

RURAL CONNECTIVITY UNDER PMGSY

The Pradhan Mantri Gram Sadak Yojana (PMGSY) is a flagship initiative launched by the Government of India in 2000 with the objective of enhancing rural connectivity across the country.

The scheme aims to provide all-weather road access to unconnected villages, particularly those in remote and economically disadvantaged areas. By improving transportation infrastructure, PMGSY is crucial in enhancing rural accessibility, boosting economic opportunities, and contributing to overall rural development.

Under PMGSY, the focus is on constructing rural roads and upgrading existing ones to ensure connectivity to even the most inaccessible villages. This initiative is designed to foster inclusive development by ensuring that rural communities are better integrated into the national economy. Connectivity through all-weather roads helps in the easy movement of people, goods, and services, significantly reducing travel time and transportation costs, especially for essential goods such as medical supplies, agricultural produce, and education materials. One of the primary benefits of rural connectivity under PMGSY is the positive impact on the agricultural sector. Better roads make it easier for farmers to transport their produce to markets, thus improving their income and reducing post-harvest losses. It also facilitates the timely delivery of inputs like fertilizers and seeds, enhancing agricultural productivity. Apart from economic growth, rural connectivity also plays a critical role in improving access to healthcare, education, and social services. Roads under PMGSY have connected remote areas to hospitals, schools, and government offices, making essential services more accessible. This has a direct effect on improving the quality of life in rural areas by increasing access to opportunities that were previously unavailable. Furthermore, PMGSY contributes to poverty alleviation by opening up employment opportunities. With better connectivity, new businesses can set up in rural areas, and small-scale industries are encouraged to expand, leading to job creation. The construction and maintenance of roads also provide employment opportunities to local labor forces.

The PMGSY is implemented by the Ministry of Rural Development, and over the years, it has witnessed substantial progress. Millions of kilometers of roads have been constructed, connecting thousands of villages across India. With the ongoing expansion and upgradation of infrastructure, the scheme is poised to bring transformative changes in rural India, fostering long-term economic, social, and cultural growth.

Rural Transformation for Miraculous Economic Growth

■ DR. BANARSI LAL

Rural transformation is more dynamic concept than rural development as it embodies a transformation in people's perspective on life. It is a proactive and positive process of change and development of rural areas. It involves the bringing the features of urban environments into rural areas, changes to systems and processes that favourably impact rural people's standard of living and livelihoods. In India over 65 per cent population still lives in the rural areas. All the great personalities of India such as Mahatma Gandhi and Dr.APJ Abdul Kalam always advocated the need of transforming the villages as the villages are the keys for the inclusive development of the country. So there is great need to concentrate in the rural areas of the country. Presently government is striving to improve the infrastructure in the villages such as roads, sanitation, power and water to develop the villages. It is easy to say to develop the villages but to transform them is really a hereculean task. But a well knit strategy with adequate financial support can transform the villages of India. A scheme known as Shyama Prasad Mukherji Rurban Mission has been started by the government of India which is a reflection of former President of India, Dr.APJ Abdul Kalam's idea of PURA (Providing Urban Amenities in Rural Areas).This scheme focused on the infrastructure development in the rural areas. It also includes skill development and economic development in the villages. Presently government is endeavouring to end the rural-urban divide by the idea of rurban and providing the urban amenities in the rural areas. There is need to revamp the rural areas. There is also need to concentrate on agriculture, rural infrastructure development, skill creation, employment and health to boost the path of development in the villages.

Government has launched Saansad Adarsh Gram Yojana(SAGY).This scheme instills certain values in the village to foster mutual cooperation, self-help and self-reliance, enabling the poorest person in the village to come out of poverty and achieve well-being, preserving and promoting local cultural heritage. According to this scheme, every Member of Parliament would adopt a village Panchayat to be developed through government schemes and local initiatives. Selected Panchayats have already started getting priority for developing infrastructure under existing schemes like National Health Mission, MGNREGS, ICDS and now Swachh Bharat Abhiyan. This plan envisages a model village with the schools that have toilets, computers, health facilities, yoga centres, gym, solid and liquid waste management, drinking water etc. This scheme can make the villages self-reliant and self-sufficient. There is also need to develop the social and physical infrastructure of the rural areas. PURA (Providing Urban Facilities in Rural Areas) aims to reform the rural economy. This can also reduce the rural migration towards populated cities. There is dire need to concentrate on agriculture, value addition in food, healthcare and education, Information and Communication Technologies (ICTs) etc. so that income and employment in rural areas can be enhanced. The poverty can be eradicated with the proper strategy.

Skill India Mission is another significant scheme for rural development. Through this scheme entrepreneurship in rural areas can be developed. It is an ambitious scheme. The National Policy for Skill Development and Entrepreneurship aims at empowering those who left out from the mainstream education system by imparting the skill development training to them. This can open new avenues of employment on a large scale. Krishi Vigyan

Kendras (KVKs) can play a significant role in imparting the skill development trainings to the rural people on the areas such as mushroom cultivation, beekeeping, poultry farming, dairy farming, commercial floriculture etc. This can open new avenues of employment and income in rural areas. India can play the role of human resource capital if China is acting like manufacturing factory. Information and Communication Technologies (ICTs) can play the crucial role in benefitting the rural people. Farmers of one place can learn new things in agriculture from the farmers of another place. They can also see the weather forecasting and can also find out the marketing channels of their farm produce. The village problems and their solutions can be mitigated under Unnat Bharat Abhiyan.100 per cent rural electrification can also play a great role in the villages' transformation. Rural roads are being constructed under Pardhan Mantri Gram Sadak Yojana at a speedy rate. Roads can help to transport the farm produce of villagers to the urban areas. The job scheme Mahatma Gandhi National Rural Employment Guarnantee Scheme (MGNREGS) has also been accorded priority. This scheme is playing a twin role of job creation and economic development in the areas. It has been observed that water scarcity is increasing due to poor monsoons. Government is striving to mitigate the problem of irrigation under MGNERGA. For that purpose more funds and efforts are needed. Setting up of 300 Rurban Clusters under Shyama Prasad Mukherjee Rural Mission and strengthening of the Krishi Vigyan Kendras (KVKs) are steps in the right direction. Now some districts are getting two KVKs to mitigate the farming needs of the farmers. KVKs are providing technical know-how on agriculture and allied sectors to the farmers. They are helpful to increase the

crops production and thus ultimately are able to increase the income and employment among the farmers. There is need to increase the crops yields in the rain-fed areas and also to increase the agricultural credit. There is also need to ease the burden of loan repayment of the farmers so that there stress can be minimized. The government is making special endeavours towards agricultural sector to enhance the income of farmers.Enhancing the farmers income is quite challenging and agricultural scientists and farmers need to make their best efforts for that purpose. The efforts towards enhancing the farmers' income should be applauded and announcement on enhancing the farmers' income really shows the government concern in this aspect.

Rural sector needs to be rejuvenated and the rural-urban disparity needs to be reduced. Rurban development has rightly been identified as the government ambitious plan for improving the infrastructure in rural areas such as roads, sanitation, water and power. Rural areas require physical and social infrastructure for their development. Rejuvenation of the villages is imperative at this juncture. This can help to increase the income of the weaker section of the rural people. If common people will not get the benefits then the approach to development would be a futile exercise. India is a highly populated country and there is a need of balanced and sustainable development. It has been observed that rampant industrialization is ignoring the environmental and other concerns. This has disastrous effects on the rural economy. There is a need of strategy to eradicate the poverty across the nation and thrust should be given in the rural areas. Rural development will help to boost the economy of the nation.

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Human Rights Day: A Global Commitment to Dignity, Equality and Justice

■ PROF (DR.) JAIPAL SINGH



The significance of Human Rights Day lies in its focus on raising awareness among common masses of this heaven and promoting protection of fundamental rights

of every individual worldwide ensuring globally that human rights are respected, upheld and universally applied. On Dec 10, 1948, United Nations General Assembly adopted the Universal Declaration of Human Rights (UDHR) to strengthen the ongoing struggle for human dignity, equality and justice for all individuals regardless of their background, gender and nationality. The need for Human Rights Day was a response to the atrocities witnessed during World War II, which included widespread violations of human rights such as genocide, racial discrimination and political oppressions etc.... These horrors galvanized the international com-

munity to establish clear guidelines for the protection of human dignity and freedoms. The adoption of the UDHR by the United Nations marked a critical milestone in the development of international human rights law.

Inception of Human Rights Day even became more significant as many countries across the globe, including those with long histories of inequality and injustice, faced challenges in protecting the fundamental freedoms of their citizens whether it is in the form of racial discrimination, lack of access to education, gender inequality, or suppression of freedom of speech. Human Rights Day and its annual celebration every year is the ray of hope and beam of light for those who are trapped and cornered.

As of today, 193 member countries of the United Nations, including India, observe Human Rights Day, reinforcing the idea that human rights are fundamental and must be respected globally. India, as a founding member of the United Nations, has been an ardent/strong supporter of the UDHR and its principles.

India officially became a signatory to the Universal Declaration of Human Rights in 1948, a year after its independence, recognizing the importance of protecting the rights and dignity of its citizens. India's commitment to human rights was also reflected in the framing of its Constitution in 1950, which enshrined fundamental rights that guarantee equality, liberty, and justice for all its citizens, irrespective of area, gender, caste, or religion.

India's contribution to the global human rights movement has been significant. The country has consistently supported initiatives aimed at promoting human rights on the international stage. India's leadership in shaping the UDHR, along with its contributions to other human rights conventions, reflects its dedication to these values.

India's domestic human rights agenda has also played a key role in promoting equality, education, and social justice. The country has enacted various laws aimed at protecting women's rights, abolishing caste-based discrimination, and empowering marginalized communities. For instance, the Right to Education Act

(2009) guarantees free and compulsory education for children aged 6 to 14 years, ensuring that every child has the right to education. Right to information act (2005) guarantees provisions of information to be provided to applicant within stipulated time frame. In terms of gender equality, India has implemented laws such as the Domestic Violence Act (2005), the Sexual Harassment of Women at Workplace Act (2013), and has made strides in combating female infanticide and child marriage. The celebration of Human Rights Day has had a profound impact on both men and women, although the challenges faced by women remain an area of significant concern. While challenges remain, India's efforts to promote women's empowerment are noteworthy. The rise of awareness regarding gender-based violence, legal reforms, and social movements aimed at advancing gender equality further respected the importance of Human Rights Day.

For women in India and across the world and with the wide spread recognition of Human Rights Day - women's participation in the workforce, political spheres,

education and almost everywhere has been enhanced. Their participation and contribution has impacted overall social structure and strengthened their economic empowerment. However, there are still significant barriers in achieving full equality, particularly in rural areas or within certain social structures due to gender inequality, domestic violence, and fighting for equal access to opportunities.

Anyhow, we ought to acknowledge the key objectives of Human Rights Day which seemed to be fulfilled to some extent in ensuring that some among many individuals are aware of their rights and can freely enjoy them. The success of Human Rights Day lies in its ability to unite the global community around a common cause, but its true success will be measured by tangible changes in the lives of individuals. Significant progress has been made in areas like child labour, women's rights, racial equality, and access to basic healthcare and education. However, many more challenges yet remain in countries like - facing armed conflict, political repression, discrimination etc...

To further strengthen the celebration of Human Rights Day, the global community must continue to promote education, enforce accountability for human rights violations and ensure the protection of vulnerable populations. Governments, civil society organizations and individuals must work together to ensure that human rights are not merely theoretical but are actively protected and promoted.

In Gist, Human Rights Day reminds us and the world about the importance of ensuring dignity, equality, and freedom for every individual. India's involvement in the global human rights movement has been crucial and its contributions have significantly impacted the progress made in this area. The celebration of Human Rights Day serves not only as a recognition of achievements but also as a commitment for future - where human rights are universally applied and respected by all for the survival and longevity of humanity.

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Technical Textiles: Weaving Bharat's Future with Innovation and Sustainability

■ GIRIRAJ SINGH



"Parivartan hi sansar ka niyam hai"- Change is the law of the universe. In line with this powerful message, India's textile heritage is transforming to meet the needs of a changing world. Our journey in technical textiles isn't just about fabric - it's about weaving dreams, securing futures, and crafting a sustainable tomorrow for 1.4 billion Indians. Today, I share with pride how India's technical textiles sector is revolutionizing lives across our nation. With 12 specialised segments such as Packtech, Indutech, Mobilitex, Clothtech, Hometech, Meditech, Agrotech, Buildtech, Protech, Geotech, Sportech, and Oekotech, each offering great opportunities.

As the world's fifth-largest technical textiles market, valued at \$25 billion and projected to surpass \$40 billion by 2030, India has seen remarkable export growth, rising from near zero in 2014 to \$3 billion in FY 2023-24, with a target of \$10 billion by 2030. Packtech, Indutech, and Mobilitex

account for 70% of exports, highlighting India's manufacturing strength, while the 229% growth in the Buildtech sector showcases expertise in specialized areas. Moving forward, India plans to expand exports across other technical textile segments, including Buildtech, Meditech, Agrotech, and other emerging sectors, while stimulating domestic demand through R&D, entrepreneurship, and sustainable practices. With abundant human resources and an expanding raw material supply, technical textiles are set to be a sustainable and viable option for India's future.

To support our nation's goal of self-reliance, we are focused on reducing import dependence on crucial raw materials like nylon, carbon fiber, high-specialty fibers, and ultra-high-molecular-weight polyethylene (UHMWPE). Just as India is working to become self-reliant in semiconductors to boost its defense and aerospace sectors, we aspire to do the same in the field of technical textiles. To achieve this, the Modi Government launched the National Technical Textiles Mission (NTTM), supported by ₹1,480 crore. This initiative has already approved 168 projects worth ₹509 crore and funded 12 startups with ₹5.79

crore. We are not merely contributing to global progress; we are shaping it. Our vision extends beyond numbers, aiming to build a self-reliant India that leads through innovation while honoring its cultural heritage.

A significant milestone awaits us with the domestic production of T100 Carbon Fiber within 2.5 years, which will substantially reduce our import dependency in critical defense and aerospace applications. While we're working to reduce our reliance on imported non-woven materials, carbon fibre, high-specialty fibers, nylon and UHMWPE. I'm confident India will begin domestic carbon fibre production by FY 2025-26, marking a crucial step toward self-sufficiency.

Our agricultural sector showcases the transformative power of technical textiles. Innovative agrotexiles are driving over \$567 million in exports with a robust 5% annual growth over the past six years. Picture a farmer in rural India using advanced shade nets and mulch mats, witnessing crop yields surge by 30-40% while using 40% less water. Through eleven groundbreaking projects under NTTM, including Sum Henu crop covers by

Northern India Textile Research Association (NITRA) and herbal-coated seed bags by South India Textile Research Association (SITRA), we're seeing farmer incomes rise by an unprecedented 67-75%. This is sustainable development in its truest form.

National security remains paramount in our technical textiles journey. Our security personnel now benefit from an indigenous shield of courage - advanced protective fabric developed through NITRA's research that withstands temperatures up to 449 degrees. This isn't just about technical advancement; it's about protecting those who protect us.

India's automotive sector is thriving, with vehicle sales surpassing 40 lakh units in FY 2023-24, driving airbag demand and prompting global leaders like Autoliv, ZF, and Joyson to expand operations locally. As the fastest-growing market for seat belt webbing, with a 9.2% growth rate supported by Autocop and Maruti Suzuki, India is advancing in safety and innovation. In packaging, Flexible Intermediate Bulk Containers (FIBC) are replacing traditional materials like glass, metal & cardboard containers, offering durability, versa-

tility, and reusability. Lighter & more eco-friendly FIBC bags provide lower transportation costs and support sustainable practices.

Furthermore, AI and blockchain are essential for making textile production smarter and more transparent. AI improves efficiency by automating processes, reducing errors, and enabling real-time monitoring, which enhances product quality. Blockchain adds accountability by securely recording each step in the supply chain, allowing customers and manufacturers to verify the origin, authenticity, and quality of materials, building trust and transparency in the industry.

Inspired by global leaders such as the USA, Japan, UK, Germany, and Israel, we are focused on advancing technical textiles through cutting-edge R&D and high-tech solutions. Israel's innovations in the protech sector, like the Kit 300 for camouflage, and Italy's leadership in agrotech, with sustainable solutions like advanced nets and thermo-reflective screens, serve as key models. By establishing a national knowledge center and strengthening local supply chains, we are adopting best practices. With the global

technical textiles market set to grow from \$250 billion to \$300 billion by 2030, we aim to capture a 15% market share, underscoring our commitment to driving innovation and growth in this rapidly expanding sector.

As we progress toward Vision 2047, technical textiles are emerging as the link between India's rich textile heritage and its technological future. Under Prime Minister Narendra Modi's visionary leadership, we are not just adapting to change but driving it-developing innovative fibers and sustainable solutions that will make Bharat's technical textiles a global symbol of quality, innovation, and sustainability. The textile sector is poised to reach a market size of \$350 billion, with exports contributing \$100 billion by 2030. At this crucial juncture, I am confident that India's technical textiles sector will not only meet global standards but set new benchmarks, creating vast opportunities for employment, entrepreneurship, and economic growth, and weaving a stronger, more resilient Bharat for tomorrow.

(The writer is Union Minister of Textiles, titled "Technical Textiles")

Eliminating TB-National Health Imperative

■ JAGAT PRAKASH NADDA

Honourable Prime Minister Narendra Modi gave a clarion call for elimination of TB from the country.Under his leadership a new model of TB care was adopted and India pioneered several innovative approaches over the last few years to bring a paradigm shift in TB prevention, diagnosis and treatment. Findings from the WHO's Global TB Report 2024 acknowledged the efficacy of the approach adopted so far. It noted a 17.7% decline in TB incidence in India from 2015 to 2023 - double the rate of decline observed globally. Not just that, the country diagnosed 25.1 lakh patients, marking a significant rise in treatment coverage within the country from 59% in 2015 to 85% in 2023.

On December 7, inspired by the Prime Minister's vision, India witnessed yet another transformative push in its TB elimination strategy. The government launched an intensified 100-day nationwide campaign from Panchkula, covering 347 high TB burden districts, to accelerate our response to fight TB.The initiative reinforces our resolve to identify every TB

patient early by proactively reaching out to vulnerable populations and by providing them with timely, need-based, and quality treatment. In the true spirit of Jan Bhagidari, all of us - elected representatives, health practitioners, civil society, corporates, and communities - collaborated to make the campaign a grand success.

With the proactive collaboration of States and Union Territories, this new campaign promises to be yet another milestone in India's TB elimination journey.

India's social approach to TB elimination

To complement expanded diagnostic efforts and to support a complete recovery of the TBpatients, India conceptualised and operationalised a nutritional support scheme - Ni-kshay Poshan Yojana (NPY). Since April 2018, we have disbursed ₹3,295 crores to 1.16 crore beneficiaries through Direct Benefit Transfer under NPY. In what is a major reinforcement of India's commitment to TB elimination, the monthly support under the scheme has been doubled from the existing ₹500 to ₹1,000 per month from November

2024. Another critical aspect - the TB Mukh Bharat Abhiyaan has not only helped in addressing the challenge of nutrition but also enhanced community mobilization. The program has associated various community stakeholders creating a mass movement to increase awareness and to provide nutritional, vocational, and psychological support to TB patients. This government-citizen symphony anchored in the spirit of Jan Bhagidarihas inspired 1.75 lakh Nikshay Mitras to provide 21 lakh food baskets to patients across the country.

Driving innovation to end TB

Over the years, India has introduced newer drugs such as Bedaquiline and Delamanid to improve treatment success rates. Considering the challenges in treatment completion for patients with the drug-resistant variant, we have allowed a new shorter regimen - BPaLM which is more effective than the existing regimens. While we have a shorter 9-11month regimen available alongside the conventional 19-20month regimen, with the BPaLM regimen patients will now complete treatment in just six

months! We have consistently strived to ensure that advanced tools are available at the grassroot levels to find and treat all patients at the earliest. To enable this, we introduced more efficient and accurate diagnostic tools - molecular tests. From a few hundred machines in 2014-15, we now have 8,293 molecular diagnostic machines available in all districts. In fact, taking a cue from the 'Make in India' initiative, indigenous molecular tests have been field-tested and introduced. We have been able to not only reduce the time taken for TB diagnosis at district and block levels but have drastically reduced the costs of testing and treatment. Our indigenous molecular tests have received endorsement by the World Health Organisation and are being utilized across the world. These initiatives have positioned India as a true leader in the global TB response.

We must also take great pride in the fact that the Indian Council of Medical Research (ICMR) has consistently been among the top public funders of TB research worldwide since 2018 . We will continue making investments to quickly develop and roll out

newer tools, including more efficient point-of-care diagnostics.

Looking Ahead

India's journey toward TB elimination is a testament to its leadership in spurring innovation across various sectors and making available proven technologies in an accelerated manner. From pioneering research that has led to advanced diagnostics and treatments, to the introduction of universal social support provisions, India stands at the forefront of the global TB response. The need of the hour is to ensure a massive Jan Bhagidariin identification, diagnosis, treatment and prevention of TB. The intensified 100-day campaign is a further testament to our collective commitment to eliminate TB. I am confident that under the leadership of our Honourable Prime Minister and with the participation of all stakeholders, we will defeat this great enemy of humanity and create a healthier future for all.

(The author is Honourable Union Minister of Health and Family Welfare)