

SUSTAINABILITY IN AGRICULTURE

In the quiet furrows of the Earth, where seeds slumber in anticipation, the call for sustainable agriculture resounds louder than ever. As the global population swells and climate whispers turn to cries, the need to cultivate food without costing the future has become not just a priority, but a necessity.

Sustainable agriculture begins at the roots - with the soil. Healthy soil is not just dirt; it's a living, breathing ecosystem teeming with microorganisms that nourish crops and balance nature. Practices like crop rotation, cover cropping, and minimal tillage help maintain this sacred soil structure. By reducing chemical inputs and embracing composting and organic matter, farmers can enrich the land, not deplete it.

Water, the elixir of life, is increasingly under threat. Sustainable farming must be water-wise. Drip irrigation systems, rainwater harvesting, and moisture sensors offer smart ways to use water judiciously. Growing drought-resistant crops and aligning planting schedules with rainfall patterns can further ensure that water is conserved, not wasted.

Monoculture may feed the world for a season, but biodiversity secures it for generations. By integrating a variety of crops and encouraging natural habitats for pollinators and pest-controlling species, farmers create resilient ecosystems. Agroforestry - the fusion of agriculture and trees - is one elegant approach, enhancing soil fertility, sequestering carbon, and supporting wildlife all at once.

The sun, the wind, and the Earth herself offer bountiful energy. Solar panels can power irrigation systems, wind turbines can help run farms, and biogas plants can transform waste into energy. Transitioning from fossil fuels to renewables not only slashes emissions but also empowers rural communities with self-sufficient energy sources.

In this era of innovation, drones hover over fields like vigilant guardians, sensors whisper data from roots to cloud, and GPS-guided tractors sow seeds with the precision of poetry. Precision agriculture allows farmers to apply inputs exactly where and when needed, reducing waste and maximizing yield. It's farming with foresight and finesse.

At the heart of sustainable agriculture lies the farmer. Equipping them with knowledge, access to markets, financial support, and fair policies is essential. Education on sustainable practices, cooperative farming models, and fair-trade systems can uplift farmers while ensuring environmental stewardship.

Governments, NGOs, businesses, and citizens must join hands. Policy reforms that reward sustainable practices, subsidies for green technology, and international cooperation on climate-smart agriculture are vital. Change blooms fastest when many hands till the soil together.

Sustainability in agriculture is not a finish line; it is a journey, a rhythm, a return to balance. It honors the wisdom of the past while embracing the innovation of the future. It is the promise that food can be grown without forsaking forests, that farms can flourish without fouling rivers, and that we can eat not just to survive, but to thrive - in harmony with the Earth.

Let us plant today with the care of poets and the vision of pioneers, for the harvest of tomorrow depends on the seeds of sustainability we sow today.

Panchayati Raj Institutions and Rural Development

DR. BANARSI LAL

Every year 24th of April is observed as the National Panchayati Raj Day in India. It is an important event marking the establishment of Panchayati Raj Institutions (PRIs) in India. This day is dedicated to promote grass root level democracy, strengthening local governance and empowering rural communities. On this day, the government and local bodies organise events, discussions and award ceremonies to recognise and encourage best practices in local governance. This day marks the passing of Constitution (73rd Amendment) Act, 1992 that came into force from 24th of April, 1993. This amendment introduced a three-tier system of local governance in India, with the Panchayati Raj Institutions (PRIs) at the village, block and district levels. To extend democracy to rural India, the system of Panchayati Raj was established in India. Panchayati Raj was first started in 1959 at Nagaur (Rajasthan) and Andhra Pradesh. Firstly it was observed in 2010. Panchayats are physically the most proximate institutions of government for people living in rural areas. According to the Indian Constitution Panchayats are the institutions of local self-government in rural India. In India three-tier Panchayati Raj Institutions (PRI) system is mandatory for all states with the exception of some states whose population is less than 2 million. These tiers consist of: Gram Panchayats at village or cluster of villages' level, Block Panchayat at sub-district or block level and the District Panchayat at the district level. For smaller states such as Sikkim, only two tiers system, namely Village Panchayat and District Panchayats have been constituted. The Constitution also mandates that democratically elected Panchayats should prepare plans for economic and social development of rural areas. They should also implement the schemes for local economic development and social justice as entrusted by the Central and State governments. The Eleventh Schedule in the Constitution of India provided an indicative list of 29 subjects as possible work areas for Panchayati Raj Institutions. There is dire need to look into the number of functionaries in panchayats whose capacities should be enhanced. There is also a need to analyse the current strategies and emerging issues for capability building of the staff in Panchayats. There is a need to contemplate over the capacity building requirements of Elected Representatives

(ERs) and staff of Panchayats so that they can effectively undertake their mandated roles and responsibilities. Their social and educational backgrounds should also be analysed properly.

Panchayati Raj is the backbone of Indian democracy. India has the largest democratic process in the world. It is one of the largest powerful tools of Indian democracy. In the structure of Panchayati Raj village Panchayat is the lowest unit. Panchayat members and officials live with the people in their respective villages or in the nearby villages. Being physically close to the local people, Panchayat members are expected to respond to various demands from the locals, as well as from other organizations. They follow well-defined norms and procedures to manage the affairs of institutions of Panchayati Raj. Thus, Panchayat functionaries should be well aware about the intricacies of management and finances of Panchayats, including the procedures to conduct Panchayat meetings, Gram Sabha meetings, meetings of standing committees etc. There is a need to know the roles, responsibilities and rights of institutions of Panchayats. There is also essential to understand the fundamentals of Panchayati Raj, democracy, the 73rd Constitutional Amendment Act, the State Panchayati Raj Act, social justice, participatory planning, gender equality, e-governance etc. The Panchayati Raj situations vary from state to state depending on devolution of functions, funds and functionaries. The capacity needs for Elected Representatives and other stakeholders also vary in different states. There are various common issues such as communal harmony, human rights, climate changes, environmental issues and disasters. The roles of Panchayats in implementation of Centrally Sponsored Schemes are also increasing. Other departments/ministries like Education, Health, Agriculture, Water, Sanitation, Women and Child Development, Tribal Development etc. also implement programmes at Panchayat level. The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), Pradhan Mantri Awas Yojana-Grameen (PMAY-G), Pradhan Mantri Gram Sadak Yojana (PMGSY) and Swachh Bharat Mission are among the important centrally sponsored schemes which involve Panchayats. Panchayats mainly spend the funds on water supply, sanitation, playgrounds, crematorium etc. Panchayats have a large number of staff

members with different knowledge, backgrounds and interests. According to the enactment of 73rd Constitutional Amendment Act in 1993, about 2, 48,620 Village Panchayats, 6425 Block Panchayats and 601 District Panchayats are presently functional in India. The three-tier structures of Panchayats in all states across the nation elect a total of about 3 million representatives for 5-year electoral terms. Out of these, more than 1.2 million representatives are women. The elected representatives from Scheduled Castes, Scheduled Tribes and Backward Castes are also close to a million. Most of these women and marginalized men, getting elected to Panchayats are having their first ever experiences of rural development. They are assigned various duties in social and institutional environments. These elected representatives are also responsible for the implementation of the Central and State schemes in the Panchayats. They require specific skills and technical knowledge to perform these roles. Thus, they require specific training and capacity building programmes. The training and capacity building among the Panchayat Functionaries are quite challenging because of their diversity in knowledge, education and varying contextual situations. Beside the core functionaries, departmental functionaries, especially from departments devolved to Panchayats, need to understand the Panchayati Raj system thoroughly, as well as their roles in it. They need to be oriented, sensitized and trained.

In 2014 the Ministry of Panchayati Raj, Government of India prepared a National Capability Building Framework to provide guidelines to states for training contents, types of trainers and modes of training. It proposed the engagement of various training institutions of central and state governments, accredited NGOs, academic institutions and mass media in undertaking various types of capacity needs of the Panchayati Raj system. Almost all states have their own SIRDs, which are financially well supported by the Ministry of Rural Development, Ministry of Panchayati Raj and respective state governments. The National Institute of Rural Development and Panchayati Raj (NIRD&PR) in Hyderabad act as a national nodal institute for all SIRDs. Many Non-Government Organisations (NGOs) also perform institution based and extensive training for Panchayati Raj. Though institution-based training is critical, it also has limitations in

reaching and catering to a very large number of stakeholders. A cascade mode of training enables decentralization of training to many locations, such as district, block and even village or cluster of villages' level. Trainees also feel more comfortable with this approach, being close to their homes and environment for face to face interactions with the trainers who often speak in local dialect. For cascade modes of training, Master Trainers are prepared amongst the most knowledgeable and interested persons from different locations in intensive MTOT (Master Training of Trainers) programmes conducted by the State Institutes of Rural Development (SIRDs) and Extension Training Centres (ETCs). The Master Trainers in turn train large numbers of Trainers in institution-based intensive Training of Trainers (TOTs), which are conducted in various regions or districts. Exposure visits have been found to be one of the most effective ways of capacity building. The ERs and officials of panchayats visit at different places and learn from seeing and discussing. These exposure visits also promoted friendship between the officials and the Elected Representatives (ERs) which develops good working culture in Panchayat. Many SIRDs use distance learning methods which is based on satellite communications through central studio relay centres and decentralized Satellite Interactive Terminals. Many Academic Institutions, SIRDs and NGOs also run courses on Panchayati Raj programmes for benefits of students, officials of Panchayats and the elected representatives. Radio, Television, local dailies etc. are used for dissemination of popular knowledge about the Panchayati Raj Institutions. An easily understandable literature is also prepared in local languages and is distributed to disseminate the knowledge about of functioning of the Panchayati Raj Institutions. Panchayati Raj system has seen many ups and downs. But people have recognized and accepted its importance for rural development. It has therefore become a trend to include the roles of Panchayats in the guidelines of almost all development schemes, which are being implemented in the rural areas. The Panchayati Raj Institutions (PRIs) have emerged as the cornerstone of India's decentralised governance framework, embodying the country's commitment to empowering local communities and strengthening grassroot democracy.

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Kashmir's Wounds, India's Resolve: Confronting Terror and Division

AMIT MEHRA

The recent terrorist attack has once again shaken the soul of our nation. It is chilling to imagine how many families spent their nights engulfed in anxiety, tears, and despair. How can anyone sleep peacefully when innocent people are selectively murdered based on their religion? This was not just an assault on tourists—it was a targeted attack on Kashmir's economy, its tourism sector, and the very fabric of its social harmony. Even a Muslim horseman, who was trying to save lives, was not spared. This chilling detail underscores that the attack was meant to ignite religious identity and deepen communal divides in our country. The handlers of such terrorist organizations in Pakistan are well aware: the more they stoke communal hatred in India, the more they benefit.

As the entire nation burns with anger, we cannot ignore some fundamental questions. The most pressing among them: how did our security and intelligence agencies fail? If all leads can be activated after the attack, why

weren't there alerts before it happened? This is not the first time that such an act of violence has struck Kashmir. Yet, as always, we seem to have failed again. Accountability must be established. Beyond military retaliation, it is essential that those responsible for security lapses are held answerable—especially as such attacks are becoming increasingly frequent, and the sense of insecurity in the Valley continues to grow.

Kashmir is once again sliding into shut-downs. Jammu observed a complete bandh today, and one has been called in Kashmir tomorrow. This is not just a reaction—it is a red flag. People are asking questions, not only from the opposition benches but from within the ruling BJP as well. When BJP's own elected representatives are urging the Home Minister to restore peace and normalcy, it signals that the situation is far more serious than what the government might admit. It is time for the government to reflect deeply.

The terrorists didn't just fire bullets; they attacked India's social unity. That's why, today, we need to take three critical steps.

First, the terrorists must be given a decisive and forceful response to show them and their handlers that India will not tolerate such conspiracies. Second, there must be a serious review of our security systems and intelligence networks, and accountability must be fixed. Third, and perhaps most importantly, the nation must come together as one to resist the spread of hatred, communalism, and violence—because the primary goal of terrorism is to break down the bonds of social cohesion.

The ordinary citizens of Kashmir have paid a heavy price in this violence. In a single stroke, thousands lost their livelihoods. Hotels, taxi drivers, tour guides, shopkeepers—all are now living in fear and uncertainty. This attack was not just on lives; it was on livelihoods and dignity. The silver lining, however, is that this time, the people of Kashmir have not bowed to fear. They have raised their voices strongly against this act of terror. That unity is the most powerful answer to terrorism.

On the other hand, a disturbing question also arises—how did private airlines dare to

triple their fares at a time when the country is in mourning? This is not only inhumane but also a shameful display of profiteering during a crisis. Such acts demand strict action and immediate relief for those affected.

For those in power, this is not the time for emotional speeches—it is the time for decisive action. Tweets and slogans won't change the ground reality. This terrorist attack was not a mistake; it was a well-planned conspiracy. Therefore, the response cannot rely solely on bullets. It must be matched with policy, justice, and moral leadership. Today, India needs a voice that says—We are all one, and terror has no religion.

India must eliminate such terrorist organizations, but this cannot be the task of the military alone. The public must also be a partner in this mission. And first and foremost, the ruling party must stop its IT cell from spreading divisive hate narratives—because, knowingly or unknowingly, they are doing exactly what the terrorists want: dividing us from within.

(The writer is Social and Political Activist)

When will brutal massacres end in Kashmir?

SUNAINA MALIK

First of all, let's pay homage to the departed souls of the brutal massacre in Pahalgam area of Jammu and Kashmir.

It was on 22nd April, 2025 some terrorists opened fire on innocent tourists at Baisaran (mini Switzerland) area of Pahalgam and cold bloodedly murdered 26 tourists, who had come all the way from the country to enjoy the scenic beauty of Kashmir (Heaven on Earth). Here I want to say if, someone kills a person, it does not only mean that he kills one person but it means he kills the adoring husband of a wife, he kills the dreams of a mother, he kills the support of a father, he kills the security of children, he kills the inspiration of a brother, he kills the proud of a sister and over all he kills the affectionate mortal of God, which God in no case has permitted so.

God in Quran says "Whoever kills an innocent soul...it is as if he has killed all humanity. And whoever saves one..."

It is as if he has saved all humanity" (5:32). Almighty has bent us to adore, esteem, honour, assist and sustain each other but not to odium and slaughter each other.

Our state J&K has been witnessing the bloody episode of killing of armed personnel along with innocent civilians since the onset of insurgency. As per the written records nearly 5000 army personnel and 14000 civilians have sacrificed their inestimable lives.

We have unending list of brutal massacres in our state of Jammu and Kashmir like Gawkadal massacre, Handwara massacre, Zakoora and Tengpora massacre, Hawal massacre, Bijbehara massacre, Sopore massacre, Lal Chowk fire, Kupwara massacre, Sangrampora massacre, Wandhama massacre, Prankote massacre, Chittisinghpura massacre, Kote Charwal massacre, Kishwar massacre, Chinnari massacre, Amarnath pilgrims massacre, Qasim Nagar massacre, Kaluchak massacre, Raghunath massacre, Nadimerg massacre, Teli katha massacre, Doda massacre, Amarnath Yatra attack, Kulgam massacre and most recent Pahalgam massacre.

Time and again these massacres have ruined the most prized lives of innocent Indians.

At present when countries like the US and China, which have already attained the label of developed countries, are still struggling hard to make their people more prosperous and to make the life standard of their natives more luxurious.

But we are still losing the lives of our dear Indians at the hands of terrorism. Unending ambience of terrorism incessantly pushing our expansion far back than the developed countries. Having their pockets filled with money, people of developed countries, direct their minds towards inventing new machines and technologies.

But our life revolves around Roti, Kapra aur Makan and Kabrastan because of ongoing terrorism. At this point of jiffy my heart is howling with questions like When will we live a terror free life? When will utmost impediment of happiness and progress in the form of terrorism end? When will tranquility and opulence knock every door in our state? When will we also live a comfy life like people of developed countries? When will our child's mind move towards inventions and discoveries rather than towards guns and bullets? When will the effect of terrorism utterly fade from the lives and minds of natives of J&K?

Thus in the end, I just want to say that it is not the land, money and dominance, but it is the life which matters. Life is the most precious reward of God, so we must not perish this blessing by idly annihilating it.

AI is the new habit of day-to-day life

RAVINDER KUMAR

We live in the era of modern technology, and artificial intelligence is one of its innovations, making our daily lives easy and comfortable. Now, AI is a part of our day-to-day life; we use AI in every task of our daily routine, and it makes tasks as easy as everyone's cup of tea. Nowadays, anyone can make their clown, robots, and 3D images in a fraction of a second, and it's not magic, it's just simple technology.

Many people think that they are not using AI, but they don't know that they are using AI-powered services or devices, and they are unaware that AI touches their lives in many ways, and it can be anything like your smart phones (google assistant, chatbot, Siri and Alexa), robotic vacuum cleaners, security system and of course auto navigation systems also. Another common application of AI is search engines. Search engines also use AI algorithms to give better results without the intervention of users or programmers, like when you search for something in Google's search bar, AI algorithms gather data on what people search for most of the time, and sometimes it can show the section called "people also ask." It shows that the search engines we use in our daily lives also follow the AI algorithm. Social media platforms are



another common example of an AI algorithm. Major social media platforms run AI-powered algorithms that serve their users with the content they like to use or see. AI has also put its footprints in gaming platforms and online shopping, which we use daily, and it makes it interesting. AI has changed the human per-

spective to see the world because AI can do things that humans can't. If we talk about healthcare, AI helps doctors in identifying diseases more efficiently and quickly, with the help of X-rays, MRIs, and CT scans, and AI can detect breast cancer while humans can't, and now doctors can do many surgeries and oper-

ations with the help of AI-powered tools which reduces the risk of error.

Some researchers show their concern about artificial intelligence, and they argue that AI has so many disadvantages, it taking away jobs from people. Despite all the concerns and challenges, one thing is true that

AI is the future. Whatever work will be done in the future will be done by Artificial intelligence; you just need to know how to use it. You have to make artificial intelligence your assistant, not become its assistant.

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