forms like stone carving, wood work, sandal-wood carving, metalwork like Bidriwork, Dolls and Toys making, etc. There has been a very positive response in the State of Karnataka for PM Vishwakarma Scheme. As on date, 28.99 lakh enrolments have taken place in Karnataka. Out of these 3.93 lakh beneficiaries have successfully registered. Around 2 lakh beneficiaries have completed their skill training and more than 35,000 beneficiaries have been sanctioned a loan of up to Rs. 1 lakh. Cumulatively, an amount of Rs. 305.08 crore has been sanctioned as loan to these beneficiaries.

The Scheme emphasises on giving 'Samman' to the Vishwakarmas engaged in these trades, upgrading their 'Samarthya' and bringing 'Samriddhi' to them. 'Samman' is accorded to the beneficiaries by awarding them a PM Vishwakarma Certificate and ID card once they are registered.

For building their 'Samarthya', the Scheme envisages Skill Upgradation of the artisans and craftspeople. High quality training of 6 days is imparted to the beneficiaries by master trainers of respective trades. The beneficiaries are provided a stipend of Rs. 500 per day as wage compensation, besides a travel allowance of Rs. 1,000. Moreover, board and lodging facilities for the beneficiaries during the training are fully funded by the Government and provided free of cost. Another aspect of 'Samarthya' is ensured through the provision of toolkit incentive of up to Rs. 15,000 to enable the artisans and craftspeople to use modern and latest tools in their respective trades. The Ministry of MSME has collaborated with Department of Posts, which through its network spread across the country, will ensure that the toolkits are handed over to the beneficiaries at their doorstep.

'Samriddhi' of the beneficiaries is envisaged by providing for access to affordable credit and access to wider markets. The Scheme provides for collateral-free loans of up to Rs. 3 lakh in two tranches of Rs. 1 lakh and Rs. 2 lakh, at a concessional interest rate fixed at 5%. No guarantee fee is charged to the beneficiaries. In addition, the Scheme incentives beneficiaries to adopt digital transactions and a cashback is given every time a digital transaction is made. Every month, Re. 1 per digital transaction, up to a maximum of 100 transactions, is credited to the beneficiary's account for each digital payout or receipt. Marketing strategy to promote the products and services of these artisans in both domestic and international markets is a part of the Scheme. This includes quality certification, branding, advertising, publicity, and other marketing activities aimed at enhancing their connection to value chains. Onboarding on e-commerce platforms like GeM, ONDC, etc. and quality certifications are encouraged under the marketing component of the Scheme.

The Scheme is set to become instrumental in creating a new India by equipping traditional artisans and craftspeople to establish their own enterprises. It is a commendable effort by the Government to support those who preserve India's rich cultural heritage and the nation is on path to witness rise of Vashwakarmas in our economic landscape.

(The author is Minister of State for Ministry of Micro, Small and Medium Enterprises and Ministry of Labour & Employment)