



Justice for the mob

Acquittal in the emblematic case of Pehlu Khan's murder imperils the country's image

It is a sign of the times that vigilante mobs can get away with daylight murder. Even after visual evidence becomes available; and even when the victim names his assailants in a dying declaration. The acquittal of all those charged by the Rajasthan police with beating dairy farmer Pehlu Khan to death in April 2017 is a stark reminder that there is a humongous gap between capturing video footage of a man being beaten up and bringing the culprits to book. The Additional District Judge of Alwar has given the benefit of doubt to the six men charged with Khan's murder. A principal reason given is that the six persons named by Khan were not charge-sheeted by the police. It seems that the derailment of the prosecution case began early. Based on mobile phone call records and the statement of staff at a cow shelter, the police gave a clean sheet to the named suspects and booked a different set of people, including three minors. The police failed to conduct an identification parade, while there was an apparent contradiction between government doctors declaring that the victim died of injuries, and a private hospital's claim that the cause was cardiac arrest. It is not difficult to surmise that infirmities were built into the case in advance. The court also need not have held inadmissible the footage of the incident, as the Supreme Court had ruled last year that authentic and relevant electronic evidence can be accepted even in the absence of the required certification under the Evidence Act.

Last year, Jharkhand managed to obtain convictions in two cases of lynching, but the Pehlu Khan lynching case had emblematic significance. It was vital that it was properly investigated and the culprits convicted. Unfortunately, the wholesale acquittal is a setback to combating the rampant vigilantism of our times. Each such incident imperils India's image as a modern democracy. There is ample evidence to suggest that the institutional bias in favour of cow vigilantes is working against the interest of justice. The CID-Crime Branch took over the case two months after the incident, and filed a charge sheet. Those charge-sheeted were granted bail not long after. Even after the change of regime late last year, the police obtained permission to prosecute two sons of Pehlu Khan for transporting bovines in violation of a State law. This indicates the assiduity with which cattle protection laws are implemented, while lynch mobs in the garb of cow protectors are treated with kid gloves. The Rajasthan Chief Minister, who recently got a new expansive law enacted to punish lynching, has promised to take the matter on appeal. A mere appeal may not suffice; orders for a fresh investigation and trial — one that would lead to the formal indictment of all those responsible for the murderous attack — may be needed to restore a sense of justice.

Making CSR work

Non-compliance by corporates should be decriminalised and made a civil offence

It was first encouraged as a voluntary contribution by business; six years ago it evolved into a co-optation of the corporate sector to promote inclusiveness in society and now, corporate social responsibility or CSR has become an imposition on India Inc. Key amendments to the relevant sections of the Companies Act in the last session of Parliament have now made non-compliance with CSR norms a jailable offence for key officers of the company, apart from hefty fines up to ₹25 lakh on the company and ₹5 lakh on the officer in default. Finance Minister Nirmala Sitharaman is said to have assured representatives of India Inc. when they met her last week that this amendment will be reviewed. Yet, it is curious that the government rushed through with amendments on the CSR law even as a committee constituted by it was finalising its report on the same subject. As it happened, the committee, headed by the Corporate Affairs Secretary submitted its report on August 13, well after Parliament had passed the amendments. On the specific issue of penalties, the committee has proposed that non-compliance be decriminalised and made a civil offence. "CSR is a means to partner corporates for social development and such penal provisions are not in harmony with the spirit of CSR," the committee's report says and rightly so. CSR should not be treated as another tax on businesses.

Every company with a net worth of ₹500 crore or turnover of ₹1,000 crore or net profit of ₹5 crore should spend 2% of the average profits it made over the previous three years on social development. The experience since this provision was operationalised in 2013 has been mixed. Filings with the Ministry of Corporate Affairs show that in 2017-18, only a little over half of those liable to spend on CSR have filed reports on their activity to the government. The other half either did not comply or simply failed to file. The average CSR spend by private companies was just ₹95 lakh compared to ₹9.40 crore for public sector units. These are early days yet, and compliance will improve as corporates imbibe CSR culture fully. The committee's suggestion to offer a tax break for expenses on CSR makes sense as it may incentivise companies to spend. It has also recommended that unspent CSR funds be transferred to an escrow account within 30 days of the end of the financial year. It should be recognised that CSR is not the main business of a company and in these challenging times they would rightly be focusing their energies on the business rather than on social spending. The government should be careful to not micromanage and tie down businesses with rules and regulations that impose a heavy compliance burden. Else it might end up with the opposite of what it intends — to rope in corporates as citizens to promote social inclusion.

A considered step that opens up new vistas

The abrogation of Kashmir's special status is a major move towards ensuring an inclusive India



M. VENKAIAH NAIDU

The recent decision by the government to abrogate Article 370 has resulted in a countrywide debate on the subject. The general perception is that a vast majority of people in the country feel that the abrogation is a welcome step. They also feel that the abrogation should not be viewed through a narrow political prism as it centres around the unity and integrity of the nation. In fact, it is also seen as a major step towards ensuring an inclusive India.

Historical perspective

Before delving into the issue, one should understand the essence of Article 370; it was only a temporary, transitional arrangement and was never intended to be a permanent provision.

Under Part XXI of the Constitution of India, which deals with 'Temporary, Transitional and Special Provisions', the special status was conferred upon Jammu and Kashmir (J&K) after Maharaja Hari Singh signed The Instrument of Accession on October 26-27, 1947.

However, an important nugget of history is that Article 370 was not incorporated at the time of accession. It was included in October 1949 at the instance of Sheikh Abdullah, who was a member of the Constituent Assembly that drafted the Constitution. It became operative only in 1952.

Under Article 370, Jammu and Kashmir State was allowed to have a separate Constitution and a Flag. Its Constituent Assembly, initially, and the State legislature, subsequently, were empowered either to adopt or not to adopt any law passed by the Indian Parliament. Except for matters such as 'Defence', 'External Affairs', 'Communi-

nications' and matters mentioned in 'The Instrument of Accession', the Indian Parliament had no jurisdiction on extending its legislations to the border State without the concurrence of Jammu and Kashmir.

While considering the proposal to incorporate it in the Constitution, Prime Minister Pandit Jawaharlal Nehru advised Sheikh Abdullah to convince B.R. Ambedkar, who apparently was not in favour of it.

In the book, *Dr. B.R. Ambedkar Framing of Indian Constitution*, by Dr. S.N. Busi, Dr. Ambedkar was cited as saying: "Mr. Abdullah, you want that India should defend Kashmir. You wish India should protect your borders, she should build roads in your area, she should supply you food grains, and Kashmir should get equal status as India, but you don't want India and any citizen of India to have any rights in Kashmir and Government of India should have only limited powers. To give consent to this proposal would be a treacherous thing against the interests of India, and I, as the Law Minister of India, will never do. I cannot betray the interests of my country".

Even Pandit Nehru had pointed out in Parliament on November 27, 1963 that "Article 370 is part of certain transitional, provisional arrangements. It is not a permanent part of the Constitution. It is a part as long as it remains so."

Hardly unifying

History shows that instead of bringing people of Kashmir closer to the rest of India, Article 370 has only widened the chasm. This schism has been systematically widened by vested interests. While Article 370 has failed to benefit the people in a meaningful way, it was used by separatists to drive a wedge between those living in J&K and the rest of India. It was used by a neighbouring country to spread terrorism.

The demand for abrogation of Article 370 has been under consid-



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eration for a long time. In fact, Parliament had discussed this way back in 1964. A discussion on a private member's bill seeking abrogation of Article 370 found near-unanimous support back then.

It would be pertinent to point out that the non-official resolution moved by Prakash Vir Shastri in the Lok Sabha was supported by leaders like Ram Manohar Lohia and K. Hanumanthaiya, a senior Congress leader.

Hanumanthaiya not only pointed out that the members, irrespective of party affiliations, wanted the abrogation of Article 370 to be made into law but also went on to say: "To go against or to say anything against this unanimous opinion in this House is to disown constitutional responsibility in a convenient manner. Article 370... stands in the way of full integration."

Of the 12 members who favoured its abrogation, seven belonged to the Congress including Inder J. Malhotra, Sham Lal Saraf (from J&K), H.V. Kamath, Socialist, Sarjoo Pandey (CPI) and Bhagwat Jha Azad, former Chief Minister of Bihar.

The country felt that this provision needed to go sooner or later. As Jawaharlal Nehru's colleague and then Home Affairs Minister Gulzarilal Nanda had told Parliament decades ago, "Article 370 is nothing more than a shell emptied of its contents. Nothing has been left in it; we can do it in one day, in 10 days, 10 months. That is entire-

ly for us to consider."

Parliament and the Government have now come to the conclusion, finally, that such a dysfunctional provision has no relevance in the current context and that the time has come to integrate Jammu and Kashmir fully into the rest of India. Without having improved the lives of people in any way, Article 370 had become an impediment to the very development of the State.

A leveller

The people of the country also need to know, as pointed out by the present Home Minister, Amit Shah, in the Lok Sabha recently, that key Central laws made for the welfare of citizens of the country could not be implemented in J&K due to Article 370. With its abrogation, a total of 106 Central laws will now be extended to J&K. Some of the key pieces of legislation include the Prevention of Corruption Act, the Land Acquisition Act, the National Commission for Minorities Act, the Right to Education Act and those relating to empowering local bodies.

With Article 35A becoming void, the decades old discrimination against the women of J&K has been eliminated. They can now purchase and transfer property to their children, even if they get married to a non-resident.

In my view, the abrogation of Article 370 is indeed a step in the right direction to safeguard the unity and integrity of India.

The State of Jammu and Kashmir has been an integral part of our country. It will always remain so. So, the action to remove Article 370 is purely an internal matter. It goes without saying that India will not allow outsiders to meddle in its internal affairs. People should guard against false and mischievous propaganda by a section of the Indian and western media, which probably still believes in the colonial mindset of 'divide and rule'.

Parliament has carefully consi-

dered and taken a decision that this transitory provision needs to go and that J&K must be fully integrated with the rest of India. The naysayers who are alleging that constitutional impropriety has been committed must know that the Bill was passed by two-thirds in the Rajya Sabha and four-fifths in the Lok Sabha after an elaborate discussion.

Game changer

I am sure that this integration fulfils a long-standing demand of many sections of the people in J&K, including Ladakh. The speech of the Ladakh MP, Jamyang Tsering Namgyal, in the Lok Sabha recently, was truly noteworthy, where he pointed out that Ladakh was not just a piece of land but a precious gem of Bharat. I am also confident that the status of a State would be accorded once things improve and total normalcy is restored in Jammu and Kashmir.

The Government's decision would facilitate greater investments by both individual entrepreneurs and major private companies in different sectors including hospitality, tourism, education and health. It would naturally generate much-needed employment for local youth. It would also enable greater scrutiny of the implementation of the schemes of the Government of India.

In conclusion, it should be noted that the abrogation of Article 370 is a national issue involving our country's safety, security, unity and equitable prosperity. It is a step in the right direction that the Indian Parliament has taken with an overwhelming majority. It is a step that opens up new vistas for the all-round development in a State that was relatively neglected. It is a stepping stone to enable an improved quality of life for the people of Jammu, Kashmir and Ladakh.

M. Venkaiah Naidu is the Vice President of India

Giving shape to an elusive strategic concept

The post of Chief of Defence Staff will enable more efficiency in defence planning and help civil-military relations



P.S. RAGHAVAN

The Prime Minister's announcement in his Independence Day address on Thursday, appointing a Chief of Defence Staff (CDS), is one that could have a far-reaching impact on the management of defence in India.

The issue of efficient management of the higher defence organisation came into sharp focus after the Kargil war in 1999, when the K. Subrahmanyam-headed task force was asked to examine questions about the anticipation and detection of Pakistani intrusions in Kargil and the military response. The strategic expert and his team highlighted the systemic issues bedevilling our national security structures, which included poor coordination and technological inadequacies.

On its recommendations, the Government tasked a Group of Ministers (GoM) in the early 2000s to undertake a review of national security management. Their recommendations covered intelligence, internal security, border management and defence. These resulted in an overhaul, which included the appointment of a National Security Adviser, a strengthening of intelligence coordination mechanisms, upgrading the technological capacity of security agencies, and sharpening institutional responses to traditional and emerging inter-

national security challenges. Defence management was the one area in which the implementation of the GoM's recommendations was disappointing.

The issues are well-known. The first is a pervasive sentiment in the armed forces that they are not formally involved in decision-making on defence planning and strategy. This perception is reinforced by the fact that the Service Headquarters are not within the Ministry of Defence; they are treated more like attached offices. This structure has led to cumbersome, opaque and antiquated decision-making processes, from administrative requirements to weapons acquisitions.

Changing face of conflict

From an operational perspective, the concept of military conflict today extends beyond land, air and sea, into the domains of space, cyber, electronic and information. Effective defence preparedness requires a 'jointness' of the Indian Army, Indian Air Force and Indian Navy in incorporating these domains into their war-fighting strategies. It also requires a prioritisation of the weapons requirements of the forces and optimisation of their resource allocations based on a clearly defined national defence strategy.

The GoM had recommended better efficiency by integrating the armed forces headquarters into the Ministry of Defence (MoD). It had also pitched for the appointment of a CDS, who could promote an integrated approach to inter-service prioritisation and resource allocation as well as a pooling of



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common structures to avoid unnecessary redundancies. The CDS was to administer tri-service institutions such as the Andaman and Nicobar Command. In today's context, his charge would also presumably include the recently established tri-service space and cyber agencies. He would provide coordinated military advice to the Defence Minister, incorporating the perspectives of the individual services. He would develop the national defence strategy, which itself should flow from a national security strategy that factors in traditional and non-traditional threats as well as internal security requirements and external strategic objectives. This would be in collaboration with the civilian defence leadership of the MoD.

A thread of resistance

All recommendations were accepted barring the one on the CDS. Opposition from sections of the armed forces and the bureaucracy and from a political party resulted in this last-minute decision. There was apprehension that a CDS would undermine the authority of the three service chiefs over their forces. The establishment in

many countries of theatre commands under the CDS reinforced this fear. The other concern was that an all-powerful CDS would distort the civil-military balance in our democracy.

This opposition was based on misperceptions and "turf" considerations. Many democracies have the institution of a CDS or its equivalent, with varying degrees of operational control over their armed forces. It has not diluted civilian control over their governance. Instead, it has meant greater participation of the military in defence decision-making alongside the civilian bureaucracy, enhancing the coherence and transparency of policies. In almost every case, the appointment of a CDS has been a top-down decision, to which the system has subsequently adjusted.

Need for indigenisation

The role envisaged for a CDS in India is that of developing multi-domain military strategies, strengthening tri-service synergies and enabling perspective planning. It is only after achieving jointness in training, exercises and infrastructure that the feasibility of regional commands can be explored in the specific context of India's geography and the nature of its internal and external threats. The CDS can contribute to rational defence acquisition decisions, preventing redundancy of capacities among the services and making best use of available financial resources.

While implementing this reform, we should also focus on the important objective of indigenisation. It is a shame that India is still

among the top arms importers. This abject dependence on other countries, for weapons systems, components and even ammunition, does not befit an aspiring great power. There must be procedures and practices to ensure that every acquisition is structured in a way as to strengthen our indigenous technological capacities, in turn aiding defence self-reliance.

A corollary of the appointment of a CDS is integration of his establishment into the MoD without which he cannot meaningfully fulfil the role assigned to him. Eventually, the three Service headquarters would also need to be suitably integrated into the Ministry. It would require changing their current functional structure as well as amending the existing rules of business of the government. This was envisaged by the GoM, but when a decision on the CDS was deferred, action on it lost steam.

In his announcement on the CDS, the Prime Minister mentioned past reports on defence reforms, the transforming nature of military conflict, the impact of technology and the need for modernisation, coordination and jointness. This leads to hope that the GoM recommendations of 2001 will be implemented. If carried out objectively, undistorted by turf considerations, this long-awaited reform would soothe frictions in civil-military relations and bring greater efficiency, transparency and accountability into decision-making on defence matters.

P.S. Raghavan is Chairman, National Security Advisory Board. The views expressed are personal

LETTERS TO THE EDITOR

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UNSC meet on Kashmir

China, being a permanent member of the UN Security Council, seems to be pandering to the whims of its all-weather friend, Pakistan. The decision, at the goading of China, to hold a closed-door discussion on Kashmir is a matter of surprise as it is a subject that involves the internal affairs of India (Page 1, August 16). Much has changed since 1947. The move also shows the big brother attitude of China which has many problems of its own. China

should first concentrate on making peace with the Hong Kong protesters and also respecting Tibet and the Uighur Muslims. It has no right to be sermonising about Kashmir, which is being sorted out in a peaceful manner in democratic traditions.

SRAVANA RAMACHANDRAN, Chennai

Population control

The most significant issue that the Prime Minister highlighted in his Independence Day speech on Thursday was of

population control ("PM puts population back on govt. agenda", August 16). While the two-child norm has been able to slow down the rate of population growth, there is a need to have smarter moves in the present situation. Apart from an incentivisation of smaller families, large families must lose state sponsored welfare benefits and privileges. An interventionist move or policy formulation must also balance sustainability without affecting the segment of a young and

working-age population.

N. SADHASIVA REDDY, Bengaluru

Climate planning

The increasing frequency of heavy rainfall in many States is a reality, probably linked to climate change. The havoc being caused is a wake-up call. From people to wild animals being affected to disrupted agricultural operations, the list can go on. While the Assam floods threatened already endangered species, in Kerala, it was the washing up of tons of

plastic material that reflected our gross negligence of environmental issues. Thus, man could be responsible for the changed conditions. Widescale deforestation and the plundering of natural resources are cause for worry. The simple lesson is that we need to respect nature.

JANGA BAHADUR SUNUWAR, Bagrakote, Jalpaiguri, West Bengal

■ Kerala is pursuing development projects at the expense of nature (Editorial

page, "Lessons after the great deluge", August 16).

Taking over lakebeds and floodplains to allow construction is affecting percolation. Mangrove vegetation is also being mindlessly exploited. Rampant mining, now widespread, is leading to the loss of precious topsoil and landslides. Revisiting the Gadgil report is a must for regions falling under the Western Ghats.

ABHISHEK M.R., Ajjarkad, Udipi, Karnataka

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Paddy, tube wells and depleting groundwater

Rice cultivation in Punjab, which thrived in the past due to the easy availability of water resources and free supply of electricity to farmers, is under considerable strain now. **Vikas Vasudeva** examines how overexploitation has made groundwater not only scarce but also increasingly alkaline

Gurmeet Singh, 60, a tall land-owning farmer in Bhattiwal Khurd village, which is located in Punjab's Sangrur district, has yet again planted the water-guzzling paddy crop this summer (kharif) as he is sceptical of any other crop fetching him a remunerative price.

Standing on the edge of the Ghaggar branch canal, which flows barely a few metres away from his field, Gurmeet reveals that hardly anyone in the village irrigates his/her field with canal water. That is because motor-operated tube wells, with their powerful submersible pumps, have become an easy and preferred choice for most of the households to extract groundwater, he says.

Punjab's policy of providing free electricity to farmers, in place since 1997, along with the Central government's favourable attitude towards paddy cultivation, are the key factors that have motivated farmers like Gurmeet to persist with paddy, despite the grave groundwater crisis faced by the State.

"Most of us here in the village have tube wells installed, be it on our farm or inside our houses. We use groundwater for irrigation, drinking and other domestic purposes. In 1977, we got our first tube well drilled at a depth of 35 ft-40 ft. Water at that time was easily available at 15 ft-20 ft. Since then, we have drilled as many as four tube wells as the water levels have been consistently falling. I got the latest one installed two years ago at around 300 ft. It cost me around ₹1,00,000," he says, his head dropping in despair as he mentions the high cost of his latest tube well.

The green revolution impact

Gurmeet's father Magar Singh, 90, intervenes to point out that farmers like him shifted to cultivation of rice and wheat during the *hara inquilab* (green revolution); till then, he says, crops like pulses, maize, vegetables and cotton were mainly grown in the village.

"Paddy (rice) requires far more water than other crops and as farmers started cultivating paddy, the need for tube wells arose. The extraction of groundwater only increased as farmers shifted from the use of monoblock pumps in the 1980s to other types like submersible pumps," he says.

Ideally, groundwater should be available at a depth of 50 ft to 60 ft, but in Punjab, its level has significantly dropped to 150ft to 200 ft in most places. Many attribute this drastic fall to an indiscriminate extraction of groundwater in the last two decades.

Further, deepening of tube wells, and purchase of the powerful motors to carry out the deepening, is costing farmers ₹1,100 crore per year, according to government data. The State, which gives free power to farmers, is also facing an increased financial burden due to the rising use of electricity. This year, the total power subsidy to the farm sector is estimated at ₹9,674 crore.

To counter this, the Punjab State Farmers' Policy, drafted by the State's Farmers and Farm Workers' Commission in June last year, suggested rationalising of power subsidy and asked the government to restrict the subsidy to the non-income tax payee farmers. It also recommended that cultivation of paddy on common lands be disallowed. Common (*shamlat*) village lands, whose utilisation is regulated under Punjab Village Common Lands (Regulation) Act 1961, have been increasingly used for paddy cultivation over the years. Experts feel that a restriction on such usage can help arrest groundwater depletion. The government, however, is yet to take a final call on these policy proposals.

The Punjab government is well aware of the fast depleting groundwater reserves. Last month, Chief Minister Captain Amarinder Singh directed the State Planning Board to chalk out a comprehensive crop diversification model. The Board was also directed to undertake a detailed review of the various schemes of the agriculture department to bring in much-needed reforms in the sector.

The Chief Minister, who has been stressing the need to prioritise the cultivation of crops that consume less water like maize, cotton and sugar cane, asked the Board to come up with a strategy to persuade the farmers to shift to these crops.

However, while the State government has been advocating crop diversification to save groundwater, farmers don't seem to be keen on shifting to other crops unless they are given an assured market and a guaranteed price for their produce. "I am aware that paddy consumes more water than other crops but what is the alternative? Government agencies purchase rice and wheat (during rabi season) at the minimum support price (MSP), which assures me of a remunerative return. But in the case of other crops, there's hardly any such assurance. The government should purchase all major crops at MSP as is done in case of rice and wheat; until then, it's difficult to shift," says Randhir Singh, 51, who grows paddy at his three-acre farm in Bhattiwal Khurd village.



A farmer at his paddy field in Sangrur as a bore well extracts groundwater. Increased cultivation of the water-guzzling rice crop, augmented by free power supply, has caused depletion in water reserves. ■ AKHILESH KUMAR

This sentiment is echoed in other parts of the State as well. In Fatehpur village, located in the Chief Minister's pocket borough of Patiala, Karamjeet Singh says that after suffering financial loss owing to a price crash in the market, he stopped the cultivation of potato a few years ago. "Three years ago, I planted a potato crop in my field but prices in the market crashed badly. The potato was fetching as low as ₹2 per kilo in the market. I couldn't even recover the cost of my crop and suffered a loss of around ₹3,00,000. Since then, I have stopped its cultivation and have been sowing rice and wheat, for which I am assured of getting a remunerative price as government agencies will purchase my produce at the MSP," he says, as he takes a seat along with his fellow farmers at the public shed in the village.



products is guaranteed and they get an assured remunerative price," he says.

Punjab's economy is highly dependent on agriculture. The sector, however, is experiencing slower growth as the State's cropping intensity and irrigation potential have been fully exploited and the growth in productivity has also reached a saturation point.

The intensive groundwater extraction in the last few decades through installation of shallow tube wells is reflected in tube well numbers – which have increased by almost 200% in 35 years, from six lakh in the 1980s to 14.76 lakh in 2017-18. Also, the area under rice cultivation has increased from 11.83 lakh hectares in 1980 to 28.86 lakh hectares in 2017-18. On an average, there are 34 tube wells per sq. km of net sown area in Punjab (2015-16).

According to the Draft Dynamic Ground Water Estimation Report-2017, 109 blocks out of the 138 blocks taken for its study were "over-exploited", two blocks were "critical" and five blocks were "semi-critical" while 20 blocks are in "safe" category. The water table was

declining in nearly 80% of the area of the State.

The report also said that while the annual replenishable groundwater resource in Punjab was about 17.5 million acre-ft (MAF), the annual draft (extraction) was 29 MAF, implying that the extraction rate outstripped availability by quite a few notches.

"If this trend continues, it will adversely affect the agricultural economy of the State and it is apprehended that irrigated area may decrease by up to 15% in the year 2025. Further, in the coming 20 years, supply from about 60% of top aquifers may be jeopardised. There will be an increase in the cost of raising crops, placing an increased financial burden on farmers and the government. A shortage in water supply could also act as a deterrent when it comes to investment in industries requiring water. Around 30 million residents of the Punjab region may face a collapse in agricultural output," says S.K. Saluja, Superintending Engineer, Directorate of Ground Water Management.

Salinity in water

The report also raised concerns about the deteriorating quality of groundwater due to pollution caused by urbanisation, industrialisation and an increased use of fertilisers and pesticides. It said that while nearly 50%-60% of groundwater was "fresh and fit", 20%-30% was "moderately saline and of marginal quality". Further, about 15%-25% of the groundwater was "saline, alkaline and not fit for irrigation".

Water in south and southwestern districts – like Sangrur, Muktsar, Bathinda and Mansa – came under the last category, containing "varying concentration of soluble salts" and its use for irrigation will adversely affect agricultural pro-

Irrigated area in Punjab may decrease by up to 15% in the year 2025. Around 30 million residents could face a collapse in agricultural output

S.K. SALUJA, Engineer, Directorate of Ground Water Management

duction, said the report.

An increased awareness about the need for safe drinking water has caused many households in Bhattiwal Khurd village to install RO (reverse osmosis) water purification systems. "I felt the need for RO system at my home after my family members started falling ill due to water-borne diseases at regular intervals. We have been consuming groundwater directly from tube wells for a long time," says Randhir Singh.

Untreated industrial effluents

P.S. Ranghi, a noted agriculture economist and a former adviser to Punjab State Farmers Commission, says that water quality is being impacted by untreated or inadequately treated industrial effluents and sewage that flows into rivulets and rivers in Punjab.

"Also, traditional water bodies such as ponds and wells in the villages are under threat. In most of the places, ponds have been filled and encroached upon while in other places, they have become a dumping ground for sewage. The problem is further compounded by the mixing of storm water and sewage in various municipal towns. The pollution and contamination of water resources due to industrial waste, sewage and excessive use of chemical pesticides in agriculture is a major cause of concern that needs immediate attention," says Ranghi.

Given the grim situation, Punjab's Department of Water Supply and Sani-

tation is planning to implement 10 surface water projects at a cost of ₹1,021 crore. These projects intend to provide potable piped water supply to 1,021 "quality-affected" villages, making them less reliant on groundwater and more on canal water.

A total of 130 such villages – including 85 uranium-affected villages in Moga and 45 iron-affected ones in Roopnagar – have so far been shifted from groundwater to canal water.

Lakhwinder Singh, professor of economics at Punjabi University, Patiala, who has been mapping rural Punjab for decades, asserts that agriculture in the State thrived in the past due to easy availability of both groundwater and surface water but, over the past few years, the availability has reached a saturation point.

Increase in indebtedness

"Successive State governments invested on drainage systems that saved crops from damage in the case of heavy and untimely rains. Over the years, due to an incentivising of groundwater irrigation by the government and an irrational increase in the number of electric tube wells, water tables have receded. Experts have been time and again cautioning the State on the long-term consequences of excessive exploitation of groundwater. Now, farmers are forced to borrow from informal and formal sources to install tube wells, causing indebtedness and farmer suicides," says Lakhwinder, adding that that faulty public policy and irrational cropping system should be blamed for the scenario.

"Governments never visualised a scenario where agriculture would block the natural groundwater recharging process and create conditions for falling water tables," he says.

He proposes that the drainage system be used for artificial recharge of groundwater. "There is also a dire need to change the cropping pattern, especially in major parts of Malwa, which need to take up cotton cultivation again," he says, adding that "water recharging system, if put in place, can solve weather-related problems and economic incentives can be used to change farmers' mindsets, making them shift to multi-cropping system".

He feels that a "major policy shift with long term vision can solve both the agrarian crisis and the problem of water depletion."

Realising the magnitude of agrarian crises, the draft policy framed by Punjab's Farmers and Farm Workers' Commission points out that a decade of business as usual has left farmers in an unenviable position.

The policy strikes a cautious note in telling that the State is struggling to meet the aspirations of its farmers and the time has come to take a critical look at the deteriorating resources, the changing economic environment and the emerging market scenarios.

The government should purchase all major crops at MSP as it does for rice and wheat; until then, it's difficult to shift to other crops

RANDHIR SINGH, Farmer at Bhattiwal Khurd village



Farmers in Fatehpur, Patiala, looking at an abandoned well, which once used to be a major water source for irrigation but has now run dry due to over-extraction of groundwater. ■ AKHILESH KUMAR