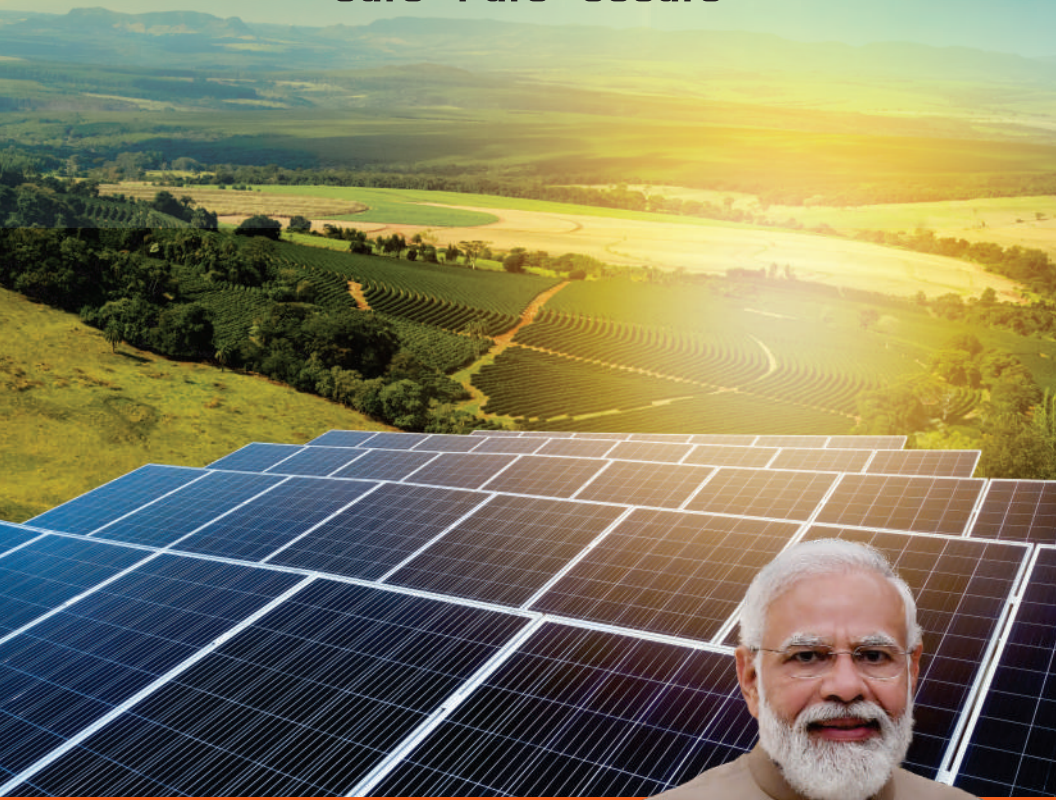


OCTOBER 2022



SOLAR ENERGY

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MANN KI BAAT

Prime Minister Narendra Modi's Address to the Nation

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Prime Minister's Address



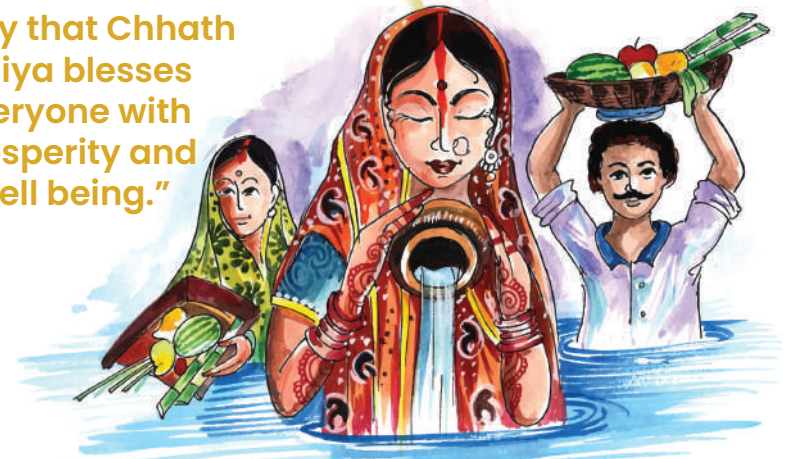
My dear countrymen, Namaskar!

My dear countrymen, Namaskar. Today, 'Chhath', the great festival of sun worship is being celebrated in many parts of the country. Lakhs of devotees have reached their villages, their homes, their families to be a part of the 'Chhath' festival. **I pray that Chhath Maiya blesses everyone with prosperity and well being.**

Friends, the tradition of worshipping the Sun is a proof of how deep our culture, our faith, is related to nature. Through this puja, the importance of sunlight in our life has been illustrated. Along with this, the message has also been conveyed that ups and downs are an integral part of life. Therefore, we should maintain a uniform poise in every situation. Various fruits and Thekua are offered in the worship of Chhath Maiya. The fasting in this is also not less than any difficult sadhna. Another special thing about Chhath Puja is that the items used for worship are prepared by myriad people of the society together. In this, a basket or supli

made of bamboo is used. Earthen lamps have their own significance. Through this, the importance of farmers who grow gram and small entrepreneurs making batashas has been established in the society. Without their cooperation, the worship of Chhath, simply cannot be completed. The festival of Chhath also emphasizes on the importance of cleanliness in our lives. On the arrival of this festival, roads, rivers, ghats, various sources of water, all are cleaned at the community level. The festival of Chhath is also an example of 'Ek Bharat- Shreshtha Bharat'. Today, wherever the people of Bihar and Purvanchal are in any corner of the country, Chhath is being celebrated with great pomp. Chhath is now getting organized on a large scale in different districts of Maharashtra along with Delhi, Mumbai and many parts of Gujarat. I do remember that earlier in Gujarat, Chhath Pooja was not performed to this extent. But with the passage of time, the colors of

"I pray that Chhath Maiya blesses everyone with prosperity and well being."



Chhath Puja have started getting dissolved in almost the whole of Gujarat. I am also very happy to see this. Nowadays, we see how many grand pictures of Chhath Puja come from abroad too. That is, the rich heritage of India, our faith, is reinforcing its identity in every corner of the world. **My best wishes to every devotee who is participating in this great festival.**

My dear countrymen, we have just talked about the holy Chhath Puja, the worship of Lord Surya. So today, along with worshipping the Sun, why not also discuss his boon! This blessing of Sun God is – ‘Solar Energy’. Solar Energy is a subject today in which the whole world is looking at its future and for India, the Sun God has not only been worshiped for centuries, but has also been the focus of our way of life. **Today, India is combining its traditional experiences with modern science, that is why, today, we have become one of the largest countries to generate electricity from solar energy. How solar energy is changing the lives of the poor and middle class of our country is also a subject of study.**

In Tamil Nadu, there is a farmer in Kancheepuram, Thiru K. Ezilon. He took the benefit of ‘PM-KUSUM Yojana’ and got a solar pump-set of ten horsepower installed in his farm. Now they do not have to spend anything on electricity for their farm. They are not even dependent on the Government’s electricity supply for irrigation in

the field any more. Similarly, in Bharatpur, Rajasthan, another beneficiary farmer of ‘Kusum Yojana’ is – Kamalji Meena. Kamalji installed a solar pump in the field, due to which his expenses have come down. Since the expense has come down, the income also has increased. Kamalji is also connecting many other small industries with solar electricity. There is timber work in his area, there are products made from cow dung and solar electricity is also being used in them. They are also giving employment to 10-12 people, that is, the fragrance of Kamalji’s initiative that started with KUSUM Yojana, has started reaching many people.

Friends, can you ever imagine that on using electricity for a month, instead of getting your electricity bill, you get paid for electricity? Solar energy has also demonstrated that. A few days ago, you must have heard a lot about the country’s first Solar Village – Modhera of Gujarat! Most of the houses in Modhera Surya Gram have started generating electricity from solar power. Now in many houses of Modhera, there is no electricity bill at the end of the month; instead, a cheque from the electricity income is being generated. Seeing this happen, now people of many villages of the country are writing letters to me stating that their village should also be converted into Surya Gram, that is, the day is not far when the construction of Surya

Grams in India will become a huge mass movement and the people of Modhera village have already begun that.

Let us also introduce the listeners of ‘Mann ki Baat’ to the people of Modhera. Shriman Vipinbhai Patel is at the moment with us on the phone line.

Prime Minister :- Look, now Modhera is being discussed as a model for the whole country. But when all your relatives and acquaintances ask you, what do you tell them, what have the benefits been?

Vipinji :- Sir, when people ask us, we say that whatever bill we used to get, that is now zero and sometimes it comes to 70 rupees, but the economic condition in our entire village is improving.

Prime Minister :- That is, in a way, the earlier concern of electricity bill is over!

Vipinji :- Yes sir, that is correct Sir. Now there is no tension in the whole village. Everyone is feeling that what Sir has done, he has done very well. Everyone is happy Sir. All are delighted.

Prime Minister :- Now, they themselves have become the owners of the electricity factory in their own houses. Electricity is being generated on the roof of their own houses.

Vipinji :- Yes Sir, it is right sir.

Prime Minister :- So what is the effect of this change on the people of the village?

Vipinji :- Sir, the people of the whole village, they are into agriculture, so we have got rid of electricity hassles. No electricity bill is to be paid, they have become free of worries.

Prime Minister :- Meaning, the electricity bill has also gone and the convenience has increased.

Vipinji :- The hassles are over and Sir, when you had come here and that 3D show which you inaugurated here, after that the glory of Modhera village has grown manifold. And the secretary who had come Sir...

Prime Minister :- Yes Sir...

Vipinji :- So the village became famous Sir.

Prime Minister :- Yes, it was the wish of the Secretary General of the UN himself. He urged me a lot that you have done such a great work, so I want to go there and see.

Prime Minister :- Fine, Vipin Bhai, I wish you and all the people of your village many best wishes and the world should take inspiration from you and this solar energy campaign should reach every home.

Vipinji :- Alright Sir. We will tell all of them Sir, to get solar installed, even with your own money... even then, there is a lot of benefit.

Prime Minister :- Yes, make the people understand. Wish you the very best. Thanks brother!

Vipinji :- Thank you Sir, Thank you Sir, my life feels blessed, talking to you.

Prime Minister :- Many thanks to Vipinbhai.

Let us now also talk to Varsha Behen in Modhera village.

Varsha Ben :- Hello! Namaste Sir!

Prime Minister :- Namaste- Namaste Varshaben. How are you?

Varsha Ben :- We are very good Sir. How are you?

Prime Minister :- I am very fine.

Varsha Ben :- We are blessed to talk to you Sir.

Prime Minister :- Okay Varsha Ben !

Varsha Ben :- Yes.

Prime Minister :- You are in Modhera... you are from a military family.

SOLAR ENERGY

POWERING INDIA'S FUTURE

Varsha Ben :- I am from military family. This is an ex Army man's wife speaking sir.

Prime Minister :- So where all did you get a chance to go in India earlier?

Varsha Ben :- I got a chance to stay in Rajasthan, in Gandhi Nagar, Katra in Jammu. There were a lot of facilities available there sir.

Prime Minister :- Yes. Being part of the army, you are also speaking Hindi well.

Varsha Ben :- Yes-yes. I have learned.

Prime Minister :- Tell me, the big transformation that came in Modhera, you got this Solar Rooftop Plant installed. What people might be saying in the beginning, then it must have come to your mind, what that meant? What are you doing? What will happen? How can electricity be achieved this way? These are all things that must have come to your mind. What is your experience now? What is the benefit of this?

Varsha Ben:- A lot sir. One benefit after the other sir. Sir, Diwali is celebrated every day in our village because of you. We are getting electricity for 24 hours a day... there is no bill at all! In our house we have brought all electric appliances in the house sir, we are

using everything – because of you sir. Since there is no bill, we can use everything with free mind.

Prime Minister :- This is true, you have also made up your mind to make maximum use of electricity.

Varsha Ben :- Indeed Sir! Right now, we do not have any problem, we can run all this... washing machine, AC, everything with a free mind, sir!

Prime Minister :- And the rest of the people of the village are also happy because of this?

Varsha Ben :- Very very happy sir.

Prime Minister:- Well, does your husband work at the Sun Temple there? So the light show that happened there was such a big event and now guests from all over the world are coming.

Varsha Ben :- Foreigners from all over the world can come but you have made our village famous in the world.

Prime Minister :- So your husband's work must have increased now that so many guests are coming there to see the temple.

Varsha Ben :- Oh! It doesn't matter, no matter how much work increases sir, my husband has



no problem with that...do go on developing our village.

Prime Minister :- Now we all have to do the development of the village together.

Varsha Ben :- Yes, yes. Sir we are with you.

Prime Minister :- And I would like to congratulate the people of Modhera because the village accepted this scheme and they were convinced that yes we can make electricity in our house.

Varsha Ben :- 24 hours Sir! We have electricity in our house and we are very happy.

Prime Minister :- Fine! I wish you the very best. The money that is saved, use it for the betterment of the children. Use that money well so that your life benefits. I wish you the very best. And my salutations to all the people of Modhera!

Friends, what Varshaben and Vipin Bhai have mentioned is an inspiration for the whole country, for villages and cities. Modhera's experience can be replicated across the country. The power of the sun will now save money and increase income. Manzoor Ahmed Larhwal is a friend from Srinagar, Jammu and Kashmir. Due to winter in Kashmir, the cost of electricity is high. For this reason, Manzoorji's electricity bill also used to be more than Rs. 4000, but, since Manzoorji has got a

Solar Rooftop Plant installed at his house, his expenditure has come down to less than half. Similarly, Kunni Deori, a daughter from Odisha, is making solar energy a medium of employment for her as well as for other women. Kunni lives in Kardapal village of Kendujhar district of Odisha. She trains tribal women to spin silk on a solar-powered reeling machine. Due to the Solar Machine, these tribal women do not have to bear the burden of electricity bill, and they are earning income. **This is the very boon of Sun God's solar energy. The more the boon and the blessings spread, the better it is. Therefore, I urge you to join this and add others too.**

My dear countrymen, just now I was talking to you about the sun. Now my attention is going towards Space. That is because our country is doing wonders in the Solar sector as well as the Space sector. The whole world, today, is surprised to see the achievements of India. So I thought, by telling this to the listeners of 'Mann ki Baat', I should make them happy too.

Friends, you must have seen a few days ago, that India has placed 36 satellites in Space simultaneously. This success achieved just a day before Diwali, in a way, it is a special Diwali gift from our youth to the country. **With**

this launching, from Kashmir to Kanyakumari and from Kutch to Kohima, in the whole country, digital connectivity will be further strengthened. With the help of this, even the remotest areas will be more easily connected with the rest of the country. When the country is self-reliant, how it reaches new heights of success – this is also an example of this. While talking to you, I also remember those old days, when India was denied the Cryogenic Rocket Technology. The scientists of India not only developed indigenous technology, but today with the help of it, dozens of satellites are being sent to space simultaneously. With this launching, India has emerged as a strong player in the global commercial market...with this, new doors of opportunities have also opened up for India.

Friends, our country, which is moving with the resolve of a developed India, can achieve its goals only with the efforts of everyone. Earlier in India, the Space sector was confined within the purview of Government systems. Since the space sector was opened for the youth of India and for India's private sector, revolutionary changes have started coming in it. Indian industries and start-ups are engaged in bringing new innovations and new technologies in this field. In particular, the collaboration of IN-SPACE is going to make a big difference in this area.

Non-Government companies are also getting the facility to launch their payloads and satellites through IN-SPACE. I would urge more and more start-ups and innovators to take full advantage of these huge opportunities being created in India in the Space sector.

My dear countrymen, when it comes to students, youth power, leadership roles, many outdated stereotypes have become ingrained in our minds. Many a times we see that when student power is referred to, its scope is limited by linking it with the student union elections. But the scope of student power is very big, very vast. Student power is the basis of making India powerful. After all, it's the youth of today who will take India towards 2047. When India celebrates her centenary, this power of youth, their hard work, their sweat, their talent, will take India to the heights that the country is resolving today. The way our youth of today are working for the country, and have joined nation building, makes me filled with confidence. The way our youth solve problems in hackathons, stay awake all night and work for hours, is very inspiring. A hackathon held in recent years, with lakhs of youth of the country together have

solved many challenges and have given new solutions to the country.

Friends, you may remember, I had called for 'Jai Anusandhan' from the Red Fort. I had also talked about making this decade the Techade of India. I loved seeing this; our IIT students have also taken over its command. This month, on 14-15 October, all 23 IITs came on one platform for the first time to showcase their innovations and research projects. In this fair, students and researchers who came from all over the country, displayed more than 75 great projects. Healthcare, Agriculture, Robotics, Semiconductors, 5G Communications— these projects were made on many such themes. Although all these projects were one better than the other, I want to draw your attention to some projects. For example, a team from IIT Bhubaneswar has developed a portable ventilator for new born babies. It runs on battery and can be used easily in remote areas. This can prove to be very helpful in saving the lives of babies who are born prematurely. Be it electric mobility, drone technology, 5G,

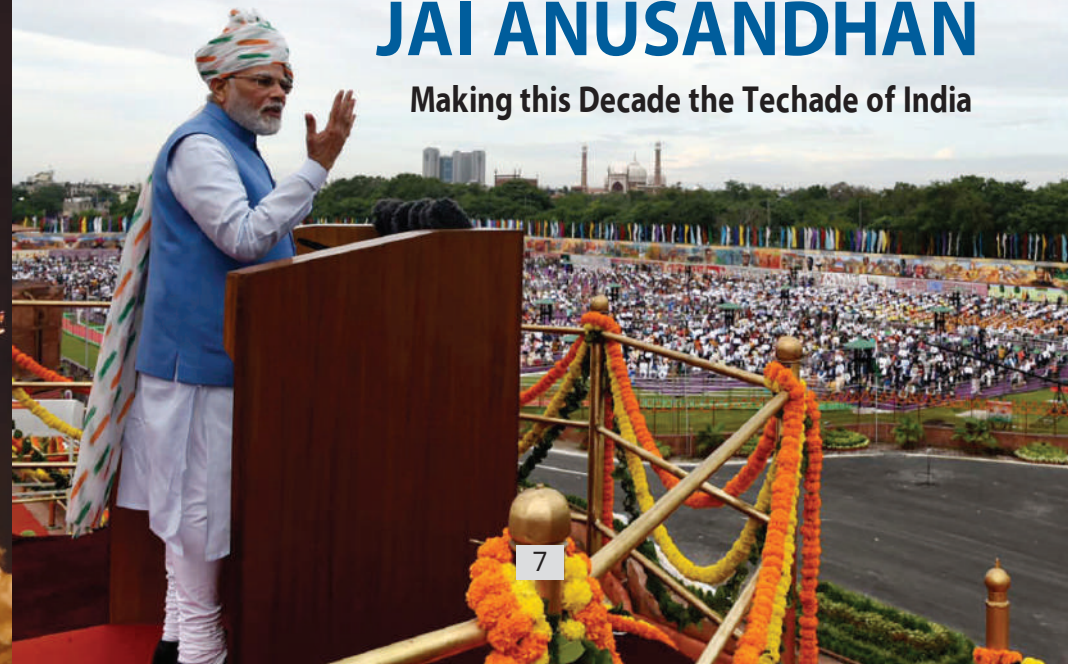
many of our students are engaged in developing new technology related to them. Several IITs are also working together on a multilingual project that makes learning local languages easier. This project will help the new National Education Policy a lot in achieving those goals as well. You will also be happy to know that IIT Madras and IIT Kanpur have played a leading role in preparing India's indigenous 5G testbed. This is certainly a great start. **I hope to see many more such efforts in the times to come. I also hope that taking inspiration from IITs, other institutions will also step up their R&D activities.**

My dear countrymen, sensitivity towards the environment is embedded in every part of our society and we can feel it all around us. There is no dearth of people in the country who spend a lifetime in the protection of the environment.

We can also learn a lot from Suresh Kumar ji, who lives in Bengaluru, Karnataka, he has a great passion for protecting nature and environment. Around 20 years ago, he had taken the initiative to

JAI ANUSANDHAN

Making this Decade the Techade of India



**ISRO'S
HEAVIEST ROCKET LVM3
MAKES COMMERCIAL
FORAY WITH
36-SATELLITE LAUNCH**



rejuvenate a forest of Sahakara Nagar in the city. It was a difficult task. But these saplings that were planted 20 years ago have grown into 40-feet tall huge trees. Now, their beauty captivates everyone's mind. This also gives a feeling of great pride to the people living there. Suresh Kumar ji also does another wonderful job. He has also built a bus shelter in Sahakara Nagar to promote Kannada language and culture. He has also

presented brass plates written in Kannada to hundreds of people. If both Ecology and Culture grow together and flourish..., just imagine how great it would be!

Friends, today, more awareness is being seen among people about eco-friendly living and eco-friendly products than ever before. I also got a chance to know about one such interesting endeavor from Tamil Nadu. This is a brilliant effort by a team of tribal women in Anaikatti, Coimbatore. These women crafted ten thousand eco-friendly Terracotta Tea Cups for export. The amazing thing is that these women themselves took up the entire responsibility of making the Terracotta Tea Cups. From Clay Mixing to Final Packaging, they did all the work themselves. They had also taken training for this. Whatever praise is showered on this wonderful effort is little.

Friends, some villages of Tripura have also set very good examples. You must have heard about Bio-Village, but some villages of Tripura have ascended to the level of Bio-Village 2.0. Bio-Village 2.0 emphasizes how to minimize the damage caused by natural disasters. In this, full attention is given to improve the quality of



life of the people through various measures. There is complete focus on Solar Energy, Biogas, Bee Keeping and Bio Fertilizers. Overall, Bio-Village-2.0 is going to lend a lot of strength to the campaign against climate change. **I am very happy to see the increasing enthusiasm for environmental protection in different parts of the country. A few days ago in India, Mission LiFE dedicated to protect the environment has also been launched. The simple principle of Mission LiFE is – Promote such a lifestyle, which does not harm the environment. I urge you to also know Mission LiFE and try to adopt it.**

Friends, Tomorrow, the 31st of October, is National Unity Day, the auspicious occasion of the birth anniversary of Sardar Vallabhbhai Patel. On this day, Run for Unity is organized in every corner of the country. This race strengthens the thread of unity in the country, inspires our youth. A few days ago, the same sentiment has been seen

during our National Games as well. With the theme 'Judega India to Jeetega India', national games, on the one hand, have given a strong message of unity, and on the other, have promoted India's sports culture. You will be happy to know that the National Games this time was the biggest ever organized in India. 36 sports were included in this, in which 7 new and two indigenous competitions, Yogasan and Mallakhamb were also included. The three teams that were at the fore in winning the Gold Medals are – Services team, Maharashtra and Haryana team. Six National Records and about 60 National Game Records were also made in these games. **I congratulate all the players who won medals, made new records, and participated in this sports competition. I also wish these players a bright future.**

Friends, I would also like to express my heartfelt appreciation to all those people who contributed to the successful organization of the National Games held in Gujarat. You have seen that in Gujarat, the National Games were held during Navratri. Before organizing these games, once it came to my mind that at this time the whole of Gujarat is involved in these festivals,

NATIONAL GAMES 2022

Celebrating Unity
through Sports





so how will people be able to enjoy these games? Such elaborate arrangement and on the other hand, arrangements for Navratri Garba, etc!. How will Gujarat do all this work at the same time? But the people of Gujarat made all the guests happy with their hospitality. The way art, sports and culture came together during the National Games in Ahmedabad, it filled all with joy. While the players also used to participate in the games during the day; in the evening they used to get immersed in the colors of Garba and Dandiya. They also shared a lot of pictures of Gujarati food and Navratri on social media. It was a pleasure for all of us to see that. **After all, through games like these, one comes to know about the diverse cultures of India. They equally strengthen the spirit of 'Ek Bharat-Shreshtha Bharat'.**

My dear countrymen, on the 15th of November, our country will celebrate the Janjatiya Gaurav Diwas. You will remember, the country started this last year to celebrate the tribal heritage and pride on the birth anniversary of Bhagwan Birsa Munda. Bhagwan Birsa Munda had united millions of

people against the British rule in his short lifetime. He had sacrificed his life to protect India's independence and tribal culture. There is so much that we can learn from Dharti Aaba Birsa Munda. Friends, when it comes to Dharti Aaba Birsa Munda, let's look at his short life span; even today we can learn a lot from him and Dharti Aaba had said- 'This earth is ours, we are its protectors.' There is also a sense of duty for the motherland in this sentence and there is also a feeling of our duty for the environment. **He had always emphasized that we should not forget our tribal culture, we should not go far from it at all. Even today, we can learn a lot about nature and environment from the tribal societies of the country.**

Friends, Last year on the occasion of the birth anniversary of Bhagwan Birsa Munda, I had the privilege of inaugurating the Bhagwan Birsa Munda Museum in Ranchi. I would like to urge the youth that whenever they get time, they must visit it. I also want to tell you that on 1st November, i.e. the day after tomorrow, I will be at Mangarh, on the border of Gujarat-Rajasthan. Mangarh has had a very special place in India's

freedom struggle and our rich tribal heritage. There was a terrible massacre here in November 1913, in which the British brutally murdered the local tribals. It is said that more than a thousand tribals lost their lives in this massacre. This tribal movement was led by Govind Guru ji, whose life is an inspiration to everyone. **Today, I bow to all those tribal martyrs and the indomitable courage and valor of Govind Guru ji. The more faithfully we follow the ideals of Bhagwan Birsa Munda, Govind Guru and other freedom fighters during Amrit Kaal, the more our country will touch newer heights.**

My dear countrymen, the 8th of November is Gurupurab. As much as the Prakash Parv of Guru Nanak ji is important for our faith, we equally get to learn from it. Throughout his life, Guru Nanak Dev Ji spread light for the sake of humanity. In the last few years, the country has made many efforts to spread the light of Gurus to the masses. We had the privilege of celebrating the 550th Prakash Parv of Guru Nanak Dev Ji on a large scale in the country and abroad. It is equally pleasant to see the development of the Kartarpur Sahib Corridor after decades of waiting. A few days ago I also got the privilege

of laying the foundation stone of the ropeway for Hemkund Sahib. We have to continuously learn from the teachings of our Gurus and remain devoted to them. This day is also Kartik Purnima. On this day, at places of pilgrimages, we bathe and perform service and charity. I extend warm greetings to all of you on these festivals. In the coming days, many states will also celebrate their Statehood day. Andhra Pradesh will celebrate its foundation day; Kerala Piravi will be celebrated. Karnataka Rajyotsava will be celebrated. Similarly, Madhya Pradesh, Chhattisgarh and Haryana will also celebrate their Statehood day. **I convey my best wishes to the people of all these states. In all our states, the stronger the spirit to learn from each other, to cooperate, and to work together, the more the country will go forward. I am sure we will move forward with the same spirit. You all take care of yourself, stay healthy. I take leave of you till the next episode of 'Mann Ki Baat'.**

Namaskar, thanks.

Scan the QR code to listen to 'Mann Ki Baat'.





MANN KI BAAT

Special Mentions by Prime Minister



SOLAR ENERGY REVOLUTION

India Paving the Way for a Cleaner Future

“Solar Energy is a subject today, in which the whole world is looking at its future and for India, the Sun God has not only been worshiped for centuries, but has also been the focus of our way of life. Today, India is combining its traditional experiences with modern science, that is why, today, we have become one of the largest countries to generate electricity from solar energy.”

-Prime Minister Narendra Modi
(in his 'Mann ki Baat' address)

"India has taken steps to set up solar PV plants of 100GW by 2022 and 280 GW by 2030, to achieve net-zero carbon emissions by 2070. India stood at 5th position in global solar power deployment in 2021, jumping 16 places from 2010 to 2021."

-Rabindra Kumar Satpathy
Member, Board of Directors,
International Solar Energy
Society

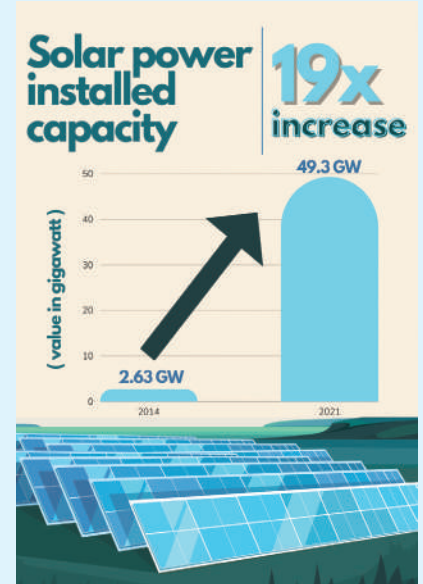
With the increase in population across the globe, there has been a massive demand for energy to fuel the rapid growth and development of world economies. But, as the need for energy increased, the heavy reliance on exhaustible natural resources no longer remained sustainable. The extensive use of non-renewable resources caused rapid increase in pollution worldwide further leading to a situation of climate crisis. It is the need of the hour to switch to greener and cleaner energy resources to meet the energy needs of our constantly advancing world. And, it has become imperative that most of the new energy demand is met by low-carbon, renewable sources.

From Vedas to Yoga, Indian culture has always worshiped the Sun as the life-giver of this planet and as a source of our internal energy. The industrial revolution familiarised people with the usage of sunlight as an energy source, paving the way for a solution for our external energy requirements through the power of modern science. As India is located in the equatorial sun belt of the earth, about 5,000

trillion kWh per year energy is incident over India's land area with most parts receiving 4-7 kWh per sq. m per day. Effectively harnessing this energy has the ability to generate power on a distributed basis, thus providing huge scalability. From an energy security perspective, solar is the most secure of all sources since it is abundantly available. Timely action to tap this energy source in India has resulted in the solar power sector emerging as the fastest growing renewable energy sources in the country over the last few years.

The Government of India has been driving a vibrant solar energy programme across the nation. And now, India is home to the country's first 24x7 solar-powered village - Modhera in Gujarat where Ground Mounted Solar power plant and more than 1,300 Rooftop solar systems on residential & Government buildings have been installed.

Prime Minister Shri Narendra Modi has described Solar Energy



as one which is 'Sure, Pure & Secure'. Under his leadership, the Government of India has introduced several initiatives to promote the production of solar power in the nation to scale up energy generation, including the National Solar Mission (NSM), Solar Park program, the Off-grid and Decentralised Solar Thermal Application Scheme



"I would like to express my gratitude to the Prime Minister that he has made Modhera village even more famous in the country as 'Surya Gram'. Even if people have to spend Rs 50,000 or Rs 1,00,000 they should install solar panels because with these panels we can use electricity comfortably and it also helps increase one's savings."

-Varsha Bai
Modhera Resident

and Grid Connected Solar Rooftop Program. Fuelling 'Make in India', in the Union Budget 2022-23, the Government allocated an additional Rs. 19,500 crores for a PLI scheme to boost manufacturing of high-efficiency solar modules.

Under the various policy measures taken to fulfil its commitment made in Paris Climate Agreement in 2015 to have 40% of installed power generation capacity from non-fossil fuel sources by 2030, the Government of India also initiated PM-KUSUM. The aim was to provide energy and water security to farmers, enhance

their income, de-dieselise the farm sector, and reduce environmental pollution in the process. Farmers at the ground level have realized the benefits of this scheme and have not only reduced their electricity bills but have also expanded their scope of work with the help of solar power. The Prime Minister in his recent 'Mann ki Baat' mentioned Manzoor Ahmad Lehwal, a Srinagar resident, who has installed a 5 KW solar plant installed in his house. He not only got a 30% subsidy from the Government but also reduced his electricity bill by half. Sharing his experience he said, "We are getting a lot of benefits from this scheme. Besides generating and using our own electricity, the excess electricity goes back to the electricity department of the city, which further ensures a rebate on our bill."

India is in the process of setting up 100 GW solar energy capacity and currently, India stands fifth in solar power installed capacity, globally. In the pursuit of leveraging solar power, the Government is also promoting the socioeconomic



and infrastructural development of the nation thereby improving the standard of living of all people. The solar energy sector is also a true representation of an Aatmanirbhar Bharat because of its wide accessibility. Solar energy generation process in India is seeing mass participation where it has become a perfect replacement for traditional, environmentally damaging energy sources. Solar streetlights, solar pumps, and other solar energy-based applications have benefited millions of Indians by meeting their cooking, lighting and other energy needs in an environment-friendly manner.

The Government's National Action Plan on Climate Change (NAPCC) which provides an overarching policy framework for all climate actions comprises of the expansion of solar energy resources. India is significantly contributing to the global efforts

of addressing the challenges of climate change. India is establishing itself as a global leader in solar energy and has spearheaded the International Solar Alliance (ISA) which is an action-oriented, member-driven, collaborative platform for increased deployment of solar energy technologies to reduce fossil fuel dependence. Additionally, the One Sun One World One Grid (OSOWOG) initiative by India intends to create a framework for international collaboration for a common grid that will ensure the transfer of clean and efficient solar power worldwide.

By creating the policy environment for solar technology diffusion across the globe as quickly as possible, India is serving as a lighthouse for green energy revolution and its citizens are becoming the Champions of Change.



Modhera: India's first Surya Gram

In a first-of-its-kind project Prime Minister Modi declared the sun-temple town of Modhera as India's first 24x7 solar-powered village. With the development of Ground Mounted Solar power plant and more than 1,300 Rooftop solar systems on residential & Government buildings, the project demonstrates how India's renewable energy prowess can empower people at the grassroots.

Doordarshan talked to the people of Modhera.

In his recent 'Mann ki Baat' Prime Minister Narendra Modi talked to **Varsha Bai**, a resident of Modhera, about the development of the village through solar power. Varsha Bai says, "Earlier we used to be very careful about using electricity at home, but today we use electricity comfortably because of the solar panels installed in our house. We now use electricity with a free mind. My house has all the facilities like washing machine, AC, geyser and we use all this without worrying about the electricity bill."

While thanking the Prime Minister, Varsha Bai said, "I would like to express my gratitude to

the Prime Minister that he has made Modhera village even more famous in the country as 'Surya Gram'. Even if people have to spend Rs 50,000 or Rs 1,00,000 they should install solar panels because with these panels we can use electricity comfortably and it also helps increase one's savings."

Another resident, **Vipinbhai Patel** also shared his experience, "Our village has become quite famous after Prime Minister Narendra Modi ji talked about our village. People and celebrities from across the country and world come here. When Modi ji and UN Secretary General ji came, our village was decorated extravagantly and their arrival brought glory to our Modhera village and the Sun Temple." Regarding his conversation with the Prime Minister in 'Mann ki Baat', he says, "When I got his call, I got very excited. I am very proud to have spoken to Narendrabhai Modi and I will remember this for the rest of my life."

Scan the QR code to know what more Varsha Bai has to say about Modhera's solar energy-led development.



Image for representational purpose

Kunni Deori's saga of Solar Empowerment

Solar energy has become an alternate source of power for many but for one resident of Odisha, it has become her medium of employment and many others. **Kunni Deori**, from Karadapal village of Kendujhar district of Odisha, is using solar energy to create job for many tribal women by training them to spin silk on a solar-powered reeling machine.

Our Doordarshan team got in touch with her to know more about her initiative.

Talking about her work, she said, "Right now I have started CFC (Common Facility Center) where 50 girls work in one center and 80 girls in another. Here at Tusser Silk Park, we do a lot of activities from yarn extraction, weaving, reeling, designing and digital printing, from which we make sarees, dresses, jackets and many more things."

Kunni Deori has also been awarded the National Award and in 2017, she also received the award from President Droupadi Murmu in a program held with the Kusumi people.

Sharing her experience with the solar powered machines, she says, "Earlier we used to



work with two-in-one charkha machines, which could only be operated if three people worked together. If even one person was less then the machine would not run. At the same time, Kunal Sir of 'Resham Sutra' gave a demo of the Unnati Machine, which is a solar silk machine, in our society. The machine instantly caught our attention because through this we could work individually. Here in the tribal areas, there is not much electricity due to frequent power cuts, but with the help of solar power, we can use electricity round the clock. And being a small machine, we could all work from anywhere."

'Resham Sutra' innovates renewable energy based rural livelihood enabling machines. It helps in setting up high productivity machines for rural silk yarn producers and textile weavers.

Talking about the increasing use of solar energy in India, Kunni ji says, "Solar power panels are a one-time expenditure because the monthly electricity costs are saved. Solar power is best for remote areas and if it is used in every house, there will be electricity in all the houses at all times.



PM-KUSUM: Driving Solar Revolution at the Ground Level

The Government of India launched PM-KUSUM with the objective of providing energy and water security to farmers, enhance their income, de-dieselise the farm sector and reduce environmental pollution. It is one of largest initiatives in the world to provide clean energy to more than 35 lakh farmers by solarising their agriculture pump. In his 'Mann ki Baat', Prime Minister Narendra Modi talked about the people who improved their lives with the help of this scheme and are using solar energy in farming.

Our Doordarshan team talked to these beneficiaries of PM-KUSUM.

Thiru K. Ezilon, a farmer from Thamal village in Kancheepuram, Tamil Nadu has been doing organic farming, cultivating crop, fruit and fish farming in his village. Initially, he used diesel pumps but now he has installed solar pump under KUSUM scheme of Central

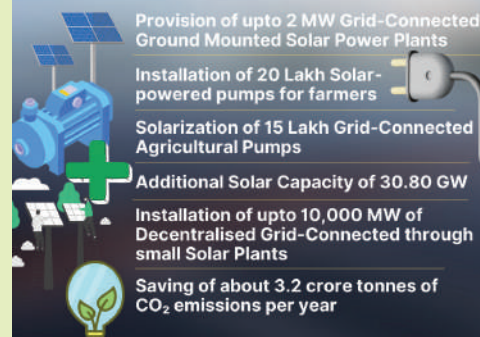
Government. He said, "After knowing about the PM-KUSUM scheme, I bought a solar water pump. The solar water pump benefitted me as it cut out the expense of diesel for the pump and I could utilise that saving for my farm. By doing this we are able to protect the environment and also save electricity. With the help of solar water pump, the water supply has increased and so I have changed my farm's crops from dryland crops to wetland crops." Further expressing his happiness on being praised by the Prime Minister he said that such recognition of the small efforts made by him helps motivate many other farmers like him.

Another farmer, **Kamal Meena** from Bharatpur, Rajasthan, was thankful to Prime Minister Modi for mentioning his name on the national platform. He has not only contributed towards



PM-KUSUM Pradhan Mantri Kisan Urja Suraksha Evam Utthan Mahabhiyan

A Noble Initiative To Provide Clean Energy To More Than 35 Lakh Farmers



cleaner energy consumption but has also given employment to other people as a result of this. Encouraging other farmers to also use the scheme to reap its benefits, he said, "I want to tell the farmers that you can begin a startup utilising cow dung and solar energy. This will not only improve the income of the farmers by lowering the cost burden but also improve their health and the environment, and

people will also get their work done. The biggest boon of this scheme is that earlier, we could only run the motor through solar energy but now through USPC, good business can be done by installing many equipments along with the motor of the USPC controller."

Scan the QR code and know how farmers are benefiting from PM-KUSUM.



Growth of Indian Solar PV Industry



Rabindra Kumar Satpathy

Member, Board of Directors,
International Solar Energy Society

There is an increased population worldwide and the energy requirements are growing. The fossil fuels are depleting and the existing fossil fuel based energy generation is causing global environment pollution. To combat these issues, India has taken steps to set up solar PV plants of 100GW by 2022 and 280 GW by 2030, to achieve net-zero carbon emissions by 2070. With this mission, India has set up 60.8 GW solar plants all over India as residential, industrial rooftops, off grid systems as well as ground mounted systems. In 2010, it was 70MW.

India stands in 5th position in global solar power deployment in 2021, jumped 16 places from 2010 to 2021.

The Indian Government had an initial target of 20 GWp

solar capacity for 2022, and in 2015 the target was raised to achieve 100 GWp, including 40 GWp from rooftop solar by 2022. India has sanctioned 52 solar parks with a cumulative capacity of 37.92 GW capacity in 14 states.

As of 31st January 2022, the installed Solar rooftop capacity (residential, commercial & industrial clients, institutions) is 6.4 GW, the installed capacity of Megawatt level ground mounted solar PV systems is 42.5GW and off-grid solar power systems installations stands at 1.5GW. And the installation of 20 lakh stand-alone agricultural pumps is underway.

By 2012, a total of 46,00,000 solar lanterns and 8,61,654 solar-powered home lights were installed. Twenty million solar lamps are expected by 2022.

Solar Industry in India has grown from KW level residential/ rooftop system at evacuation to MW level industrial rooftop-based systems. The KW level systems to GW level solar parks evacuation voltage levels have also increased significantly. Now, solar PV tariff has reached grid parity.

Solar module wattage has also increased from 40W level to 600W in mono facial and Bi-facial solar modules. The fixed tilt-based systems have given way to Solar trackers with bifacial solar module

Crystalline Silicon solar cell is the work horse of the solar PV technology. The solar cell efficiency has grown from 12% to 24% and the solar cell size has increased from 125mm wafer size to 210 mm.

Solar + Wind hybrid-based projects with battery storage system will supply the energy without interruption in the days. Floating solar PV plants are being developed and constructed on water surface area such as on canals, lakes, reservoirs, farm ponds and the sea for large solar-power plants.

Agricultural farmers benefitted due to reduction in electrical bill, diesel bills etc. Residential customers can earn the money by supplying excess generated power to DISCOMS. Commercial & Industrial customers are able to get reduced electricity bills.

Renewable Energy Obligation can be met by setting up the power plants.

India's agriculture sector is heavily dependent on monsoons for natural irrigation. Pumps are used as an artificial means to provide water for irrigation. Farmers rely on grid electricity or diesel gen-sets to run the pump, which leads to huge delays and economic stress. Hence, for our farmers, an effective irrigation system such as the Solar Water

Pump is a great boon. It increases their crop yield by ensuring a reliable and perennial supply of water to their fields.

MNRE has launched PM-KUSUM Scheme, for setting up subsidized solar pumps and distributed solar power plants across the country. It is one of the biggest initiatives in the world to provide clean energy to more than 3.5 million farmers across India.

By switching to Solar Water Pumps, farmers can have access to a highly-efficient power supply that can be used throughout the day to provide a consistent water supply. By 31 October 2019 a total of 181,521 solar photovoltaic water pumping systems were installed and total solar water pumping systems would reach 3.5 million by the year 2022 under this scheme. The goal is to provide water assurance and financial security to all farmers in India.

The Indian Govt. is providing various incentives to support the solar industry including PLI scheme for solar PV manufacturing, BCD of 25% on solar cell and 40% on solar modules to protect the domestic industry, Net metering, Reduction of ISTS charges for open access projects, Permitting 100% Foreign Direct Investment, Renewable Energy Certificates, Assured Power Purchase Agreement (PPA).



INDIAN SPACE SECTOR

THE SKY IS NO LONGER THE LIMIT

“Earlier in India, the space sector was confined within the purview of Government systems. Since the space sector was opened for the youth of India and for India's private sector of India, revolutionary changes have started coming in it. Indian industries and start-ups are engaged in bringing new innovations and new technologies in this field.”

–Prime Minister Narendra Modi
(in his ‘Mann ki Baat’ address)

“While self-reliance in space had been a driving force since its inception, a renaissance for this eternally vital principle is given by Modi in the present context of resurgent India. India's concept of Atmanirbharta does not isolate it from the rest of the world. On the other hand, it paves the way for substantial linkage with the global community. Because of the self-reliant strategy, ISRO is able to provide satellite and launch services today, both nationally and internationally.”

–K. Kasturirangan
Former Chairman, ISRO

On 10th June 2022, Prime Minister Narendra Modi, during the inauguration of the headquarters of IN-SPACe in Ahmedabad, extended his vision of unlocking the space sector to Non-Governmental Private Entities (NGPEs). This path-breaking space reform, with the introduction of private players, has heralded a revolution in the Indian space sector and unveiled the true potential of commercial space activities. An exemplar of this reform is ISRO and NSIL's most significant commercial mission for a foreign customer OneWeb, which also was the first commercial launch of India's heaviest rocket LVM3.

With this successful launch, the LVM3 has become a catalyst for the Indian Space Programme, opening new vistas for heavy payloads. This public-private partnership is focused on delivering connectivity in India and South Asia, particularly to the communities who need it most. From Ladakh to Kanyakumari and Gujarat to Arunachal Pradesh, this launch will strengthen digital connectivity across towns,

villages, municipalities and schools, including the hardest-to-reach areas across the country.

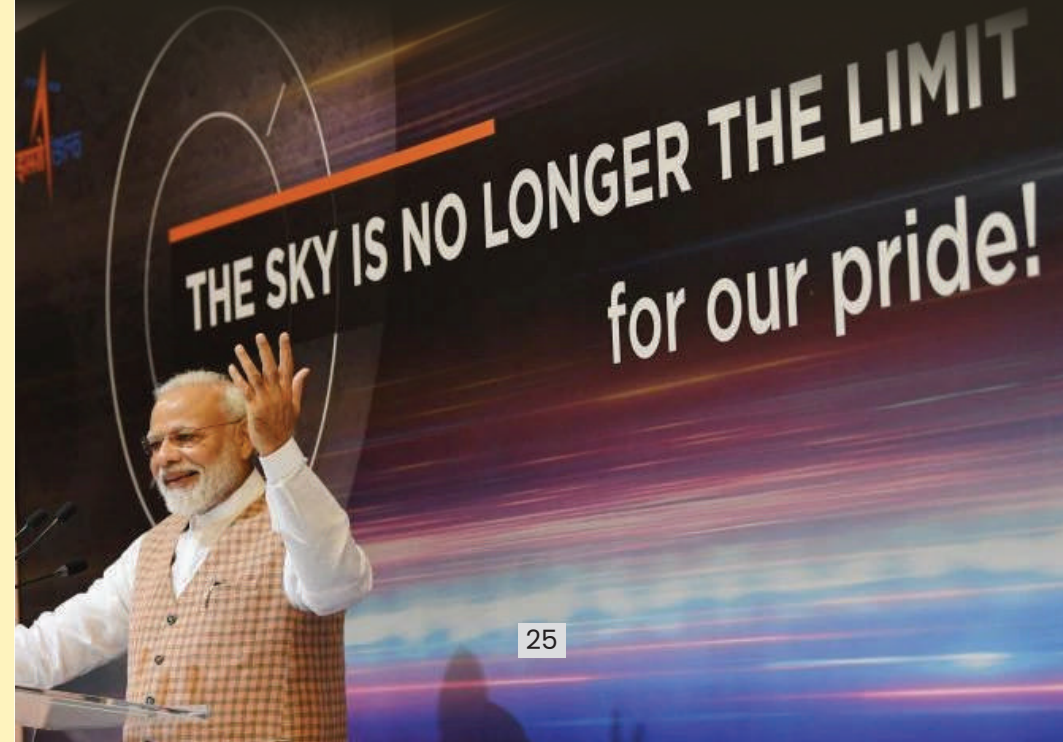
Illustrating the opportunities for satellite connectivity in India following this successful launch, Radhakrishnan D., Chairman-cum-Managing Director, NewSpace India Limited shared, “We look forward to strengthening our partnership with OneWeb and utilizing the potential that LEO connectivity has to deliver broadband services across India.”

With ushering in of one of the biggest commercial orders by India's premier space organization, the Government is demonstrating its commitment and focus on providing a thrust to innovative development of space technologies in India and altering the lives of millions of people

connected with it.

ISRO has over the years been focusing on delivering applications for the Government and the citizens; having created systems, launching and operating satellites, and providing communication, earth observation and navigation services. However, a giant leap in opening the space sector to India's young entrepreneurs and private sector has proven to be a pioneering step towards nation-building and national development facilitating India's growth as a space superpower.

Key reforms in the Indian space sector such as increasing participation of private enterprises, revising the Foreign Direct Investment (FDI) policy to open investment opportunities for



foreign companies, transferring technologies developed by ISRO to industries for commercialisation and establishing the Indian Space Association (ISpA), have been brought about by the Government

"I would like to thank the Hon'ble Prime Minister Narendra Modi for enabling the privatization of the space ecosystem which will usher in a new era in India. Together with ISRO and the Government's support, through IN-SPACe, we can make India a large supplier in this space, globally."

-Rohan M. Ganapathy
Co-founder, Bellatrix Aerospace

to enable commercialisation of space technology and boost private investments in the sector, in order to focus on innovation in space science fueled by young minds, helping the Government to act as an enabler while preparing the youth for the future.

Furthermore, a demand-driven approach to developing space assets, and inspiring young entrepreneurs and students, has expedited India's march towards Atmanirbharta in the space sector.

These space reforms and India's furtherance in the sector have secured India's position in the global commercial market. With India's first human space mission, Gaganyaan soon to be launched,

India's cooperation with over 6 countries for the same signifies robust international collaboration, emphasizing India's emergence as a strong player on the global space front.

Highlighting India's rapid progress in the space sector, Prime Minister Narendra Modi, in his recent 'Mann ki Baat' address, called for young scientists, entrepreneurs, innovators and leaders to gear up in making

giant strides and seizing the opportunities for taking the Indian space sector to newer heights. With over 100 space-tech start-ups in India, it is only time to channel India's potential and touch the sky.

India, a country that was once denied Cryogenic Rocket Technology by its global counterparts, is not only developing indigenous technology but is on the cusp of achieving self-reliance in the space sector today. This is truly a moment of pride for the entire nation!



Bellatrix Aerospace : An In-space Propulsion Start-up Making Strides in Indian Space Sector

Bellatrix Aerospace is an Indian New Space start-up company specialising in in-space propulsion systems and orbital launch vehicles. Based out of the Indian Institute of Science, Bangalore, the company, for its work on patented electric propulsion technologies, received TDB National Award from the Hon'ble President of India in 2017.

Our Doordarshan team talked to the co-founders of the start-up Rohan M. Ganapathy and Yashas Karanam.

"Bellatrix Aerospace is a space logistics company. We deal with different technologies which help satellites to move in space from one orbit to another. We are extremely thankful to ISRO for supporting us and giving us our first order in 2015. With ISRO's support, we have been able to diversify into other areas of propulsion and make engines of different shapes and sizes, suiting different satellites. We are grateful to the Chairman of ISRO for the support that they have brought

into Bellatrix, we have learnt a lot from their association and going forward we are looking at putting India on the global map," Yashas Karanam, Co-Founder, Bellatrix Aerospace elaborated in his interview.

"I would like to thank Prime Minister Narendra Modi for enabling the privatization of the space ecosystem which will usher in a new era in India. The potential of the space industry is very high and is expected to be more than 1 trillion dollars by the end of the decade. India is the major space training nation, and thus it was imperative for the country to privatize the sector in order to provide cutting-edge technologies to the world and make strides in the global landscape. Only through collaboration, we can do great things in space, and together with ISRO and the Government's support, through IN-SPACe, we can make India a large supplier in this space, globally," Rohan M. Ganapathy, Co-Founder, Bellatrix Aerospace said.



ISRO Chief, Dr. S. Somanath with the Bellatrix Aerospace team.

Tathya.Earth : Understanding the Real World Using Data

Tathya.Earth is a data-driven start-up aiming to provide near real-time insights into the global supply chain of important commodities and measure its impact on the environment. They leverage Machine Learning and Computer Vision technologies on satellite images to provide insights into these assets such as industrial units, ports and mines. Their proprietary models and methodologies enable them to produce highly accurate information and insights at a competitive price and cater to a diverse set of customers ranging from financial institutions, policymakers, and companies in the commodity value chain.

Our Doordarshan team talked to the COO, Nikit Shrungarpawar about his start-up.

"We are very grateful to Prime Minister Narendra Modi for mentioning us in his 'Mann ki Baat' address. We are extremely thankful to the Government for opening the entire geospatial or satellite data sites to private

entities. IN-SPACE, a new entity that has been created to help private companies interact with ISRO, has been benefiting start-ups like us. Tathya.Earth primarily works on the downstream space which caters to satellite data applications and plays a critical role when satellites are launched. We work on data sets like mining, deforestation, and analyzing water stress. If you look at our first use case, which is mining data sets with the geopolitical events that are happening globally, it positively impacted the mining and energy sector. It was very useful to the Government as well as the private sector.

It is important to monitor what is happening on the ground in real time through satellites. We process this data and provide it to the Government and private institutions which is very helpful in solving the larger use cases. It can even be useful for solving poverty issues and help in understanding the supply chain distress the world is facing."



Tathya.Earth's Chief Development Officer, Himangshu Das at the signing of MoU with IN-SPACE

India's road to Cryogenic Engine Technology

Cryogenic means low temperature. It refers to the technology of sub-zero temperatures. Cryogenic engines use liquid oxygen as the oxidizer and liquid hydrogen as the fuel. The study of the production and behaviour of materials at extremely low temperatures that is below 150 degrees is useful for lifting things in space, storing medicines and drugs at low temperatures etc. It is used in the last stage of speed launch vehicles, SPVs.

Why is Cryogenic Technology important for India?



Lighter weight
High energy per unit mass is released, making it economical



Clean technology
Cryogenic technology uses hydrogen and oxygen as fuel and releases water as a by-product which causes zero pollution



Crucial for the advancement of the Space programme
ISRO uses Cryogenic Engine for its GSLV Programme



Missile Programme for the Defense
Cryogenic technology is useful for developing futuristic rocket engines



India rises as a Space power
Earlier India was refused cryogenic technology by other countries with only the US, Japan, France, Russia & China having this technology. Now, India stands neck to neck with them.

History of Indian Cryogenic Engine

1982	First attempt to make engine	1986-91	Early experiments
1991	Russian agreement	1993	Russia backs out on giving technology
1994	Indian makes its own cryogenic programme	2000	First engine test
2003	First successful test	2007	First integration with rocket
2010	First flight	2014	First successful flight

India makes history...



Space in Resurgent India



K. Kasturirangan

Former Chairman, ISRO
and Padma Vibhushan Awardee

Governance and for interactions at the grass-roots administration level. As a keen follower of space developments, he hosted reception for all the scientists at the Space Applications Centre sharing his joy at the success of Chandrayaan-1 in 2008, which is fondly remembered by the space community even today.

The role for space amidst the enormous opportunities opening up through service-driven economy and digitally-connected India demands a structure for space activities that invites wider and deeper participation of entities beyond Government. The initiative taken in the mid-2020 for fully opening the space sector is a transformational step.

While self-reliance in space had been a driving force since its inception, a renaissance for this eternally vital principle is given by Modiji in the present context of resurgent India. India's concept of Atmanirbharta does not isolate it from the rest of the world. On the other hand, it paves the way for substantial linkage with the global community. Because of the self-reliant strategy, ISRO is able to provide satellite and launch services today, both nationally and internationally.

Modiji has mentioned three important points in his 'Mann ki Baat' message of October 2022 edition.

The first is the satellites' role in the digitally-connected

India which presents enormous potential for growth and innovations.

The second is about the key strategy of self-reliance and how it can lead to the heights of success and excellence.

The third message is the imperative need of collaboration for nation building - where the Government and commercial sector work together and in unison. In a sense, the initiative of the Government to open the space sector for the private entities acts as a springboard for bonding research and innovation.

The world is witnessing private sector advances in reusable transportation systems, satellite constellations for global space services and exploration of planetary resources. Globally, the space economy, which is estimated to be USD 469 billion in 2021 is predominantly contributed by the commercial space industry. Indian launch vehicles, particularly the PSLV, has set a record in terms of launching commercial payloads by giving hundred per cent success, which is spread over 381 foreign satellites from 34 countries. The recent success of LVM3 Mission in launching 36 commercial satellites, which had been the heaviest commercial payload

for Indian vehicle, is a major demonstration of the potential of India to play a role both nationally and globally. This has potential to unfold many new opportunities for future transportation and energy systems in the long term.

The restructuring initiative of the Government for the space activities involving ISRO and the public as well as private sector industry is a transformational step in view of the expansion and growth of services in the Indian economy. The developmental needs of India as it is emerging to be the world's third largest economy by 2027, provide a sound basis for the growth of space economy to the aspired level of USD 50 billion from the present USD 7 billion. The rapid needs to grow space infrastructure in pace with the burgeoning demands for connectivity and information services provide a strong basis for expanding India's space economy. The cost-effectiveness and unique flavour that India can render in its services can expand global opportunities.

The transformatory initiatives, both in the structure and content of Indian space endeavours is a clear manifestation of the all-encompassing vision of the Prime Minister for a developed India.



Satellite Communication Driving India's Tech Ambitions



Sunil Bharti Mittal
Founder & Chairman,
Bharti Enterprises

The evolution of space activities in India dates back to 1963 when the first sounding rocket was launched from the Thumba Equatorial Rocket Launching Station (TERLS) by the Indian National Committee for Space Research (INCOSPAR) under the leadership of Dr Vikram Sarabhai. Since then, India has achieved several milestones in the space industry including the development of satellite applications such as telecommunications, earth observation, meteorology and navigation.

Over the years, ISRO's growth and endeavours have placed the Indian space program among India's national development goals. In March 2019, with the establishment of NewSpace India Limited, India ventured to commercialise ISRO's research

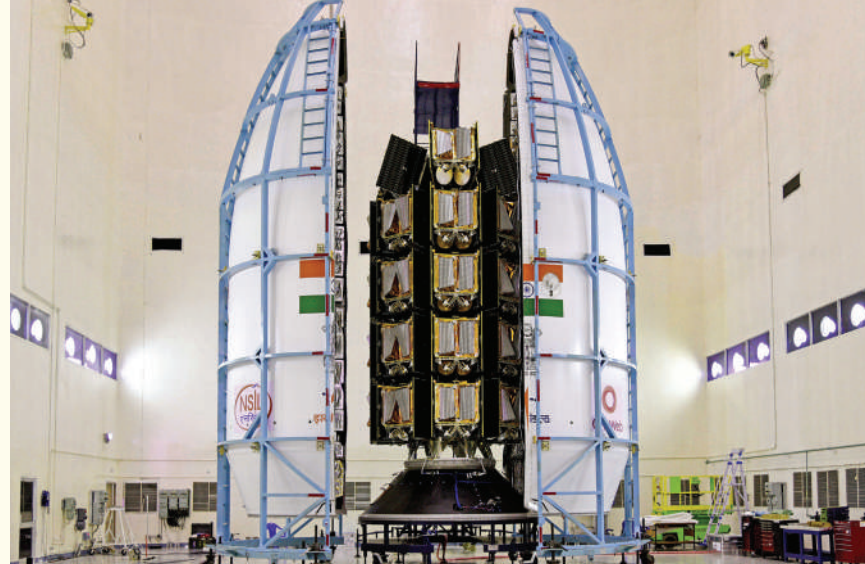
and development activities.

Since then, India's advancement in the space industry has been on a trajectory of significant growth demonstrating its highly cost-effective capabilities and marking its place amongst the elite club of nations.

The Hon'ble Prime Minister once cited India's space programme as the perfect example of- Scale, Speed, and Skill. In line with his vision, it is evident that for the digital economy and India's growing clout in the global technology landscape, satellite communications hold significant relevance. Satellite and space, therefore, are essential pillars in the overall mission of connecting people to the digital economy.

Satellite communications are emerging as an important part of India's ambitions to scale up quality internet access across the country. The Government has strived to bring in place various reforms in the space ecosystem which have further ensured the mission of the delivery of internet to over 130 crore Indians. One of the most significant ones remains increasing the participation of private enterprises in the space sector.

Private players have ushered in a new era of innovation for developing space-based applications and services. It is safe to say that opening up the space sector for private players,



especially the startups, is a necessary contingent to making us competitive with the rest of the world in terms of scale, quality, size, and innovation and applications.

India's growing capacity for satellite communication can be harnessed to meet the country's communications demands. ISRO's partnership with Bharti Enterprises-backed OneWeb, for its biggest commercial launch with LMV3 assumes great significance, signifying a landmark stepping stone to enabling satellite-based internet in remote and rural parts of India.

The successful launch of the OneWeb constellation programme brings us even closer a step closer to delivering connectivity in hardest-to-reach regions in India, particularly those areas that are hindered by roadblocks to assuring terrestrial network connectivity.

For all of us at Bharti Global, the launch of OneWeb's 36 satellites from the Satish Dhawan Space Centre SDSC-SHAR, Sriharikota is a matter of immense pride. We are fortunate to have been

witness to this launch with our valued partners at ISRO and NSIL.

I personally, would like to laud our Prime Minister for his visionary leadership in opening up the space sector for private participation. I also extend my gratitude to ISRO, NSIL and the Indian authorities for matching the precise schedule for this launch, which has been done in a record time.

I am confident that this will be a first among many in attracting a plethora of commercial partnerships for NSIL and further, that these developments will spur innovation in the space and communications sector, underlining benefits in terms of applications, opportunities and economic growth for all of India.

With the commercialization and privatisation of the Indian space sector, India has truly opened doors to the development of the space ecosystem, the inclusive growth of the Indian economy and the transformation of the lives of Indians across the lengths and breadths of the nation.

JAI ANUSANDHAN

DRIVING GROWTH BY INNOVATION

“ Student power is the basis of making India powerful. After all, it’s the youth of today who will take India towards 2047. The way our youth of today are working for the country, and have joined nation building, fills me with confidence. ”

-Prime Minister Narendra Modi
(in his ‘Mann ki Baat’ address)

Research and innovation have always been an integral part of India’s culture. Since ancient times, India has seen scholars like Karaad, Sushruta, Charaka, Aryabhatta and many others, who have made unforgettable contributions in the field of science and technology. Ancient Indian texts like *Rigveda*, *Samhitas* and *Atharva Veda*, to name a few, highlight India’s invaluable contributions in the field of astronomy, medicine, mathematics, etc. In contemporary times, India is one of the fastest growing economies of the world fuelled by the culture of research and innovation that has played a crucial role in achieving this status at the global level.

On the occasion of 76th Independence Day of India on 15th August, 2022, from the ramparts of the Red Fort, Prime Minister Narendra Modi recalled the slogan given by former Prime Minister Lal Bahadur Shastri ‘Jai Jawan, Jai Kisan’ (‘Hail soldiers, Hail Farmers’) and the new link added to it by former Prime Minister Atal Bihari Vajpayee ‘Jai Vigyan’

(‘Hail Science’). Emphasising upon the importance of research and innovation for building a New India, he further added a crucial link to this and gave the inspirational call of ‘Jai Jawan, Jai Kisan, Jai Vigyan, Jai Anusandhan’ i.e. ‘Hail Soldiers, Hail Farmers, Hail Science and Hail Innovation.’

Today, the country is witnessing research and innovation in every sector. Some of the path-breaking examples are BHIM-UPI, which currently constitutes over 40% of all digital transactions happening in the country; Mars Orbiter Mission, which is the most economical interplanetary mission in the whole world; NAVIC, with which India became one of the five countries to have its own GPS system; or the aspirational

ocean mission ‘Samudrayaan’, which opened the gates for India to enter the elite club of nations such as the USA, Russia, Japan, France and China to have niche technology and vehicles to carry out subsea activities. From indigenous COVID-19 vaccines that saved the lives of millions across the world to the use of drone technology in the field of agriculture, India is showing the path of anusandhan-led development to the whole world.

The technical, research and development institutes of the nation have become hubs of this innovative spirit. The students and professors of institutes like IITs, IISER, NITs, etc., have taken this responsibility of driving India on the path of becoming an innovative nation and are bringing a much-

“The InvenTiv 2022 was a one-of-its-kind event. I want to thank Prime Minister Shri Narendra Modi for mentioning the 5G testbed that IIT-K made in collaboration with IIT Madras. This recognition is encouraging.”

-Prof. Abhay Karandikar
Director, IIT Kanpur



awaited change in the society. Recently, during his 'Mann ki Baat' episode, Prime Minister Narendra Modi mentioned about one such initiative 'InvenTiv', which was a mega Research and Development fair of 23 IITs. It aimed to showcase indigenous research, development and innovations of IITs on a global platform. The students and researchers came together from across the nation to display 75+ best innovations. The Prime Minister highlighted the innovation by IIT Bhubaneswar, a portable ventilator for new-born babies which runs on battery and can be instrumental in saving many lives in the remote areas of the country. Several IITs are also working together on a multilingual project to make learning local

languages easier. This can aid the National Education Policy 2020 which advocates the use of the mother tongue as the medium of instruction and promotes creativity and critical thinking to encourage logical decision-making and innovation.

The Government of India has taken various initiatives to promote the culture of research and innovation. Atal Innovation Mission's Atal Tinkering Labs and Atal Incubation Centres are playing an important role in promoting innovation from school to industry. The Government is ensuring that internet connectivity in the form of an optical fiber network reaches every village of the country, so that every young innovator, even at the last mile, can get a digital platform to showcase his/her ideas to the whole world. With schemes like Promoting Innovations in Individuals, Start-ups and MSMEs (PRISM), the Government aims to support individual innovators to achieve the agenda of inclusive growth.

To build a healthy competition in the field of innovation and corroborate the Government's commitment towards transforming India into an innovation-led economy, NITI Aayog in 2019 started India Innovation Index. It is a comprehensive tool for the evaluation and development of

India's innovation ecosystem and ranks the States and the Union Territories on their innovation. The innovative spirit of India's youth and the efforts taken by the Government of India has started to show evident results. In a span of just seven years, the filing of patents in the country has increased by more than 50%. Today, India stands at 40th rank in the Global Innovation Index, which is a huge jump from 81st rank in 2015. With these promising developments, the vision of Prime Minister Narendra Modi to make this decade the techade of India is not a distant dream.

As we enter the 'Amrit Kaal', every citizen's will to nurture new possibilities in the field of innovation is making the nation move ahead with confidence. With Team India's ever-growing spirit of scientific thinking, the

India Innovation Index

- Developed by NITI Aayog Institute for Competitiveness (Knowledge Partner)
- Attempts to create an extensive framework for continual evaluation of the innovation environment of all the States and Union Territories of India

Functions

- Ranking of states and UTs based on their index scores
- Recognizing opportunities and challenges
- Assisting in tailoring governmental policies to foster innovation.

day is not far when India will become the hub of innovation and knowledge.

Atal Tinkering Laboratories (ATLs)

VISION
To cultivate one million children in India as Neoteric Innovators.

OBJECTIVE
To foster curiosity, creativity, and imagination in young minds; and inculcate skills such as design mindset, computational thinking, adaptive learning, physical computing.

- 10,000 ATLs pan-India
- 5,800+ Mentors of Change engaged for mentoring
- 75 lakh+ students actively engaged in ATLs
- 60%+ ATLs in Govt/Govt-aided schools and 96% in girls/co-ed schools
- 12 lakh+ Innovation Projects created



IInvenTiv 2022: A Unique Showcase of India's Strength in Research & Development

India is witnessing a new era of innovation in the present times. With the Government programmes and the various initiatives taken by the technology and research & development institutes across the nation, we are experiencing a never seen before wave of innovation and research. Recently, in his 'Mann ki Baat', Prime Minister Narendra Modi mentioned about the historic initiative 'IInvenTiv'. This mega Research and Development Fair, conducted by 23 IITs at IIT Delhi aimed to showcase India's R&D power to the whole world.

The team of Doordarshan talked to **Professor Abhay Karandikar**, Director IIT Kanpur, who discussed in detail about the initiative.

"The IInvenTiv 2022 was a one-of-its-kind event where all the 23 IITs came together, for the very first time to project India's strength in the field of Innovation, Research and Development. I want to thank Prime Minister Narendra Modi for mentioning about the 5G testbed that IIT-K made in collaboration with IIT Madras. This recognition is encouraging as IIT-K had developed the basement unit of the 5G in our base station as a part of a multi-institution project, funded by the Department of

Technology, to develop India's 5G test bed. We also showcased drone technology at the fair and highlighted various utilities and services provided by indigenous drones. IITs are constantly working on the research and development field with aim to make India an Atmanirbhar Bharat."

The 'IInvenTiv' showcased 75 projects from various fields covering Flexible Electronics and Nanotechnology, Robotics, Sensors & Actuators, Semiconductors, Communication Technologies, Artificial Intelligence, Machine Learning, Blockchain Technologies, Healthcare, Defence and Aerospace, Manufacturing, Smart Cities and Infrastructure, Environment and Sustainability and Clean Energy. This mega-fair, although organised by IITs, also saw a huge audience in the form of students and administrators of universities and colleges from the small towns.

By conducting this historical event, IITs have not only showcased India's power in this new age of innovation, but also inculcated, in the audience, a similar innovation-driven outlook towards developing projects of national interest so that a positive impact can be made on a larger section of the society.



PROJECTS DISPLAYED AT IInvenTiv



5G TEST BED:

Developed by IIT Kanpur in collaboration with IIT Madras, the 5G test bed will enable a supportive ecosystem for Indian industry and start-ups which will help them validate their products, prototypes, solutions and algorithms in 5G and next generation technologies.



PORTABLE VENTILATOR:

Developed by IIT Bhubaneswar, the portable ventilator can be used while transferring the patient from a primary care centre to an intensive care unit. The ventilator is made using an artificial manual breathing unit (AMBU) bag, whose oxygen/air delivery mechanism is controlled through a programmable stepper motor, delivering the required volume of oxygen.



SHREEAKSHARA:

Developed by IIT Tirupati, ShreeAkshara is an Annotation System where the user can add, verify and rectify annotated text regions in near real-time. The light-weight model has incremental learning capabilities. The system has been evaluated on 200 pattern types, including letters, words and numerals from four different languages.

INDIA LEADS ENVIRONMENTAL PROTECTION

FROM CLIMATE CHANGE TO CLIMATE ACTION

“I am very happy to see the increasing enthusiasm for environmental protection in different parts of the country. A few days ago, in India, Mission LiFE, dedicated to protect the environment, has also been launched. The simple principle of Mission LiFE is – promote such a lifestyle, which does not harm the environment. I urge you to also know (about) Mission LiFE and try to adopt it.”

–Prime Minister Narendra Modi
(in his ‘Mann ki Baat’ address)

“Each one of us should understand that we need to make peace with nature, reduce our carbon footprints, and to have a lifestyle that is compatible with a sustainable society and economy. And this initiative of Prime Minister Narendra Modi, Mission LiFE, will mobilise citizens from all over the world to understand that they have a role to play.”

–António Guterres
UN Secretary-General

The world is in a climate emergency – “a code red for humanity”. The concentration of greenhouse gas emissions in the atmosphere and continually rising temperatures are fuelling environmental degradation, frequent natural disasters, extreme weathers, depletion of natural resources and ecosystems, loss of biodiversity, and food and water insecurity. And that is not all. As quoted in a NITI Aayog document, the global economy could lose up to 18% of GDP by 2050 without urgent action to mitigate the climate crisis.

Climate change is happening even more quickly than we feared. It has become imperative, now more than ever, to take collective action towards sustainability. Under the able leadership of the Hon’ble Prime Minister, India is leading the world in transitioning from climate crisis to climate action.

India has progressively decoupled economic growth from greenhouse gas emissions. Initiatives such as Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles (FAME) to accelerate the decarbonisation of transport, Ethanol Blended Petrol Programme, SATAT (Sustainable

Alternative Towards Affordable Transportation) for boosting production and availability of Compressed Bio-Gas, Gobardhan Scheme, and National Hydrogen Mission have transformed the energy landscape of the country.

Even though it supports the second largest population in the world, India’s sustained efforts have ensured that its per capita CO₂ emissions are much lower (1.8 tonnes) than the global average (4.5 tonnes). Today, India has the fourth largest renewable energy capacity in the world with an increase of about 290 per cent in the last 7-8 years. India has also given institutional solutions for cooperation at a global level with the initiation of the International Solar Alliance. As of August 2022, over 150 GW of renewable energy capacity projects have been installed in the country, with solar power having the highest share (nearly 60 GW).

India’s recently updated Nationally Determined Contribution translates the ‘Panchamrit’ of its climate actions, announced by the Prime Minister, into enhanced climate targets, which includes the long-term goal of reaching net-zero emission by 2070. India is implementing the National Action Plan on Climate Change which provides an overarching policy framework for all climate actions. It has also spearheaded a Coalition for Disaster Resilient Infrastructure for climate adaptation.

While the Government is taking several crucial steps, climate change is not just a policy-



related matter. Recognising the power of janbhagidari and janandolan, the Prime Minister has brought the world’s attention towards changing individual and community behaviour that can have a significant impact on environmental and climate crises. At the 26th session of the Conference of the Parties (COP26) to the United Nations Framework Convention on Climate Change (UNFCCC), he introduced ‘Mission LiFE: Lifestyle for Environment’ as a

global mass movement to protect and preserve the environment and combat climate crisis. The mantra is “mindful and deliberate utilization, instead of mindless and destructive consumption”.

Mission LiFE believes that even small efforts can have a huge impact. An example of this is the UJALA scheme which encouraged citizens to increase usage of LED bulbs. This led to the installation of more than 160 crore LED bulbs across the country and today, India is cutting down emissions by 40 million tonnes annually as a result of this small shift.

‘प्रकृतिः रक्षति रक्षितः’, that is, those who protect nature are protected by nature. Mission LiFE aims to nudge individuals and communities to practice a lifestyle that is synchronous with nature and does not harm it. The idea behind Mission LiFE is to make the fight against climate change

“Hon’ble Prime Minister emphasized on Bio-Village activities and its achievements in his ‘Mann ki Baat’ programme. This will further encourage and inspire our team to work on it for its substantial and sustainable development.”

–Anjan Sengupta,
Senior Scientific Officer of
Department of Biotechnology,
Government of Tripura

democratic in which everyone can contribute according to his/her capacity. It intends to nudge individuals to undertake simple acts in their daily lives that can contribute significantly to climate change when embraced across the world.

And a lot can be done by making certain environmentally conscious choices. For instance, taking the stairs instead of an elevator wherever possible, switching off appliances from plug points when not in use, carrying your own water bottle, preferring locally available and seasonal foods, and setting printer default to double-side printing. In fact, the Mission LiFE document gives a list of 75 ways in which we can contribute and become ‘pro-planet people’.

This is not something new for India. For centuries, Indian civilizations have practised and led sustainable lifestyles. Eco-friendly habits and circular economy are coded in our culture, be it using biodegradable utensils made of leaves/clay, using jute bags, or installing ‘khus’ blinds



When estimated against a business-as-usual scenario by 1 billion Indians in 2022-23 to 2027-28, the impact of LiFE actions can be significant, as demonstrated below with select examples.

in homes for cooling. Habits like these, if translated in today’s time, can benefit us immensely. Take the example of Suresh Kumar of Karnataka who, for the last 20 years, has been passionately involved in rejuvenating a forest of Sahakarnagar; or the tribal women in Anaikatti, Coimbatore, who are crafting terracotta tea cups, or the villagers of Tripura who have transformed their villages into ‘Bio-Villages’ and minimized their dependency on non-renewable resources – all these stories shared by the Prime Minister in his recent ‘Mann ki Baat’ can inspire us to contribute in our own ways to protect the environment.

By developing innovative, individual-centric nudge mechanisms, which revolve around our existing social norms, and by leveraging technology, the climate change movement can receive a global impetus through Mission LiFE. This is not the first time India has demonstrated success in harnessing the power of

collective action and individual-led programmes to address climate change. India has rich experience in implementing large-scale behavioural change programmes such as Swachh Sagar Surakshit Sagar, Swachh Bharat Mission, Catch the Rain campaign, and Ujjwala Scheme.

India’s experience will be valuable to the world as it translates its climate pledges into actions and undertakes energy transitions towards a more sustainable energy future. Climate change is the defining crisis of our time and no corner of the globe is immune from its devastating consequences. As the infinite cost of climate change reaches irreversible highs, it is time for us to redefine what we mean by progress and come together and save our home, the Planet Earth.

To know about the efforts being made for environmental protection, scan the QR code



Mission LiFE

A Step from a Throwaway Culture to a Circular Economy

An India-led global mass movement based on ‘Jan Bhagidari’

Seeks to transform persons into ‘pro-planet people’

Builds upon India’s environment-friendly culture and traditional practices

Brings individual behaviours at the forefront of the global climate action narrative

Leverages climate-friendly social norms, beliefs, and daily household practices of different cultures worldwide to drive the campaign

Envisions 3 core shifts in our collective approach (demand, supply, policy) towards sustainability

Contributes, directly and indirectly, to almost all the SDGs

Lists 75 environmentally conscious lifestyle choices



Global Support for Mission LiFE

Heads of States extend support to Mission LiFE and congratulate Prime Minister Narendra Modi for this novel initiative.



The world is suffering from a crisis because of the use and wastage of non-renewable resources. I think this initiative, LiFE, can be very helpful for us to find a way. Knowing that the leading democracy in the world, India, has undertaken the task of seeking a way out, I feel more at ease. We are supporting the LiFE initiative, so the objectives of Sustainability for Development 2030 can be made possible by each inhabitant of this world.

Alberto Fernandez, President of Argentina



The need for collective response to address climate change and biodiversity loss is stronger than ever. We are grateful to Prime Minister Modi for his leadership, together with the UN Secretary General, in launching Mission LiFE. The power of change lies in working together towards a common goal and engaging all the people and communities on the planet. I am glad that climate action is one of India's G20 presidential priorities.

Kaja Kallas, Prime Minister of Estonia



No one can address global challenges, and especially climate change, on their own. The LiFE initiative is part of this agenda for stronger cooperation. I am pleased that France and India agreed on leading a global initiative on the end of single-use plastic, and by fostering a common partnership between citizens committed to changing their lifestyles and the world. With the LiFE initiative, Prime Minister Modi will give us this opportunity. France looks forward to working with India to make this initiative a success.

Emmanuel Macron, President of France



I congratulate India for taking the lead to launch this extraordinary mission in the beautiful city of Kevadia in India. Georgia welcomes and fully supports this global initiative timely introduced by His Excellency Narendra Modi. We promote an environmentally conscious lifestyle that focuses on the principle of mindful and deliberate utilization. I strongly believe that together we can achieve a common goal and save our planet.

46 **Irakli Garibashvili, Prime Minister of Georgia**

It is by changing practices and mentalities that we can change things. I am convinced that LiFE could become one of the turning points in our fight against the climate crisis. I thank India, through its Prime Minister, who is an inspiring leader in environmental protection, for bringing us together for this cause. It is with hope and conviction that I join you in this Mission. Together, let's commit ourselves to sustainable development, for a better world for our children.

Andry Rajoelina, President of Madagascar

Prime Minister Modi's Mission LiFE couldn't have come at a more crucial juncture. The ill effects of the climate crisis come at us with full force. This ambitious initiative is a call for action. Individual actions may appear insignificant on their own but when pooled together they have the power to spur transformative effects.

Ibrahim Mohamed Solih, President of Maldives

Policy reforms and economic initiatives are not enough to save our planet. Lifestyle changes at the individual level and behavioural changes at the community level are needed to reduce the strain on the environment. I, therefore, strongly support the movement launched by Prime Minister Narendra Modi to build on good practices at the level of individuals, communities and institutions in order to accelerate the transition to the most sustainable future.

Pravind Jugnauth, Prime Minister of Mauritius

I congratulate Prime Minister Narendra Modi and the Government of India for advancing the idea for Lifestyle for Environment. This is a pioneering movement that can help in fighting climate change and achieve SDGs. To build on the idea that positive changes, individual actions and behaviours are the key parts of the climate solutions that world urgently needs, ... Nepal (expresses) support for the pioneering movement such as LiFE.

Sher Bahadur Deuba, Prime Minister of Nepal

Collective action is the need to protect our environment. I wish to extend my best wishes to the Prime Minister of India, Narendra Modi, on the launching of the Mission LiFE which seek to mobilize one billion Indians to become Pro Planet People by 2027, who will practice simple environment- and climate-friendly behaviours in their daily lives. Congratulations, India, for taking the lead and pioneering this movement.

Irfaan Ali, President of Guyana



Karnataka's Suresh Kumar Preserving Environment and Culture Together

The Prime Minister, in his recent 'Mann ki Baat', spoke about the increasing enthusiasm for environmental protection in different parts of the country. He mentioned Suresh Kumar, who lives in Bengaluru, Karnataka and for the last 20 years, have been tirelessly involved in rejuvenating a forest of Sahakarnagar in the city.

Our Doordarshan team talked to Suresh Kumar to know more about his initiative.

"I grew up amidst greenery in Devanahalli. When I moved to Bengaluru, I realised it is turning into a concrete jungle. I tried to plant trees in Sahakarnagar. But the residents wanted particular (kind of) trees only, and nobody even cared to water the saplings everyday."

However, this did not deter Suresh Kumar from following his passion to convert the concrete jungle around him into a green pasture. "I decided to create a green cover across the railway track. I was able to plant over 2,000 saplings with the cooperation of the officials. Today, you can see well-grown trees of mahogany,

jacaranda, tabebuia, jamun, neem, etc., along the railway track." Along with beauty and the numerous benefits that come with them, these trees have also become the pride of the residents of Sahakarnagar.

Suresh Kumar is not just passionate about environment protection. He is also working to promote the Kannada language and culture. Suresh Kumar has built a bus shelter in Sahakarnagar which is adorned with posters of great poets and personalities of Karnataka, and of Kannada films as well. The beautifully-decorated shelter contains information about the culture and history of the State. Suresh Kumar has also presented brass plates written in Kannada to hundreds of people.

Suresh Kumar is a unique example of how ecology and culture can grow together and flourish.

Scan the QR code to know more about Suresh Kumar's passion for environment protection.



Bus Shelter at Sahakarnagar

Contribution of Tribal Women of Tamil Nadu in Environmental Protection

As the awareness about the importance of leading an eco-friendly life is increasing, people from all walks of life are coming forward and contributing in one way or the other to make environment protection a collective movement. One such group of people are the tribal women residing in the remote village of Anaikatti in Tamil Nadu's Coimbatore district who are making export-quality terracotta tea cups.

Our Doordarshan team interacted with the stakeholders of this initiative to know more.

S. Poongodi, a woman working with the initiative, says "I am working in Dayaseva Sadhan. This (making clay cups) has become a source of income for 20 women like me. Before this, my husband was the only one earning for the family. Now, I am able to send my children to school."

Sh. Raman Soundararajan, a researcher and scientist, has been running this centre for the tribal women since 2012.

"We are presently focusing on providing sustainable livelihoods for the rurals, especially for the tribal women. These women are provided knowledge-based employment. I have developed several eco-secure products and all these are manufactured by these tribal," he says.

Sh. Soundararajan added, "The skill, tenacity, perseverance and commitment of these tribal women is amazing. We had an export order from Qatar for clay cups for which these women made 10,000 cups. From clay mixing to final packaging, the tribal women of Anaikatti village have taken up the entire responsibility of manufacturing these clay cups. And they take pride in their work."

"I am overwhelmed by the fact that our work has got the attention of the Prime Minister. The fact that he talked about it in 'Mann ki Baat' (fills us with) enthusiasm and determination to proceed and evolve more such projects across the country," Sh. Soundararajan said.



Tripura's Bio-Village 2.0: Integration of Sustainable Development & Climate Adaptation

Answering the Prime Minister's clarion call to promote a lifestyle that does not harm the environment, a village in Tripura has come up with a unique initiative, Bio-Village 2.0, that minimizes the damages caused by natural disasters and have helped the villagers to lead a sustainable life.

Our Doordarshan team talked to the villagers of Daspara in Tripura to know more about this initiative.

While a Bio-Village primarily promotes organic farming, the main objective of the Bio-Village 2.0 project is to support sustainable development, climate change mitigation, and climate adaptation. Usage of greener technologies such as

solar-powered electrical and agricultural equipment, biomass stoves, biogas plants, biofertilizers are supporting climate mitigation at the local level. Similarly, components like provision of improved livestock breed, promotion of beekeeping and temperature tolerant mushroom cultivation are ensuring a better adaptation to the changing climate.

Sefal Das of Daspara village says, "Two years back, there was no source of income here. But we found a new light of hope. Sixty-four families in this locality received several facilities from the Biotechnology Department which have been quite beneficial for us. We got solar lights and pumps, mushroom spawn, saplings and



biofertilizers for cultivation, and chicks and ducklings for poultry purposes. Such facilities have brought solvency to my family."

The advent of the concept of bio-village in Daspara has made the village self-sufficient and has made living and earning livelihood easier for the villagers. About 500 households have benefited from this project. There has been an approximate increase of Rs. 5,500 in the monthly income of the beneficiaries, per month per household. Villager-dweller **Dipankar Datta** says, "I have 12 solar pumps. Now, I am able to utilize my pond water for cultivation." Dipankar added that the women of the village are also involved in economically-profitable jobs like selling eggs, which was not the case previously.

Apart from facilities like solar street lights and pumps, the Daspara Bio-Village has also transitioned towards cleaner fuel for cooking. "After getting (bio)

gas connection, I feel my life has become much easier and more developed, as I have no tension of purchasing gas cylinders from outside the village. I offer my gratitude to the Prime Minister for such facilities in the village," says **Surobala Das** of Daspara village.

Tripura's Bio-Village 2.0 has recognised the needs of the people and has accordingly provided innovative, climate-friendly solutions (focusing on climate mitigation and adaptation) to address those needs, besides improving the quality of life for the rural community. Talking to AIR News, **Anjan Sengupta**, Senior Scientific Officer of Department of Biotechnology, Government of Tripura, said, "Hon'ble Prime Minister emphasized on Bio-Village activities and its achievements in his 'Mann ki Baat' programme. This will further encourage and inspire our team to work on it for its substantial and sustainable development."



António Guterres

UN Secretary-General

'Each One of Us Has a Role to Play in Our Fight Against Climate Change'

UN Secretary-General, Mr. António Guterres was present in Kevadia, Gujarat on October 20, 2022 when Prime Minister Narendra Modi launched a major national and global initiative 'Mission LiFE' (Lifestyle for Environment). He also visited India's first 24x7 solar-powered village Modhera in Gujarat. Mr. Guterres shared his experience in an interview with DD India.

Governments and companies have their own role to play. But each one of us should understand that we need to make peace with nature, reduce our carbon footprints, and to have a lifestyle that is compatible with a sustainable society and economy. Each one of us has a role to play. And this initiative of Prime Minister Narendra Modi, Mission LiFE, will mobilise citizens from all over the world to understand that they have a role to play.

The youth knows that when they become adults, they will suffer the consequences of what we are not able to do now. So, they have a fundamental vested interest in making sure that we respect the environment, fight climate change, and preserve biodiversity in the world. And in all our societies, participation of the youth is very important and we have mechanisms to consult the youth for various things. But the youth is not yet participating in the decision-making processes that will lead to the options that

are made that will dramatically impact their lives much more than mine. At the UN, we are making reforms in this sense. But at the level of each country, there is a need to create some institutional mechanisms to allow for the youth to have a voice in the way decisions are taken and the future is planned.

We, presently, are consuming much more than the planet can produce. We are using 1.6 planets every year which is not sustainable. We need to think about how we behave, what we eat, how can we recycle things and avoid waste. We need to understand that without the individual behaviour of each person being compatible with a sustainable society, there is not much that the Governments can do to reduce pollution. Let us not forget that today pollution is killing seven million people per year. So, we need to understand that pollution is a killer, it is not just ugly. With biodiversity loss, we are losing a fantastic capital for the future; some of the medicines

which will probably never be available for the basic needs of the population. We are seeing the devastation in the world today due to climate change. So, each one of us needs to make peace with nature for the world to be able to respect the planet and to avoid the collapse.

The gigantic project of India (commitment to achieve 500 GW renewable energy generation by 2030) is a very important contribution to climate action. There was a very symbolic nature to my visit to the village close to the temple of Sun (Surya Mandir in Modhera). It is not only the investment made by the Government; it is the way the community came together which is commendable. You have villages where every house has some solar panels in which there is a link between the use of clean energy and the well-being of the families and of the community, the way the school works much better, the way people have more money to spend on other things or to create their savings.

This is a remarkable project of inclusivity and solidarity and very much in line with what the UN has presented in its Agenda 2030, the Sustainable Development Goals (SDGs), that aims to eradicate poverty, improve living conditions of everybody, everywhere. And so, this is an exceptionally relevant contribution to climate action to defeat climate change. (And) there is a sense of community, solidarity, and inclusivity that is a lesson for the world.

Right now, there are two things that are needed. First, the developed countries must understand that the developing countries have the right to demand that what was promised in Paris (Paris Climate Accord at COP 21) is delivered. That means 100 billion

US dollars per year to support developing countries, a much stronger support adaptation to build resilience.

These are the things that I hope to see in the COP. The developed countries should be able to respond to what it is the legitimate request of developing countries. But that does not solve the problem. The essential problem is that we are increasing our emissions and we need to reverse this trend. And to do that, we need a pact within the G20. Four large developing countries presiding G20 one after the other — Indonesia, India, Brazil, and South Africa — it is the moment for a pact between the developed and the emerging economies that today because of their industrial development are also large emitters. A pact that requires a massive transfer of financial resources and technology from the developed world to the emerging economies, and an additional effort from both sides to reduce emissions. This is something I discussed with Prime Minister Narendra Modi as well.

Scan the QR code to listen to what more the UNSG said about climate change.



36TH NATIONAL GAMES

A SPECTACLE OF 'EK BHARAT SHRESHTHA BHARAT'

A BRIEF HISTORY OF NATIONAL GAMES IN INDIA

The genesis of the National Games is in the Olympic movement which gathered momentum in the country in the 1920s. To assimilate and channel the energy of the youth through a pan-India sporting event, the first edition of the Games was held in undivided Punjab in 1924. The city of Lucknow hosted the National Games in its first post-independence avatar while the first National Games on the lines of the Olympics were held in 1985 in New Delhi.

NATIONAL GAMES GUJARAT 2022

The 36th edition of the National Games was hosted in Gujarat, for the first time, from September 27 to October 10, 2022. The Hon'ble Prime Minister Narendra Modi officially declared open the 36th National Games in Ahmedabad with the symbolic **Torch of Unity**. The Games had indoor and outdoor sporting events such as *athletics, hockey, football, volleyball* and many more. Indigenous sports such as *kabaddi, kho-kho, mallakhamb and yogasana* were also included this year.



36 States



7000+ Athletes



36 Sports



7 Cities



54



THE FINAL MEDAL TALLY

RANK	STATE	Gold	Silver	Bronze	TOTAL
1	SERVICES	61	35	32	128
2	MAHARASHTRA	39	38	63	140
3	HARYANA	38	38	40	116
4	KARNATAKA	27	23	38	88
5	TAMIL NADU	25	22	27	74
6	KERALA	23	18	13	54
7	MADHYA PRADESH	20	25	21	66
8	UTTAR PRADESH	20	18	18	56
9	MANIPUR	20	10	20	50
10	PUNJAB	19	32	25	76
12	GUJARAT	13	15	21	49



DID YOU KNOW?

5 NATIONAL RECORDS WERE BROKEN AT NATIONAL GAMES 2022

- Chahat Arora broke a 25-year old record in women's breaststroke
- Rambabu smashed the old race walk national record by a staggering 3.7 minutes
- Rosy Meena Paulraj broke an 8-year-old national record set by mentor V Surekha
- Subramani Siva broke his own national record set in 2018
- N. Ajith broke CWG gold medallist Achinta Sheuli's clean and jerk national record by 1 kg



Synergized with the spirit of Navratri, the games, this year, were a true testimonial of celebrating unity through sports. While the players participated in the games during the day; in the evening they had a chance to get immersed in the colours of Garba and Dandiya.

55

A Multi-event Sporting Success- 36th National Games, Gujarat 2022



Gagan Narang
Indian Olympian

If one revisits the past, in the 2010 Commonwealth Games, Gujarat had one medalist who contributed to India's success story. Twelve years down the line, the sporting landscape of Gujarat has been transformed completely. Gujarat is now among the top few states of the country. The overall sporting ecosystem in the country has witnessed a similar growth with impetus from the Government at all levels by providing infrastructural, technical and other resources such as state-of-the-art training facilities, organizing world class competitions at regional and national levels, etc.

This year, as the Hon'ble Prime Minister Narendra Modi officially inaugurated the launch with the symbolic 'Torch of Unity', Gujarat, for the first time at a magnanimous scale, hosted the 36th edition of the National Games in India. With over 36 States and UTs participating from across the lengths and breadths

of the country, in a wide array of 36 sports, state-of-the-art infrastructure and over 7000+ athletes gearing up in full swing, the National Games 2022 was an event as majestic as it could get.

Upholding the theme of 'Ek Bharat Shreshtha Bharat' with its tagline 'Celebrating unity through sports', the games showcased the amalgamation of different cultures with sports. Young athletes and sportspersons from different regions came together in this sporting saga, held from 27 September to 10 October, 2022.

Sports has scaled up its presence immensely in the country. From Khelo India Youth Games at the school and university level to Khelo India Winter Games, the country is determined to produce sporting champions at the speed of light, giving them a chance to represent India on a global stage. National Games Gujarat 2022 adds more flavour to this ecosystem, for the players and competitors to come and test their skills. Taking inspiration from ace Indian sportspersons with the likes of Neeraj Chopra, Mirabai Chanu, PV Sindhu and many more, players across the country compete with full vigour, spirit and sportsmanship to emerge as title-holders.

And witnessing these champions participate in the games is a different charm in itself and accords a celebrity status to the games.

National Games is a much-awaited event among athletes. As a sportsperson, one always looks forward to the National Games because it is the first-hand experience of international-

level games in the country before going for the Commonwealth games, Asian Games, and the Olympics. It's a great moment when people from different sports come together and interact on the national stage. It kicks in the excitement and gives the motivation to perform better at the international level as well. National Games have their own unique identity, and their own space in the ecosystem. And therefore, being the pinnacle of sporting success in the country, the games need to be conducted more frequently as it generates a lot of interest in the State it is being conducted in and the youth is motivated to perform and give their best.

The games are a great stepping stone for young players to sharpen their skills and give them an experience which can help them excel at the international level. The scale, magnitude and quality of the games have changed immensely over the years. From staying in Games' villages to young sportspersons staying in hotels with top-notch facilities, with state-of-the-art infrastructure like electronic targets, same as used in the Olympics, times

have truly changed. Overall, the confidence that an Indian athlete has now is unparalleled to what we had in our times.

Every sportsperson wishes to contribute to the pride of the nation and gives all the support back in some form or another. I am doing my bit by inspiring young, budding, aspiring players in the shooting sport through an academy, Gun for Glory, wherein over 1000 players are trained every year to excel, in order to give to the country some talented sports champions, like Elavenil Valarivan, the World #1 who went on to Tokyo Olympics to represent India and many more.

As many participants and sports personalities soaked in the atmosphere encouraged youngsters and enjoyed the dandiya beats in the Navratri festivities in Gujarat, the National Games 2022 carved a niche on the Indian sports front as a perennial source of encouragement, support and growth for the aspiring athletes of the nation. It truly emerged as a great opportunity for those who participated and a victory for those who not only won medals but smashed many national records.



SMASHING NATIONAL RECORDS

THE CHAMPIONS SPEAK...



Rosy Meena Paul- Pole Vaulter
National record at 4.20m



"I'm Rosy Meena from Tamil Nadu. I'm an athlete and have represented Tamil Nadu in National Games held recently in Gujarat. As an athlete, all we need is a better environment to showcase our hard work and NGG 2022 has left no stone unturned in giving me that atmosphere. Thanks to all technical officials for conducting the event with the utmost finesse. I am from South India and the most exciting part for me was the Garba dance. I thoroughly enjoyed it during the opening ceremony of the National Games. I want to extend my sincere thanks to Hon'ble PM Narendra Modi for giving us this opportunity and the entire team of National Games for this wonderful experience."

Rambabu - 35 km Race Walk Athlete
National record at 2:36:34



"I'm Rambabu and I have recently set a national record in the 35 km race walk in the 36th National Games held in Gujarat. This year, the players got international-level facilities. Starting from accommodation to food arrangements, everything was top-notch. Players also enjoyed the Garba dance amid Navratri. Since multiple players came from various regions across India all in one place, everyone shared their distinct experiences and promoted the spirit of Ek Bharat Shreshtha Bharat. The games have certainly encouraged us to perform well at the International level and for this, I am extremely thankful to Hon'ble PM Modi."

Siva Subramaniam- Pole Vaulter
National record at 5.31m



"I am Siva, pole vaulter national record holder in the National Games 2022 held in Gujarat. I would like to thank the management for giving the players excellent facilities. Everything was planned with utmost efficiency, be it the timing of events, the food arrangement, or the equipment, it was all up to the mark, as good as international standards. This was my first time at the National Games, and I say without any hesitation that I am extremely impressed. I extend my gratitude to our Hon'ble Prime Minister for giving us this opportunity. Thank you to the management, the officials and all those who are behind the huge success of the National Games 2022. Thank you for hosting us!"

Sambo Lapung- Weightlifting
National record at 198 kg



"I am Sambo Lapung, and I am a weightlifter in the 96 kg category. I made a national record in the 36th National Games held in Gujarat. We all had an amazing experience and learned a lot. The experience, the facilities ranging from accommodation to diet, were equivalent to the international-level tournaments. They were exceptional for a national-level event. I, for one, had never heard of Garba before. But along with my friends, not only learned about this art form but enjoyed it immensely. We would extend our heartfelt thanks to the Hon'ble Prime Minister and the Government of Gujarat for giving us a memorable experience. Thank you."

Scan the QR code to know about the experiences of the winners of the 36th National Games 2022 held in Gujarat.



TRIBAL FREEDOM FIGHTER MUSEUM

CELEBRATING THE GLORIOUS TRIBAL HISTORY & CULTURE

“ My dear countrymen, on the 15th of November, our country will celebrate the Janjatiya Gaurav Diwas. Last year on the occasion of the birth anniversary of Bhagwan Birsa Munda, I had the privilege of inaugurating the Bhagwan Birsa Munda Museum in Ranchi. I would like to urge the youth that whenever they get time, they must visit it. ”

–Prime Minister Narendra Modi
(in his ‘Mann ki Baat’ address)

An unbiased observer can easily note that when the Prime Minister discusses another key central element of his basic approach to managing the affairs of the country, that is ‘Sabka Saath Sabka Vikas’ the tribals are an important part of this overall scheme.

–Prof. Raghuvendra Tanwar
Chairman, Indian Council of
Historical Research

India is celebrating ‘Azadi Ka Amrit Mahotsav’ to commemorate 75 years of its Independence and the glorious history of its people, culture, and achievements. The fight against colonial rule in India constitutes a unique narrative which is replete with variegated stories of valour, bravery, dedication, and sacrifice across the length and breadth of the subcontinent. If we look at that period of our freedom struggle, there was hardly any moment when there was no tribal resistance in different parts of the country. Be it the Munda movement under the leadership of Birsa Munda, or the Santhal struggle, the Khasi and the Ahom resistances in the Northeast or the Bhil struggle, the tribal sons and daughters of India challenged the British rule in every period.

In the ongoing ‘Amrit Mahotsav’, the country is reviving countless such pages of history, which were forgotten in the past decades. One of the prime focuses of the Government has been to bring alive stories of unsung heroes whose sacrifices have made freedom a reality for us.

With the idea of bringing forth such stories, the Government declared 15th November as ‘Janjatiya Gaurav Diwas’ to commemorate the 146th birth anniversary of Birsa Munda in 2021. To mark the occasion, the

Prime Minister also inaugurated Bhagwan Birsa Munda Memorial Udyan cum Freedom Fighter Museum at Ranchi in Jharkhand. At the inauguration, he said, “In this Amrit Kaal of Independence, the country has decided that it will give a more meaningful and a more grand identity to the tribal traditions of India and its valour stories.” There are statues of many tribal heroes, including Sidhu-Kanhu, Poto Ho, Telanga Kharia, Gaya Munda, Jatra Tana Bhagat and Diva-Kisun in this museum and their stories have also been explained in detail.

The inauguration of the Tribal Freedom Fighter Museum in Ranchi was just the beginning. The Ministry of Tribal Affairs is developing 10 more such museums (in Gujarat, Andhra Pradesh, Chhattisgarh, Kerala, Madhya Pradesh, Telangana, Manipur, Mizoram and Goa), dedicated to the contributions of the tribal people in India to the freedom struggle, across the country. These museums will trace their history along the trails along which the tribal people in hills and forests fought for their right to live and will. They will also preserve and promote songs, music, art-skills, handicrafts and crafts passed down from generation to generation. These museums will also demonstrate the way tribal people in the present time act as the custodians of the biological and cultural diversity of the country and have helped in nation-building in their own unique way.

The battle that the tribes were fighting was primarily against their exploitation in the form of encroachment on their



land, eviction from their land, annulment of the traditional legal and social rights and customs, enhancement of rent, and feudal and semi-feudal form of ownership. Birsa Munda fought bravely against the exploitation of the British colonial system and spearheaded movement against British oppression giving a call for ‘Ulgulan’ (Revolution). Often referred to as ‘Dharti Aaba’, he was against the ideology that wanted to erase the identity of India’s tribal society. He knew that attacking diversity in the name of modernity, tampering with ancient identity and nature was not the way for the welfare of the society, and thus encouraged the tribals to understand their cultural roots and importance of unity.

What Birsa Munda had started resulted in the introduction of laws to preserve the land rights

of the tribals. In 1908, the colonial Government introduced the Chotanagpur Tenancy Act, which prohibited the transfer of tribal land to non-tribals. A similar socio-economic and political battle was fought in Dungarpur and Banswara regions of Rajasthan by the Bhil tribe. The main grievance of the Bhils was against the bonded labour system of the British Raj which was implemented by the princely states. Before the British, the Bhils were enjoying absolute forest rights. The first Bhil agitation in Rajasthan in 1883, also known as the 'Bhagat Movement', was led by Guru Govind Giri. The revolutionary also wrote poems to awaken the Bhils to fight for their rights.

These movements in various pockets of the country eventually fuelled the freedom movement in the entire Indian subcontinent. Tilka Manjhi, Budhu Bhagat, U. Tirot Sing, Sidhu and Kanhu Murmu, Rani Gaidinliu – these are some of the several names that resisted colonial oppression with all their



might and united the people of their respective tribes against the same. The tribal resistances acted as a precursor to the idea of 'swaraj' in the national liberation movement.

The tribal museums that are being developed across the country, while acknowledging the contribution of the tribal leaders, will also become doorways to remotely experience the various episodes and periods of the tribal history. The Ministry of Culture has released a comic book on stories of 20 tribal freedom fighters, which include Tilka Manjhi, Thalakkal Chanthu, Ramji Gond, Tantiya Bhil, Birsa Munda, Malati Mem, and Helen Lepcha. On November 1, 2022, the Prime Minister attended a public programme 'Mangarh Dham ki Gaurav Gatha' at Mangarh Hill, Banswara, Rajasthan, to pay homage to the sacrifices of the unsung tribal heroes and martyrs of the freedom struggle. All such steps and initiatives are bound to expand the understanding of the freedom movement, for the younger generations and adults alike.



'Tribal Freedom Fighters are Being Recognised Across the Country'

India's tribal community has had an important role to play in the country's freedom movement. With 'Azadi Ka Amrit Mahotsav', we are not only celebrating and commemorating 75 years of Independence and the glorious history of its people, culture, and achievements but also recognizing the unsung heroes that fought tirelessly for our freedom. A major focus has been on the tribal resistances and leaders, whom the Government aims to honour through various initiatives like Janjatiya Gaurav Diwas and establishment of Tribal Freedom Fighters museums across the country.

Our Doordarshan team talked to Dr. Ranendra, Director, Tribal Research Institute (TRI), Ranchi about these initiatives.

"The outlook towards the tribal communities of India changed after the thesis published by Kumar Suresh Singh on Birsa Munda. Munda's

achievements and martyrdom started gaining recognition across the country. His statue was installed at the crossroads in the industrial city of Rourkela, Odisha. His portrait and statue were also installed in the Parliament House. Birsa Munda's birth anniversary on 15th November is being celebrated all over the country as Janjatiya Gaurav Diwas. The tribal community from across the country has played a major role in the freedom struggle. Their revolutionaries are now being recognised and Tribal Freedom Fighters museums are being built almost everywhere. TRIs of each State have been given the responsibility to find out about the unsung heroes of their State who have not yet been identified. Eighty-five freedom fighters like Bhagwan Birsa Munda are being highlighted across the country on whom books should be published that should be included in the curriculum."



Birsa Munda

A LEGACY, A REVERED TRIBAL HERO



In the 19th century, tribal leader Birsa Munda brought the spirit of activism against British rule in India. Born and raised in the tribal belt around present day Bihar and Jharkhand, he led the Mundas and Kurukh tribal communities toward tribal rights and identity. His achievements as a young tribal revolutionary are still remembered and his birth anniversary, 15th November is celebrated as Janjatiya Gaurav Diwas.

Do You Know?

Birsa Munda gave the slogan "Abua raj ete jana, maharani raj tundu jana" ("Let the rule of the queen be ended and our kingdom be established")



The Mundas nicknamed him 'Dharti Aaba'



He spearheaded a tribal religious millenarian movement that arose in the Bengal Presidency (now Jharkhand) in the late 19th century



He was also a founder of a new religion called Birsaism



His activism led to the Chotanagpur Tenancy Act (CNT) in 1908 prohibiting the transfer of tribal lands to non-tribals.



Films like 'Ulgulan-Ek Kranti' (2004), 'Gandhi se Pehle Gandhi' (2008) and the novel titled 'Aranyer Adhikar' highlight Birsa Munda's life and his rebellion against British Raj.



Bhagwan Birsa Munda Memorial Park cum Freedom Fighters Museum

Inaugurated by the Prime Minister on 15th November, 2021, the museum at Ranchi is a vibrant venue of India's tribal culture, depicting the contribution of tribal heroes and heroines in the independence fight.

The museum is preserving and promoting tribal culture and history demonstrating the tribal struggles for protecting their forests, land rights, culture and would show their valour and sacrifices, vital for nation building.

Tribal freedom fighters associated with different movements such as Shahid Budhu Bhagat, Sidhu-Kanhu, Nilambar-Pitambar, Diwa-Kisun etc. are highlighted in the museum.

The Museum project involves conservation of Old Jail, installation of a 25ft statue of Bhagwan Birsa Munda and 9 feet statues of other freedom fighters of the region, museum curation and a light and sound show.

The memorial park encompasses a musical fountain, food court, children park, infinity pool, garden and other entertainment facilities.

'Sabka Saath, Sabka Vikas' Enabling True Tribal Empowerment



Prof. Raghuvendra Tanwar

Professor Emeritus, Kurukshetra University
& Chairman Indian Council of Historical
Research and Padma Shri Awardee

In his 'Mann ki Baat', Prime Minister Narendra Modi has been sharing with millions of inspired countrymen issues which are close to his heart or which need to be shared as a public discourse. On 30th October 2022, in his address, the Prime Minister referred to 'the Janjatiya Gaurav Diwas' to be commemorated on 15th November every year, a practice the Prime Minister initiated last year. The day marks the birth anniversary of a hero among heroes of the freedom movement - Bhagwan Birsa Munda. While drawing the nation's attention to the life and contribution of Birsa Munda in the

freedom struggle, Prime Minister Modi also talked of an issue that was close to Birsa Munda's heart and has also been an issue of great concern for himself. He recollected Munda's words 'the earth is ours and we are its protectors'. This line of thought, as we know, has been woven in the Prime Minister's basic policy of governance. In following this commitment towards protecting our environment, Prime Minister Modi has infact been following what has been prescribed in our ancient texts going back thousands of years. Be it the Bhagwan Birsa Munda's Museum inaugurated by the Prime Minister last year or the tribal museums being set up across India at the cost of Rs. 200 crores, the idea obviously is to place in national psyche the rich and inspiring legacy of our tribal brothers and sisters.

The tribal population of our country is now about 10% of our total population. Sadly, this important section was treated earlier as little more than an electoral vote bank. Incidentally, it was the Shri Atal Bihari Vajpayee's Government that created the first Tribal Development Welfare Ministry. When Prime Minister

Modi took over as the Prime Minister in 2014, the budget of the Ministry was about of Rs. 21,000 crores. Today, it is in excess of Rs. 78,000 crores.

An unbiased observer can easily note that when the Prime Minister discusses another key central element of his basic approach to managing the affairs of the country, that is 'Sabka Saath Sabka Vikas' the tribals are an important part of this overall scheme. The world is today taking note of how Prime Minister Modi has sought to empower the vast sectors of population in a fundamental manner by providing for roads, homes, toilets, drinking water, bank accounts, schools and so on. The numbers that are mind boggling, clearly impress on the developmental miracle that is taking place in India and impacting the marginalised, the under privileged and the forgotten.

In his 30th October 'Mann ki Baat', the Prime Minister also referred with reverence his then proposed visit 1st November to Mangarh. Mangarh is not just a place that witnessed a massacre of tribals by the British in 1913, but today, symbolizes a place of pride in our historical legacy. It is important to

appreciate that the mainstream narrative of the freedom struggle propagated for the past several decades has sought to project the movement mainly as a political one. This narrative has by design understated the role of the revolutionaries, the tribals, the marginalized and also the fact that a large number of men and women who gave their lives for our freedom had drawn inspiration from India's cultural, spiritual and historical legacy. In this sense, Prime Minister Modi's 'Mann ki Baat' of 30th October has also filled important gaps in our historical narrative - a true and needed course correction so to say.





MANN KI BAAT

Media Scan



Manjunath Raju G
@manjunathraju

Greener today - Happier tomorrow!

It is a matter of great pride that Suresh Kumar from Bengaluru has contributed to elevating greenery in the city. His efforts have been appreciated by PM Shri @narendramodi in his #MannKiBaat speech. Let us all echo his work and join him.

ಬಸ್ ನಿಲ್ದಾಣ ನಿರ್ಮಿಸಿ, ಕನ್ನಡದ ಅರಿವು
ಮಾಡಿಸುತ್ತಿರುವ
ಬೆಂಗಳೂರಿನ ಸುರೇಶ್ ಕುಮಾರ್
ಅವರ ಕಾರ್ಯ ಶ್ಲಾಘನೀಯ



2:44 PM - Oct 30, 2022 - Twitter Web App

Shandilya Chirraj Singh
@gaurangchirraj

"आजकल हम देखते हैं, विदेशों से भी छठ पूजा की कितनी भव्य तस्वीरें आती हैं। यानी भारत की समृद्ध विरासत, हमारी आस्था, दुनिया के कोने-कोने में अपनी पहचान बढ़ा रही है।"

- पीएम @narendramodi.

#MannKiBaat
Translate Tweet



आजकल हम देखते हैं, विदेशों से भी छठ पूजा की कितनी भव्य तस्वीरें आती हैं। यानी भारत की समृद्ध विरासत, हमारी आस्था, दुनिया के कोने-कोने में अपनी पहचान बढ़ा रही हैं। इस महापर्व में शामिल होने वाले हर आस्थावान को मेरी तरफ से बहुत-बहुत शुभकामनाएं।

PM Narendra Modi in #MannKiBaat, October 2022

11:04 AM - Oct 30, 2022 - Twitter for iPhone

Abhay Karandikar
@karand65

Thank you Hon' ble Prime Minister Shri Narendra Modi Ji for recognising @ITKanpur's efforts for the development of the indigenous 5G tested. We are continuously working to make #India AtmaNirbhar in key technology sectors.
Jai Anusandhan!
@narendramodi @dpradhanbjp

Narendra Modi
@narendramodi - Oct 30

I would like to laud all IITs for a unique effort to enhance research and innovation. I also hope other universities and institutions follow this practice.
#MannKiBaat



1:15 PM - Oct 30, 2022 - Twitter for iPhone

Basavaraj S Bommal
@BSBommal

ಬೆಂಗಳೂರಿನ ಸಹಕಾರ ನಗರದ ನಿವಾಸಿ, ಪರಿಸರ ಮತ್ತು ಕನ್ನಡ ಪ್ರೇಮಿ ಸುರೇಶ್ ಕುಮಾರ್ ರವರ ನಿಸ್ವಾರ್ಥ ಸೇವೆ ಮತ್ತು ಸಾಮಾಜಿಕ ಹಾಗೂ ಪರಿಸರ ಕಾಳಜಿಯನ್ನು ಪ್ರಧಾನಮಂತ್ರಿ ಶ್ರೀ @Narendramodi ಅವರು ತಮ್ಮ ಇಂದಿನ ಮನು ಕೇ ಬಾತ್ ನಲ್ಲಿ ಮುಕ್ತಕಂಠದಿಂದ ಶ್ಲಾಘಿಸಿದ್ದಾರೆ.

1/2
Translate Tweet



11:58 AM - Oct 30, 2022 - Twitter Media Studio

Arjun Prasad Shetty
@ArjunPrasadShetty

सूर्य उपासना की परंपरा इस बात का प्रमाण है कि हमारी संस्कृति, हमारी आस्था, प्रकृति से किसना प्यार करता है। इस पूजा के अतिरिक्त हमारे जीवन में सूर्य के अलावा का सूर्य उपासना नहीं है।

हम ही ने अनेक ही दिवस हमें कि-उत्तर-वाणी, जीवन का अर्थ प्रदान है।



11:08 AM - Oct 30, 2022 - Twitter for Android

Arjun Prasad Shetty
@ArjunPrasadShetty

इस का पर्व एक भारत-श्रेष्ठ भारत का भी उदाहरण है। आज विहार और पुरुषोत्तम के लोग देश के जिस भी कोने में हैं, यहाँ, पुरुषोत्तम से एक का आयोजन हो रहा है। दिल्ली, मुंबई, गुवाहाटी के अलावा-अला दिल्ली और गुवाहाटी के कई हिस्सों में एक का पर्व हमें प्यार का आयोजन हमें लगा है।



11:08 AM - Oct 30, 2022 - Twitter for Android

Himanta Biswa Sarma
@himantabiswa

You will be happy to know that the National Games this time was the biggest ever organised in India.

36 sports were included in this, in which, 7 new and two indigenous competitions, Yogasan and Mallakhamb were also included - Hon PM Shri @narendramodi Ji

#MannKiBaat



11:39 AM - Oct 30, 2022 - Twitter for iPhone

Smriti Z Irani
@smritizirani

#MannKiBaat में PM @narendramodi जी ने सौर ऊर्जा के सदुपयोग व उपयोगिता पर विस्तृत रूप से चर्चा की।

इस कड़ी में उन्होंने मोदरा, गुजरात का भी उल्लेख किया जहाँ लोग अपनी जरूरत के हिसाब से बिजली उत्पादन कर रहे हैं। मोदरा द्वारा अर्जित यह उपलब्धि विश्व के समक्ष आज एक मिसाल है।

Translate Tweet



5:29 PM - Oct 30, 2022 - Twitter for iPhone

Devendra Fadnis
@Dev_Fadnis

जुड़ेगा इंडिया, जीतेगा इंडिया!
In today's #MannKiBaat, Hon PM @narendramodi ji mentions Maharashtra being the top performer in the #NationalGames organised in Gujarat recently!
@mannkiabaat



From Narendra Modi

Ashwini Vaishnav
@AshwiniVaishnav

IIT Madras और IIT Kanpur ने भारत के स्वदेशी 5G Test bed को तैयार करने में अग्रणी भूमिका निभाई है। निश्चित रूप से यह एक शानदार शुरुआत है: पीएम @narendramodi जी

#MannKiBaat
Translate Tweet



11:04 AM - Oct 30, 2022 - Twitter for iPhone

Dr. Sanjiv Sarayan
@sanjivsarayan

Mann ki Baat | OneWeb satellites will enhance rural connectivity: PM Modi
thehindu.com/news/national/...

via NaMo App

Mann ki Baat | OneWeb satellites will enhance rural connectivity: PM Modi
THE HINDU OCTOBER 31, 2022



Describing the simultaneous placement of 36 OneWeb satellites in space a week ago as a major feat, Prime Minister Modi on Sunday said the move would strengthen digital connectivity across the whole country. In his "Mann Ki Baat" address, he said, "With the help of this, even the remotest areas will be more easily connected with the rest of the country...India has emerged as a strong player in the global commercial market."

Dr. Rameesh Pokhriyal Mishank
@DRPMNishank

आज, देश के कई हिस्सों में सूर्य उपासना का महापर्व #छठ मनाया जा रहा है। छठ का पर्व हमारे जीवन में स्वच्छता के महत्व पर भी जोर देता है। पर्व 'एक भारत-श्रेष्ठ भारत' का भी उदाहरण है: प्रधानमंत्री @narendramodi #MannKiBaat



From Narendra Modi

Dharmendra Prachan @dprachan1p
IIT Bhubaneswar द्वारा नवजात शिशुओं के लिए बनाए गए Portable Ventilator, @IITKanpur, @iitmadras द्वारा तैयार किए गए स्वदेशी 5G Testbed एवं अन्य IITs द्वारा किए जा रहे प्रयोगों की आज PM @narendramodi जी द्वारा की गयी सारहना सभी IITs को और अधिक प्रोत्साहित करेंगे। #MannKiBaat
Timeline Tweet

Yogi Adityanath @yogiadityanath
भारत के स्वदेशी 5G Test Bed को तैयार करने में विभिन्न संस्थानों के साथ @IITKanpur का योगदान भी अभिनंदनीय है।
आज आदरणीय PM श्री @narendramodi जी द्वारा @mannkiabaat में IIT, कानपुर के इस अप्रतिम योगदान का उल्लेख पूरे प्रदेश के लिए गर्व का विषय है।
आभार प्रधानमंत्री जी।
Hashtag: Tweet

12:53 PM - Oct 30, 2022 - Twitter for Android

Manohar Lal @mknhatar
प्रधानमंत्री श्री @narendramodi जी द्वारा आज #MannKiBaat में #NationalGames2022 में हरियाणा के खिलाड़ियों की प्रशंसा करने के लिए समस्त प्रदेशवासियों की ओर से उनका आभार।
इससे न केवल हमारे खिलाड़ियों के हौंसले में वृद्धि होगी बल्कि भविष्य के खिलाड़ियों को प्रेरणा भी मिलेगी।
Timeline Tweet



“
Gold Medal जीतने में सबसे आगे जो तीन टीमें रहीं, वे हैं - सर्वसेस की टीम, महाराष्ट्र और हरियाणा की टीम। इन खेलों में उह National Records और करीब-करीब 60 National Games Records भी बने। मैं पदक जीतने वाले, नए Record बनाने वाले, इस खेल प्रतियोगिता में हिस्सा लेने वाले, सभी खिलाड़ियों को, बहुत-बहुत बधाई देता हूँ।
12:37 PM - Oct 30, 2022 - Twitter Web App

Dr Jitendra Singh @DrJitendraSingh
“भारत में पहले space sector, सरकारी व्यवस्थाओं के दायरे में ही सिमटा हुआ था। जब ये space sector भारत के युवाओं के लिए, भारत के private sector के लिए, खोल दिया गया तब से इसमें क्रांतिकारी परिवर्तन आने लगें हैं।”
- पीएम श्री @narendramodi.
#MannKiBaat
Timeline Tweet



PM Narendra Modi in #MannKiBaat, October 2022

Dr. S. Jalshankar @S.Jalshankar
October's #MannKiBaat on the auspicious day of Chhath Puja was a must listen. PM @narendramodi spoke on a diverse set of issues, including solar energy, space, demographic power, environmental consciousness, national games and upcoming festivals.
12:44 PM - Oct 30, 2022 - Twitter for iPhone

Shivraj Singh Chouhan @ChouhanShivraj
माननीय प्रधानमंत्री श्री @narendramodi जी, भगवान बिरसा मुंडा की पवित्र रज से धन्य मध्यप्रदेश में हम सभी जनजातीय गौरव दिवस धूमधाम से मनायेंगे।
प्रधानमंत्री जी जनजातीय गौरव दिवस के आपके निर्णय के लिए मध्यप्रदेश सदैव आपका ऋणी और आभारी रहेगा। #MannKiBaat
Timeline Tweet

Narendra Modi @narendramodi - Oct 30
Bhagwan Birsa Munda taught us how to live in harmony with our surroundings and be proud of our culture. Inspired by him, we are working to fulfill his dreams and to empower our tribal communities. #MannKiBaat



1:05 PM - Oct 30, 2022 - Twitter for Android

India becomes one of biggest country to generate electricity from solar energy: Modi

New Delhi (UNI)
Prime Minister Narendra Modi on Sunday said India has become one of the biggest countries to generate electricity from solar energy and the whole world is looking at solar energy as the future.
“Today, India is combining its traditional experiences with modern science, that is why, we have become one of the largest countries to generate electricity from solar energy,” Prime Minister said, while addressing the 9th edition of Mann Ki Baat programme on All India Radio.
He stressed that, “India is combining her traditional experiences with modern science in this field and further stated that solar energy is changing the lives of the poor and middle class of the country is also a subject of study.”
Modi said the Sun has not only been worshipped for centuries in India, but has also been the focus of the way of life of the people.
He cited the example of Thiru K. Ezilion of Tamil Nadu, who is a farmer. Mr Ezilion took the benefit of “Kusum Yojana” and installed a solar pump set of ten horsepower in his farm. “Now, they do not have to spend money on electricity for their farm. They are not even dependent on the government's electricity supply for irrigation in the field any more” he stated.
PM Modi said solar energy has demonstrated that people can be paid for producing electricity instead of paying for using electricity.
Speaking about the country's first Solar Village - Modhera of Gujarat, Prime Minister said most houses in Modhera ‘Surya Gram’ have started generating electricity from solar power. The Prime Minister said people of many villages of the country are now writing to him stating that their village should also be converted into Surya Gram.
“The day is not far when the construction of Surya Grams in India will become a big mass movement” he added. The Prime Minister said Modhera should be an aspiration for the whole country and this experience can be replicated across the country.

Chhath shows vitality of sun, nature, says PM
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सूर्यपूजा का निरमात्र घटेगा लैक अंदोलन : मेदी

पूषण मंडरती नै किरा सुसुरती उरुस। पैसे बघाउटे दे नल-नल आभरती वी वषाऐगी

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IIT-Hyd gets PM's pat for med gadget

Hyderabad: A new medical product developed at IIT Hyderabad was mentioned by Prime Minister Narendra Modi in his 'Mann Ki Baat' on Sunday.
Modi spoke about nialzo 300, which was developed by an IIT Hyderabad team, to treat jaundice, ranging from mild to severe conditions. In new-born babies. The product was also displayed at Innovent/Tiv an R&D fair at IIT Delhi.
“The Hon'ble @PMIndia Prime Minister, Shri @narendramodi, appreciates all IITs R&D Fair @InnoventIIT organised at @IITDelhi on 14-15, 2022. During the R&D fair, more than 75 promising innovations were demonstrated by the 23 IITs. @IITHyderabad cheers the gesture,” read a tweet by IIT Hyderabad. nse

अंतरिक्ष में भारत की सफलता से दुनिया दंग

यू की ऊर्जा से बिजली मिल बचा रहे
भारत की अंतरिक्ष सफलता से दुनिया दंग
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THE TIMES OF INDIA

Once denied cryogenic tech, India now launching dozens of satellites with this tech: Modi



PM Modi's praise for Bengaluru's Suresh Kumar for contribution to environment



Maan Ki Baat: PM Modi highlights India's 1st bio-village project, Tripura CM says THIS



Mann Ki Baat | Chhath Festival is example of 'Ek Bharat, Shrestha Bharat': PM Modi



Odia woman gets PM Modi's praise for making solar energy medium of employment



PM Modi Mann Ki Baat: छठ पर्व, सोलर एनर्जी और स्पेस सेक्टर... 'मन की बात' में क्या कुछ बोले पीएम मोदी, देखें पूरा संबोधन



अंतरिक्ष में भारत की सफलता से दुनिया हैरान : मोदी



PM Modi ने 'मन की बात' में सौर ऊर्जा, स्पेस सेक्टर सहित कई मुद्दों पर की चर्चा, जानें 10 बड़ी बातें



'सबके प्रयासों से ही हासिल किया जा सकता है विकसित भारत का लक्ष्य', मन की बात में बोले PM मोदी



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'Mann ki Baat',
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