## **IMPROVING HEALTHCARE DELIVERY**

nnumerable digital initiatives have been introduced by Government of India to increase affordability, accessibility, equity across the country. Through a common digital framework, India aims to create and curate Digital Public Goods, enhance access to these tools by nations across the world and promote standards for interoperability, data privacy, and data secu-

This statement of Dr Bharati Pravin Pawar, Minister of State for Health & Family Welfare, given during a Confederate of Indian Industry (CII), in association of Ministry of Health & Family Welfare, at Goa proves that the dispensation is very much serious in its working for ensuring welfare of people. Dr Pramod Sawant, Chief Minister of Goa was also present during the event titled 'Digital Health Summit 2023'.

The theme of the event was 'Building One Health together - Improving Health equity', with the objective of bringing together policy makers, industry leaders, and global healthcare experts and thought leaders to deliberate upon key issues confronting the digital

Speaking on the occasion, Dr Pawar thanked the participants and said that this event aligns with India's G20 Health Working Group agenda on Digital Health Innovations and solutions to aid Universal Health Coverage and improve healthcare service delivery towards 'One Earth, One Family, One Future'. Highlighting the importance of digital heath innovations, she mentioned that digital innovations are powering game changers in exponential medicine, including 3D printing, point-of-care diagnostics, robots, bioinformatics, genomics, and is emerging as an enabler and equaliser. In addition to adoption, she emphasised that 'citizen-centric' digital health systems with equitable access to high-quality treatments must remain the aim.

Talking about various initiatives taken by Government of India such as Ayushman Bharat Digital Mission (ABDM), e-Sanjeevani Teleconsultation service, Ayushman Bharat-Prandhan Mantri Jan Arogya Yojana (AB-PMJAY) as well as CoWIN and their role in strengthening creation of a digital health ecosystem in the country, Dr Pawar said that these initiatives will help us in achieving the goal of improving health service accessibility and equity across the country. He further emphasized that it is high time that healthcare service delivery to the public is re-aligned to incorporate use of new technology. She said that "emerging technologies like AI, the internet of things (IoT). Blockchain, 3-D printing in medical device manufacturing, etc. can help create a more holistic health ecosystem that improves health outcomes.

A global approach is often more effective and India under its G-20 Presidency has already prioritized digital health as one of its three health objectives, seeking global consensus on a global digital framework," she added.

Dr Sawant highlighted that health-tech is the most significant aspect of the fourth Industrial Revolution and taking pre-emptive steps remains the key. He said, "Goa is building one of best public health infrastructure in India and was first to launch universal healthcare insurance for the people in the form of Deen Dayal Swasthya Seva Yojana (DDSSY)." While highlighting the quick implementation of digital services in the state, he said, "Goa has been the 2nd fastest adopter of digital services in the country and has been giving enormous support to promote startup systems providing patient centric care with help of healthtech". He further added, "With policy deliberations and required regulation in this area, will paves the way for more public-private partnerships to attract more investments in health-tech."

Dr Vinod Paul, Member (Health), NITI Aayog succinctly remarked that India is taking proactive steps by having already created a framework, fabric, platform and a highway. He said that the government is: working with stakeholders on the validation of digital health devices including wearable devices, AI equipment's in health systems in appropriate settings, and thus, creation of an appropriate standards where technologies can be tested.

He also urged the private sector to come forward with right thinking, ideas, vision and indeed solutions to use it for various products and possibilities. Finally, he emphasized on the importance of developing the capacity to process and create valuable insights from the digital data that is being created every day.

The Session saw other enriching discussions on key areas like 'Leveraging and compiling Health Data towards realising the Vision of 'Health for All'; Innovating in Digital Health as well as Driving Investments in the future of Digital Health. Rajesh Bhushan, Secretary, MoHFW; Lav Agarwal, Additional Secretary, MoHFW, Dr Naresh Trehan, Chairman CII Healthcare Council, Shashank ND. Chairman CII Subcommittee on Digital Health, Luigi D'Aguino, Chief of Health, UNICEF India along with senior officials of Ministry, stakeholders, global healthcare experts were also present on the occasion.

## Matter of Minds: PM Narendra Modi's 'Mann Ki Baat'

ANURAG SINGH THAKUR

rime Minister Narendra Modi is universally acknowledged as an exceptionally gifted communicator who can establish instant rapport with the masses. His daunting oratorical skills are only one of the explanations for this unique ability. The sincerity with which he speaks, the integrity which he is known for, and the trust-based relationship he has struck with the people over the past eight years all contribute to his success as a mass communicator.

His inclusionary approach has found unprecedented acceptance across demographies. It's Prime Minister Narendra Modi's people-centric model of development that has endeared him to the vast multitudes. And it's his non-elitist idea of a continuous dialogue with the people that led to what we now know as 'Mann Ki Baat', launched in October 2014. Over the years it has become a last-Sundayof-the-month fixture. It began as a radio talk; it is now simultaneously broadcast from various platforms in multiple languages.

Mann ki Baat shows there are two Modis the strong, powerful, purposeful Prime Minister Modi; and the soft, kindly, gentle Paterfamilias Modi. If you were to shut your eves and listen to 'Mann Ki Baat', you would think that Prime Minister Narendra Modi was sitting at a village Chaupal, conversing with people - listening to them, speaking to them, and offering sage advice where needed, or complimenting someone for an exemplary deed. Recently he shared his conversation with families of accident victims who had bravely decided to donate organs of their loved ones. Prime Minister Narendra Modi used that conversation to promote the noble idea of organ donation.

One could cite numerous such examples, ranging from coping with climate extremes to health and hygiene to complimenting ordinary people with extraordinary hearts for their good deeds. Prime Minister Narendra Modi's 'Mann ki Baat' is essentially about real life stories and experiences, stories that reflect the real India that exists beyond the narrow confines of Lutyens's Delhi, which

wildly popular and receives tens of thousands of responses. It resonates with the people as it is about their concerns.

The first episode of Mann Ki Baat was aired on October 3, 2014. It will complete 100 episodes on 30 April, 2023. Mann Ki Baat is a unique in terms of its subject matter, design, interaction, and innovative way of communicating with people and society as a whole. Through 'All India Radio', the largest radio network in the world with 262 radio stations, and over 375 private and community radio stations, the Prime Minister of India reaches a vast spectrum of the socio-economically and culturally diverse populace, inspires and energizes them not just on social, cultural, and economic issues but challenging problems that the world is facing at present, such as climate change, waste management, energy crisis, etc.

Prasar Bharati, the Indian public service broadcaster undertakes the translation and broadcast of Mann Ki Baat in 52 languages/dialects including 11 foreign languages, catering to the remotest regions in the country while also taking it to the Indian diaspora. Mann Ki Baat is India's first virtually enriched radio program that is simultaneously broadcast by TV channels. 34 channels of the Doordarshan network and over 100 private satellite TV channels broadcast this innovative program across the lengths and breadths of the country, creating a renewed interest and awareness about this traditional medium of communication. A smartly curated booklet, with articles of experts and change-makers from various walks of life, is also published each month since February 2022, reaching over 60 million people digital-

With such a colossal impact, Mann Ki Baat has been termed widely (and rightfully so) as a social revolution and finds its solid base in Jan Bhagidari. The programme has been conceived and implemented around the idea of citizen engagement and participation right from the formulation of the name of the show to the choice of subjects and calls to action gramme. Every episode is a curation of a monthly reminder of the Prime Minister's unshaken faith in the transformative power of individuals and is instrumental in encouraging Jan Bhagidari in governance. Through Mann Ki Baat, the Prime Minister has been able to reach out to millions of people across the country. He uses the platform to share his vision for the country and seeks the participation of citizens in the nation-building process. The primary objective of Mann Ki Baat is to build a direct connect between the Prime Minister of India and its citizens. Every month, the Prime Minister receives millions of letters from across the nation, which he sheds light upon during the programme. It is also not uncommon for the Prime Minister to have telephonic conversations with the people during the show. Such a mode of communication between the elected leader and the masses significantly strengthens people's belief in democracy and governance.

Throughout its successful course of 99 episodes spanning over 8 years, Mann Ki Baat has endeavoured to not only generate awareness in the masses about important issues but inspire them to take action on social and national causes. One of the key features of the programme is the inspiring stories of change-makers who are working relentlessly and selflessly on the ground which not only becomes a source of motivation for them to keep on working but also inspires mil-

Since its inception, Mann Ki Baat has emerged as an effective tool of Jan Andolan catalyzing social movements involving communities across the nation. The social messages delivered by the Prime Minister in the program become a social media trend in a matter of few hours as well as a mass movement (Janandolan) in a few weeks. Swachh Bharat Abhiyan, Beti Bachao Beti Padhao, COVID vaccination and Har Ghar Tiranga are a few glorious examples of the same. Recently, in the 88th episode of Mann Ki Baat, the Prime Minister highlighted the importance of water conservation and urged

the citizens to build Amrit Sarovars in their locality. Within a few months, the message was converted into a janandolan and numerous Amrit Sarovars emerged across the nation which was created by locals with the help of government bodies of the region. Subsequently, on the 92nd episode, Prime Minister lauded the prompt efforts of the citizens as he mentioned various Amrit Sarovars like Bhagat Singh Amrit Sarovar in Lalitpur of Uttar Pradesh and Amrit Sarovar in Bilkerur of Karnataka.

Furthering the vision of building a 'Sashakt Bharat', Mann Ki Baat is focused on highlighting the national and global successes of the nation urging people to participate in the nation's development while instilling a sense of pride, belonging and nationalism in the citizens. In the 89th episode, the Prime Minister highlighted the number of unicorns in India reaching the figure of 100; The 91st episode celebrated the mass participation and nationwide success of the Har Ghar Tiranga campaign, swelling the hearts of every Indian with pride, and many more such examples showcase how Mann Ki Baat is not just a radio programme, but a reflection of India's holistic development and an expression of public participation.

With Mann Ki Baat, the Prime Minister has successfully established a mechanism to take welfare schemes and policies to the people at every level and generate awareness about the same. Not only that, but the Prime Minister also shares success stories of how these schemes benefit people at the grass-root levels to motivate more and more people to become a beneficiary. Even during times of crisis, the programme has played an important role in keeping people informed, as during the COVID pandemic, and motivating them to get vaccinated. India's vaccine story owes its success in great measure to Mann Ki Baat. That alone is tribute enough to the relevance of Mann Ki Baat and its significance in our

(The author is Union Minister of Sports, Youth Affairs & Information and Broadcasting).

## Sanasar: A hidden wonder of nature

■ G L KHAJURIA

midst lush green forest of deodar and other pines around 125 Km from Jammu and 19 Km from Patnitop is located Sanasar-a wonder of wonders. This picturesque spot is akin to Gulmarg of Kashmir for its enchanting beauty, grandeur and glory where tourists in thousands throng in during peak summer spells for having a sigh of relief away from soaring temperature as well as to enjoy the dazzling natural beauty of this resort. Though the road lifeline from Patnitop to Sanasar is rugged and rough and is having serpentine twists and turns, yet the tourist inflow is ever-increasing year after year. The road link calls for improvement for the convenience of tourists' influx. Even during winter, the tourists' influx is undoubtedly unbridled and the visitors throng in heavy numbers to enjoy and cherish snowfall, when Kud, Patnitop, Batote and the areas in and around the vicinity is heavily snow-capped so much so that the National Highway oft-repeatedly gets blocked. 'Sanasar' is situated around 9500 ft from Mean Sea Level and is termed as mini-Gulmarg of Kashmir. The picturesque spot is lapped all round with mystique of mystiques, bountiful engrossing lush greenery of pines, herbs, shrubs and abundant medicinal plants ranging from micro to macro flora coupled with the rich heritage of other flora and fauna. The natural springs yielding nectar-pious water are found at multihued places. Apart from scenic beauty, the place is a sanctum sanctorum from time immemorial as the land of 'Nag Rajas' in and around the vicinity of Sanasar itself et al 'Nag Raja' of Kasal is of immensive 'Shakti' where the visitors as well go for paying obeisance and obtain divine blessing. It is believed with oozing confidence that wishes made before 'Nag Raja' are fulfilled, though the photography of the temple and that of inside is strictly prohibited. These are miracles of 'Divine Shaktis' in the modern age of most advanced Science and Technology (the writer has had his own experience, though not narrate able). At the peak of Patnitop enroute Batote, there is another 'Devsthan' (Shank Paul Shakti Devta) temple. Much water has flowed down Chenab; but ironically this picturesque spot has been least bothered for its developments. A short stretch of 19 Km that links Sanasar with Patnitop is in a very dilapidated condition. You cannot call it a Pakka or a Kachha road. The locals are deprived of the basic amenities, particularly when it is a heavy snowfall when the road remains cut off for days together and the electric supply creates the same sort of situation. This ever green cushioned spot is really a piece of heaven, the more you praise the less it is. Sanasar meadow is a green carpet-like ground and cushioned by silky soft grasses that glorify the resort. Add to it the small brilliant,

refreshing fragrant flowers which add to the beauty of the spot. Resting on this green meadow carpet is too comfortable and enchanting then that of confining oneself in the adjoining rooms constructed by various departments. 'Sanasar, over the years was a marvelous lake like that of 'Sruinsar' and 'Mansar' of Jammu district but ironically now stands dried almost due more to the sea page for the last around 60 years or so. However, as per estimates the lake had encompassed around 2500 kanals with its outer periphery circumference rounding some 6 Km or so. The area was and is subjected to encroachment but the forest Department associated with revenue Department and law enforcing agencies are on the high and active surveillance to thwart any attempt to have an evil eve over the picturesque spot. In the version of L P Rai (former Addl Dy commissioner, Ramban) that as far as in year 1992, he got a chance to interact with the then, Director, Geology and Mining Department along with GREF agencies to survey the area and evolve strategy workable to restore to its pristine grandeur and glory and to analyze the root cause of its shrinkage and de-silting and in their ultimate analysis opined that the subtle cause being underground water flow down below Nashri Nallah, barely 8 Km on foot through the forest linking NH-1A. Further it was established that there are as many as nine springs underneath this Sanasar lake and at the same time, it was apprehended that lifting of silt to the extent of 20-25 feet may cause holocaustic conse quences to the local inhabitants together with their cultivated lands as well. The specialist further emphasized that the government should approach to the expert department with enough expertise for the construction of a wall around 20 feet in length and 8 feet in width and only then silt of the lake can be lifted to bring back this heritage to its pristine beauty and grandeur. The survey together with workable strategy remained as a hanging fire till date.

There is an astonishing legend that it that the farmers of the locality were once ploughing the field in the vicinity of Sanasar lake and they took a break for the lunch leaving the oxen aside. In the meanwhile, a Sadhu appeared on the scene and advised the farmers to unvoke the oxen so that they may also graze and take rest. Instead, they aguishly said, "Who are you to advise us for unyoking oxen? Within moments, the Sadhu eluded and it is said that a calamitous storm with whirlwind engulfed the sky coupled with whimper cloudburst which struck the area and everything swept away along with farmers and oxen so yoked. People of the locality and those of far away places come to this temple for paying obeisance and obtain blessings from 'Chouncer Nag Devta"- a miracle of miracles. Manzoor Ahmed, a Forest Guard posted at

Sanasar has had a holy Darshan- of 'Nag Devta'- a 9-feet long 'Nag' with hairy skin while on his routine movement in

The sacred temple of Nag-Devta of Sanasar is visited twice in a year in the form of Yatra and of which one is vegetarian and is celebrated with the offerings of sweet rice, whereas the other is non-vegetarian which is celebrated by the sacrificial of goat and is offered to the 'Nag Devta' . Two Bhandaras are also held every year. Though many may not believe, but truthfulness and sanctity exists on the hilly areas of Sub-Himalayan regions like Bhadarwah, Kishtwar, Dudu, Basantgarh, Kud, Patnitop, Billawar, Bani, Basohli and many of its pious areas adjoining the state of Himachal Pradesh. In 1990, a nine point gulf course plan was earmarked for Sanasar which too remained in the offing and till

Improvement of road: A short-stretch of 19 Km linking the road with Patnitop warrants improvement. This is pertinent in view of the present scenario as the soil texture is good and blacktopping of this rough road is the need inviting government attention and allied agencies coupled with maintenance of side drains for disciplined outflow of water during inclement weather conditions and even otherwise also this is the major bottleneck and once a healthy lifeline is established, this shall boost and ameliorate tourist influx.

Beautification of Road Link (Patnitop-Sanasar): Plantation of ornamental trees, shrubs alongside road linl on the either side at equidistance shall expurgate the beauty

Development of meadows and golf course: The half way left over idea warrants proper shaping now onwards for years to come and here too many agencies shall to be associated with to chalk out workable strategies so as to attract the golf enthusiasts not only from the state but from India and

Accommodation: The tourism, the forest and allied departments have magnificently raised hutments to accommodate visitors, which do not demand its further exaggeration; else it would disfigure the beauty of spot. However, 'view points' on isolated spots shall further add beauty and grandeur to the area which are warranted to be constructor for the children to have an overview picture of the spot and its surroundings so may feel fascinating.

Mini-Creation Park: A mini re-creation park shall provide enchanting spell to the children and little kids who live in their own world. It shall as well feast and boost their excitements and merry making.

> (The author is former Deputy Conservator of Forests, J&K).

## **Agriculture Robot: Economical Friend of Farmers**

■ PRIYANKA SAURABH

armers are decreasing in India in the agriculture sector. Some are leaving the farming profession by repeating common sentences that it is no longer profitable, becoming risky day by day. Its disadvantages do not allow even the youth to take interest in it. Robotics will surely bring the agriculture revolution. However, the road ahead is not very easy. We have to calculate the feasibility, sustainability, and efficiency of meeting the world's food needs. However, it will be interesting to see how farmers, agri-businessmen, and consumers will harness the power of robotics and digital mechanization to shape the future of this industry.

The agriculture industry in India has undergone drastic changes in the last few decades. From traditional farming methods to smart farming, we have come a long way. Technology has finally overcome the challenges of rural agriculture and is constantly coming up with advanced solutions to increase productivity. The ultimate aim is to help farmers produce high-yielding crops to feed the growing population. To achieve this continuous growth, technological

advances combined with artificial intelligence have helped in introducing innovative gadgets in the shape of drones, humidity sensors, etc. One such example is agricultural robots. Robotics is the branch of technology that deals with the design, construction, operation, structural deposition, fabrication, and application of robots. Today robotics is a rapidly growing field and it continues to research, design and manufacture new robots that serve various practical

Robotics in increasing agricultural productivity and sustainability in India Companies are leveraging sensors and various technologies to monitor crop and soil health. Various AI and machine learning tools are being used to predict seed sowing time, receive alerts on risks from pest attacks, etc.

Companies are using real-time data analytics on data streams coming in from multiple sources to build an efficient and smart supply chain. Agricultural robot companies developing and programming autonomous robots to handle essential agricultural tasks, such as harvesting crops at greater volumes and a faster rate than

human laborers.

Some examples of an agricultural robot are the Green Seeker sensor smart machine that reads a plant's needs and then applies the exact amount of herbicide fertilizer needed. The Green Seeker is a machine that uses sensors to tell a plant what it needs.

Robot Drone Tractor: A new generation of robotic drones is revolutionizing the way we do farming, with the creation of various robots, the announcement of the first Robot Drone Tractor has become part of the agricultural mainstream.

The robot will decide where to sow, when to harvest, and how to choose the best route to cross the field. Illy, a flying robot to spread fertilizer, monitors the growing status of crops above fields, with an automated fertilizer system, the robot can fly autonomously.

Fruit-picking robot research is still a work in progress, especially as the robots need to be carefully designed so that they don't get hurt while plucking the fruit. One solution is the use of suction grippers, which are used on automatic fruit-picking machines, to milk dairy animals, especially dairy cattle, without human labor. Automatic milk-

ing systems, also known as automatic milking systems, were developed in the late

20th century. equipment companies researchers in India have developed a lot of small and heavy farm equipment for the needs of traditional farming. If robots are being used for weed control, it will help in reducing the use of herbicides and the yield will change to organic, in the same way, robots can be used for transplanting to avoid intensification. Some impressive innovative technologies by rural inventors can be operated remotely by the cell phone, this is very helpful for farmers in the summertime as the power supply is erratic. Despite various advantages, some drawbacks of agricultural robots significantly hinder their use. Agri-bots are machines that require considerable investment, making them a costly affair for small and mar-

Agri-bots are equipped with the latest technological advancements, which makes them complicated to use. Agricultural robots require farmers to become skilled and efficient in dealing with modern technology, which hinders their ability to properly care for their farmland.

India is a country that regularly faces power cuts, especially in rural areas. This renders agricultural robots useless as they cannot operate without power, leading to unnecessary wastage of time.

In farming advanced intelligent machines. sensors or readers and handheld PDAs are going to be very helpful in calculation and accuracy. There are so many constraints in the agriculture sector in all countries especially in the agriculture sector farmers are decreasing in India.

They are leaving the profession of farming by repeating some common sentences again and again that it is not profitable anymore and it is becoming risky day by day. Its disadvantages do not allow even the youth to take interest in it. Robotics will surely bring the agriculture revolution. However, the road ahead is not very easy. We have to calculate the feasibility, sustainability, and efficiency of meeting the world's food needs. However, it will be interesting to see how farmers, agri-businessmen, and consumers will harness the power of robotics and digital mechanization to shape the future of this industry.