

ZERO TOLERANCE Glorious history of Jamalpur Rail Workshop

Terrorism remains one of the gravest threats to peace, development, and social harmony in the modern world. In recent decades, India has been at the forefront of combating terrorism, both from external infiltrations and internal radicalized networks. The message is clear: there can be no compromise when it comes to safeguarding the lives of citizens, maintaining national sovereignty, and upholding the rule of law. Any leniency or appeasement only emboldens perpetrators, erodes public trust, and undermines the foundations of a democratic society.

The human cost of terrorism is immeasurable. Families are shattered, communities traumatized, and the very sense of security within society is eroded. Beyond the immediate loss of life, terrorist acts create an atmosphere of fear and uncertainty, crippling economic activity and social cohesion. Terrorists thrive on destabilization, seeking to exploit religious, ethnic, or regional differences for political gains. History has repeatedly shown that negotiating with such elements rarely leads to lasting peace; it often legitimizes violence and sends the wrong message to aspiring militants.

India's firm stance against terrorism is rooted not just in defense but in justice. Law enforcement agencies, intelligence bureaus, and paramilitary forces have tirelessly pursued perpetrators, foiling attacks and dismantling networks. Operations along the borders, meticulous intelligence sharing, and enhanced internal security measures demonstrate that proactive vigilance is indispensable. Recent successes in neutralizing terrorist plots and apprehending offenders highlight that decisive action is effective and necessary.

Moreover, a no-compromise approach sends a strong signal internationally. India, as a responsible global power, has consistently advocated for coordinated action against terrorism. Multilateral cooperation, intelligence sharing, and international legal frameworks are essential to prevent cross-border terrorism. At the same time, India's domestic policy reinforces that terrorism, in any form or guise, will face stringent consequences. Soft approaches or political expediency cannot replace firm enforcement of law.

Terrorism poses a threat not only to human life but to the very fabric of democratic societies. India's approach, characterized by resilience, intelligence-driven action, and international cooperation, reinforces the principle that violence and terror will never dictate policy or governance.

ER. PRABHAT KISHORE

The first railway in Asia ran from Shivaji Terminus (then Bori Bunder) to Thane in Mumbai on 16th April 1853 and 9 years later, on 8th February 1862, the foundation of Jamalpur Locomotive Workshop in Bihar was laid. This biggest railway workshop of Asia was established only 32 years after the beginning of first steam-powered railways in the world on 3rd May 1830 AD.

In fact, Jamalpur was very backward area in terms of basic requirements for a big factory such as raw material, water supply and transportation. There was neither a coal mine nearby, nor a store of iron or limestone etc. Its distance from Kolkata, the business center of the British Raj at that time, was also about 550 km. Despite this, the East India Company chose Jamalpur, which was surrounded by the beautiful Kharagpur hill of the Vindhyaehal Mountain range on one side and the fertile green plains of the River Ganga on the other side. In those days, Munger was world famous for gun manufacturing, cigarette factory and skilled artisans of diamonds and jewels. These skills and qualities of the artisans were the deciding factors behind the selection of this place by the company.

Initially, Jamalpur Railway Factory used to repair or assembling railway engines imported by the East India Company. The first engine was repaired in February 1862, which was manufactured by Vulcan Foundry Limited in 1853. In the first 10 years of its establishment, this factory got the work of assembling 452 engines and supplying spare parts.

By 1890, this factory had spread over 50 acres where 3112 workers were working. Then its capacity was to assemble 576

engines. In 1896-97, when the work of the East India Company expanded rapidly, there was a need to expand the Jamalpur factory and it was decided to manufacture steam locomotive here. In 1901, on the suggestion of the then Locomotive Superintendent, A.W. Rundel, a 5 MVA captive power house was established for electrification of the factory.

From 1899 to 1923, this well-equipped and electrically operated factory manufactured a total of 216 engines. But in 1920, when the freedom movement gained momentum, the company abandoned the policy of indigenous engine manufacturing and finally in 1925, the Government of India acquired the Railway Company and completely stopped the work of rail engine and boiler manufacturing here.

During the Second World War, the British forced Indian production units to manufacture defence materials. Jamalpur factory also manufactured "shells" weighing up to 25 pounds (12 kg). Every year, about five thousand 91-cm "trench mortar bombs" and hundreds of molds, gauges and other war materials were manufactured. Large quantities of non-ferrous rods were produced which were used in the Ordnance Factory. The boring and milling machines for the war machine Trail Controller were also made here.

After independence, the employees of the newly formed Chittaranjan Rail Factory were trained in the Jamalpur factory itself. In 1950, the N Bill Block for Chittaranjan was cast here and in year 1955, 21 large gate forges for water drainage were made for the Damodar Valley Corporation. In the year 1956, 400 engines were remanufactured, which proved to be the highest production year in the history of this factory. On 31 August 1992, the last steam engine was remanufactured in this factory.

When diesel engines replaced steam engines in railways, the employees here adapted themselves to the times without any special training and handled the work of overhauling and repair of diesel engines of railways as well as public undertakings such as NTPC, Durgapur, Kolkata Port, etc. very well. At present, 7 engines are repaired here every month.

Apart from overhauling and repairing, diesel engine spare parts are also manufactured in this factory. Jamalpur factory has succeeded in manufacturing spare parts required for all types of engines like "Master Controller", which were only imported from abroad. Along with this, many essential spare parts used in goods trains and other passenger train coaches are also being manufactured here.

The foundrymen of Jamalpur factory have mastered the art of making "brake blocks" fitted on each wheel. Along with other parts made of iron and brass, it is manufacturing one lakh brake blocks per month and 10 thousand Inserts made of malleable cast iron specially for joining modern concrete sleepers to the railway line. After the commencement of steel casting, wheels of narrow gauge trains was also manufactured here. This factory has successfully rebuilt the eight-wheeled BOX wagon along with the Jamalpur Jacks which are very useful in small accidents at a very low cost.

The railways had planned to import 2000 container flats from abroad to start the most modern door-to-door service, but the Jamalpur factory has done a commendable job by converting the useless wagons into container flats. Presently, production is being done here at the rate of 5 flats per month. After electrification in Indian Railways, the manufacture of "Tower Car" was started here

in 1983 for the maintenance of overhead equipment and wires. 8 such tower cars are manufactured here every year.

In 1960, the country's first steam-driven crane of 20 ton capacity was started to be manufactured here and till now 200 cranes of 2 to 140 ton capacity have been manufactured. A few years ago, with the help of Germany's Gottwald Company, Jamalpur factory surprised everyone by manufacturing India's first 140 ton capacity Diesel Hydraulic Break Down Crane.

This factory, spread over an area of 5746500 square meters, has an annual turnover of about 1 billion rupees and has made an invaluable contribution to the progress of the nation for the last 164 years. But today, due to the ill-will and neglect of the Central Government and the Railway Ministry, its renovation and expansion work is at a standstill.

Jamalpur Railway Factory has been serving the nation with all its heart and soul for about 164 years. This factory, which produces "Inserts" fitted in sleepers, "Brake Blocks" fitted on wheels, Engines fitted in coaches, BOX wagons, or diesel cranes etc., is the pride of the nation. But today, while renovation, modernization and training of employees was carried out in other railway workshops of Bharat, such as Diesel Locomotive Works (Kashi), Chittaranjan Locomotive Factory (Chittaranjan), Integral Coach Factory (Perambudur), Rail Coach Factory (Kapurthala), Wheel and Axle Plant (Bangalore), the anti-Bihar bureaucrats and politicians of the Railway Ministry are actively involved in a conspiracy to close down this factory by neglecting the renovation of Jamalpur Railway Workshop.

(The author is an engineer and educationist)

From Saffron Fields to Smart Screens: How AI is Reshaping Life in Jammu and Kashmir

ANKIT PATEL

On an October morning in Pampore, the air is heavy with the scent of freshly bloomed saffron flowers. For generations, this moment defined the most fragile phase of Kashmir's most precious crop. Every flower had to be plucked by hand, every crimson stigma separated manually by painstaking work done against the clock before the sun rose too high.

Today, the scene has subtly changed. At one corner of the field, an AI-enabled smart harvester hums softly. Developed through research at Sher-e-Kashmir University of Agricultural Sciences and Technology of Kashmir with support from the Ministry of Electronics and Information Technology, the machine automates stigma separation with precision that human hands often struggle to maintain. For the farmer using it, this is not just technology it is survival. This quiet transformation in Pampore mirrors a much larger, deeper shift underway across Jammu and Kashmir: the emergence of artificial intelligence as a tool not only of governance and security, but of everyday livelihood.

For decades, Jammu and Kashmir's public narrative revolved around conflict, instability, and administrative disruption. Yet between 2010 and 2026, another story unfolded slower, quieter, but profound. What began as basic digitisation of records has evolved into one of India's most intensive deployments of AI-driven governance, security infrastructure, and socio-economic systems. In the early 2010s, digital governance in the region meant little more than scanned

files and rudimentary online services. The rollout of the State Wide Area Network and Common Service Centres (CSCs) was meant to bridge geographical isolation, especially in mountainous and snowbound areas. By 2011, over 1,100 CSCs were mandated across the region. Connectivity failures, harsh terrain, and frequent internet disruptions, however, limited their impact.

Digital infrastructure was expanding even as internet shutdowns between 2012 and 2019 crippled its usability. The 2016 unrest following the killing of Burhan Wani led to a four-month suspension of mobile internet, decimating small digital enterprises. The now-famous "Internet Express" daily train journeys from Srinagar to Banihal just to access the web became a symbol of this fragile digital economy.

The reorganisation of Jammu and Kashmir into a Union Territory in 2019 marked a decisive technological turn. Central digital governance frameworks were extended rapidly, culminating in the 2020 IT/ITES Policy and the broader "Digital J&K" mission.

By 2024-25, the scale of digital adoption was unprecedented. The Union Territory recorded over 82 crore e-transactions, delivered more than 1,500 online services, and integrated 128 services with DigiLocker, eliminating the need for physical documents. Direct Benefit Transfer mechanisms disbursed Rs 9,000 crore to nearly 80 lakh beneficiaries, sharply reducing leakages. GST revenues rose to Rs 8,586 crore, reflecting deeper formalisation of the economy.

This digital push was not limited to citizens. In 2024, the General Administration Department mandated that all government employees complete courses in AI and cybersecurity under Mission Karmayogi by January 2026, signalling a shift towards an AI-literate bureaucracy.

Smart Cities, Smarter Control

Nowhere is AI more visible than in Srinagar and Jammu under the Smart City Mission. Integrated Command and Control Centres (ICCCs) act as urban nerve centres, managing everything from traffic to disaster response. In Srinagar, over 1,000 AI-enabled surveillance cameras feed into systems using Automatic Number Plate Recognition and predictive traffic analytics. Signals adapt dynamically, congestion is anticipated, and e-challans are generated automatically. Emergency response times have dropped, intersections are less chaotic, and civic coordination has improved. Jammu's Smart City infrastructure places heavier emphasis on public safety. AI systems detect suspicious gatherings, abandoned objects, loitering, and even civic violations such as littering.

The most sophisticated use of AI in Jammu and Kashmir lies in policing and counter-terror operations. Between 2024 and 2026, an AI-enabled security grid was operationalised, integrating facial recognition technology, forensic AI, GPS tracking anklets for high-risk accused persons, and drone surveillance. Facial recognition systems deployed at transport hubs cross-reference databases of over 10,000 individuals,

while AI-driven forensic tools reduce investigation timelines from weeks to hours. Drones equipped with AI distinguish between human movement and wildlife in rugged terrain, minimising false alarms along borders. Authorities argue this "intelligent policing" has strengthened security outcomes. Civil liberties groups, however, warn that Jammu and Kashmir risks becoming a testing ground for mass surveillance without adequate legal safeguards.

For the Pampore farmer using an AI-driven stigma separator, the benefit is tangible: lower labour costs, consistent quality, and higher export value. Through Kissan Khidmat Ghars, even farmers with limited literacy can access these tools with assisted support.

In healthcare, AI has become a bridge across mountains. AIIMS Jammu has positioned itself as a global centre for AI-driven predictive and precision medicine, using algorithms to improve oncology outcomes and streamline patient navigation. Satellite-enabled telemedicine links remote regions such as Gurez and Kishtwar to super-specialty care. Documented cases of telesurgery illustrate how AI and connectivity have effectively "flattened" geography, offering remote patients access to expertise once confined to cities.

From the saffron fields of Pampore to AI-powered control rooms in Srinagar, artificial intelligence in Jammu and Kashmir is not a single story, it is a mosaic. It has enabled efficiency, security, and economic resilience, while simultaneously raising questions about privacy and power.

J&K Budget 2026-27: Between Aspirations, Accountability and Promise of Change

SAMIKSHA MISHRA

When a budget is presented in a region like Jammu and Kashmir, it is never just about numbers. It is about trust, direction, and the delicate balance between hope and ground reality. The Jammu and Kashmir Budget 2026-27, tabled amid high public expectations, attempts to sketch a roadmap for growth, welfare, and stability while also inviting scrutiny over its priorities and execution.

With a total outlay of around Rs 1.13 lakh crore, the latest budget positions itself as one of the most ambitious financial blueprints for the Union Territory so far. The government has projected it as a people-centric and growth-oriented budget, focusing on infrastructure, social welfare, employment generation, and human development. But beyond the official claims, what does this budget really offer to the people of Jammu and Kashmir? At the heart of the budget lies a strong welfare narrative. Significant allocations have been made for health, education, and social security, especially targeting economically weaker sections. Provisions such as free or subsidised services for poor families, improved access to higher education, and expanded healthcare infrastructure signal the government's intent to reduce social inequality.

Healthcare has emerged as a key focus area. The budget proposes strengthening district hospitals, upgrading medical colleges, and improving emergency services, particularly in border and remote areas. This is crucial for a region where geographical challenges often translate into limited medical access. Education, too, receives a visible push. Investments in school infrastructure, digital education, and skill development programmes are aimed at preparing youth for future job markets. The emphasis on vocational training and employability reflects an acknowledgment of unemployment as one of the most pressing issues in the region. A substantial portion of the budget is directed towards infrastructure development roads, power, water supply, and urban development. Improved connectivity, especially in rural and hilly areas, is projected as a catalyst for economic activity and social integration. Power sector reforms and renewable energy projects have also found space in the budget, aligning with long-term sustainability goals. For Jammu and Kashmir, where energy potential is high but utilisation has remained limited, this could be a turning point if implementation matches intent.

Urban development projects aim to modernise cities like Srinagar and Jammu, while rural development schemes focus on housing, sanitation, and drinking water areas that directly affect quality of life. The budget places strong emphasis on employment generation, particularly through public works, self-employment schemes, and support for small and medium enterprises. Sectors such as agriculture, horticulture, handloom, handicrafts, and tourism have been identified as growth engines.

Tourism, often described as the backbone of Kashmir's economy, receives renewed attention. Investments in tourism infrastructure, promotion of offbeat destinations, and support for local entrepreneurs aim to make the sector more resilient and inclusive. If effectively executed, this could create large-scale employment, especially for youth and women. While the budget is ambitious in vision, its success will depend on implementation, transparency, and timely execution. Past experiences have shown that announcements alone do not guarantee impact. Issues such as fund utilisation, administrative delays, and last-mile delivery remain critical challenges.

Moreover, public expectations are high. People are looking not just for long-term plans, but for visible and immediate improvements in daily life-jobs, basic services, and economic security. The Jammu and Kashmir Budget 2026-27 is a statement of intent one that promises development, inclusivity, and stability. It attempts to bridge aspirations with governance and growth with welfare. Whether it becomes a transformative document or remains a well-worded promise will depend on how sincerely and efficiently it is implemented on the ground.

In a region shaped by history, conflict, and resilience, this budget has the opportunity to become more than an annual exercise it can become a step toward lasting confidence and credible change.

Justice for All-Rape Laws and Reforms in India

Rape is a heinous crime that affects individuals, families, and communities worldwide, leaving deep emotional, psychological, and social scars. The punishment for rape varies significantly across jurisdictions, reflecting different legal frameworks, cultural norms, and societal values. In India, the legal framework for addressing rape is outlined in Sections 375 and 376 of the Indian Penal Code (IPC), which define rape and prescribe punishments. However, there is an ongoing debate about the adequacy of these laws and the need for reforms to ensure justice for survivors and accountability for perpetrators.

Women, who were once silent sufferers, are now coming forward to report crimes thanks to increased awareness and police sensitization. This shift is attributed to various factors, including the growing women's rights movement, increased media coverage, and government initiatives aimed at promoting women's safety. However, despite these efforts, societal structures and law enforcement agencies still need significant improvement to effectively address this issue. The prevalence of crimes against women is often linked to the social environment, highlighting the need for a change in societal attitudes.

To combat rape, punishments for rape, battering, molestation, and related crimes should be reviewed and increased. Government and law enforcement agencies must work efficiently to curb such crimes, and laws alone cannot solve the problem; a broader societal change is necessary. This includes promoting gender equality, challenging patriarchal norms, and encouraging a culture of respect and consent. Education and awareness programs can play a crucial role in shaping attitudes and



behaviors, especially among young people.

The current laws in India are being reformed to match international standards. Suggestions for reform include automatic disqualification of accused individuals from elections, assigning the toughest lawyers for prosecution, and making laws gender-neutral to address various types of assault and violence. To effectively combat rape, a multifaceted approach is needed, including deterrent punishment for rapists, self-defense training for women, societal change, and strict law enforcement with transparency.

Some key statistics highlight the urgency

of the issue:
- According to the National Crime Records Bureau (NCRB), there were over 88,000 reported cases of rape in India in 2020.

- The conviction rate for rape cases in India is around 30%, indicating a significant gap in the justice system.

- A large number of rape cases go unreported due to fear, stigma, and lack of trust in the system.

counseling, medical care, and legal aid, Promote education and awareness about consent, gender equality, and respect for women's rights, Encourage community engagement and participation in preventing crimes against women and Provide training for law enforcement agencies to handle cases sensitively and efficiently.

The onus is on both the government and society to create an environment where women feel safe and protected, and where perpetrators are held accountable for their actions. By working together, we can strive towards a society where women can live without fear of violence or oppression.