EDITORIAL

ADVANCING CLOUDBURST PREDICTION

In recent years, cloudbursts have emerged as one of the most devastating and unpredictable natural disasters, particularly in the Himalayan and sub-Himalayan regions of India. The tragic loss of lives, destruction of property, and disruption of livelihoods caused by these intense and localized weather events have become alarmingly frequent. As climate change accelerates, the frequency and intensity of such extreme weather phenomena are only expected to rise. This makes the accurate prediction of cloudbursts not just a scientific challenge, but a moral and humanitarian imperative. A cloudburst is essentially a sudden, torrential rainfall in a localized area, typically accompanied by thunderstorms and strong winds, with precipitation rates exceeding 100 mm per hour. These events often occur in mountainous regions where orographic lifting enhances moisture-laden winds, triggering abrupt downpours. The problem is compounded in terrain where rivers and streams quickly overflow, leading to flash floods, landslides, and widespread destruction. Recent incidents in Himachal Pradesh, Uttarakhand, and Jammu & Kashmir have demonstrated the deadly consequences of our current inability to predict cloudbursts with precision and timeliness.

The Indian Meteorological Department (IMD) has made commendable progress in weather forecasting, yet cloudbursts remain largely elusive. Their highly localized nature makes it difficult for traditional weather radar systems and satellite imaging to detect and predict them accurately. Moreover, there is a lack of dense ground-based observation networks in remote and hilly regions. This technological and infrastructural gap must be addressed urgently.

Advanced technologies such as Doppler Weather Radars (DWR), high-resolution satellite data, and machine learning models hold promise. Integration of Artificial Intelligence (AI) and Big Data analytics into meteorological forecasting systems can enhance short-term predictions by identifying patterns in atmospheric pressure, humidity, and wind movement that precede a cloudburst. Real-time data from automatic weather stations (AWS), combined with historical climate records, can be fed into predictive models to issue timely alerts.

However, the challenge is not just technological. Policy intervention and inter-agency coordination are equally critical. There is an urgent need for a dedicated Cloudburst Early Warning and Response Framework, especially for vulnerable states. This must involve collaboration between IMD, Indian Space Research Organisation (ISRO), National Disaster Management Authority (NDMA), state governments, and local administrative bodies. Community-based alert systems using mobile technology, radio, and sirens can help disseminate warnings rapidly.

India's ambition to become a global climate leader will ring hollow if we fail to protect our own citizens from predictable and preventable tragedies. While we cannot control nature, we can certainly equip ourselves better to anticipate and adapt to it.

Agricultural Technology Transfer for Rural Prosperity

■ DR. BANARSI LAL

India is a land of villages where about 70 per cent of population lives in the rural areas. The rural areas are benefited from the development in science and technology directly as well as indirectly .Scientific inputs in agriculture have the direct importance for the rural sector. So are the expansion of telecommunication and roads. In India, a large section of the farmers are resource poor, comprising marginal and small farmers. They do not fully adopt the technologies recommended by extension workers because of many reasons. Mostly it is found that these recommendations are not compatible with the farming system of the farmers. Much emphasis is not given to this section of farmers while designing and developing the agricultural technologies. It has been observed that the developed technologies must be tuned with the requirements of the farmers in his farming situations. The existing extension approach is questioned for being mainly push type. The extension workers took the developed technologies to the farmers irrespective of their applicability and suitability of the farming system. There is a need to identify and delineate the specific farming situation or recommendation domain to which the specific intervention could suit. There is a dire need to develop the appropriate, location specific, ecological sustainable and economically viable technologies that could be compatible and suitable for the resource poor farmers inevitable. Several methods such as farming systems research and extension, broad based approach, technology assessment and refinement (TAR) through institution -village linkage programme etc. have been initiated in this direction. The matching of the technology with the farming systems characteristics are operationalised through such methods. Moreover the traditional system of the farmers need to be appreciated, documented and validated in order to bring them under the domain of appropriate technology.

The notion of rural development has been conceived in diverse ways by the researchers ,ranging from a set of goals and programmes to a well-knit strategy.Extension and research are the cardinal pillars of agricultural development of any country. Agricultural extension as a profession has completed more than five decades of its existence. Substantial contribution has been made by this profession for the development of farmers. In order to get the true potential, the country need to go a long way to meet the challenges to increase the agricultural and animal production from the available resources, keeping in mind the ecological and environmental sustainability. There is need to tune our technology transfer system in line with the national and international level. Farmer is backed with many sources of extension services. The extension services are provided to the farmers by the government institutes, directorates, research centers, input companies, NGOs, agro-processors, cooperatives etc. The agricultural extension and supported extension services are unique in structure and function. Interestingly, agricultural extension is not restricted to single fixed programme rather it adjusts according to the changing needs of the society. Now the time has come to assess as to how the effectiveness of this profession could be increased to achieve our cherished goal of developing agriculture. To mitigate the challenges in the new millennium, there is an urgent need to redefine the structure and functions of agricultural extension. Also to make agricultural extension more viable and efficient tool of technology transfer, several issues must be addressed so that it can be further meaningful to accommodate with the changing scenario of agricultural research and development in coming years.

Science and technology can develop in rural communities a learning and innovation capacity that increases the effectiveness of their efforts to improve their lives.Technology transfer is a process for creating the awareness among the farmers about the new technologies, then generating interest about the given technology, creating conviction so that they can evaluate it within their own agro climatic conditions and finally adopt it to increase the production. It has been observed that there are five factors which mainly limit the process of technology transfer. These include the limited availability of location specific technology and the low degree of ability to understand risk and uncertainty, lack of strong support systems, weak economic base of the households and farm resources, weak infrastructure and market structure have increased the bottlenecks in technology transfer process. Many models have been developed in India and in abroad for developing effective and funetional linkages between researchers and farmers. There is no single extension system which can be described as the best model in all the countries for all the farmers. The extension models need to be drawn, modified and adopted according to the farming system of the farmers. The technology transfer paradigm is mainly of two types namely-i) TOT (transfer of technology), which is simple and indicate the linear relationship between research, extension and farmers. The technologies are transferred through a pipeline. ii) Circular model of TOT (transfer of technology), which helps to bring researchers and farmers much closer through much emphasis on adaptive researches in farmer's field. It helps for the two-way communication and development of multiple options for innovations. Both the models of TOT suggest evolving a paradigm of TOT which could be most appropriately considered by the extension wing. Any agricultural extension system is related to its ability to build and maintain the linkages of various types. A research-Extension-Farmers linkage acts as a backbone for implementing participatory methodologies at the field level. Emphasis is also required for developing linkages with the systems such as NGOs, farmers' organizations, input agencies and other formal and informal knowledge and information systems. It has been observed by many studies that there exists weak linkage between research, extension and farmers. In order to strengthen linkage between research, extension and farmers, there is a need to institutionalize more number of structural mechanisms and simultaneously there frequency of activities has to be kept regular as well as contingent.

The female population of India constitutes about 48 per cent of the total population. It has been reported that more than 79.00 per cent of all economically active women are engaged in agriculture as compared to 63.00 per cent of men. Women role in agriculture and livestock farming is very important. The technology related to agriculture and livestock farming must reach to the women farmers. It has been observed that the limited impact of new technologies on rural women is due to the factors viz. their neglect by the extension workers who are mostly men, lack of authorities to them, lack of their participation in development process and lack of gender-based technology. This is a global issue and needs more attention as women play an important role in agriculture.

For an effective extension system there is a need to have well defined objectives and priorities of extension programmes, effective linkages with the other organizations such as research, financial institutions, marketing systems, input suppliers etc. Also there is a need of adequate financial support and adequate number and well trained and motivated staff. The provision of regular in-service refresher trainings for the extension workers cannot be ruled out. There is a need of privatization of agricultural extension services at national level. Also there is a need to identify area and type of farmers, geographic locations to whom private extension system can suit. In Indian system of farming there is a need to mix up public, private, voluntary and cooperative extension efforts. The existing extension system of our country mostly operates on the basis of selected contact farmers, whereas, the resource poor farmers are neglected in the process of technology development and dissemination process. Thus, redefinition in such approach should be in terms of involvement of representatives of all groups of farmers' classified on the basis of resources.

(The writer is Chief Scientist & Head, KVK Reasi, SKUAST-J)

14th September: Appraisal, Beyond Rituals

■ GIRDHARI LAL RAINA

Every year, 14th September passes with customary remembrance among Kashmiri Hindus and a section of the nationalist community. It was on this day in 1989 that Shri Tika Lal Taploo, a fearless leader , wellknown advocate, social activist, and Vice President of the Bharatiya Janata Party in J&K, was assassinated outside his residence in Srinagar. His crime was not personal rivalry, nor material ambition. His only 'fault' was that he openly challenged the separatist and communal forces who were, by then, preparing the ground for the Pandit exodus as part of secessionist movement and for Kashmir's violent plunge into radicalism.

Since then, this date has become symbolic of not just Taploo's sacrifice but of the countless civilians and security personnel who fell defending India's sovereignty and integrity in Kashmir. Yet, three decades on, we must ask ourselves: has the nation internalised the meaning of 14th September, or has it allowed it to remain a token ceremony?

The Civilizational Battle

The conflict in Kashmir has long been misread. Too often, it is explained as a law-and-order issue, an unemployment problem, or a political grievance of the majority community. This is intellectual dishonesty. The truth is far deeper.

Kashmir has been the site of a civilizational battle-a clash between its syncretic, pluralist heritage and an imported, exclusivist ideology rooted in theo-fascism. Since the 1930s, organised forces, aided by external powers and by opportunistic local elites, have sought to remake Kashmir's identity. Their method has been consistent: to intimidate, marginalise, or eliminate voices that represent India's pluralist ethos.

The assassination of Taploo in 1989 was therefore not an isolated act of terrorism. It was a political assassination designed to silence a worldview. He represented unflinching loyalty to the Indian Union, courage in defending minority rights, and a vision of secular democracy in J&K. For the radical forces, such a man was not merely a threat-he was an obstacle that had to be removed.

1931 and the Myth of Martyrdom

The distortion of Kashmir's history begins in 1931. That year, violent mobs attacked the state headed by Dogra ruler Maharaja Hari Singh, under the guise of opposing monarchy. In reality, the violence was directed against minorities-houses were looted, templesAppraisal, desecrated, and minority Hindus killed. All this is documented.Yet, the National Conference, then Muslim Conference led by Sheikh Abdullah, appropriated 13th July 1931 as "Martyrs' Day," canonising those killed in police firing while they were attacking the Central Jail in Srinagar.

For the minority Kashmiri Hindu community, however, 13th July was the beginning of an organised pattern of persecution. From then on, every street mobilisation-whether against autocracy, or later against India-took the form of assaults on the minority community. Whether it was Pakistan's loss in a cricket match,protest against the government, unrest in Palestine, or even the death of Zia-ul-Haq in a plane crash, Kashmiri Hindu households were routinely attacked.

Yet, successive governments in J&K continued to legitimise 13th July as the official Martyrs' Day-a day that for the minority community is remembered as a black day. This falsehood was institutionalised, while the genuine sacrifices of thousands-Pandits, Muslims, Sikhs, and security personnel who resisted terrorism-were left without recognition.

NC's Legacy of Compromise

The role of the National Conference in shaping this distorted narrative cannot be ignored. Sheikh Abdullah and his successors carefully built a political culture where victimhood of the majority was exaggerated, while the persecution of the minority was brushed under the carpet.

This duplicity served two purposes:

1. It maintained the NC's relevance as the "sole representative" of Kashmiris by peddling a grievance narrative.

2. It allowed Pakistan and radical elements to penetrate the Valley's politics under the cover of "people's aspirations."

By the late 1980s, the NC's compromises had hollowed out J&K's institutions. Corruption, nepotism, and authoritarianism fuelled alienation. Simultaneously, the NC turned a blind eye to the growing radicalisation in mosques, schools, and media. When Pakistan launched its proxy war in the 1980s, the ground had already been prepared.

It is in this context that Taploo's assassination must be understood. He was a Kashmiri Pandit, a nationalist, and a BJP leader. In him, the secessionist radicals saw the very antithesis of the NC-Pakistan nexus. Eliminating him was meant to terrorise the community into silence and signal the beginning of the exodus.

14th September vs 13th July: The Contest of Narratives

Every society defines itself by the martyrs it chooses to honour. In J&K, the contrast between 13th July and 14th September reveals the ideological battle lines.

13th July commemorates those who attacked the state-an act framed as resistance to autocracy but executed through communal violence.

14th September honours those who died defending India's unity and secular ethos against imported radicalism.

Yet, for decades, official patronage was extended to 13th July, while 14th September remained confined to community remembrance. This inversion of truth is not just symbolic; it has political consequences. It delegitimises the sacrifices of genuine martyrs while glorifying those who advanced sectarian agendas.

Correcting this narrative is not merely about history-it is about securing the future. A society that honours false martyrs will produce future generations who repeat false battles. A society that honours true martyrs will produce citizens willing to defend truth.

Taploo's Legacy: Courage in the Face of Fear

What made Tika Lal Taploo different was not his designation but his moral fibre. He was fearless in proclaiming his beliefs. He did not dilute his polities to suit the climate of fear. He reached out to minorities in remote villages even when threats loomed large. I recall my own interaction with him in August 1989 in Baramulla, when the atmosphere was thick with dread. His words to me remain etched in memory:

"Remember Ajay, the first bullet coming out of the gun of a terrorist towards a KP will be borne by Tika Lal Taploo on his chest."

Weeks later, he kept that promise. Terrorists, unwilling to confront him directly, shot him from behind. His courage unsettled them more than his words. His death was both a personal tragedy and a political turning point-the curtain-raiser to the mass exodus of the religious minorities of Kashmir.

The true tribute to Taploo and countless martyrs is not ritual observance. It is a reorientation of our political and intellectual discourse on Kashmir.

Conclusion: A Call of Conscience

14th September is not merely a date of mourning. It is a day of reckoning for the Indian state and society. It forces us to ask uncomfortable questions: Why were the real martyrs ignored? Why were the persecutors glorified? Why did political elites allow an entire community to be driven out?

If we are serious about national unity, we cannot afford selective memory. Taploo's sacrifice, and that of thousands like him, must become the moral foundation of our Kashmir policy. Only then can we say with honesty: their martyrdom was not in vain.

The terrorists thought that by killing Tika Lal Taploo, they would silence an idea. They were wrong. The idea lives on-every 14th September, and every day that India refuses to surrender its soul in Kashmir.

(The author is a former Member of the Legislative Council of erstwhile Jammu Kashmir and spokesperson of the BJP JK-UT)

Rise of Generation Z in Nepal-A Wake-Up Call for democracy

■ SURJIT SINGH FLORA

In Nepal, the youth have ignited a fire at the Parliament as Communist Prime Minister Oli exits during the government's downfall. The Gen-Z demographic in Nepal led two days of intense anti-government protests that resulted in 25 reported fatalities and over 600 injuries.

As anticipated, known factions in Nepal disrupted the demonstrations by setting fire to government buildings and financial institutions. Youth groups now take responsibility for the situation, expressing regret for the events that transpired following Oli's resignation.

Due to all the damage done to the country, Nepal is expected to face significant challenges in recovering from financial losses in the foreseeable future, resulting in a situation that may be more dire than before the protests occurred.

At present It is expected that over the course of three months, those who advocate for anarchy will come to understand the practical consequences and difficulties associated with their revolutionary beliefs.

While Oli's exit from Nepal has created a political void, making political stability the foremost necessity at this juncture.

Before delving deeper, it is essential to understand the features and origins of this movement.

The movement primarily stems from concerns about corruption, nepotism, and the extravagant lifestyles of Nepali politicians. The ban on social media acted mainly as a driving force.

Actually, it begins with the government, led by Mr. Oli, instituted a prohibition on 26 social media platforms, including WhatsApp, Instagram, and Facebook. The prohibition was implemented due to the failure of all these platforms to adhere to a directive mandating registration with the government. The government has set a registration period of merely one week, which is an exceptionally short duration.

Government officials maintain that they have continually urged social media companies to create a legal presence in Nepal. The advocates contend that the initiative relates to digital sovereignty and regulation, rather than censorship. Critics argue that the ban was implemented too hastily and with undue severity, especially considering that the bill cited in the government order, named "Operation, Use, and Regulation of Social Media in Nepal," lacked parliamentary endorsement.

The measures implemented have sparked widespread dissatisfaction among the populace, with many young Nepalis asserting that the government is curtailing free expression under the guise of regulation. The result has been extensive protests, destruction of government property, and confrontations with law enforcement officials.

On 9 September, the parliament encountered a breach that led to a fire outbreak. The fire also set ablaze several other government buildings in Kathmandu. The protests began on 8 September, starting in Kathmandu and later extending to various other areas of the country. The circumstances intensified quickly, leading to a prompt breakdown of authority by the government.

Several demonstrators displayed placards featuring Uttar Pradesh Chief Minister Yogi Adityanath, a symbol of Hindutva. This suggests a wellspring of motivation rooted in Hindu nationalist sentiments within India.

Protesters voiced their dissent against Chinese influence, especially concerning the Belt and Road Initiative (BRI), and set ablaze the homes and offices of communist leaders.

The assault on the Pashupatinath Mahadev temple suggests the participation of Islamic factions in the circumstances at hand. Should Islamic elements be evident, it is likely that the ISI and American deep state are extending their support.

The actions of anarchic groups reveal a clear clash between three ideologies.

The American deep state appears to be shaping the current unrest in Nepal.

Actually, external influences have shaped Nepal's political landscape throughout its history. The structure of democracy was derived from external influences, with rights formally established in the constitution; nonetheless, the engagement of the general populace, especially the tribal community, remained predominantly superficial. Decisions were formulated in the capital, leaving those situated afar as mere passive observers.

The image seems to be experiencing a transformation. Generation Z, exhibits an increased consciousness of social media, consistently asking questions and serving as a driving force for transformation. The youth movement holds the promise of becoming a pivotal moment in the political landscape of Nepal.

The political framework that has emerged in Nepal in recent years, subsequent to the dissolution of the monarchy, has experienced a rise in external support and the impact of the policies put forth by key leaders. Plans were implemented without a thorough grasp of local needs, cultural dynamics, and considerations of diversity.

The degree of discontent among the younger population has risen. The lack of educational and employment opportunities, combined with political corruption and insufficient local leadership, has resulted in considerable frustration within the community. In light of the persistent frustrations that have gone unacknowledged, individuals articulated their experiences of suffering and inequality and their calls for rights through transparent dialogue on social media platforms.

In numerous settings, young individuals spearheaded initiatives promoting transparency, community development, and environmental conservation. Up to this point, the participation of the tribal community and its youth has primarily been symbolic, frequently expressed through a representative or a formal statement.

Nevertheless, the emergence of social media has surpassed these constraints.

The young people have taken to the streets to seek clarity on their role in important decision-making processes. The individuals expressed their desire to move beyond being passive voters and to engage actively in the policy-making process, aiming for a fair role in decision-making.

The recent trend among younger generations has communicated a clear message: if their concerns are not recognized, they will take to the streets and digital platforms to protest. Initially designed for crafting engaging reels, the platform now serves as a vehicle for articulating frustration and discontent. The youth are championing self-sufficiency, the efficient use of local resources, and the importance of transparent governance. The nation's specific needs should guide the formulation of Nepal's policies, not external entities' stipulations.

The issues encountered by the tribal community, such as a lack of educational resources, insufficient healthcare services, and a pressing employment crisis, are significant matters of concern within the Gen Z movement.

The Gen Z movement seeks to bridge traditional values with modern practices, enabling a genuine expression of the tribal community's voice.

The conduct of the youth in Nepal exemplifies a significant lesson for countries where democratic engagement is limited to voting, subsequently followed by the imposition of capricious and oppressive measures by those in power.

(The writer is a freelance writer and journalist who lives in Brampton)