

Foundation of Sustainable Progress

In the 21st century, development is no longer measured solely by the expansion of physical infrastructure or the growth of industrial output. The true strength of nations now lies in their ability to generate, apply and innovate knowledge. Knowledge-driven development has emerged as the cornerstone of sustainable, inclusive and resilient growth, shaping economies, governance systems and social progress across the world.

At its core, knowledge-driven development places education, research, innovation and skills at the centre of policymaking. Countries that invest in quality education and continuous learning create a workforce capable of adapting to rapid technological changes. From digital technologies and artificial intelligence to renewable energy and biotechnology, knowledge capital has become more valuable than natural resources. Nations that fail to invest in human capital risk stagnation, widening inequality and economic vulnerability.

A knowledge-based approach also promotes innovation-led economic growth. Research institutions, universities and industry partnerships act as engines of new ideas, products and services. Start-ups and knowledge-intensive industries generate high-value employment, boost productivity and enhance global competitiveness. When innovation ecosystems are supported through funding, intellectual property protection and policy stability, they foster entrepreneurship and attract both domestic and foreign investment.

Beyond economics, knowledge-driven development strengthens governance and public service delivery. Evidence-based policymaking allows governments to design targeted interventions, reduce inefficiencies and ensure optimal use of resources. Data-driven decision-making in healthcare, agriculture, urban planning and disaster management leads to improved outcomes and greater accountability. Access to information empowers citizens, enhances transparency and deepens democratic participation.

Social development is another critical dimension of knowledge-centred growth. Education equips individuals with critical thinking skills, enabling them to make informed choices and participate meaningfully in society. Knowledge dissemination helps address social challenges such as poverty, public health crises, climate change and gender inequality. Communities informed by scientific awareness and local knowledge are better prepared to respond to environmental and economic shocks.

However, the transition to knowledge-driven development must be inclusive. Digital divides, unequal access to education and regional disparities can exclude large sections of society from the benefits of knowledge economies. Governments must ensure affordable access to digital infrastructure, promote skill development in rural and marginalized communities, and encourage lifelong learning. Without inclusivity, knowledge-based growth risks reinforcing existing inequalities.

From the Edge of the Map to the Centre of Decision:
 PRAGATI and Rail Infrastructure in Mizoram

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When I joined the Bairabi-Sairang railway project in 2015, it felt like stepping into a part of the country that rarely entered national focus. The journey itself told the story. National Highway-154, now NH-06, the only access route, was badly damaged and unreliable. Heavy trucks were often stranded for days, and bumpy travel became a routine part of site visits. The surrounding hills were young, deeply weathered, and unstable, shaped by intense rainfall and constant slope movement. On paper, the project was historic, Mizoram's first railway connection to the national network cutting through mountains, steep gradients and deep gorges.

On the ground, however, progress was painfully slow. Site idling was common due to material unavailability, labour shortages, delayed transportation, local disturbances, and endlessly deferred decisions. As a tunnel design consultant and geologist, the geology was challenging but understandable. What proved far more difficult was institutional inertia. The project lay at the extreme periphery of the country. Reviews were sporadic. Decision-making authority was scattered across ministries, state departments, and agencies. Gradually, an unsettling realization took shape: it appeared as though no one truly expected the project to be completed in the foreseeable future.

Then, quietly and without announcement, urgency entered the system. There was a noticeable sense of urgency in the project offices. Phones rang more frequently. Senior officers began visiting sites with unusual regularity. Files pending for extended periods were promptly retrieved, reviewed, and circu-

lated. Meetings were scheduled in rapid succession, often involving agencies that previously worked in isolation.

As a private consultant, I was not part of the administrative core, and no one explained the reason for this sudden activity. But long experience on large infrastructure projects had taught me to recognize the signs. This was not routine pressure. It was preparation for scrutiny at the highest level.

Soon, the reason became clear. The project became clear: the Bairabi-Sairang railway project was scheduled for review under PRAGATI, the Pro-Active Governance and Timely Implementation platform chaired by the Prime Minister. For a project long on the margins, this brought authority, accountability, and real-time scrutiny to every pending issue and interagency bottleneck. After this meeting decisions aligned, and progress followed showing how governance often determines outcomes.

The PRAGATI review meeting of March 2016 fundamentally altered the project's trajectory. Under this framework, problems could no longer be examined in isolation or deferred indefinitely. The severely deteriorated condition of NH-06 was no longer considered external to the railway's mandate. The Ministry of Road Transport and Highways was directed to undertake repair and improvement works, with clear timelines and continuous monitoring. Land acquisition delays were no longer treated as routine administrative hurdles, the Government of Mizoram was instructed to expedite resolutions, and progress was tracked. Law and order related issues were formally recognized as critical risks to execution and placed under close observation.

What stood out was not individual decisions, but their synchronization. Under PRAGATI, agencies could no longer work in isolation. Responsibilities were fixed, coordi-

nation became mandatory, and follow-up was constant. The effect was immediate, the Katakhal-Bairabi section was commissioned in March 2016, enabling freight movement and improving access, logistics, and planning.

As months passed, it became clear that PRAGATI was changing institutional behaviour in a measurable way. Reviews shifted from explaining delays to resolving them, with photographs, timelines, and sitestatus data replacing narrative reports. Digital monitoring ensured that issues raised once returned to the table until they were closed. This discipline altered responses across the system. Engineers became more decisive, contractors more accountable, and state and central agencies coordinated more closely because fragmentation was no longer tolerated. On the ground, the effect was visible. Tunnel excavation, once sporadic, began advancing steadily despite complex geology, fractured rock mass, shear zones, water ingress, and weak strata. Approvals for support systems and design modifications moved in weeks instead of months. Bridges started rising across deep gorges, some over seventy metres high, translating decisions taken hundreds of kilometres away into concrete and steel on site. Even during the COVID-19 period, the same framework ensured continuity; labour shortages, contractual disputes, and execution challenges were closely monitored, and the project slowed but did not drift. Over time, the scale of achievement became evident: forty-five tunnels covering nearly one-third of the alignment, over 150 bridges, ballast less track through tunnel sections, and a design speed of up to 100 kmph through one of the most demanding terrains in the country. Four new stations Hoptoki, Kawnpui, Mualkhang, and Sairang prepared to serve longisolated communities. Beyond engineering, the project underscored a deep-

er truth. Fragile geology can be managed, monsoons planned for, and logistics strengthened. What ultimately determines outcomes is governance the ability of institutions to align, decide, and act together.

Beyond its impact on projects in the Northeast, the PRAGATI portal has had a measurable influence on nationwide growth, as accelerated decision-making and improved coordination have supported the steady expansion of infrastructure across the country. In a recent press conference, Cabinet Secretary highlighted the impact and effectiveness of the PRAGATI mechanism. He stated that by December 2025, 382 major projects had been reviewed by Prime Minister Narendra Modi under the PRAGATI framework. The PRAGATI ecosystem has significantly accelerated the implementation of infrastructure projects valued at over ₹85 lakh crore (approximately USD 850 billion). As per government sources, this period has also seen a sharp rise in infrastructure spending, with capital expenditure increasing from Rs. 1.97 lakh crore in 2014-15 to a budget estimate Rs. 11.21 lakh crore in 2025-26 more than a five-fold jump. As a share of the Union Budget, infrastructure capital expenditure doubled from nearly 12 percent to about 22 percent. As per Cabinet Secretary - PRAGATI functions as part of a broader, integrated digital ecosystem that includes PM Gati Shakti, PRIVESH, and the Project Monitoring Group (PMG).

Viewed in totality, on-ground observations, spatial outcomes, and financial indicators together suggest that infrastructure spending in India has been systematically scaled and effectively managed, reinforcing its role as a stable contributor to national growth.

(The author is a Principal Engineering Geologist with over 17 years' experience in complex underground infrastructure projects across India)

Parent Care Leave: The Missing Link in Employee Welfare
 Parent Care Leave is a necessary response to an ageing society and a changing workforce

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In a quiet house on the edge of a fast-growing city, an elderly couple waits for a familiar knock on the door. Their children call them often. The voices are full of love, care, and concern, but the physical presence they long for is missing. Far away, in busy offices and demanding workplaces, those very children sit with heavy hearts. They are torn between job responsibilities and an unspoken promise to look after the parents who once shaped their lives. This is not a rare story; it is the reality of countless families across today.

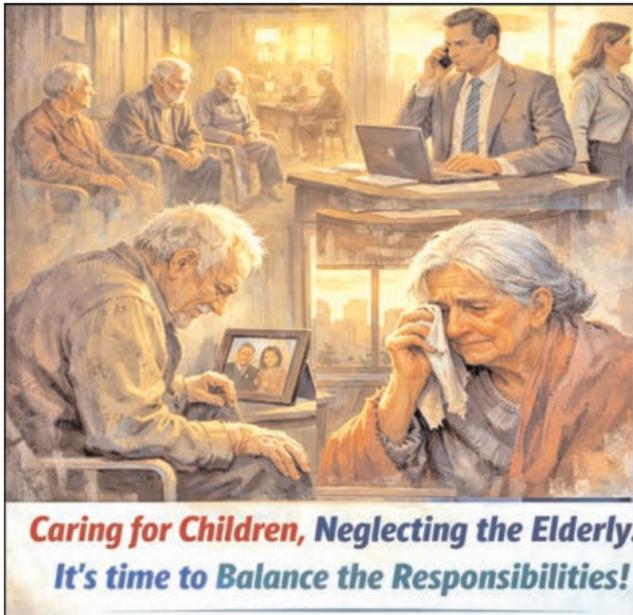
Today's social and economic conditions have placed working sons and daughters in a painful situation. Most of them genuinely want to care for their ageing parents and feel morally responsible to do so. However, strict job rules, frequent transfers, long working hours, performance pressure, and the lack of proper leave policies make this extremely difficult. Many are forced to choose work over being present with their parents not because they do not care, but because they have no option. As a result, a silent crisis is growing where elderly parents, despite having loving and responsible children, spend their old age facing loneliness, poor health, and emotional insecurity.

For old parents, the greatest suffering is often emotional rather than physical. It is the pain of handling

daily life alone, visiting hospitals without a trusted hand to support them, and celebrating festivals or family occasions in silence. Many parents do not express their needs openly because they do not want to trouble their children, who are already struggling to manage work and family life. On the other hand, the children carry a constant feeling of guilt, knowing that love and good intentions are not enough without time and physical presence.

Over the years, governments and workplaces have slowly started understanding that employee welfare is not limited to salary and office hours alone. Emotional well-being and family responsibilities are also important. The introduction of Child Care Leave (CCL) is a positive step in this direction. It accepts the fact that young children need personal care during important stages of their growth and that such care cannot always be managed by others. This policy is based on compassion and social responsibility and recognises that employees are human beings with family duties.

However, this caring approach seems incomplete when we look at another serious reality, the care of ageing parents. In today's fast-paced work culture, many elderly parents are left unattended, feel emotionally lonely, or are pushed into old-age homes. This usually happens not because children do not care, but because rigid job systems do not allow them the time or flexibility needed for caregiving. This raises an important question: if work-



places understand the need to care for children, why is the same understanding not shown towards elderly parents?

In the past, Indian society was built around the joint family system, where elders were respected and cared for within the home. Old age was seen as a stage of dignity, not dependency. But with urbanisation, migration, nuclear families, and rising economic pressure, this system has weakened. Many pro-

fessionals live far away from their parents, and demanding work schedules prevent them from being present during illness or difficult times. While medical science has increased life expectancy, our social systems have failed to ensure quality and dignity in those added years.

The need for Parent Care Leave (PCL) is based on both moral values and practical realities. Old age often

brings long-term illness, reduced mobility, and emotional weakness. At this stage, parents need more than medicines or hired helpers. They need love, reassurance, and the presence of their own children. Care is a two-way responsibility. Parents spend their best years raising their children, often sacrificing their own comfort and dreams. Supporting them in old age is not a burden; it is a natural, humane, and ethical duty.

Just like child care, the responsibility of caring for elderly parents mostly falls on women. Daughters and daughters-in-law are often expected to manage jobs along with household and caregiving duties. This affects their careers, health, and mental peace. A formal Parent Care Leave policy would recognise this unseen work, promote shared responsibility, and support gender equality by encouraging men also to take part in caring for parents.

Old-age homes are often shown as practical solutions, but for many parents, they mean emotional loss rather than choice. Even when facilities are good, many residents feel lonely, unwanted, and disconnected from family life. Most parents would prefer to stay with their children if given a chance. Parent Care Leave can provide that chance by allowing families to be together during illness, recovery, or critical stages of old age.

There is a clear similarity between child care and parent care. Both children and elderly parents are vulnerable and dependent, and both need emotional bonding and human presence.

Caregiving is not about age; it is about relationships and responsibility. Without Parent Care Leave, employees are forced to choose between career growth and family duty, leading to stress, emotional pain, and burnout. Kind and understanding policies do not harm organisations; instead, they build loyalty, trust, and long-term commitment among employees.

Many countries have already introduced family or caregiver leave policies that include elder care. India, despite its strong cultural values of respecting elders, still lacks a clear system to support working caregivers. Introducing Parent Care Leave would help close the gap between what we value morally and what is practically possible. Such a policy should be flexible, gender-neutral, and inclusive, so that both men and women can share caregiving responsibilities.

As society changes, policies must also change. True progress is not measured only by economic growth or productivity, but by how we treat the most vulnerable among us. Children and the elderly stand at two ends of life, both deserving care, dignity, and attention. Bringing Parent Care Leave alongside Child Care Leave would complete the circle of compassion in the workplace. It would send a strong message that caregiving is not a personal problem, but a shared social responsibility and a true sign of a humane and civilized society.

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Massive healthcare push positions J&K as emerging medical hub

Jammu & Kashmir is witnessing a historic and far-reaching transformation in its healthcare sector, marked by massive infrastructure development, unprecedented expansion in medical education, and sustained support from the Government of India. Strategic investments made over the past several years by the Ministry of Health & Family Welfare (MoHFW) have fundamentally reshaped healthcare delivery across the Union Territory, ensuring that quality medical services are accessible not only in urban centres but also in rural, border and geographically challenging areas.

Large-scale healthcare infrastructure projects and systematic upgradation of services at the grassroots level have played a pivotal role in redefining the healthcare landscape of Jammu & Kashmir. These initiatives have not only enhanced the quality of medical services but have also ensured their availability closer to the doorsteps of people residing in far-flung and remote regions of the UT.

A cornerstone of this transformation is the establishment of two All India Institutes of Medical Sciences (AIIMS) in Jammu & Kashmir—an achievement that has elevated the UT's healthcare ecosystem to national and global standards.

AIIMS Jammu, now fully operational, is providing world-class tertiary and

super-specialty healthcare services. Equipped with advanced diagnostic, surgical and critical care facilities, the institute has significantly reduced the need for patients to seek specialized treatment outside the UT. Beyond patient care, AIIMS Jammu has also emerged as a centre of excellence for medical education and research, contributing substantially to capacity building and advancement of medical knowledge in the region.

AIIMS Kashmir, sanctioned by the Government of India and nearing completion, is expected to become operational by the end of the year. Once functional, it will play a transformative role in strengthening advanced healthcare services in the Valley, particularly in super-specialties such as oncology, cardiology and neurology. Together, the two AIIMS institutions represent a long-term investment in equitable, high-quality healthcare for the people of Jammu & Kashmir.

Another major milestone in the healthcare journey of the UT has been the rapid expansion of Government Medical Colleges, which has significantly strengthened both district-level healthcare delivery and medical education.

From just four medical colleges a few years ago, Jammu & Kashmir now has twelve medical colleges, including newly established institutions in underserved districts. This expansion also includes

AYUSH institutions such as the Government Ayurvedic College, Government Unani College at Ganderbal, and Government Homeopathic College at Kathua, thereby strengthening traditional systems of medicine and offering diverse, affordable healthcare options to the public.

Medical colleges established in districts such as Anantnag, Baramulla, Kupwara, Kathua, Doda, Udhampur and Rajouri have emerged as anchors of district-level healthcare. These institutions have improved access to specialist doctors, diagnostics and emergency services while simultaneously functioning as teaching hospitals, thereby substantially enhancing local healthcare capacity.

The expansion of healthcare infrastructure has been complemented by a historic increase in medical education capacity, ensuring long-term sustainability of healthcare services in the UT.

MBBS seats have increased from 500 to 1,725, an addition of over 1,200 seats, addressing the long-standing shortage of doctors. Postgraduate and super-specialty seats have risen from 513 to 802, strengthening specialist availability across disciplines. DNB seats have witnessed an exponential increase from 20 to 438, enabling in-service doctors to receive advanced training within the UT itself.

This significant capacity enhancement

has reduced dependence on institutions outside the UT, improved doctor-to-population ratios and ensured the availability of trained specialists even in remote and border areas.

Recognising the critical role of allied health professionals, Jammu & Kashmir has also seen a major push in nursing, paramedical and pharmacy education. B.Sc. Nursing seats have increased from 685 to over 3,000, while B.Sc. Paramedical seats have jumped from just 78 to nearly 1,900. B-Pharmacy seats have increased from 33 to 373.

In addition, the introduction of M.Sc. Nursing programmes, including those at AIIMS Jammu and other institutions, has strengthened advanced nursing education. This expansion has ensured the availability of trained nurses, technicians and pharmacists, an essential pillar for effective healthcare delivery anywhere.

Several large-scale healthcare infrastructure projects supported by the Government of India are currently at advanced stages of development. These include a 243-bedded modern Labour Block at SMGS Hospital, Jammu, aimed at strengthening maternal and neonatal care, and a 100-bedded Mother & Child Hospital at Lamberi, Rajouri, catering to border and rural populations.

Under PM-ABHIM, 17 Critical Care Blocks comprising 15 blocks of 50 beds

each and two blocks of 100 beds each are being established to enhance emergency and critical care services. A 125-bedded district-level health facility at Budgam is also nearing completion, which will significantly boost healthcare capacity in the district.

These state-of-the-art facilities are designed to decentralize critical healthcare services and ensure timely access to lifesaving care closer to communities.

At the grassroots level, Government of India-supported initiatives have transformed primary healthcare delivery. The number of Health & Wellness Centres has increased from 130 to 3,166, ensuring comprehensive primary healthcare services at the village level.

Jan Aushadhi Kendras have expanded from 47 to 307, improving access to affordable quality medicines, while 24 AMRIT Pharmacies have been established to support patients suffering from chronic and critical illnesses. The 102/108 ambulance fleet has expanded to 489 vehicles, significantly strengthening emergency response, particularly in remote and hilly terrains.

These interventions have brought healthcare closer to the people, reduced out-of-pocket expenditure and strengthened preventive and early diagnostic care.

Specialized healthcare services have been further reinforced with the operationalization of State Cancer Institutes in

Jammu and Srinagar, Bone & Joint Hospitals in Jammu and Srinagar, and a fully functional 500-bedded Pediatric Hospital at Srinagar equipped with allied super-specialties.

Additional supporting infrastructure includes a state-of-the-art Drug Testing Laboratory at Kathua and 100-bedded hospitals at Baltal and Chandanwari, catering to pilgrims as well as local populations.

The cumulative impact of these reforms is reflected in improved health indicators across the UT. The Infant Mortality Rate has declined from 22 to 14, while the Sex Ratio at Birth has improved from 927 to 976, underscoring significant progress in maternal and child healthcare.

The comprehensive expansion of healthcare infrastructure, medical education and primary health services has positioned Jammu & Kashmir as a model for healthcare transformation in the country. Backed by strong Government of India support, these initiatives have not only addressed existing healthcare gaps but have also laid a robust foundation for a self-reliant, resilient and equitable healthcare system.

The ongoing and completed healthcare projects reaffirm the Government of India's commitment to ensuring that the people of Jammu & Kashmir receive accessible, affordable and reliable healthcare services unprecedented before and comparable to the best in the country.