

# Swadeshi

## PATRIKA

OCTOBER 2023



**Preparing for  
Industrial Revolution 4.0**

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# Swadeshi Activities

## Swavlambi Bharat Abhiyan

### Entrepreneurship Encouragement Conferences

(उद्यमिता प्रोत्साहन सम्मेलन)

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Nayagarh, Odisha



Muzaffarpur, Bihar



Murshidabad, West Bengal



Baghpat, U.P.



Rourkela, Odisha



Uttarakhand



Lucknow, UP

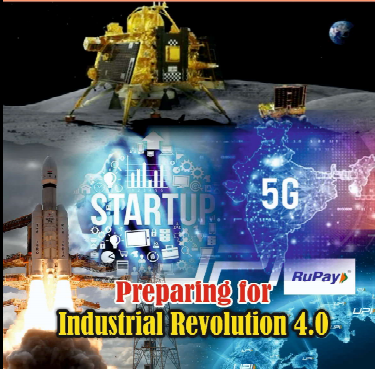


Saharanpur, UP

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**STARTUP 5G**  
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## Nari Shakti Vandan Adhiniyam

*Over the years, the Women's Reservation Bill has been introduced in Parliament multiple times but has not been passed into law. It has been delayed several times due to political disagreements and resistance. Finally, on September 18, 2023, the Indian Parliament passed the landmark bill Nari Shakti Vandan Adhiniyam or Women's Reservation Bill 2023. In this bill, one-third of the seats in Lok Sabha, State legislative assemblies and the Delhi assembly are reserved for women. It also reserves one-third of seats for women within the existing SC and ST reservations. The demand for OBC reservation within this bill is not constitutionally valid as our constitution provides for the reservation of seats for only SC and ST, the marginalized and weaker section of society. The reservation would be implemented after the first delimitation which is currently on hold until 2026.*

*The main aim of this bill is to increase the political participation of women at all levels of government. Increased representation of women in legislatures will ensure that women's voices are heard on critical issues, including those related to women's rights, education, health, and safety. It will lead to making such policies and legislation that address gender-based discrimination and violence. It will help address gender disparities in political representation and empower women to actively participate in policy formulation and decision-making. This women's reservation should be part of a broader strategy that addresses cultural norms, education, economic empowerment, and social change to create a more inclusive and equitable society.*

— Kumar Gaurav, Samastipur, Bihar

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## Quote-Unquote



**In our country, there is a tradition of giving maximum respect to the writers and saints from the rulers. It is because of the emphasis on spirituality that we have completely considered humanity as one family and have shown the path of 'Vasudhaiva Kutumbakam' to everyone. Not only are there colorful flowers in the valley of Kashmir, this valley is also a spiritual flower.**

Droupadi Murmu, President, Bharat



**The Nari Shakti Vandan Adhiniyam is a historic legislation which will further boost women empowerment and will enable even greater participation of women in our political process.**

Narendra Modi, Prime Minister, Bharat



**Dr Swaminathan was a scientist, who could distinguish between a good and a bad science. Since late 1990s and early 2000, a group of scientists, called GM scientists had been pleading for introduction of Genetically Modified Organism (GMO). But Swaminathan refused to accept these GM seeds, unless it's proved beyond doubt that these seeds are not harmful for health and environment.**

Dr. Ashwani Mahajan, National Co-convenor, SJM



## Unfortunate craze of studying abroad

For the past few years, the craze for people from India to go abroad to take admission in foreign colleges and settle there has been on increase. According to the government, between 2016 and 2021, 26.44 lakh Indian students went abroad to study. The Associated Chambers of Commerce and Industry of India (ASSOCHAM) estimates show that in the year 2020, 4.5 lakh Indian students went abroad for education and they spent \$ 13.5 billion in this process. In the year 2022, this expenditure was 24 billion dollars that is, about 2 lakh crore rupees. According to the report of Redseer Strategy Consultant, by 2024 this expenditure may reach US\$ 80 billion, that is, 7 lakh crore rupees, when an estimated 20 lakh Indian students will go abroad to study. Union Minister B. Muraleedharan informed the Lok Sabha on 25 March 2022 that currently 13 lakh Indian students are studying abroad. This number is continuously increasing. According to this statement of the government, in the year 2021, 4.44 lakh students went to study abroad. According to another statement from the government, as of November 30, 2022, the number of students who went abroad to study, was 6.46 lakh, that is, an increase of 45 percent.

If we make a state-wise analysis, till the year 2021, among the students going to study abroad, 12 percent were from Punjab and Andhra Pradesh each; and 8 percent were from Gujarat. If seen in proportion to the total number of youth, then 7 out of every thousand youth from Punjab, 4 out of every thousand youth from Andhra Pradesh and at least 2 out of every thousand youth from Gujarat are going to study abroad every year. If we take the cumulative numbers from 2016 to 2022, the situation looks quite alarming. This number is 50 per thousand in Punjab, 30 per thousand in Andhra Pradesh and 14 per thousand in Gujarat.

The exponential increase in the number of students going abroad to study is a matter of concern for many reasons. The biggest concern is that these youth are migrating to foreign countries in search of education and employment and this migration is causing a shortage of labor force for the economic activities in the country.

Apart from this, the country's valuable foreign currency is also going abroad. It is observed that parents of these youth going abroad for studies, are selling their assets to meet the demands of foreign universities and other incidental expenditures. There was a time when a huge sum of foreign exchange remittances used to come to the villages of Punjab and other states from abroad from Indians working abroad. However, due to this craze of studying abroad, this process has been reversed, that is, instead of money coming from abroad, money is being sent abroad on a huge scale. In such a situation, when by the year 2024 the number of students going to study abroad will reach 20 lakh and the amount spent by them will reach 80 billion dollars, then situation may turn highly grim and precarious.

It is noteworthy that migration of youth to foreign countries for education is not due to lack of education facilities in the country. In fact, there has been huge progress in the field of education in the country in the last two-three decades. If we look at the admission of students in higher education, then in 1990-91, only 49.2 lakh students took admission in higher educational institutions; but this number reached 414 lakh in the year 2020-21. Broadly speaking, the number of students taking admission in higher education has increased more than 10 times in the last 30 years. If we talk about higher education institutions, we see that in the year 2021, there were 1113 universities and equivalent institutions, 43796 colleges and 11296 standalone educational institutions in the country. In the same year, 15.51 lakh teachers were working in institutions of higher education in the country.

As far as fee for admission into educational institutions is concerned, in most of the Indian educational institutions it's much lower than the fees in foreign institutions and most of the foreign institutions in which Indian youth are taking admission are of very low standard.

As individual young students are moving towards foreign countries after being influenced by the success stories of Indians going abroad in the past. But they are not able to realise that today in Canada, Australia and European countries, where they are taking admission in educational institutions, those educational institutions are giving easy admission to Indian students in their institutions, for profit. Not only this, many teaching shops, which have nothing to do with genuine education, are also operational there and are charging huge fees from the students keen to take admission, who are otherwise not eligible to get admission in good institutions. The government needs to make efforts to save the ignorant youth of the country, who are being cheated or misguided in the name of education in foreign countries. The enlightened citizens also need to come forward for this.

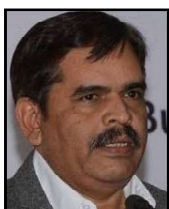
# Preparing for Industrial Revolution 4.0

On 23rd August 2023 India created history by successful landing of Chandrayan-3 on South pole of moon, making India to be fourth nation in the world to have successfully landing at moon and first country for landing on the south pole of the moon. This is neither the first nor the last achievement of India's space program. But the most important forte of India's space programme is that it is efficient and cost effective. For instance whereas other countries have been spending hugely on their moon missions, the Chandrayaan expedition has cost merely Rs 615 crore only. In the past India has made major strides in the field of space.

In 1993, India launched the Polar Satellite Launch Vehicle (PSLV) for the first time. Though it was launched to place India's remote sensing satellites in sun-synchronous orbit, it has launched 58 flights till date, of which 55 were completely successful, one partially successful and two unsuccessful. The cost of each launch varies between Rs 130 crore and Rs 200 crore depending on its carrying capacity. But by launching the satellite of our country and other countries, the revenue made by ISRO is much more than that. It's notable that PSLV's 37th flight had created a history by putting 104 satellites in the space simultaneously in the most cost effective manner.

No doubt the success in the space program speaks tons about India's capabilities in space technology. The very fact that the most developed countries of the world also launches their satellite with the help of Indian Space Research Organisation (ISRO), because of the economy with which ISRO is able to perform the task. But apart from transporting satellites from most developed countries, ISRO has been able to demonstrate its superiority in successfully performing the most difficult space expeditions with unbelievable economy.

There is yet another technological achievement of India, which has caught attention of the world, namely, Unified Payment Interface (UPI). Significantly, in the year 2022, a total of Rs 149.5 lakh crore worth of online transactions took



*There are also some people who feel that India should concentrate only on services; and should not board on manufacturing bus. But a country with vast resources and skill sets, this is no wise suggestion. We can be excel in all fields.*

**Dr. Ashwani Mahajan**





place in the country. In these payments worth Rs 126 lakh crore were done only through UPI. A total of about 88 billion online transactions were recorded in the country last year. In the number of August 2023, online transactions have crossed 10 billion mark. According to a report by Price Waterhouse Cooper, the number of online payments could reach one billion per day by 2026-27. More importantly, India accounts for more than 40 percent of all online transactions in the world.

It is notable that payments made through UPI are almost free. None of the service provider can make a charge for facilitating payment. Recently, the government has introduced the charge on UPI transaction of more than Rs. 2000 to a wallet; however, there is no charge on any amount of transaction through UPI made to a bank account. There is no parallel of UPI in the whole world. Prior to introduction of UPI, online transactions for all payments used to be through credit and debit cards. Prior to 2014 all credit and debit cards used to be of two international giants Visa and Mastercard. Transactions through these cards were subject to a sizable commission, which ranged between 1 percent to 2.5 percent. At that time online transaction were very limited, even than huge amount of foreign exchange used to go abroad. Introduction of UPI and Rupay card generally replacing Visa and Mastercard has not only reduced the business of these international giants, but has also saved the country from outgo of valuable foreign exchange, apart from facilitating huge number of online transactions. A new feature has been

added to UPI, called UPI International, for use of UPI by international payers. Due to which payment can be made from Indian Bank accounts to foreign banks, with the help of QR code. UPI payments were already possible in Bhutan, Nepal, Singapore, UAE and Mauritius, and now France has joined the list.

If we talk about the economy of online transaction through UPI we come to know that budget provisions of hardly Rs 1500 crore has been made for the digital payments industry for 2023-24 under the expenditure budget of the Ministry of Electronics and Information Technology (Meity). Looking at the quantum of transactions, this is hardly 0.0001 percent of the same. This number speaks loud about the cost effectiveness of our indigenous payment system and it's underneath technology.

### Preparing for Industrial Revolution 4.0

We are living in the era of Industrial Revolution 4.0. It is a matter of misfortune that India missed the bus in first three industrial revolutions. In Industrial Revolution 1.0, production was mechanized with water and steam; we missed it due to alien rule. The Second Industrial Revolution which introduced the use of electric powered mechanisation didn't achieve much success in India due to predominance of public sector, with no incentives for innovations. Other reasons were the lack of substantial growth in power generation in the country and the lack of agricultural research and development. Third industrial Revolution of information technology and electronics, we missed this because when the use of electronics and

information technology was booming and China was becoming the manufacturing hub for these products, in the world, the lack of innovation and the indifferent attitude of the government hindered the production of IT related products in the country. However, software companies developed in a big way in the country and they were developing and servicing software, both for domestic as well as for international markets.

Today is the time of Industrial Revolution 4.0, which is associated with rapid technological development. It has artificial intelligence, drones, robotics, gene editing and through all kinds of smart technology, production is conducted on a large scale through machine-to-machine communication and Internet of Things. It has to be understood that even though India had lagged behind in the first three industrial revolutions, India has the promise for emerging as a major player in the world in the fourth industrial revolution. Our youth, software engineers, digital experts, engineers, experts in various fields; all are engaged in the effort that India is positioned in the first row in the world in Industrial Revolution 4.0. India has showcased its talent to the fullest in space and payments infrastructure. The youth of India is doing remarkable and commendable work in many fields, including robotics, drones, digitalization in medicine. Nearly one lakh start-ups with new ideas are engaged in the development and innovation of various technologies. Our experience so far shows that we can easily excel in Industrial Revolution 4.0 with our new ideas, intelligence and skills of Indian youth.

[Continued on page no. 23]

# The Truth of the False Debate

The most actively suppressed truth in the debate on Sanatana Dharma is that it is the very soul of the ancient Tamil people. How has this suppression happened? The anti-SD rhetoric rooted in the anti-Brahmin politics of Tamil Nadu in the last century has systematically concealed the umbilical cord between SD and Tamil people. This politics began with the Justice Party that was promoted by the British as part of their divide and rule policy.

Founded in 1916, with anti-Brahminism as its core, the party rose to power in 1920, then collapsed in the late 1930s, with the rise of the nationalist Congress. But the seeds of anti-Brahminism sown by it among the castes next to Brahmins in the Hindu hierarchy, continued to provide the emotional and intellectual leadership for the rising anti-Brahmin socio-politics.

The final outcome of this phase was the Dravidar Kazhagam formed by EV Ramaswami Naicker (EVR) in 1946, adding anti-nationalism to anti-Brahminism. The socio-political Dravidar Kazhagam mutated into a fully political DMK in 1949. While the electoral participation of DMK eroded the anti-national thrust, anti-Brahminism remained its DNA. That is what repeatedly manifests in its anti-Hindu, anti-SD rhetoric.

But DMK has an embarrassing truth to hide, which is that Tamil culture is inseparable from SD. The person who discovered this disturbing truth first and had the courage to speak it out was none other than EVR, DMK's ideological mentor.

DMK glorifies Tamil Nadu as "Periyar Mann" (EVR's soil). EVR flayed Tamil language, literature and people as barbaric and Tamil scholars as worthless. He shredded the earliest Tamil literature Tolkappiyam - without which there is no Tamil grammar or norms of social and cultural life for Tamils-as the work of an Aryan stooge. That is, a Brahmin.



*Sanatan Dharma and Tamil identity are twined at the core. Great texts Tolkappiyam, Tirukkural and Silapathikaram testify to this. DMK itself is well versed in this history and fact.*  
**S. Gurumurthy**





Why? First, the Tolkappiyam introduction says that its author Tolkappiyar got the text approved by a master of four vedas, Athankottu Aasan (the teacher in Athankottu village). Next, Tolkappiyam defines Tamil society as a four-fold varna hierarchy of Arasar (Kshatriya), Andanar (Brahmin), Vaisiyar (Vaishya) and Vellar (Sudra), while listing the rights, privileges and dress code of each. ‘Marabiyal’ that classifies this four-fold social order, means ‘genetics’. Implication: the four-fold social order is by birth. This explains why EVR trashed Tolkappiyar.

EVR also abused the Tirukkural authored by Tiruvalluvar a film about this and his who is glorified by DMK, as ‘human shit kept in a golden plate’. Because Tiruvalluvar celebrated Brahmins’ kula dharma, their learning and teaching of vedas.

This is not all. An ancient Tamil literature that Stalin’s father Karunanidhi held in high regard was Silapathikaram, authored by a Jain monk. In its climax, its heroine Kannagi tore one of her breasts, generated fire out of it and burnt Madurai city to avenge the unjust capital punishment meted out to her husband by the Pandyan king. Asking whether Kannagi hid phosphorus in her breast to stoke the fire, EVR trashed Silapathikaram too. Because Kannagi ordered the fire to destroy everything other than “Brahmins, Children, Women and Cows”.

But Karunanidhi glorified Kannagi by writing her story and turning it into a film. If Varnashrama inheres in SD, it is integral to Tamil culture too. If Manu’s Varnashrama promoted caste, Tolkappiyar did so equally. If vedas are

***“Hindu faith is also known as Sanatana Dharma, Vedic faith and Vaidika faith. Sanatana Dharma means eternal and indestructible values. Varnashrama Dharma is based on work division and there is no hierarchy in it.”***

the origin of SD, Tirukkural celebrated vedas. If SD valued Brahmins, Tolkappiyam to Tirukkural to Silapathikaram too valued them! That is why EVR wanted all of them banished.

Tolkappiyam, Tirukkural, Silapathikaram all testified that SD was at the core of Tamil life. Yet, DMK pretends as if SD was imported into Tamil land, when it looks more like it has been exported from Tamil soil. The greatest acharyas of SD - Adi Sankaracharya, Ramanujacharya, Madhwacharya – were born in Dravidian land, the first two on Tamil soil when it included Kerala.

Sankara expounded the Advaita that transcended all differences among humans and regarded the entire universe – animate and inanimate – as one and indivisible. When Sankara once asked an outcaste to move away, the latter revealed himself as Lord Shiva, and reminded Sankara of his own Advaita. Sankara then touched the person’s feet and composed his Manisha Panchakam, which says that Brahmins and outcastes are equals. Are the illiterates in DMK unaware of this?

Ramanujacharya, who expounded Visishtadvaita, revolted against his own Guru and publicly shared the mantra diksha given to him confidentially, with all castes. He rejected caste distinctions. In the autumn of his life Karunanidhi wrote Ramanuja’s life history praising him as beyond caste differences, made a film about this and his own KTV telecast it! Are DMK leaders, his own son and grandson, aware of this?

The link between Tamil culture and SD is a millennial continuity. The great Tamil Siddha Tirumoolar, whose time period some say even predates Sankara, expounded Advaita by saying that the formless Brahman hid behind the external form. The 19th century saint Vallalar explained Advaita saying that idol worship is the first step to realise the formless Brahman. DMK rejects Advaita but respects both Tirumoolar and Vallalar!

As the debate sharpens, owning Tamil culture and rejecting SD will endlessly embarrass DMK. More because ritualistic SD has so deeply penetrated the ruling DMK family that it openly conducts Shatru Samhara Yagnas to overcome political enmities.

*To close:* “Hindu faith is also known as Sanatana Dharma, Vedic faith and Vaidika faith. Sanatana Dharma means eternal and indestructible values. Varnashrama Dharma is based on work division and there is no hierarchy in it.” This is what is said in a Class 12 textbook on Indian Culture, revised and published in 2022 by the present DMK government itself! CM Stalin’s son and his ministers who abuse SD should be given free copies of this school book. □□

The writer is editor of Tamil magazine, Thuglak  
(Source: Times of India 29 September 2023)

## G20 : Indo-US trade swells, Ukraine gets big aid, Russia curbs

The G20 is a mega show or has it benefited India? It is rocking the country amid showcasing it as grand success. The success it was in terms of Indian diplomacy carving out a delicate consensus on the war in Ukraine than against.

India possibly has succeeded beyond that. Ukrainian President Volodymyr Zelenskyy is visiting Washington, during the UN General Assembly as the US Congress debates \$ 24 billion in military and humanitarian aid for his country as it continues to fight against Russia. Republicans are against.

It follows a bilateral agreement with US President Joe Biden in New Delhi. In a joint statement, the two leaders reiterated their support for building resilient global semiconductor supply chains, noting in this respect a multi-year initiative of Microchip Technology Inc., to invest approximately \$300 million in expanding its research and development presence in India and Advanced Micro Device's announcement to invest \$400 million in India over the next five years to expand research, development, and engineering operations in India.

The leaders expressed satisfaction at the ongoing implementation of announcements made in June 2023 by U.S. companies, Micron, LAM Research, and Applied Materials. President Biden reaffirmed his support for a reformed UN Security Council with India as a permanent member, and, in this context, welcomed once again India's candidature for the UNSC non-permanent seat in 2028-29.

The two moves look different but they are not. The consensus communique facilitates enhanced aid despite the opposition from the opposition Republicans. India gains, the US gains and Russia despite not so happy finds little to oppose an Indian move that balances the two powers that are poles apart.

It opens up further ways for Indo-US trade. The US has surpassed China in trade relationships with India. In 2023, India and the US surpass record value of \$ 128.78 billion. In 2022, the total bilateral trade between the two countries amounted to \$ 119.42 billion. Almost half of it are Indian exports. It changes the global scenario



*This suggests that with high debt and even G20 push, policy makers do not have the comfort of being complacent. They have to chart out the path for rapid growth.*

**Shivaji Sarkar**





to quote UN Secretary General Antonio Guterres, “It is time for compromise for a better tomorrow. If we want a future of peace and prosperity based on equity and solidarity, leaders have a special responsibility to achieve compromise in designing our common future for our common good”.

Guterres goes beyond, “I remain determined to do everything possible, to re-establish the Black Sea Initiative, the exports of Ukraine foodstuffs and also to go on, on our work in relation to the facilitation within the sanctions regime of the Russian foods and fertilizer products”.

Meanwhile, the US Treasury and State departments on September 14 announced they were imposing on more than 150 individuals and entities connected with Russia’s invasion of Ukraine. “With today’s sanctions, the US is continuing our relentless work to target Russia’s military supply chains and deprive Putin of the equipment, technology, and services he needs to wage his barbaric war on Ukraine,” said Secretary of the Treasury Janet L. Yellen. “Today’s actions show our global reach in imposing severe costs on Putin’s oligarchs.”

It could not mean a new world order. Though Guterres says that G20 has a beginning on sustainable development goals (SDG) but has not exactly cut the emissions though G77 with 134 members are also meeting at Havana, Cuba. India, while claiming to have emerged as the voice of the Global South during its G20 presidency, has decided to scale down its participation at the summit of the largest alliance of developing countries by cancelling the visit of the external affairs minister S Ja-

***The US has surpassed China in trade relationships with India. In 2023, India and the US surpass record value of \$ 128.78 billion. In 2022, the total bilateral trade between the two countries amounted to \$ 119.42 billion. Almost half of it are Indian exports.***

yashankar to Cuba. The group’s importance is especially noted in the United Nations, where it is the largest bloc of countries with a rotating presidency. India had been the first president of the G-77 in New York. China is not a member of the group, but often aligns politically with the group, so official statements at various multilateral platforms are often labelled ‘G-77 plus China’. India needs to note.

Post G20, the world orders are not easing though Guterres says that is what he aims at with G77 and the “greatest G of all G193 – the High Level Week of the General Assembly”. He says a multipolar world is emerging. It can lead to escalating tensions, fragmentation and worse. Today’s multilateral institutions that were created after the World War II reflect the power and economic dynamics of that and so they need reform.

“The only thing you can be sure is that I remain determined to do everything possible, to re-establish the Black Sea Initiative, the exports of Ukraine foodstuffs and also to go on, on our work in rela-

tion to the facilitation within the sanctions regime of the Russian foods and fertilizer products”, Guterres says. But all know his powers are compromised and he would not be able to much.

In such a scenario, India has also to reassert itself and continue to have the balance between the US and Russia. Something, French President Macron told newsmen in New Delhi is not to his liking. He wants to see Russia function. Though Rəcəp Tayyip Erdoğan, President of Turkey, said that he was negotiating with Russian President Vladimir Putin and against the system of permanent representative- P5- in UN Security Council, in a question to whether he supported India’s claim to SC. Nor he approved the India-Middle East-Europe Corridor till Turkey was a part of it. Could there be a route correction?

How is India doing for its own economy? It has 7.8 percent GDP growth in the first quarter. That is not the real growth. The story told by the nominal numbers, however, is very different. The nominal figures track the real numbers until the first half of FY23, but then decline by a whopping 14 percentage points over the past three quarters. This is a narrative of an economy which has decelerated sharply to very modest levels.

The national income accounts suggests that after a strong recovery from the pandemic, there has been a significant ebbing of dynamism over the last three quarters to more modest levels recently.

This suggests that with high debt and even G20 push, policy makers do not have the comfort of being complacent. They have to chart out the path for rapid growth. □□

# Digital Economy and the Challenges for Data Protection

Digital India program was launched by Modi Government on July 1, 2015 in order to integrate and implement in a synchronised manner, the various programs and schemes of different departments in order to bring a transformative change for e-governance and for ease of doing business in the country. Initially it started with linking the Aadhar card, the Jan dhan bank account with the mobile phones under a scheme popularly known as JAM. It facilitated direct benefit transfer (DBT) to the beneficiaries bank account directly without involvement of any intermediary and has been rated very successful for PM Kishan and various other central government's schemes to the poor people in remote villages. The Central Government has created high speed Internet facility for telecom connectivity and it has resulted in more than 1.2 Billion mobile phone users in the country and over 600 million of them use smartphones. This digital India initiative has resulted into Universal Digital Literacy in the country and now there is access to digital resources for education, health, banking and insurance services apart from several other consumer related services for transport, retail trade and many others.

We are living in the era of knowledge and technology. Digital economy is growing and its total share in the global economy is estimated to be around 25% of the global economy by 2030. The brick and mortar retail business is gradually shading its share in favour of e-commerce which has increased from 7.5% in 2015 to 22% in 2023 (Please see chart).

Much of the e-commerce growth is attributable to Amazon which accounted for 37.7% of on line sales of US in 2019. China's Alibaba is also another e-commerce global player. India's core digital economy share in the Gross Value Addition (GVA) increased from 5.4% in 2014 to 8.5% in 2019 and the digitally dependent economy account for an estimated 22% of India's GDP in 2019 as per a recent study of E&Y a global consultancy group. The strong digital infra-



*The Digital Personal Data Protection Act 2023 has introduced a concept of Data Fiduciaries who process data and their obligations towards the person to whom the data relates.*  
**Dr. Dhanpat Ram Agarwal**





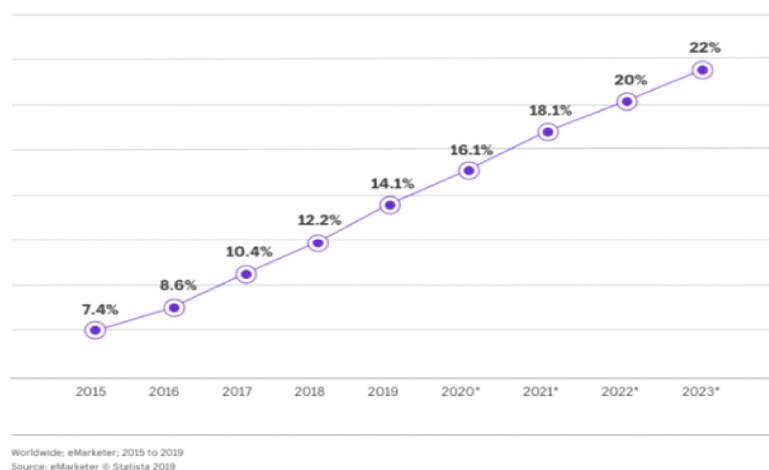
structure created by Government of India, coupled with wide-scale adoption of Unified Payment Interface (UPI) or digital payment. India has topped the list for digital payments and recorded 89.5 million transactions in 2022 according to a report as published in Times of India on June 12, 2023. Brazil is second on the list accounting for 29.3 million and followed by China with 17.6 million transactions. According to the data provided by MyGovIndia, the citizen engagement platform of Government of India, 46% of all real-time payments made worldwide in 2022 were made in India which is highest in the world.

However the Retail Traders are facing a challenge with many retail shops closing down as online platform such as Amazon and Flipcart are charging huge commission from retailers. Government of India has acted promptly and has created a wholly national platform ONDC, Online Network for Digital Commerce which can cater to the needs of online business by all the different agencies providing network for sellers, buyers, logistics, payment gateways under one umbrella. It works like the Airport Authorities of India which is open for use by all the airlines and support services without any discrimination to foreign or domestic service providers. There is a need for awareness about ONDC which is a section 8 company, an autonomous body with no profit objectives.

NPCI or The National Payments Corporation of India is the key organisation set up by Reserve Bank of India as a section 8 company to enable e-payment under the umbrella of UPI.

Thus, UPI, Aadhar, ONDC and the Robust Internet infrastruc-

### Ecommerce share of total global retail sales from 2015 to 2023



ture for mobile phones are the most important elements of e-connectivity for creating Digital India for the financial inclusion and for improving the digital economy in India. The digital currency would be the next step which is now under trial with limited wholesale interface limited with select banks. The Digital Rupee was proposed in January 2017 and launched on 1 December 2022 and is symbolised as eINR.

In order to regulate the digital economy and the digital transactions and in order to protect the data from cyber piracy, Government of India has replaced the old Information Technology Act 2000 by Digital India Act 2023 and has also enacted a new law for personal data protection which is Digital Personal Data Protection Act 2023. The objective of the newly enacted Digital India Act is to remove the limitations of 23 years old Information Technology Act 2000 as the information technology has moved to a much higher level of 5G, artificial intelligence including Internet of things or IOTs, cloud computing, meta verse, blockchain and cryptocurrencies.

The Digital Personal Data Protection Act 2023 has introduced a concept of Data Fiduciaries who process data and their obligations towards the person to whom the data relates. It is based on seven basic principles of lawful and transparent use of personal data, limiting the use of the data only for the purposes specified while collecting the same, to ensure accuracy and to store the data only for limited period and thereafter for its deletion and ensuring security safeguards on the principles of accountability.

In conclusion it can be said that the present Government is fully aware about the importance of digital economy and the opportunity available to Indian Startup's for the potential growth as have been achieved by Google, Facebook, Amazon and several other Digital based top companies around the world and at the same time there is a need for data protection as the data are most valuable currency for success in any business and for achieving any social or economic goal. □□

*Dr. Dhanpat Ram Agarwal: Director, Swadeshi Research Institute and National Co-Convenor, SJM.*

## Pension Reforms Reversal?

In a recent RBI study it is estimated that if the old pension scheme (OPS) is brought back throughout India, the cumulative fiscal burden on the governments would be 4.5 times the outgo towards the existing National Pension System (NPS), thereby severely compromising the government finances which mostly remain in precarious state. It may be noted that in recent times five states - Rajasthan, Chhattisgarh, Jharkhand, Punjab and Himachal Pradesh. (Incidentally none of them is BJP ruled) – announced their decisions to revert to OPS for government staff. Maharashtra has indicated a reexamination of the old scheme.

This reversal to OPS has prompted the centre to set up a committee to look into the ways of making the NPS attractive enough and yet not saddle the exchequer with an unfunded liability. Short term reduction in states' pension outgo (since there will be no NPS payments done every month) perhaps could be the immediate provocation for going back to OPS; but such reversion to OPS by governments would be fiscally unsustainable. Worldwide most countries are moving from defined benefit to 'defined contribution' plans. Reverting to OPS then will compromise the interest of future generations. By 2050, pension outgo under OPS is projected to touch over Rs. 17 lakh crore as against Rs. 4 lakh crore under NPS. The burden under OPS by 2060 would be nearly 1% of GDP. Infact, states pension expenditure account for around 38% of their committed expenditure.

In a large and diverse country like India, especially with limited social security measures, the government finds it difficult to push economic reforms which invariably have a short term cost but long term benefits. Pension reforms is one such. Due to improved standards of living and availability of quality medical for a larger time, and therefore a pressure on precarious government finances. More the government has to commit its funds for this item of revenue expenditure, less



*India can ill afford a reversion to the old pension system; instead the NPS has to be made more attractive for employees.*

**KK Srivastava**



shall be available for investment in building capital assets like social and economic infrastructure (roads, schools, hospitals ...).

Not only that many countries are moving away from defined benefits arrangements to defined contribution pension plans, they are taking other steps to reduce the fiscal burden entailed under the former. These include reducing pension benefits, increasing retirement age, and raising contribution rates to reduce the burden on the exchequer. In India, the expenditure on pension has increased from 0.6% of GDP during 1990s to nearly treble at 1.7% of GDP in 2022-23. This leads on one hand to slipping on fiscal balance and on the other skimping on projects essential for growth and development.

As said above defined pension is paid from the current revenue of the government. Notably, the pace of increase in pension liabilities is more brisk than the revenue growth. This obviously cannot be sustained in the long run. That is exactly why countries like US, UK, Australia, Sweden and Japan have been putting more onus on the beneficiary to provide for his own retirement safety net. It may be noted that this also gives the retiree more control over his post retirement assets. However, it is also true that in OPS the individual bears no investment risk (as he does under NPS), is not exposed to market fluctuations. Moreover, he is entitled to a stable income – thereby enjoying financial stability – in his sunset years. But, on the flip side, such gains are coming to only the OPS beneficiaries, and at the expense of resources being moved from the overall growth

and development in the economy. The RBI study says that the yearly contribution of states to the retirement corpus under the NPS is likely to increase from 0.1% of GDP to 0.2% by 2039. But it will start declining after that. On the other hand if the states opt for OPS-and drop NPS – the immediate contribution will drop to zero, but in future the outgo on pension account will prove more expensive.

There is also the argument that electoral politics is forcing the hands of the state governments since employees (read voters) prefer defined benefits (which are assured, and contrasted with NPS, at least presently are higher under OPS). There is thus the real risk that more state governments may revert to OPS under political and electoral pressure. Normatively, the states should resist opting for short term fiscal and political gains, for all such gains are likely to be eclipsed by long term costs. Thus, according to the above quoted RBI study, if all states embrace OPS, then the additional outgo would be on a par with what it would have been under the NPS by as early as mid - 2030s, and eventually exceed it by 2040. But thereafter, the additional burden will increase rapidly, reaching around 0.9% of GDP annually by the early 2060s, as we had said earlier too.

Though government employees are just over 5% of Indian workforce - and their share is shrinking - they wield disproportionate influence due to the fact that they are organised and because they are very close to decision making. No political dispensation would like to put them in ill humour or would dare lose their confidence. So what can be done?

Well, due to strident criticism - and increasing demand for restoration of OPS - from the post 2004 government appointed employees the government appointed committee is now exploring ways to bring NPS benefits as close to OPS. This is partly due to electoral considerations (Himachal defeat of BJP) and partly because the private sector is now on the uptake as regards NPS. Is a hybrid scheme - combination of defined benefits and defined contribution - in the offing? Well, we will have to wait for a definitive response.

The government also needs to educate the general electorate that it is not that only OPS is pro worker. Definitely it is pro-pension beneficiaries, but overall it may not be pro-people, particularly for informal sector which does not enjoy any such benefits, but is deprived of funds that could have been spared - sans the new OPS burden - for overall economic growth; the latter ofcourse benefits the society at large and not merely only a privileged section. Over 80% of India's workforce is in informal sector; it does not enjoy any employment benefits, leave alone old-age income security.

OPS cost - actual and potential (that is if OPS is reintroduced all around) - is indeed huge for the state. Notwithstanding the short to medium term possibility of erosion of value of assets supporting the contribution based retirement system, it is not to deny or negate the long term economic rationale for funded, market linked pension systems. Pension reforms cannot be undone; what is needed is to evolve a more acceptable system that takes adequate care of retirees in future. □□



# Women 'Empowerment' Bill

This month (September 2023) both the houses of parliament passed the 128<sup>th</sup> constitutional Amendment Bill to provide for reservation of 33 percent seats in the Lok Sabha and State Assemblies for women. But this will come into effect only after the delimitation exercise is completed; this means the reservation will not come into effect at least until 2029 polls. Once in force, it will remain in effect for 15 years, though the Parliament can extend its life.

The 1971-74 committees on the status of women seeded the idea of such reservation. Many states started to reserve seats for women in local bodies. Then Margaret Alva Committee recommended in 1988 that seats be reserved for women in elected bodies. The Narsimha Rao government amended the constitution (1992) to reserve a 33 percent seats in panchayati raj institutions. It was the Deve Gowda government that, for the first time, proposed that a third of the Lok Sabha and State Assembly seats be reserved for women.

Later, Gujral government, Vajpayee government (in both its avatars), and the UPA government tried to pass the bill; however, in face of stiff resistance, the bill could not be passed. Many male politicians have opposed it since its early days. It was suggested that the bill would merely benefit urban educated women from the better off sections rather than the more deserving rural poor women who actually needed empowerment through such reservation. Notwithstanding, it has been passed in a special session of the Parliament, the bill being sweeping in scope.

As said earlier, the bill will come into effect after the delimitation exercise is complete, which, in turn, is contingent on the completion of the census. But this delay may actually work to the advantage of the subjects of the bill since this will provide the government with enough time to carve out the rules and regulations with utmost care.



*While passing of Women Reservation Bill is laudable, the focus should be on women empowerment, the bill acting as a tool.*

**Dr. Jaya Kakkar**



In recent past (expanding) affirmative action has actually been used by the political masters of all hues as an instrument of self interested political mobilization. Well, there is a real danger that the latest reservation may also lead to similar – unintended or intended – outcome; this can be avoided only if the objective of women's socio-economic upliftment is pursued with fulvigour – which is the main purpose behind any affirmative action. Otherwise, it will degenerate into reservation clauses for SC/ST class, these are provided a fresh breath of life every now and then but the class having enjoyed little tangible benefits.

Thus, while the support to the bill is near unanimous, the government has to ensure that it is not a cosmetic exercise to show India's ranking on global indices in better light. Nor, for that matter, should it be used as a vote catching move. The real aim behind passing the act is to ensure that through this reservation the law makers, executive, and the society at large generate enabling environment in which women gain access to a better and more fulfilling life through access to education, employment, health and nutrition. This will ensure that the 'other half' of India's population realizes its full potential and contributes its might in making India a better place to live, including for women.

When women will gather power, such transformation should be possible, although the task may remain daunting. In 2013 the women parliamentarians had cut across party lines and ensured the passage of a more stringent rape and workplace harassment laws. At the same time the disconcerting fact is

that the numbers of women legislators are poor. While the percentage share of women MPs in Lok Sabha has gone up from 8 percent in 2014 to 15 percent in 2019 it is much shorter than 33 percent. More importantly there lies a bigger challenger in states and union territories. No state matches the national average. Surprisingly, in the matrilineal societies (Northeast, Kerala) the percentage ranges from zero to nine. Infact India's parliament has the least gender diversity among key emerging market economies (though many of the country's local bodies boast better women representation). Only 15 percent of the Lok Sabha and 14 percent of the Rajya Sabha members are women. In comparison, women account for about 45 percent of the lower house in South Africa, and 27 percent in China's single house.

On the flip side, however, there are large number of women in local governance. Thus the lowest number (31.0%) is far Ladakh, and highest (56.0%) for Uttarakhand. This is largely due to implementation of such reservation for women having come into effect a long time ago. Between 2004 and 2019 the share of women in Lok Sabha has gone up from 8% to 15%. Long way to go thus.

A word of caution here. While such constitutional provisions help, these have limited effect in generating positive gender dynamics. Remember while India had marched ahead of even many advanced nations to gift voting rights to eligible Indian women, this has still not translated into sufficient women emancipation; the challenge to empower them politically and economically remains

formidable. The Indian women have the dubious distinction of lowest female labour force participation rate (at 24.0%, contrasted with 62% for Australia) in G20. Majority don't own assets: only 42% owned house and 32% owned land during 2019-21. In contrast to China whose 19% women have faced violence in life time, the figure for India was 35%. In 2000 National Commission for women faced 5268 complaints; this number went up to 30,257 in 2022.

Even in panchayats the real participation by women is rather dismal. Infact in advanced economies of US, UK, Australia, etc. where either the parliamentary quota is not mandated or there are voluntary provision the gender equality record is better than in a country like India. Similarly, many countries with reserved seats for women (Nepal, Pakistan ..... there is a long list) have little to boast about empowerment of women. If there is a single lesson to be drawn from these case studies is that economic growth – as in Indonesia, Philippines, Bangladesh – will be the most important enabler for women empowerment. At the same time it is true that countries with higher female representation have shown a remarkable ability to enact policies that promote social inclusion, gender equality, and overall societal development. A vacuum in voluntary action on the part of the society at large in ensuring that women get their deserved place and space in all walks of life has forced the government's hands to bring this bill. It is in reaction to the existence of decades of unfulfilled promises and persistent gender bias. The move deserves two cheers at least. □□

# Nari Shakti Vandan Adhiniyam



*With powerful presence of the Matrushakti in Parliament, we hope, wish and pray to see a Parliament which is purged, sensitive and fair to half the population of our country and will not tolerate crime in the Society not just against women but to all senior citizens and children.*  
**Vinod Johri**

The Union government introduced a Bill to provide one-third reservation to women in the Lok Sabha and State Assemblies as the historic first legislation in the new Parliament House on Tuesday 19<sup>th</sup> Sept 2023, but the fine print ensures that the quota will not be implemented in next year's general election. The Bill, referred to as the Nari Shakti Vandan Adhiniyam, was introduced by Law Minister Arjun Meghwal in the Lok Sabha. The Bill noted that though women participate substantially in Panchayati raj institutions and municipal bodies, their representation in the State legislatures and in Parliament is still limited. Women MPs constitute a mere 15% of the Lok Sabha, and only account for about 10% of members in many State Assemblies. Going by the Lower House's current strength, the number of its women members will rise to 181 from the present 82 while Rajya Sabha will have 81 women members, once the law comes into force. Within the women's quota itself, one-third of the seats will be reserved for women belonging to the Scheduled Castes and the Scheduled Tribes. There is, however, no separate quota for women belonging to other backward classes. The Bill was passed by the Lok Sabha with majority of 454 to 2 and in Rajya Sabha with consensus of 215 members present in the House with no vote against the Bill. Once it becomes an Act, the law will be in force for 15 years. The seats reserved for women will be rotated after every delimitation exercise. The Bill will also need to be ratified at by at least half the State assemblies.

The Constitution (One Hundred and Twenty Eighth) Amendment Bill, 2023 can be implemented only after a delimitation exercise based on decennial census is completed, using data from the latest census conducted after the passage of the Bill. The next delimitation exercise, or redrawing of constituency boundaries, is





scheduled to be held in 2026. Effectively, this means that the earliest implementation of the women's quota in the Lok Sabha can be in the 2029 general election, rather than in next year's polls.

### 'Noble work'

Prime Minister Narendra Modi appealed to both the Houses of Parliament to pass the Bill through consensus after recalling how previous attempts to pass such a Bill have failed for the last 27 years. He said that September 19 was a date that would be etched in history, adding that God had chosen him for this "noble work".

*"The Narishakti Vandan Adhinyam will further strengthen our democracy... I assure all mothers, sisters and daughters of the nation that we are committed to making this Bill into a law. For that work of ensuring rights of women and putting their power to use and for many such noble works, God has chosen me. Once again, our government has taken a step in this direction. In the cabinet yesterday, the Women's Reservation Bill was given approval,"* Mr. Modi said in his first speech in the new Lok Sabha chamber, amid thumping of desks by members.

### Lok Sabha seats may increase

Bills to carve out a women's quota have been brought in earlier under the leadership of then - Prime Minister Deve Gowda in 1996, and the late Atal Bihari Vajpayee in 1998 and 1999. The Manmohan Singh-led government introduced such a Bill in the Rajya Sabha in 2008. After being passed by the Upper House, it was sent to the Lok Sabha, and ultimately lapsed because the Lower House had not passed it until its dissolution in 2014.

The clause linking the imple-



***PM Modi appealed to both the Houses of Parliament to pass the Bill through consensus after recalling how previous attempts to pass such a Bill have failed for the last 27 years.***

mentation of the women's quota to delimitation was not present in that 2008 Bill. The fact that the current Bill cannot be implemented until the 2026 delimitation taking into account the latest census means that the Union government may be envisaging an increase in the number of Lok Sabha seats. In the new Parliament building, the chamber for the Lok Sabha can accommodate 888 MPs.

India already reserves one-third of seats for women in Panchayati Raj Institutions at the village level and one-third of the offices of the chairperson at all levels of the Panchayati Raj Institutions, and in urban local bodies, respectively.

### International perspective

Studies about the impact of women in leadership positions have shown the positive effect of reservation on delivering policies, programmes and financing that improves the lives of women and their families, communities, and ultimately their nations.

### UN Women – Asia and Pacific

UN Women hailed India's passage of the Women's Reservation Bill on September 18 as a landmark moment for gender equality,

especially in terms of women's political leadership. The passage of the bill is testimony to India's commitment to women-led development, for which it mobilised global support during its G20 Presidency this year.

Calling it a "bold" and "transformative" step, Susan Ferguson, Country Representative of UN Women India, underlined the importance of political representation for women's sustained empowerment, while hoping that the proposed Bill will be endorsed by all stakeholders, including Members of Parliament and civil society.

"We hope political parties across the board will come together to ensure timely implementation of the Bill given that gender quotas in policies and politics is crucial to advancing gender equality and women's rights. The Women's Reservation Bill strengthens India's commitment to women-led development and sets a global example," Ms. Ferguson said in a statement. "This is a moment of great elation for gender advocates and organisations that work for gender equality, women's economic empowerment and their increased role in leadership position."

"Globally, women currently

occupy only 26.7 per cent of parliamentary seats and 35.5 per cent of local government positions,” Ms Ferguson said. “This quota reserving 33 per cent seats for women will leapfrog India into one of 64 countries around the world who have reserved seats for women in their national Parliaments. Typically, achieving a critical mass of 30 per cent representation by women in Parliament is known to yield positive outcomes for women’s empowerment. However, we hope that implementing such reservations will ultimately lead to achieving 50 per cent representation of women in Parliaments across the globe.”

UN Women also welcomed the proposed Bill’s reservation of seats for women leaders from scheduled castes and tribes as an “important step” that aligns with the Sustainable Development

Goals and its core objective of leaving no-one behind.

“The United Nations remains committed to collaborating with member states to advance gender equality and recognising their crucial role in achieving Sustainable Development Goals and creating a more just and equitable world for all,” Ms Ferguson said in the statement. “India’s bold step sends a clear message to the world that the path to gender equality is not only essential, but attainable.”

According to an analysis by PRS Legislative Research, countries like Sweden, where 46 per cent of the public representatives are women, Norway (46 per cent), South Africa (45 per cent), Australia (38 per cent), France (35 per cent) and Germany (35 per cent) do not have any law reserving seats for women but some political parties provide reservation. Bangladesh,

which has 21 per cent women MPs, has a law providing reservations to women. Out of the 300 seats in the Bangladesh Parliament, 50 are reserved for women.

With powerful presence of the Matrushakti in Parliament, we hope, wish and pray to see a Parliament which is purged, sensitive and fair to half the population of our country and will not tolerate crime in the Society not just against women but to all senior citizens and children. The new Parliament and State assemblies will ensure that Bharat is Vishv Guru with the most vibrant democracy, respect for women and balanced approach towards development with equal partnership of the women for upliftment of all sections of the Society in the entire country. □□

Vinod Johri: Retd. Additional Commissioner of  
Income Tax

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# The Rising Horizon of Artificial Intelligence

Barat is set to initiate a new economic revolution with the widespread adoption of Artificial Intelligence. It is progressing towards establishing itself as a global leader in the domain, leveraging its substantial pool of technical talent. By 2030, Artificial Intelligence is projected to make a direct contribution of over 30 trillion dollars, to the global economy. India must prioritize its focus on this transformative technology, as leading in AI will be very important for countries aiming to secure their position in the global economy. India is determined to take the lead in this regard.

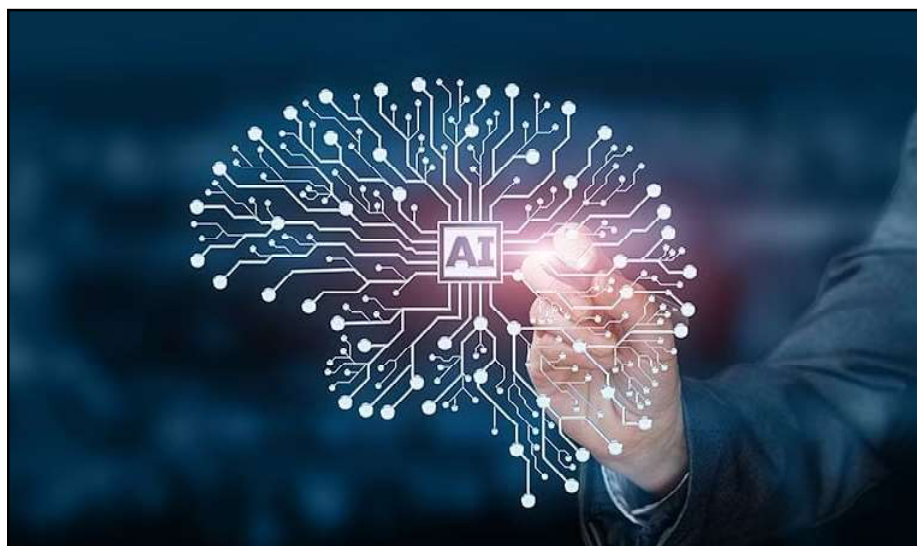
## India among the five major powers

Over the past five years, India has made significant developments in the field of artificial intelligence (AI). In terms of research, startup development, and AI investments, India currently ranks fifth among the world's top nations. According to Stanford University's annual AI survey, India achieved this ranking in 2022, receiving the fifth-largest amount of investment in startups offering AI-based products and services. In 2022 alone, AI startups in India attracted a total investment of \$3.4 billion, surpassing countries such as South Korea, Germany, Canada, and Australia in this regard. India now follows only the United States, China, the United Kingdom, and Israel in terms of AI investment. With its technological expertise and robust entrepreneurial initiatives, India has the potential to comfortably secure the third position in this sector.

Given the significant interest, drive, and entrepreneurial spirit exhibited by young talents, it is anticipated that venture capital funding in India will experience quarterly growth. Table 1, compares indices over the past decade with those from 2022, illustrates that India ranked sixth in cumulative AI investment between 2013 and 2022. Over this ten-year period, AI companies in India secured a total



*If artificial intelligence technology is optimally harnessed in India, then by 2035, the activities driven by this technology could contribute an additional 3-4 percent to India's economic growth.*  
**Dr. Jaya Sharma**





funding of \$7.73 billion, with a remarkable 40 percent of this financing occurring in the previous year alone. This rapid expansion has propelled India into the fifth position. According to experts, this trend of increased venture capital funding suggests that India is poised for further acceleration in the rankings this year, potentially reaching the fourth position. Currently, England holds the third position, with India and Israel sharing the fourth spot.

### Wide Application

Artificial intelligence, commonly known as AI, encompasses an expansive and multifaceted domain with various innovative sub-fields. These include Machine Learning, Deep Learning, Robotics, Big Data Analysis, Peripheral Technology, Internet of Things, Blockchain, Photo Recognition, and many more. Artificial Intelligence technology comprises numerous specialized branches, all geared toward enhancing the convenience and simplicity of human life. Its applications span across diverse sectors such as agriculture, disease diagnosis, healthcare, space exploration, defense, national security, business administration, linguistics, economic planning, and management, among others.

### India Is Becoming the Global Center for AI Solutions

Among the various priorities of the National Strategy of Artificial Intelligence, the most emphasis has been given on the fact that India should become the solution center i.e. 'Garage' of Artificial Intelligence for 40% of the world's population. Just as the shortcomings of an automatic car are solved in the garage of cars,

**Tabel-1: India's position in investment in AI in the last decade and 2022**

Country	Total investment 2013-22 (in bn dollar)	Country	Total investment 2022-23 (in bn dollar)
United States	248.9	United States	47.36
China	95.11	China	13.41
United Kingdom	18.24	United Kingdom	4.37
Israel	10.83	Israel	3.24
Canada	8.83	India	3.24
India	7.73	South Korea	3.1
Germany	6.99	Germany	2.35
France	6.59	Canada	1.83
South Korea	5.57	France	1.77
Singapore	4.72	Argentina	1.52
Japan	3.99	Australia	1.35
Hong Kong	3.1	Singapore	1.13
Switzerland	3.04	Switzerland	1.04
Australia	3.04	Japan	0.72
Spain	1.81	Finland	0.61

Source - Stanford University survey on AI

similarly India should become the garage of artificial intelligence for 40% of the problems of humanity. There is every possibility of this. In this regard, many big companies of the world are establishing their Global Capability Centers in India. Even today 40 percent of such centers in the world are in India.

Within the National Strategy for Artificial Intelligence, a primary focus lies in positioning India as the central hub, referred as the 'Garage,' for addressing artificial intelligence solutions for 40% of the global population. Like how issues with an automobile are resolved in a car garage, India aims to become the problem-solving hub for 40% of humanity's challenges through artificial intelligence. This objective is entirely achievable, considering that numerous major global companies are setting up their Global Capability Centers within India. Currently, India already hosts 40%

of such centers worldwide.

NITI Aayog has established highly ambitious objectives and priorities aimed at positioning India as a global contributor, providing solutions in artificial intelligence amounting to 40 percent of the total. Within this national artificial intelligence strategy, particular emphasis has been placed on three principal components and five application areas. These three key objectives are as follows:

1. Advancing social development and inclusive progress through the utilization of artificial intelligence for the broader benefit or greater good of humanity.
2. Harnessing artificial intelligence to its full potential within the economic sector to seize developmental opportunities.
3. Establishing a hub or facility for artificial intelligence, similar to a garage or workshop, to enhance the lives of 40 percent of the global population.

### Five Major Areas of Application

Within NITI Aayog's National Strategy for Artificial Intelligence, five primary application domains have been identified for addressing domestic challenges within the chosen nation and for extensive global implementations. These areas are:

1. Higher education and skill development.
2. The agricultural sector.
3. Healthcare.
4. Smart Mobility and Transportation.
5. Smart City and Infrastructure.

### India's Fast Growing Steps

According to a report from Stanford University, AI startups in India secured a total funding of \$7.73 billion between 2013 and 2022, with a significant portion, approximately \$3.1 billion or around 40 percent, being raised in 2022 alone. This surge in funding propelled India to the fifth position in 2022, representing 66.84% of the cumulative investment received during the preceding nine years from 2013. If this robust growth rate persists into 2023, the projected new investment for that year would be \$5.1 billion, bringing the cumulative investment to \$12.9 billion. In such a scenario, India could potentially ascend to the third position, surpassing both Israel and the UK.

As of May 2023, Generative AI applications, like Chat GPT, have experienced rapid growth in India. The Indian Generative AI landscape boasted over 60 startups dedicated to providing solutions and services across various industry sectors. Specifically within Generative AI, these startups have collectively garnered funding exceeding \$59 crore. Further, Stanford

University's AI Index report highlighted that 54% of researchers working on large language models are affiliated with American institutions. However, for the first time in the past year, researchers from Canada, Germany, and India have actively contributed to the development of these large language models.

### Immense Potential for Economic Contribution

NITI Aayog believes that through this setup, a solution can be found for nearly all the global

challenges affecting approximately 40 percent of the world's population in various ways.

With a positive outlook, it is estimated that with proper preparation, technology related to artificial intelligence can potentially contribute an additional value of approximately 1.5 to 2.5 trillion dollars, to the economy by the year 2030. If artificial intelligence technology is optimally harnessed in India, then by 2035, the activities driven by this technology could contribute an additional 3-4 percent to India's economic growth. □□

[Continued from page no. 7 ...]

## Preparing for Industrial Revolution 4.0

Technologies like 5G are surprising the world, challenging established foreign technologies. Today is the time to give impetus to these ongoing efforts in the country. For this, it is necessary to promote scientific temper in the country and encourage innovation. The achievements so far are encouraging and there is a need to continue the current endeavours.

In fact, the main reason why we are marching ahead in almost all contours of IR 4.0 is the encouragement to individual initiatives and conducive atmosphere for the same. If we look at Indian history, we find that India's golden period was when the production was decentralised and atmosphere was conducive for individual entrepreneurs. Today it is the right moment for India, where our entre-

preneur, start-ups, scientists, experts in different fields are readying to take India fast forward as IR 4.0.

Though, generally there is a consensus about India's growth trajectory with respect to components of IR 4.0, however, there are reservations in some quarters, on the use of Artificial Intelligence, Drones and Robotics. But we need to understand that India has developed capabilities in these technologies and can provide leadership in these fields. We can be a global service providers and producers in these products. There are also some people who feel that India should concentrate only on services; and should not board on manufacturing bus. But a country with vast resources and skill sets, this is no wise suggestion. We can excel in all fields. □□

# The rise of the artificial food industry is not a good portent



*Knowing that the protein pathway that western countries follow is by first heavily feeding livestock and then slaughtering it for human-edible protein conversion, my suggestion is to, instead, use the rice grain available within the country for meeting the human nutritional needs.*

**Devinder Sharma**

The world is moving in a strange direction. While farmers are being encouraged to grow crops that feed automobiles, agribusiness companies are getting ready to produce lab-grown food for human consumption.

It is getting much closer than you think. The romance with food that we have enjoyed over the centuries is slowly getting to a close.

Several years ago, an American company dealing with a variety of nutritional food products announced a proposal for setting up a manufacturing plant somewhere near Bengaluru to convert rice bran into nutritious food, for which the company owned a patent. Given the high levels of nutritional insecurity being a serious cause for worry in a country which continues to trail in the Global Hunger Index (GHI), the idea was initially welcomed.

I question the development model that relies on converting rice bran, traditionally used as cattle feed (and also for producing edible oil) in India, into nutritional food for human beings and, at the same time, encouraging the export of rice, a staple food. It is clearly at a cross purpose. My argument is that when India exports rice (in 2021-22, it was the top rice exporter), much of it goes to feed the cattle of the western countries. Knowing that the protein pathway that western countries follow is by first heavily feeding livestock and then slaughtering it for human-edible protein conversion, my suggestion is to, instead, use the rice grain available within the country for meeting the human nutritional needs.

The project eventually didn't take off.

In a lot many ways, the launching of the Global Biofuel Alliance during the recent G20 summit extends the misplaced development pathway a little further. With multi-stakeholder support coming from 19 countries and financial backing from the World Bank, Asian Development Bank, World Economic Forum, International Renewable Energy Agency and other international agencies, the alli-





ance hopes to triple biofuel production by 2030.

Although it is aimed at providing a cost-effective and environmentally sustainable alternative to fossil fuels, the basic idea to produce fuel from food is in itself at variance with the development pathway for a sustainable future. Instead of adding more cars and other automobiles on the streets, the global effort should be to drive out cars from the cities. While more cars add to higher GDP calculations and that is what policymakers are keen to achieve howsoever unsustainable it may be, the real development index should be measured by how many car-free havens can be created. That's the future.

If you think this is a utopian dream, you ought to know how Pontevedra, a small Spanish city with a population hovering around 80,000, has become almost car-free. There are at least 10 cities where most urban centres are becoming car-free. Knowing that automobiles leave behind a large environmental footprint, the challenge should be on how to drastically lower the air pollution levels. Investing in mass transportation systems and drastically reducing car sales should be a goal that G20 countries should, instead, be laying out.

To say that the annadata will soon become energydata may be a simple way of luring farmers to continue with the business. While it makes sense to use plant waste for biofuel production, like the 20 million tonnes of paddy stubble that Punjab produces every year, but to convert food crops to biofuel is a criminal waste. In America, 90 million tonnes of foodgrain are diverted for biofuel production. In the European Union, nearly

***While more cars add to higher GDP calculations and that is what policymakers are keen to achieve howsoever unsustainable it may be, the real development index should be measured by how many car-free havens can be created. That's the future.***

12 million tonnes of food crops are used for biofuels. Even during the Russia-Ukraine embargo on grain supplies, the G7 countries rejected a proposal from Germany and the UK to cut on diversion of grain for biofuel production.

According to the US Department of Agriculture (USDA), the US diverts 44 per cent of its domestic corn production for biofuels. In addition, another 44 per cent is used for animal feed. The remaining is used for human consumption, seed and industrial applications. This is happening at a time when the popular perception is that less land should be under cultivation. What we don't realise is that the crop area is expanding not for human consumption but for biofuels. While this is necessary to achieve 'net zero' emissions, as is generally believed, the reality is, as many studies have shown, that biofuels actually lead to increased Green House Gas (GHG) emissions.

Producing worth 38% of the global biofuel production, the US

is the world's largest producer. India's renewed focus on biofuels has seen a huge diversion of rice in just two years — between April 2021 and May 2023 — by the Food Corporation of India (FCI). With the Global biofuel Alliance in place, the diversion of food crops will substantially go up.

Biofuel production is increasing at a time when globally, the trend is shifting to artificial food production. In the US alone, 15 per cent of the milk products on supermarket shelves are derived from non-dairy sources. Startups are already into the business of producing milk without any dairy cows and several techniques like fermentation and precision technology are being used for artificial foods.

The first commercial-scale food factory has already been set up near Helsinki in Finland. It has announced plans to manufacture 4 to 5 million meals per year using carbon dioxide from the air to interact with bacteria. It doesn't require any farmer, nor does it need land for growing plants.

This trend is fast catching up. Seen in the light of coercive action against 3,000 Dutch farmers, farmers in the developed countries are becoming a soft target to reduce the gas emissions emanating from intensive farming practices. Already, the insect-protein industry is booming at a scale that it is expected to partially meet the rising protein requirement. The insect industry is expected to grow to \$7.9 billion by 2030.

Be prepared, because sooner rather than later, artificial food products are likely to hit the supermarkets close to you. □□

<https://www.tribuneindia.com/news/comment/the-rise-of-the-artificial-food-industry-is-not-a-good-portent-545887/>

# A True Kisan Vaigyanik



*The late Professor MS Swaminathan, known as the "Father of the Indian Green Revolution," revolutionised agriculture, contributed to research, mentored, and emphasized sustainable farming, leaving an enduring legacy in Indian agriculture.*  
**Narendra Modi**

A few days ago we lost Professor MS Swaminathan. Our nation lost a visionary who revolutionised agricultural science, a stalwart whose contribution to India will always be etched in golden letters. Prof. MS Swaminathan loved India and wanted our nation, and our farmers in particular, to lead a life of prosperity. Academically brilliant, he could have chosen any career but he was so impacted by the Bengal famine of 1943 that he was clear that if there is one thing he would do, it would be to study agriculture.

At a relatively young age, he came in contact with Dr Norman Borlaug and followed his work in great detail. In the 1950's, he was offered a faculty position in the US but he rejected it because he wanted to work in India and for India.

I want you all to think about the challenging circumstances in which he stood as a colossus, guiding our nation towards the path of self-sufficiency and self-confidence. In the first two decades since Independence, we were dealing with immense challenges and one of them was food shortages. In the early 1960s, India was grappling with the ominous shadows of famine and it is then that Prof. Swaminathan's unyielding commitment and foresight ushered a new era of agricultural prosperity. His pioneering work in agriculture and specific sectors like wheat breeding led to a significant increase in wheat production, thus turning India from a food-deficient country into a self-sufficient nation. This tremendous achievement earned him the well deserved title of, "Father of the Indian Green Revolution."

## Green Revolution

The Green Revolution offered a glimpse of India's "Can Do Spirit" - that if we have a billion challenges, we also have a billion minds with the flame of innovation to overcome those challenges. Five decades after the Green Revolution began, Indian agriculture has become far more modern and progressive. But, the very foundations laid by Prof. Swaminathan can never be forgotten.

Over the years, he undertook pioneering research in combatting parasites affecting potato crops. His research also enabled potato crops to withstand cold



weather. Today, the world is talking about Millets or Shree Anna as super foods but Prof. Swaminathan had encouraged discourse around millets since the 1990s.

My personal interactions with Prof. Swaminathan were extensive. They began after I took over as Chief Minister of Gujarat in 2001. During those days, Gujarat was not known for its agricultural prowess. Successive droughts and a super cyclone and an Earthquake had impacted the growth trajectory of the state.

Among the many initiatives we launched, was the Soil Health Card, which enabled us to understand the soil better and address problems if they arose. It was in the context of this scheme that I met Prof. Swaminathan.

He appreciated the scheme and also shared his valuable inputs for the same. His endorsement was enough to convince those who were sceptical about the scheme which would eventually set the stage for Gujarat's agricultural success.

Our interactions continued during my Chief Ministerial tenure and also when I took over as Prime Minister. I met him at the International Agro-Biodiversity Congress in 2016 and the next year in 2017, I launched a two-part book series written by him.

The Kural describes farmers as the pin that holds the world together because it is the farmers who sustain everyone. Prof. Swaminathan understood this principle very well. A lot of people call him a "Krishi Vaigyanik" – an Agricultural Scientist. But, I have always believed that he was even more. He was a true "Kisan Vaigyanik" – a Farmers' Scientist. In his heart there was a farmer. The success of his works is not restricted to their

***Dr Swaminathan's contributions continue to inspire and guide us as we navigate the path of agricultural innovation and sustainability. We must also keep reaffirming our commitment to the principles he held dear, championing the cause of farmers and ensuring the fruits of scientific innovation reach the roots of our agricultural expanse, fostering growth, sustainability, and prosperity for generations to come.***

academic excellence; it lies in the impact they have had outside the laboratories, in the farms and the fields. His work narrowed the gap between scientific knowledge and its practical application.

He consistently advocated for sustainable agriculture, emphasising the delicate balance between human advancement and ecological sustainability.

Here, I must also note Prof. Swaminathan's special emphasis on improving the lives of the small farmers and ensuring they also enjoy the fruits of innovation. He was particularly passionate about improving the lives of women farmers.

#### **Institution builder**

There is another aspect about Prof. MS Swaminathan which is remarkable - he stands tall as a paragon of innovation and mentorship. When he won the World Food Prize in 1987, the first recipient of this prestigious honour, he used the prize money to establish a not-for-profit research foundation.

Till date, it undertakes extensive work across various sectors. He has nurtured countless minds, instilling in them a passion for learning and innovation. In a rapidly changing world, his life reminds us

of the enduring power of knowledge, mentorship, and innovation.

He was an institution builder as well, having to his credit many centres where vibrant research takes place. One of his stints was as Director, International Rice Research Institute, Manila. The South Asia Regional Centre of International Rice Research Institute was opened in Varanasi in 2018.

I will again cite The Kural to pay tributes to Dr Swaminathan.

It is written there, "If those who have planned have firmness, they will attain what they have desired the way they have desired."

Here was a stalwart who decided early on in his life that he wants to strengthen agriculture and serve farmers. And, he did it exceptionally innovatively and passionately.

Dr Swaminathan's contributions continue to inspire and guide us as we navigate the path of agricultural innovation and sustainability. We must also keep reaffirming our commitment to the principles he held dear, championing the cause of farmers and ensuring the fruits of scientific innovation reach the roots of our agricultural expanse, fostering growth, sustainability, and prosperity for generations to come. □□

<https://www.thehindubusinessline.com/economy/agri-business/professor-ms-swaminathan-was-a-true-kisan-vaigyanik/article67389720.ece>

## Tribute to MS Swaminathan: Green Revolution to Evergreen Revolution

The national security of any nation broadly comprises defense security, energy security, food security, and financial security. These four-dimensional security components depend on natural resources, human resources, technological capabilities, and the latest addition, the demographic dividend. Bharat has to struggle a lot to become self-reliant in food security. The attained food security is not satisfactory on many parameters of sustainability.

The food security of our nation highlights the remembrance of terms like Ship-to-Mouth and Green Revolution. Dr. Mankombu Sambasivan Swaminathan is the man who is credited for formulating the path to self-reliance in the food security of the nation. M S Swaminathan during his earlier days in the year 1954, had declined the offer of a teaching position at the University of Wisconsin and returned to Bharat to work at Indian Agriculture Research Institute. His aim was to produce enough food for the nation. Despite the green revolution forcing the adoption of chemical-based agriculture production he consistently looked for ways to promote sustainable development goals-based agriculture practices which he labeled as a transition from the 'green revolution' to the 'evergreen revolution'. The green revolution was the idea of decades of the 1960s when the country was struggling to feed the nation. The dire situation can be imagined by the fact that the prime minister of the country had to appeal to its citizens to skip one meal per week. Whatever agriculture practices were promoted during those time was for survival.

Today the agriculture practices are in the grip of foreign-owned seed companies, foreign-owned fertilizer companies, foreign-owned pesticide companies, foreign-owned food processing companies, foreign-owned research grant-based policy recommendations, and the conspiracy to control food and health of the Bhartiya's by the Non-Bhartiya's.

Today the nation is not starving but is struggling for a healthy diet. The situations have changed but the challenges have remained. The challenge is of



*MS Swaminathan was a scientist, an administrator, and a visionary leader committed to the service of the motherland.*  
**Alok Singh**





self-sufficiency in food production which provides nutrients as well as health and the practices are aligned as per the agriculture climatic zones. The challenge is to save our taste, our seeds, our soil, our water, our health, our food tradition, and our food habit-culture.

The battlefield of agriculture practices has changed. The enemies of our food security are forcing on us completely new food products. It's not restricted to the quality of food but there are many new challenges and we are seriously worried, our policymakers and scientists are marching on this and it is a work in progress.

The conflicting interests do clash, sometimes in courts and sometimes on the table of regulatory bodies. The appeal of the current prime minister of the country to promote traditional agriculture practices reflects the careful migration to organic farming and the due diligence given to learnings from Sri Lanka's sudden migration to organic farming. Whatever Sri Lanka did was not restricted to a healthy diet for its people rather it was an attempt to give befitting replies to its enemies who led Sri Lanka to debt tarp and policy paralysis. Later we did rescue our neighbor. The foreign multinational enemies tried their best to give us a warning that don't play with our food business but the strong leadership of the nation maneuvered well our agriculture practices to match sustainable development goals, as well as humanity, and achieve healthy food security for the country.

We admit that the agriculture sector is the biggest employer worldwide. Still, deliberately the vested interests are promoting the propaganda that as a country tran-

***The idea of factory-processed homogeneous food for all is lethal and needs to be arrested through public policy and awareness campaigns.***

sit to developed status from developing status, the people employed in the agriculture sector decline while those in the manufacturing and services sector rise. And so, the solution lies in machine-based, chemical-based, and laboratory-provided seeds. Such conspiracy has been demolished on many occasions by our own nationalist-oriented scientists as well as activists and think tank groups working to influence public policy.

Food security is linked with environmental concerns, climate change, sustainable development goals, organic farming, traditional agriculture practices, eliminating uses of carcinogenic chemical fertilizers, health impact on producers and consumers of chemical-based farm outputs, raising farmer's income, agricultural products value addition, farm to plate supply chain models, agriculture-related credit and related financial facilities, and many more. The need of the nation in the year 1960 for urgent food security at any cost led the agriculture practices to move towards chemical fertilizer-based high-yield crop varieties.

In a special message dated 28 April 2023 to the 'Global Forum on Agriculture Research and Innovation' (GFAR), Dr. Swaminathan

strengthened the need to revive 'Forgotten Foods', promotion of locally developed and locally cultivated foods. He expressed his displeasure with the inadequate research and development of local foods which resulted in reduced market acceptance and disadvantage in competition with those of commodity food products. He warned that presenting, producing, and encouraging homogeneous food to all by discouraging diversified food products leads to serious health issues. In this message, he expressed his concern about farmer's income, logistics, and almost all the related aspects of agriculture and food. He appealed to the researchers to do work that is pro-poor. His message reflects that vested interests are consistently conspiring to snatch our food freedom. The idea of factory-processed homogeneous food for all is lethal and needs to be arrested through public policy and awareness campaigns.

Dr. MS Swaminathan was born on 7 August 1925 at Kumbakonam in the Tanjore district of Tamil Nadu and died on 28 September 2023 in Chennai, Tamil Nadu. He owns a lengthy list of publications as well as public recognitions. He received the Shanti Swaroop Bhatnagar Award in 1961, the fourth highest civilian award Padma Shri in 1967, the third highest civilian award Padma Bhushan in 1972, and the second highest civilian award Padma Vibhushan in 1989. His quiver includes 84 honorary doctorates, 33 national and 32 international awards. He was a scientist, an administrator, and a visionary leader committed to the service of the motherland. □□

(Alok Singh is a Fellow of the Indian Institute of Management Indore and a freelancer academician).

Tribute

## Science, Research, Bharatiya Agriculture and Dr. M.S. Swaminathan

It was in the early 1960s, when Bharat, despite being an agricultural country, had reached a situation where country's food grain production was not sufficient to feed our growing population. Our dependence on foreign countries had also increased and the country had to request other countries including United States of America to supply food grains. In such a situation, our agricultural scientists led by Dr. M.S. Swaminathan developed new hybrid varieties of seeds, with the help of which our food grain production, especially wheat and rice, increased rapidly and the country became self-reliant in food grains in a short span of time. It is noteworthy that in 1960-61 our total food grain production was only 82 million tonnes, but after the use of new high productivity varieties developed by Bharatiya scientists, our food grain production increased to 108 million tonnes by 1970-71 and 132 million tonnes by 1990-91 and reached 176 million tonnes by 1990-91. This phenomena of this rising food production in the country was rightly given the name 'Green Revolution'.

Great agriculture scientist, who led this revolution, Dr. M.S. Swaminathan, is also called the father of Bharat's Green Revolution. Dr. M.S. Swaminathan breathed his last at the age of 98 years, on 28 September 2023 and nation gave him an emotional farewell.

### Clear understanding of good science and bad-science

Generally, it's seen that scientists of any clan remain blind to the environmental and health impact of any new invention or discovery. However, Dr Swaminathan was a scientist, who could distinguish between a good and a bad science. Since late 1990s and early 2000, a group of scientists, called GM scientists had been pleading for introduction of Genetically Modified Organism (GMO). But Swaminathan refused to accept these GM seeds, unless it's proved beyond doubt that these seeds are not harmful for health and environment.

He raised serious concerns about these GM seeds. In an article published in a peer reviewed journal authored by Dr Swaminathan and his Co-author, he said, "There is no doubt that GE (genetically engineered) Bt cotton has failed in India. It has failed as a sustainable agriculture technology and has, therefore, also failed to provide livelihood security for cotton farmers who are mainly resource-poor, small and marginal farmers," according to the paper, "...The precautionary principle (PP) has been done away with and no science-based and rigorous biosafety protocols and evaluation of GM crops are in place."

He was not just raising concerns over GM seeds, but was also fulfilling his 'scientist's dharma'. However, he had to face wrath of GM fundamentalists, who see nothing beyond their laboratory.

One such GM fundamentalist, Channa Prakash said, "It is sad that Prof. M.S. Swaminathan, who has contributed to India through green revolution, knows the value of biotech more than most people, is now pandering to the anti-GMO crowd, sounding more like Vandana Shiva! Not sure if he really means this?"

Further, confusion was created that Dr Swaminathan, has supported GMO. But Dr Swaminathan sent a personal message to the author of this tribute via X, formerly Twitter, to this effect that he stands by his 2004's report and stated as follows: *"Dear Ashwani, I thank you for your comment on GM crops. I give below my recommendation in a report submitted to the Ministry of Agriculture in the Year 2004. The bottom line of our national agricultural biotechnology policy should be the economic well being of farm families, food security of the nation, health security of the consumer, biosecurity of agriculture and health, protection of the environment and the security of national and international trade in farm commodities. – M S Swaminathan"*

Incidentally, this statement from Dr Swaminathan, makes it clear that his opinion supports the stand of Swadeshi Jagran Manch on GM crops, where SJM has raised issues about lack of evidence on higher productivity, their harmful effects on environment, bio-security of agriculture and health and looming dangers to our international trade in agriculture commodities.

SJM salutes this great scientist, with a visionary approach, not dithered by the rhetoric of science.

Dr. Ashwani Mahajan (National Co-convenor)

# From Citizen to Citizen



*The issues raised here, are from one citizen to another, wherever you are – whoever you are. The choices we make, the battles we fight, the future we build, is our collective task, and it should not take a Kedarnath flood or a sinking Joshimath until the isolated struggle of a few becomes the voice of the many.*  
**Priyadarshini Patel**

Home is what one chooses it to be. If ‘four walls do not a prison make’, much less do they make a home. Neighbourhood, city, country, continent and even the planet itself evoke a sense of belonging to the right-minded. And when one’s house is on fire, one does not mutely watch from the sidewalk, waiting for appropriate departmental action.

The systematic desecration of four key Himalayan valleys, Gangotri, Yamunotri, Kedarnath and Badrinath, through the Chardhaam pariyojana road widening project; the disappearance of the Ganga into tunnels through bumper-to-bumper hydro-projects, and the network of tunnels for railways to the four dhams are no minor undertakings – one may even term them historic blunders – yet they went widely unreported in our ‘breaking news’ cacophony. It has taken a Joshimath scale calamity to get people’s attention.

Successive governments have notoriously failed in their duties towards an integrated development that should primarily include an uncompromised environmental security for present and future generations, besides people’s welfare and a cultural reverence. But more worryingly the judiciary has also been pivotal in allowing matters to spiral to the current scenario of irretrievable damage. It has failed in three separate occasions where uncompromising and timely action could have prevented the current Joshimath land subsidence mishap.

First, in 2013 after the world witnessed the horrors of Kedarnath a Supreme Court bench, headed by Justice Radhakrishnan took suo moto cognizance of the disaster and expressing ‘deep concern’ directed that no further clearances be granted to any HEP in Uttarakhand. It also constituted an expert body to ‘make a detailed study as to whether Hydroelectric Power Projects existing and under construction have contributed to the environmental degradation, if so, to what extent and also whether it has contributed to the present tragedy occurred at Uttarakhand in the month of June 2013.’



***The new bench headed by Justice Deepak Mishra in an inexplicable u-turn instead of logically picking up the baton and cancelling the under-construction and existing HEP's in the light of these grave findings, ordered the re-consideration of 6 of the proposed 24 projects, whereas these unconstruced projects should have been entirely out of contention.***

The committee formed recommended cancellation of 23 out of 24 proposed HEPs, and found that under construction and existing projects had aggravated the disaster. It also recommended that 'terrain above the MCT in general and above the winter snow line in particular (2200-2500 m) should be kept free from the hydropower intervention in Uttarakhand.'

Tapovan-Vishnugad HEP whose headrace tunnel runs at the base of Joshimath and was under construction at the time, and is located above the MCT, should have been halted. But the Radhakrishnan bench only managed to stay the 24 proposed projects before he retired, resulting in a change of bench. The new bench headed by Justice Deepak Mishra in an inexplicable u-turn instead of logically picking up the baton and cancelling the under-construction and existing HEP's in the light of these grave findings, ordered the re-consideration of 6 of the proposed 24 projects, whereas these unconstruced projects should have been entirely out of contention. The bizarre grounds that the bench gave was that the project companies were 'suffering order of stay issued by this court.' And the MoEF obligingly granted clearances. So, the judiciary changed the goal-post entirely, from 'deep concern' regarding the adverse impact of already mushrooming HEP's and consequential

action thereof, to the opposite extreme of permitting nascent, unconstruced HEP's in the disaster-ridden state of Uttarakhand, that were yet only proposed.

**Second case:** In 2018 local petitioners filed a PIL against the blanket widening of the Chardham route to a wide Double lane paved shoulder width of 10 m, arguing that: "Any further cutting of the mountain base for widening or tree felling would cause unprecedented activation of landslides which could block even the existing highway, thus being counter-productive even for the normal traffic flow. Moreover, this would adversely impact the local livelihood, local daily life and transport for the border security related vehicles." Taking cognizance Justice Nariman's bench in the Supreme Court ordered in 2020 that a narrower Intermediate Width would be implemented, thereby saving lakhs of trees, forest cover and drastically reducing hill-cutting. Then suddenly the government metamorphized the Chardhaam project from tourism to a defence project of strategic importance. The matter went back to court. And, the officially reported 200 landslides notwithstanding, in 2020, a new bench headed by Justice Chandrachud, in all its wisdom, ordered the environmentally destructive DL-PS in these fragile Himalayan valleys.

**Third case:** After the Rishiganga flooding in 2021, the village

of Raini located barely 20 km away from Joshimath, and residents of Joshimath filed an PIL in the High Court, Uttarakhand praying for cancellation of the Rishiganga HEP and the Tapovan-Vishnugad HEP, along with rehabilitation of Raini village. The entire village of Raini had been severely impacted through land sliding and the unstable terrain of Joshimath had also been impacted through hill-toe erosion in the disaster. All the petitioners were directly impacted, aggrieved and had a track record of involvement in social issues. In the gravest disservice to the institution, the court thought fit to throw out the petition without even once hearing the petitioners. The order stated: "They further claim to be 'social activists'. However, there is no piece of evidence produced by these petitioners to establish the fact that they are 'social activists'... Therefore, the petitioners are merely puppets at the hand of an unknown puppeteer. Needless to say, this certainly amounts to abuse of the PIL jurisdiction. Therefore, this Court is not convinced with the bona fide of this petition. Hence, this petition is dismissed, while imposing costs of Rs.10,000 on each of the petitioner." Now, about a year on, we have the Joshimath disaster, which experts largely attribute to the HEP tunnel, despite the customary and unconscionable denials of the NTPC company. It cannot be mere co-incidence that each time a HEP is constructed there is land subsidence, loss of water sources and cracks in houses as seen in Chain (Chamoli), Bhatwadi (Uttarkashi), Khaat (Rudraprayag), Haat (Chamoli), Dobhal (Tehri) and villages around Tehri dam, to mention a few.

Even over a hundred years ago, Jonathan Mill had warned,





*“Let not any one pacify his conscience by the delusion that he can do no harm if he takes no part, and forms no opinion. Bad men need nothing more to compass their ends, than that good men should look on and do nothing. He is not a good man who, without a protest, allows wrong to be committed in his name, and with the means which he helps to supply, because he will not trouble himself to use his mind on the subject.”*

The entire body must be ailing to produce a tumor; however tempting, politicians and governments ought not to be blamed for our collective sins. No man who has stood by and indifferently watched the destruction of his environment, has the right to demand clean water, clear air, pure food, - these things are not manufactured to order in government factories; much less are they a birth-right.

Our Upanishads carry a weighted parable. Virochana, ruler of the demons and Indra, lord of the gods, once went to Brahma and asked him about God. They were told to look in the mirror. Looking at his reflection the demon instantly concluded that he was God; the deva contemplated and realized that God was all. The western way is to measure development by the amount one can consume; India teaches us to mea-

***No man who has stood by and indifferently watched the destruction of his environment, has the right to demand clean water, clear air, pure food, - these things are not manufactured to order in government factories; much less are they a birth-right.***

sure our worth by all that we can uplift and divinize: *Ishta vasyam idam sarvam*. The difference is nothing less than that between an ego-centric existence, engulfed in its own gains, unhesitant to exploit, and an expansive one that is creative in the highest sense of the word.

India's great failure has been the inability to model development along the lines of her own civilization; in keeping with her own dharma; and building on the incomparable foundations of her elevating culture, laid down in the forests of dawn, by the Seer-poets, the Rishis. While the soul lifted itself to God, they also sought to bring the

perfection of Divinity into manifestation, and ennoble all our living. That vision teaches us that all development is a wondrous unfolding of one's inner potential. Contrarily, India, aping the west, today treats development solely as the piling up of external acquisitions, of material wealth. The unprecedented extinction of other species is the most damning proof of how absolute and conscienceless this pursuit has been. Nothing is sacrosanct in this demonic world-view except material gain.

We live in heady times of 'double engine growth', no matter that the train is heading to perdition, and we are racing towards it. And meanwhile everything is sustainable - even Climate Change! The Ganga and The Himalaya: surely there are no two greater symbols of our civilization. Practically these are also our two largest ecosystems, keeping the greater part of our population alive. Obviously, this is not enough. To voice opposition is to be 'anti-development.'

It does not need any institutional certificate of environmentalist, geologist, botanist, or any other specialist label to understand matters of common sense; honesty will do. One does not need to be a bureaucrat on salary or an elected representative to participate in one's world; existence is enough. The issues raised here, are from one citizen to another, wherever you are - whoever you are. The choices we make, the battles we fight, the future we build, is our collective task, and it should not take a Kedarnath flood or a sinking Joshimath until the isolated struggle of a few becomes the voice of the many.

(To be continued ...)

## Mewar as Focus of Guhila State (Part-XV)

If Mewar between the Thirteenth and Fifteenth Centuries Thakkura Dâlâ was actually located at this strategic point then the possibility of a settlement with chiefs by the state cannot be ruled out. It is evident from the record that the family had been politically integrated into the samanta hierarchy in the recent past since the genealogy of the renovator of the temple is limited to the father, and no mention is made of the grandfather either. 'âtala possibly was the first member in the family to have received the political title of thakkura. The presence of Pratihara chiefs at Chittaurgarh is evident from the discovery of their only record at the temple of Bhojasvami (Chittaurgarh) referring to Rājā Dharasimha, son of Rājā Pāā of the Pratihāra family in AD 1300. Significant changes in the Rajput components of the political structure are discerned in the fifteenth century. I feel that these were caused by the problems and the resultant preferences of the fifteenth-century state of Mewar.

### The Hādās' of Uparmal or Pathâr

Eastern Mewar; with fertile well-watered fields, thick vegetation, and trade routes to central India; appears to have been dominated by the Hādās in the fourteenth and fifteenth centuries. As far as the Chambal, the region belonged to Mewar throughout the medieval period, and the Hādās are known to have acknowledged the supremacy of the râGâs of Mewar. The annals of the Hādās refer to the Guhilas as 'the lords of Medapâma'. However, the claim of the Hādās over this Uparmal region is no less legendary than that of the Guhilas over Mewar. It is significant to note the popular recognition of a small tributary of the Chambal, the Karab-kâ-Khâl as the natural landmark dividing the lands of the Hādās from those of the Guhilas. The Pathar resounds with the traditional tales of the Hādās who, in a very early period, established themselves in this region,



*There is enough historical evidence to prove that in spite of the legendary supremacy of the Hadas of Uparmal in Eastern Mewar, they got politically and militarily incorporated into the Guhila State of Mewar.*

**Prof. Nandini  
Kapur Sinha**



where they are known to have erected twelve fortresses such as Bumaoda, Rattangarh, Dilwargarh, Kheri, Nimbahara, Nimach, Jawad, Jiran, etc. However, the Hâdâs were so powerful in the Uparmal region that even the local tribal population such as the Bhils were aware of their supremacy over eastern Mewar. Bumaoda still reverberates with the name and chivalry of the legendary Alu Hada." Hâda traditions also interestingly narrate the refusal by the râns of Chittaur of a matrimonial offer of a Hâda princess, clearly indicating political rivalry between the Guhilas and the Hâdâs of eastern Mewar (besides hinting at the lower social status of the Hadas). The Hâdâs claim to have defeated Râôâ Mokal in the skirmish that followed the Guhila refusal to accept a State Formation in Rajasthan Hâdâ princess as a Guhila bride. A popular song commemorates the event as follows:

*hamu mokal mâriyo, lalê khetâ jân,  
sujê ratan samghariyo, ajmal arasê rân.*

The song says that the bridegroom, at the spring-hunt of Arasi (Aheriâ), met Mokal, and both fought to death, Râo Sujâ killed Ratan too.

Besides traditions, discovery of the inscriptional records at Menal containing the genealogy and the prasasti of the Hâdâs of Eastern Mewar point to Hâdâ predominance in the locality. The most important of the Hâdâ Inscriptions from Menal is dated AD 1390. It begins with a prasasti of the Cahamanas, the ancestors of the Hâdâs and their presiding deity, ÂûâpûraGadevi before detailing the genealogy of the Hâdâs of Bumaoda, originating from prince Harrâj." It also significantly dis-

***Eastern Mewar; with fertile well-watered fields, thick vegetation, and trade routes to central India; appears to have been dominated by the Hâdâs in the fourteenth and fifteenth centuries.***

nates Harraj's successors as 'lords of Bumaodas'.<sup>78</sup> The political links between the Hâdâs of Menal (eastern Mewar) and the Guhilas can be seen in the Hâdâ claim that Hâdâ Mahadeva rescued the 'lord of Medapâma' (dragged Kaitah) from the grasp of Sultan Uni Shah.

The Ekalingaji Temple Dakci Gadvara Prasasti of RâGâ Râimala of AD 1489 narrates the military victory of RâGâ Khetâ (grandfather of RâGâ Mokal) over the Hâdâs.

Khetâsimha, who was honest and intelligent, reduced the king of the East who took fines, and whose administration and taxation was very severe. He destroyed active and calm heroes who were between (him and the King of the East) and subdued the land after severe fightings in which the heads of the clan of the Hâdâ-Kshatris were cut off and their trunks wandered about.

Here is a contemporary record of the Guhilas of Mewar which directly refers to the Hâdâs as the kings of east and the subsequent victory over them. In fact, references to the maladministration and unpopular taxation system of the Hâdâs of eastern Mewar appear as justifications of the Guhila

military victory over the Hâdâs and their subsequent political integration into the state of Mewar. The fact is evident from the Guhila reference to eastern Mewar as Hâdâ mandala. The conquest of Hâdâvati by MahârâGâ Kumbha (described in the Kumbhalgarh Prasasti), which evidently included the state of Bundi, would also indicate the forts held by the Hâdâs in Uparmal. Apparently, MahârâGâ Kumbha Mewar between the Thirteenth and Fifteenth Centuries had to reassert the authority of Mewar in the land of the Hâdâs during his conquest of Vrindâvanti (Bundi). However, the political sovereignty of the Guhilas over the Hâdâs of eastern Mewar is directly evident in an early fifteenth-century Guhila record from Singoli, eastern Mewar. The text of the Guhila inscription runs as follows: 'Samvat 1477 (AD 1421), the 2nd of Asoj, being Friday (Bhriuguwar), Mahârâja Ūri Mokalji, in order to furnish lights (Jyotistwaste) for Vijayaseni Bhavaniji (643), has granted one bigha and a half of land. Whosoever shall get aside this offering the goddess will overtake him. Thus, the annals and other evidence testify to the political incorporation of the Hâdâs of Uparmal into the state of Mewar by the early fifteenth century.

Political incorporation of the Haddâs of Eastern Mewar is likely to have necessitated Guhila social links with the Hadas. In contrast to records of the tenth century, Guhila inscriptions of the fifteenth century do not mention the lineage of their queens (Baghela and Gauda queens being exceptions). Possible clues are provided by bardic traditions.

(To be continued ...)

## COP28: India calls out 'double standards' of rich nations

Ahead of the conclusion of the first 'global stocktake', India has told the UN climate body that certain provisions of the Paris Agreement were being used unfairly in "denying essential fossil fuel development for developing countries", whereas developed countries were continuing their profligate investment in fossil fuel infrastructure and production. The 'global stocktake' — a process for countries to take stock of their collective action towards meeting Paris Agreement goals — is scheduled to be concluded at the 28th session of the UN climate conference (COP28) in Dubai in December.

Making its submission to the UN climate body after the G20 leaders' summit, India underlined that equal sharing of the mitigation (emission reduction) burden between developed and developing countries was "unfair and inequitable" when the respective responsibilities for atmospheric GHG concentrations were accounted for. The BASIC nations – Brazil, South Africa, India and China – too in its separate submission as the group's joint views flagged similar concerns including the existing implementation gaps, particularly those related to the pre2020 period, and noted historical responsibilities of the rich nations in terms of mitigation burden.

Underlining its own commitment, India said the country's vision of low carbon development was based on the need to ensure its high energy needs for development, including poverty eradication, achieving sustainable development goals (SDGs) and economic growth. It also made it clear that the plan for the country's energy security was based both on the expansion of non-fossil fuel sources (primarily renewables) for power generation and "rational utilisation" of fossil fuel resources.

Setting the tone for discussion at COP28, India also called out the rich nations' failure in mobilising finance for climate action and other pre-2020 actions including mitigation targets, noting how the developed countries had failed to fulfil their promise to collectively bring \$100 billion to the table by 2020.

"The collective level of developed country climate finance still remains \$16.7 billion short of the goal," it said, highlighting that loans continue to be the main instrument used to provide public climate finance.

India said it was crucial to assess the progress of

pre2020 commitments on provision of finance, technology development and transfer, and capacity building while finalising the GST.

The country noted that it would be unfair if those who had contributed the most to the problem did not contribute more to the solution than those whose contribution was much smaller.

<https://timesofindia.indiatimes.com/india-calls-out-double-standards-of-rich-nations-on-fossil-fuel-use-ahead-of-cop28/articleshow/104112488.cms?from=mdr>

## Conference on Entrepreneurship at Shobhit University Gangoh

"Entrepreneurship and Innovation Promotion" conference was organized at Shobhit University Gangoh under the aegis of Shobhit University, Gangoh and Swadeshi Jagran Manch, Saharanpur under the Self-reliant India Campaign. On this occasion, Shobhit University Gangoh Vice Chancellor Prof. (Dr.) Ranjit Singh, Registrar Prof. (Dr.) Mahipal Singh, Care Taker of the institution Sufi ZaheerAkhtar and invited chief guests included Mr. Vipin Kumar Singhal, State Co-ordinator of Self-reliant India Campaign, Meerut Province, Professor Mr. Milli. Pant IIT Roorkee, Mr. Manu Bansal Director Bansal Technocrats Private Limited, Saharanpur, Mr. Aman Bansal Senior Manager Punjab National Bank, Saharanpur, Mr. Vijay Mani Singh Director PNB Rural Self-Employment Training Institute, Saharanpur etc. were present. Many students of the university participated in this conference. ran away.

The program was inaugurated by Vice Chancellor of Shobhit University Gangoh Prof. (Dr.) Ranjit Singh, Registrar Prof. (Dr.) Mahipal Singh, Care Taker of the institution Sufi ZaheerAkhtar, Dr. SomPrabhDubey and chief guests Maa Saraswati and BabuVijendra Ji.

First addressing the program, Vice Chancellor of ShobhitVishwavidyalayaGangoh, Prof. (Dr.) Ranjit Singh congratulated the organizers of the program and presented his views on entrepreneurship and innovation promotion in which he said that words play a central role in entrepreneurship, it helps entrepreneurs. It enables us to meet the market trends and meet the demands of the customers with innovative strategies. Thereafter, Sufi ZaheerAkhtar, Caretaker of the organization said that Vachar is a symbol of creative thinking on which everyone should aim.

On this occasion, the invited chief guest Mr. Vipin Kumar Singhal expressed his views to motivate the youth for self-employment and to take active steps towards their skill development. Thereafter, Prof.



Sharing his views, Shri Milli Pant said that programs like bringing together leading startups, entrepreneurs, investors, policy-makers and other national/international stakeholders on the subject of innovation and entrepreneurship to exchange knowledge on best practices. By organizing such events at various places, people can be encouraged to adopt high technology and low cost loan practices. Thereafter, Mr. Aman Bansal, Senior Manager, Punjab National Bank, while throwing light on the loan related policies of the banks, said that today's How the banks are supporting for employment and other work in the times. The benefit of which is being directly passed on to the public. After that Shri Vijaymani Singh told how PNB Rural Self-Employment Training Institute is providing free training, so that the candidates can improve their By getting training in the activities of their choice, they can stand on their own feet and become financially self-reliant.

At the end of the program, Registrar of Shobhit University Gangoh, Prof. (Dr.) Mahipal Singh thanked all the honored guests and congratulated the organizers on the success of the program. The program was concluded with the national anthem. On this occasion, in the program Teachers like Aadesh Kumar, Harsh Panwar, Swati Rajoura, Aditi Garg etc. were included.

<https://www.newspress.com/uncategorized/conference-organized-on-entrepreneurship-and-innovation-promotion-at-shobhit-university-gangoh/>

## If US Has To Pick India Or Canada

Stating that Justin Trudeau's allegations have led to "greater danger" for Canada than India, former Pentagon official Michael Rubin said that if the United States has to choose between Ottawa and New Delhi, it will surely choose the latter as the relationship is "too important". While referring to the poor approval ratings of Justin Trudeau, Mr Rubin added that he is not long for the premiership, and the US can rebuild the relationship after he is gone.

"Prime Minister Trudeau I think has made a huge mistake. He has made allegations in a manner which he hasn't been able to back. Either he was shooting from the hip and he doesn't have the evidence to support the accusations he made against the government. There is something there, in which case he needs to explain why this government was sheltering a terrorist," the former Pentagon official said.

Hardeep Singh Nijjar, a designated terrorist in India, was gunned down outside a Gurdwara, in a parking area in Canada's Surrey, British Columbia on June 18. "I suspect that the United States doesn't want

to be painted a corner to choose between two friends. But if we have to choose between two friends, increasingly we're going to choose India on this matter, simply because Nijjar was a terrorist, and India is too important. Our relationship is too important," Michael Rubin said while speaking to news agency ANI.

Michael Rubin who is also a fellow at the American Enterprise Institute, where he specializes in Iran, Turkey, and South Asia, said: "As a former consumer of intelligence, I can say that oftentimes the intelligence we see whether it's a telephone intercept or something else, isn't as black and white, isn't as cut and dry. I mean, certainly, that was the case with regard to the Iraq War."

Responding to the possibility of whether the US will publicly intervene in the matter, Mr Rubin said, "Frankly, there's a much greater danger for Canada than India. If Canada wants to pick a fight, frankly, at this point, it's like an ant picking a fight against an elephant and the fact that matter is India is the world's largest democracy. It's far more important strategically, arguably than Canada is, especially as concern grows with regard to China and other matters in the Indian Ocean basin, and in the Pacific."

The India-Canada ties soured further after Canadian PM Justin Trudeau alleged India's role behind the killing of Khalistani terrorist Hardeep Singh Nijjar. This was followed by both countries expelling a senior diplomat in a tit-for-tat move. However, India has out-rightly denied such allegations calling them 'absurd' and 'motivated'. Notably, the Canadian PM has failed to present any evidence to back his claims. Trudeau was repeatedly quizzed on the nature of the allegations but stuck to reiterating that there were "credible reasons" to believe that India was linked to the death of Nijjar.

<https://www.ndtv.com/world-news/if-us-has-to-pick-india-or-canada-it-will-choose-ex-pentagon-official-4416094>

## SC hearing on GM mustard crucial for farmers, honey bees & Nature

A crucial hearing in the Supreme Court that will determine the fate of genetically modified organisms (GMO) entering our food chain, has been put off by a couple of weeks to October 12. It is expected to be the final hearing on the environmental release of genetically modified (GM) and herbicide-tolerant (HT) mustard. Though the matter of environmental release is before the court, the GM mustard hybrid DMH-11 and its parental lines developed by the Centre for

Genetic Manipulation of Crop Plants, University of Delhi South Campus for 2022-23 was released last year for tests in eight government-controlled locations in North India. However, DMH-11 seeds were delivered for planting on October 22, 2022, a few days before a formal approval letter was given to the crop applicant on October 25, 2022, the Coalition for a GM-Free India alleges.

The government had given an undertaking in the SC on July 28, 2017 that it will not create a fait accompli - getting the seeds tested even before the court's approval. Yet, it went ahead and did exactly that on October 22, 2022, the Coalition charges.

Kavitha Kuruganti, a representative of The Coalition for a GM-Free India, fears the seeds of GM mustard currently being cultivated in the eight different locations, could ultimately end up in various farms illegally, just as HT Bt cotton seeds did back in 2002.

"Those farmers will end up being criminalised for illegally sowing the seeds, as they can't be used for commercial cultivation as per the Environment (Protection) Act of 1986. Farmers could also be penalised as per the insecticides Act, 1968. It is a non-bailable offence," she cautions.

"We have a situation where the farmer will use this herbicide tolerant variety out of desperation to save `1,000 to avoid paying labourers for weeding," she notes. Remember those involved in the weeding out process to make a living are mostly women farm labourers. Kavitha warns that diverse cropping and natural farming would be affected, which would encourage "wrong farming".

Honey bees, she feels, would be the most threatened due to GM mustard, as honey is mostly produced in honey bee boxes placed in mustard farms. India's export of honey is more than its import. If GM traces are found in the exported honey, all those lots could be rejected, she cautions. In its report titled "Statutory Regulatory Violations & Procedural Infirmities in GM Mustard Appraisal & Approval in India", the Coalition had submitted to the SC bench that in the 136th meeting of Genetic Engineering Appraisal Committee (GEAC) held on September 20, 2018, it was decided that any pesticide that adversely impacted honey bees shouldn't be used in the field demonstration studies on honey bees and other pollinators. Yet, honey bee boxes were placed in the GM mustard test farms.

When asked about his observations as the mem-

ber representative of GEAC's post-release monitoring committee (PRMC), which visited five sites where DMH-11 were sown, Prof S J Rahman, Head of the Department of Entomology, Agricultural Research Institute, Prof Jayashankar Telangana State Agricultural University, said the GM seed had undergone event selection and two stages of biosafety levels tests before reaching the environmental release stage. Without going into specifics, he said a lengthy standard operating procedure was followed for approving DMH-11 before their trials in Rajasthan, UP, Punjab and Delhi.

The GEAC's minutes of its 150th meeting on August 10 last says the post-release study of GM mustard found the condition in general looked good with a robust crop stand. "There was good seed set across all the entries at all the six locations indicating that there had been good activity of honey bees and pollinators on all the entries including GE mustard hybrid," the minutes read.

**SJM is on the same page:** It's not just organisations at the opposite end of the Centre's ideological spectrum that are opposing the introduction of genetically modified organisms in the country. The Swadeshi Jagran Manch (SJM), part of the RSS family, is on the same page. It hopes the Supreme Court would force the Centre's hand by ruling against the cultivation of GM mustard in the country.

SJM says no field trials were done on GM mustard's impact on human health and environment, and its approval for environment trials at eight locations was a fait accompli. If GM food crops get approval for commercial production, companies would try to push their seeds to establish monopoly, he argues. "After the introduction of Bt cotton seeds, all indigenous cotton seeds vanished from the markets. Even the committee formed by the Supreme Court had stated in its report that genetically modified seeds shouldn't be allowed in food crops of Indian origin," SJM says.

Pointing to the high rate of farmer suicides in areas like Vidarbha are mostly among Bt cotton cultivators, he says the steady drop in cotton production is undisputed. "The claim of high yield of Bt cotton is a lie. If productivity has at all improved, it is because of more areas being brought under cultivation. Earlier cotton used to be alternated with other crops. But now it has become a monoculture," SJM notes. □□

<https://www.newindianexpress.com/spl/2023/sep/30/final-sc-hearing-on-gm-mustard-crucial-for-farmers-honey-bees-and-nature-2619469.html>

Swadeshi Activities

# Swavlambi Bharat Abhiyan

## Entrepreneurship Encouragement Conferences

(उद्यमिता प्रोत्साहन सम्मेलन)

Pictorial Glimpses



Rampur, U.P.



Dehradun, Uttarakhand



Barabanki, U.P.



Badarpur, Delhi



Rajnandgaon, Chhattisgarh



Mathura, Braj Prant



Palamu, Jharkhand



Swadeshi Activities  
**Swavlambi Bharat Abhiyan**  
**Entrepreneurship Encouragement Conferences**  
(उद्यमिता प्रोत्साहन सम्मेलन)

Pictorial Glimpses



SLBSRSV, New Delhi



Delhi University, Delhi



Patna, Bihar



Pashchim Vibhag, Delhi



Kashi