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# YOJANA

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## Atmanirbhar Bharat

### LEAD ARTICLE

GI-Tagging of Rural Products

G R Chintala

### FOCUS

Har Ghar Jal

Yugal Joshi

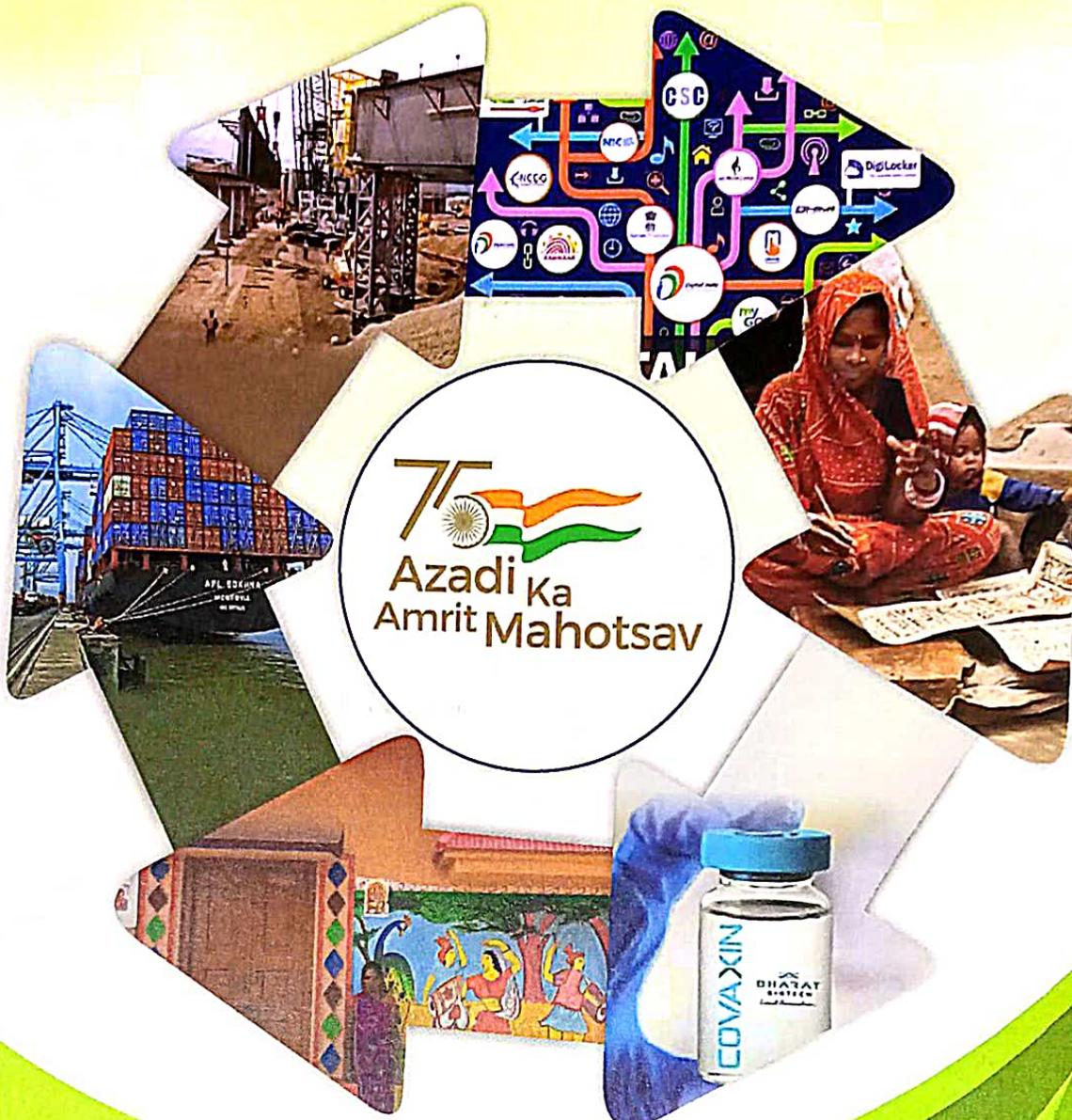
### SPECIAL ARTICLE

Capacity Building of PSUs

Dr Praveen Kumari Singh

Self-Reliance in Energy Sector

Dr Amiya Kumar Mohapatra



# Multi-Sectoral Initiatives

## AMRUT 2.0



As a step towards Atmanirbhar Bharat and with the aim of making the cities 'water secure' and 'self-sustainable' through circular economy of water, Atal Mission for Rejuvenation and Urban Transformation 2.0 (AMRUT 2.0) has been approved till 2025-26. To provide reliable and affordable water supply and sanitation services to urban

households, functional tap connections are being provided to all households, water source conservation/augmentation, rejuvenation of water bodies and wells are being undertaken, and recycle/re-use of treated used water and rainwater harvesting is being carried out. The project shall lead to ease of living by providing piped water supply and sewerage/septage facility to urban households.

Taking forward the remarkable strides made under the initiative, AMRUT 2.0 targets universal coverage of water supply by providing household tap connections in all 4,378 statutory towns. A 100% coverage of household sewerage/septage management in 500 AMRUT cities is another objective of the mission. It targets to provide 2.68 crore tap connections and 2.64 crore sewer/septage connections to achieve the intended outcomes.

The total indicative outlay for AMRUT 2.0 is Rs 2,77,000 crore, including the central share of Rs 76,760 crore for five years from FY 2021-22 to FY 2025-26. The Mission will be monitored on a robust technology-based portal. Other key features of AMRUT 2.0 (U) include 'Pey Jal Survekshan' which will encourage competition among cities for benchmarking urban water services.

## PM Gati Shakti



The Cabinet Committee on Economic Affairs (CCEA) has approved PM Gati Shakti-National Master Plan (NMP) including the institutional framework for rolling out, implementation, monitoring, and support mechanism for providing Multi-modal Connectivity. The implementation framework includes Empowered Group of Secretaries (EGoS),

Network Planning Group (NPG), and Technical Support Unit (TSU) with required technical competencies.

The PM Gati Shakti-NMP is intended to break departmental silos and bring in more holistic and integrated planning and execution of projects with a view to addressing the issues of multi-modal connectivity and last-mile

connectivity. This will help in bringing down the logistics cost and will translate into enormous economic gains to consumers, farmers, and youth as well as those engaged in businesses.

The EGoS will be headed by the Cabinet Secretary and will consist of Secretaries of 18 Ministries as members and the Head of Logistics Division as Member Convenor. The EGoS has been mandated to review and monitor the implementation of the PM Gati Shakti-NMP to ensure logistics' efficiency. It is empowered to prescribe framework and norms for undertaking any subsequent amendments to the NMP. The EGoS shall also set out the procedure and definitive framework for synchronisation of various activities, and ensure that various initiatives of infrastructure development are part of the common integrated digital platform. It will also look at the interventions required to meet the demand side, to efficiently transport bulk goods on the requirement of various ministries like Steel, Coal, Fertiliser, etc. PM Gati Shakti shall bring various stakeholders together and help integrate different modes of transportation.

## PM MITRA Parks



To position India strongly on the global textiles map, the Government has approved the setting up of seven PM MITRA parks as announced in Union Budget for 2021-22. PM MITRA is inspired by the 5F vision encompassing - Farm to fibre; fibre to factory; factory to fashion; and fashion to foreign. This integrated vision will help further the growth of the textile sector in the economy.

The seven PM MITRA parks will be set up at Greenfield/Brownfield sites located in different States. The proposals of State Governments having ready availability of contiguous and encumbrance-free land parcel of over 1,000 acres along with other textiles related facilities and ecosystem are welcome. The Parks will have:

1. Core Infrastructure: Incubation Centre and Plug and Play facility, Developed Factory Sites, Roads, Power, Water, and Waste Water System, Common Processing House and Common Effluent Treatment Plants (CETPs), and other related facilities, eg. Design Centre, Testing Centres, etc.
2. Support Infrastructure: Workers' hostels and housing, logistics park, warehousing, medical, training & skill development facilities.

PM MITRA Park will be developed by a Special Purpose Vehicle (SPV) which will be owned by the State Government and Government of India in a Public-Private Partnership (PPP) Mode. The Master Developer will not only develop the Industrial Park but also maintain it during the concession period. Selection of this Master Developer will be based on objective criteria developed jointly by the State and Central Governments.



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Let noble thoughts come to us from all sides.  
Rig Veda

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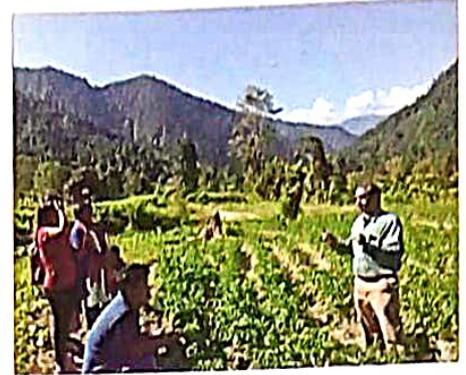
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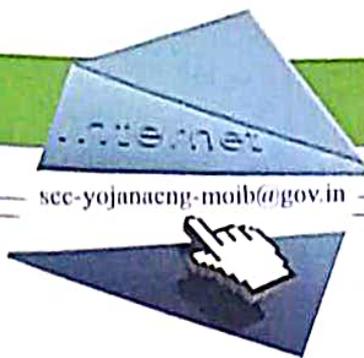
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YOJANA is published in Assamese, Bengali, English, Gujarati, Hindi, Kannada, Malayalam,  
Marathi, Odia, Punjabi, Tamil, Telugu, and Urdu.



Inbox



### Public Administration

I have been following Yojana for two years and enjoy the spectrum of themes the monthly magazine comes up with every time. The issue on 'Public Administration' in August 2021 was undoubtedly one of the important issues in recent months and has been evidently so popular across the competitive world of civil services and others. Many-a-times, I, like many others, wonder what goes around LBSNAA and the functioning structure of it. I would like to express my happiness in writing to you that a particular article of September 2021 on 'Making of the Administrators' by Shri Amitabh Khare was unique. In addition to this, articles like these are not only helpful in boosting confidence in aspirants but also educating in terms of knowledge on flagship institutions of India. I would like to extend my gratitude to all the authors who help us enrich our knowledge and awareness.

– Sourav Jena  
Bhadrak, Odisha

### Made for Every Aspirant

First of all, I would like to thank Yojana team for such initiatives. I have been studying Yojana since January 2020. There are so many important topics like culture, International Relations, Federal Structure, Jal Jeevan Mission, Nari Shakti, etc., whose articles directly help in our mains' answer writing. Those facts given in articles enrich our content. So, every aspirant must read this magazine.

– Shalini Dwivedi  
Patna, Bihar

### Enriching Knowledge

I have been following Yojana for past few months and I must say that I found a perfect resource which

enriches my preparation of CSE. When I read the August issue about Public Administration, I got complete history related with it. It not only helps in my preparation but also enriches my learning process.

– Ankita Nagwanshi

### Integrated Learning

I am one of the civil services aspirants who has been following Yojana since 2019. It provided not only related topics for civil services syllabus (like public administration), but also furnished dynamic data and integrated all aspects of topics, covered all dimensions which is more than enough information for preparation of aspirants like me. Thank you to the entire Yojana team.

– Yella Krishna  
Kurnool, Andhra Pradesh

### Topic Suggestion

I am one of your recent readers. Reading Yojana is always joyful and intellectual, connecting all the respective dynamics with facts and figures as well. I suggest you to come up with the issue about "Reforms in Politics" since that is what the need of the hour is.

– Bhavya Prajapati

### Panchayati Raj

The Panchayati Raj, November Edition elaborated how good development begins from the grassroots, like a good day begins with a coffee and an article from Yojana. Thank You!

– Aritra Mondal  
Ranchi, Jharkhand

YOJANA December 2021



## Journey Towards Self-Reliance

When the two indigenous vaccines were approved by the World Health Organization for emergency use, India was seen as a beacon of hope for low- and middle-income countries against the pandemic. It was also a victory for medical research that reiterated the significance of a self-reliant India.

This was the time we revisited the concept of Atmanirbharta, i.e. self-reliance, the initiatives which could be taken in this regard, and discussed the various sectors and domains where it can be a game-changer. The Government announced an economic package of Rs 20 lakh crore under the 'Atmanirbhar Bharat Abhiyaan' in May 2020, to prevent the country from the outspread of the Covid-19 crisis by making it self-reliant. Based on the five pillars- Economy, Infrastructure, System, Vibrant Demography, and Demand; under this Abhiyaan, the Government took several bold reforms such as supply chain reforms for agriculture, rational tax systems, simplified laws, efficient human resource, and strengthening financial system. A further set of reforms and enablers across sectors were announced under this initiative.

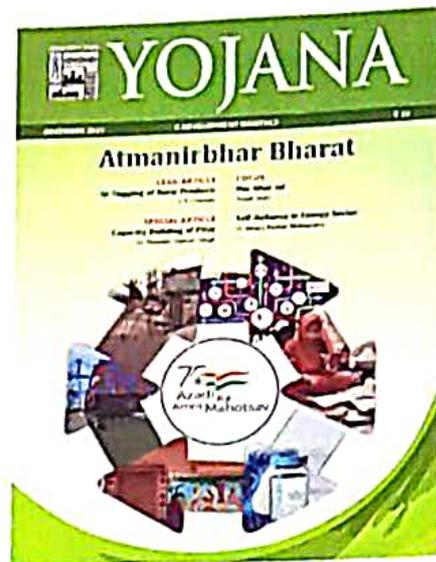
The worst-affected sectors included local manufacturing units, recreation, real estate, education, hospitality, logistics, Information Technology, retail, and aviation among many others. Restricted business activity in terms of import-export, transport, and supply chains, affected the MSME sector, a major contributor to the Indian economy. The revival stimulus had measures that included the much-needed support to the migrant and marginalised population, additional finance to meet the operational demands of businesses, particularly MSMEs, support to the non-banking and other financial institutions, and reforms promoting ease of doing business.

With vaccination gaining pace and somewhat decreased coronavirus cases while this piece is being drafted, the time is quite ripe to discuss how each sector can revive and rebuild itself triumphantly. Most of the people are resuming their offices offline, public transport is working in almost full capacity, public places including malls and cinema halls are regaining their footfalls especially with the festive and wedding season, and children are gradually going back to schools after a long hiatus. Most of the people who would have lost their livelihoods temporarily due to the unexpected halt in their workspace are gradually going back in their respective businesses.

For this revival of economy, the idea is to become 'vocal' for the 'local' products and create an ecosystem that will allow Indian companies to be highly competitive at the global platform. A clear use case for this resilience and self-sufficiency can be seen in the augmented production of the medical supplies, including PPE kits.

The two innovative customer-centric initiatives of RBI launched recently, are also a step in the direction of expanding the scope of investment in the country and making access to capital markets easier and more secure for investors. Ever since the imposition of the lockdown, UPI has transformed the country into becoming self-reliant in terms of digital transactions in a very short span of time.

This issue of Yojana touches upon the multi-faceted spheres of the nation building, i.e. economy, entrepreneurship, manufacturing, consumers, rural infrastructure, and export promotion to bring about a growth in the underlying potential of these sectors and challenges that lie ahead of them. As this eventful year comes to an end, we are hopeful that the new year will bring more prospects and opportunities for all. □



## GI-Tagging of Rural Products

G R Chintala  
Gyanendra Mani  
Surendra Babu

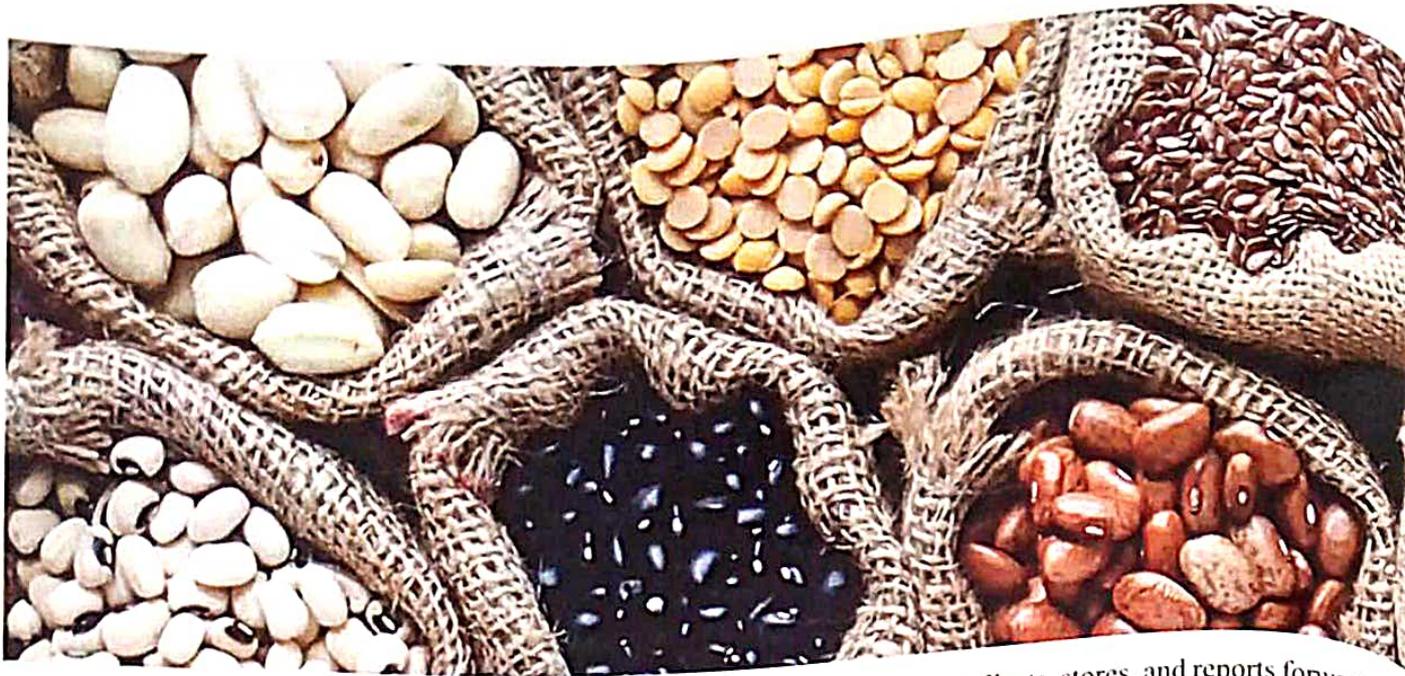
*India realised the need to protect its indigenous, unique, and reputed products through GI when an American company was given a patent of Basmati rice, and India had to resort to an expensive procedure of challenging the patent in the US court of law. This necessitated India to enact the Geographical Indications of Goods (Registration and Protection) Act, 1999 in 2003 to give protection for GI through sui generis legislation. To facilitate this process, the Geographical Indications Registry of India was set up in Chennai.*

**T**he present international framework on the Geographical Indications (GIs) derives its strength from Article 22 of the Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement, which defines GIs as 'indications which identify a good as originating in the territory of a member, or a region or locality in that territory, where a given quality, reputation or other characteristics of the good is essentially attributable to its geographical origin'. This mandates member countries to provide for the protection of all GIs, where the obligation is for the members to provide the 'legal means for interested parties', to secure protection of their GIs. Geographical Indications are also covered as an element of Intellectual Property Rights (IPRs) under Articles 1(2) and 10 of the Paris Convention for the Protection of Industrial Property. In general, GIs backed up by solid business management can bring a competitive advantage, more added value to a product, increased export opportunities, and a strengthened brand of produce. Further, GI is different from the other type of Intellectual Property called 'trademarks' in a way that trademark is a sign assigned to an enterprise that gets the exclusive right to use it to distinguish its goods and services from those of others. However, GI is not a property right given to an individual to use it, rather it is attributed to goods or services specific to a region which allows every producer in the specified region to use the said GI as long as the quality of the GI goods is similar to the specified qualities of the identified product of the said region.

Globally, an estimated 55,800 protected GIs were in existence in 2019, with maximum GIs in force in Germany (14,289) followed by China (7,834), and Hungary (6,494). USA and India had just 529 and 361, respectively.<sup>1</sup> All the GIs in force in China and India are protected through national systems, whereas the bulk of GIs in force in Australia (90.7%), Israel (99.9%), and Ukraine (99.2%) are protected through international agreements. GIs in force relating to wines and spirits accounted for 56.6% of the 2019 global total, followed by agricultural products and foodstuff (34.2%). Handicrafts accounted for 3.5% of the total.



G R Chintala is the Chairman, Gyanendra Mani is the Chief General Manager, and Surendra Babu is the Deputy General Manager, NABARD. Email: [gyanendra.mani@nabard.org](mailto:gyanendra.mani@nabard.org)



Darjeeling tea was the first Indian product that was awarded the GI tag in 2004 for its naturally occurring quality, flavour, and market potential. In fact, three variants of Darjeeling tea—black, green, and white have got GI tag. Till now, 370 products have been registered as GIs by the GI Registry of India which comprise handicraft (214), agricultural (112), foodstuff (16), foreign foodstuff, and manufactured (14), Indian manufactured (12), and natural goods (2). Karnataka has the highest number of GI tags with 47 products followed by Tamil Nadu (39).

Although a good progress is seen in the number of goods (370) registered with the GI tag during the last 18 years, there is still a need to put in place a dedicated institutional structure and also a mechanism that deals with the affairs of GI products. The registration of goods *per se* does not confer the economic benefits unless it is backed by a sound enforcement mechanism, both in domestic and export markets. For this purpose, India has started taking initiatives for setting up traceability systems at the government and corporate levels. GrapeNet, an initiative by the Agriculture and Processed Food Products Export Development Authority (APEDA), Ministry of Commerce, the Government of India, is an example in this direction. Besides, traceability initiatives have also been completed for HortiNet, Peanut.Net, Basmati. Net, TraceNet, Meat.Net, etc., by APEDA. HortiNet has demonstrated the traceability solutions to crops viz. grapes, pomegranate, mango, vegetables (Bitter Gourd, Bottle Gourd, Cluster Beans, Curry Leaf, Drumsticks, Eggplant, Flat Beans, French Beans, Green Chilly, Ivy Gourd, Long Beans, Okra, Potato, and Round Gourd), Betel leaves, and citrus fruits. TraceNet which works under the APEDA,

**GIs backed up by solid business management can bring a competitive advantage, more added value to a product, increased export opportunities, and a strengthened brand of produce.**

collects, stores, and reports forward and backward traces, as well as maintains authentic information and related data by the operators/producer groups and certification bodies within the organic supply chain in India.

Some good initiatives aimed at promoting GI products have been taken in the country, though the pace and the number of interventions are limited.

Some of them worth mentioning are indicated below:

- i. In a bid to popularise India's GI-tagged products and works of artisans, the government is aiming to market the products in international markets. While launching the new logo for the GI products, a new tagline for

असुख्यं खरस्य कीं असुख्यं फलितं  
UNDISCOVERED TREASURES OF INCREDIBLE INDIA

Beed Custard Apple

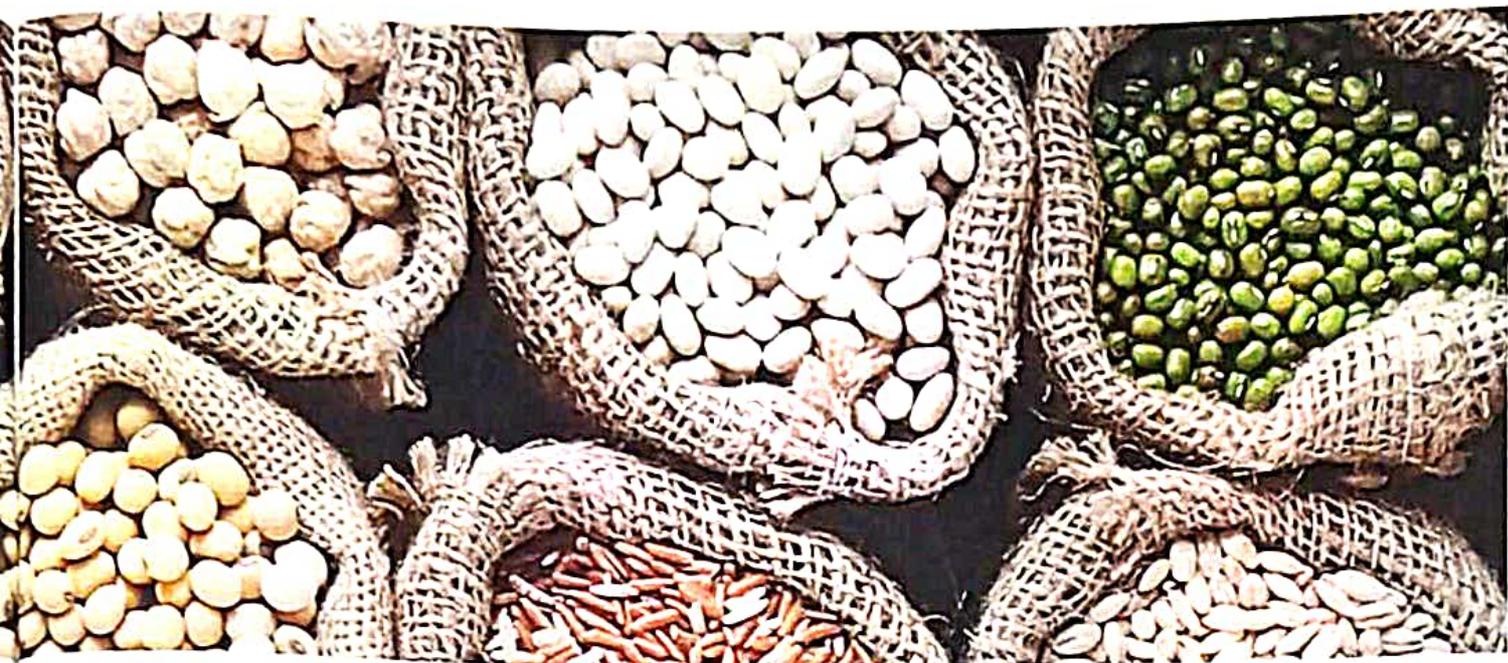
#AatmaNirbharBharat

The delicious Beed custard apple is having high demand due to its sweet juicy and sugary pulp. The Beed custard apple having phenomenal sweet taste is the most delicious gift of Balaghat ranges to the dry land Beed district, for more than four centuries.

GI of Maharashtra

#Vocal4GI

APEDA MEMBER APP FARM REGISTRATION APEDAMOC APEDADOC APEDAMOC



promotion 'Invaluable Treasure of Incredible India' has been selected. The Ministry of Commerce is working with the Ministry of Civil Aviation as well as the Ministry of Railway to arrange a display for GI-tagged products.

Darjeeling tea was the first Indian product that was awarded the GI tag in 2004 for its naturally occurring quality, flavour, and market potential.

to government buyers was also launched. Startup Runway will enable them to conduct market trials with government buyers, seek time-bound feedback and gain realistic product, price comparison, and market valuation from potential buyers and

ii. India's very first Geographical Indications (GI), Store of Cashew Export Promotion Council of India (CEPCI) was launched in 2019, at the departure terminal of Goa. GoI is planning to open GI stores in other airports as well. Government e-Marketplace (GeM) Startup Runway, an initiative of GeM to provide access to the public procurement market and sell innovative products and services

investors.

iii. India's Foreign Trade Policy (FTP) 2021-2026, which targets to achieve the exports value to USD 1.0 trillion by 2025, has recognised GI-tagged Agri commodities as one of the growth drivers in the draft export policy which will help to gain competitive advantage in buyer-driven global markets. Two major initiatives proposed under the new FTP include (a) Promoting 'District Export Hubs' in each district and setting up district export promotion panels, and preparing district export action plans to target small businesses and farmers, and (b) 'Correcting imbalances' in India's international trade processes by creating efficient, cost-effective, and adequate logistical and utility infrastructure, as well as working towards reducing the domestic and overseas constraints related to the policy, regulatory and operational framework for lowering transaction costs and enhancing ease of doing business.<sup>2</sup>

iv. Another small but important step to boost indigenous toys production to support artisans and MSMEs is the government adopting Toys (Quality Control) Second Amendment Order, 2020 which exempts goods manufactured and sold by artisans and those registered as Geographical Indication (GI) from Quality Control Orders.

v. Starting of India's first exclusive and largest online store of GI-tagged products, is also an important effort

**Bardhaman Sitabhog**

#AatmaNirbharBharat

Bardhaman Sitabhog is a flavourful dessert that looks like white rice or vermicelli mixed with small pieces of Guleb Jamuns. It is made from cottage cheese (also known as chhana in Bangla), rice flour and sugar. Sitabhog often gives the appearance of pulao, which is albeit sweet in taste.

GI of West Bengal

#Vocal4GI

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to help GI products get visibility as well as a ready market.

- vi. Many agencies as well as the State governments are now frequently organising Buyer-Seller Meet with a specific focus on GI-tagged products.

A few suggestions to expand the production level and also to link the rural-based GI-tagged products to major urban markets, as well as export destinations are made as follows:

- i. There is a need to prepare a strategy to raise awareness about various GI products, and the difference between GI and non-GI products amongst local farmers, consumers, and other relevant stakeholders.
- ii. APEDA, which organises buyers-sellers meet in different countries in virtual as well as in physical form to promote export of Indian agri-products, has recently started giving special visibility to GI products. Such efforts are a welcome step but India, especially the Central Government, needs to come out with some long-term policy to provide Indian GI products an assured domestic as well as international market.
- iii. The Central Sector Scheme of promotion and nurturing of 10,000 Agri-based Farmers Producers Organisations (FPOs), is being implemented through three national agencies, NABARD, SFAC, and NCDC, and a few other agencies. Cluster approach based on One District One Product (ODOD) has been adopted to increase value addition, marketing, and exports which will benefit small, marginal, and landless farmers by giving access to technological inputs, finances, and better markets and prices for their crops. The OPOD concept is in practice in Japan as OVOP (One Village One Product) and as OTOP (One Tambon One Product) in Thailand and reportedly has contributed positively to the income of the farmers in both the countries.<sup>4</sup>

Another small but important step to boost indigenous toys production to support artisans and MSMEs is the government adopting Toys (Quality Control) Second Amendment Order, 2020 which exempts goods manufactured and sold by artisans and those registered as Geographical Indication (GI) from Quality Control Orders.

In this connection, it is suggested that implementing agencies should try to give due importance to crops having GI tags or having requisite characteristics for consideration as GI products.

- iv. The government needs to make efforts for creating required infrastructures such as customs clearance facilities, laboratory testing facilities, pack-houses, and pre-cooling facilities, which would harness and boost the exports potential of GI products.
- v. India needs to start negotiations with other countries very proactively, to make their markets available for GI-tagged products, especially agricultural products from India as about 111 out of 370 GI products registered in India are agricultural products. In return, India would also be expected to help GI-tagged products.
- vi. Despite GI tagging, the commercial performance of many GI products is not up to the mark, even in the domestic market. Therefore, the GoI may identify such product-place clusters and evaluate



them commercially to develop them in their entirety.

- vii. It is observed that except for Basmati rice, Nashik grapes, and Darjeeling tea, the value chains for most of the other GI-tagged commodities are either not developed or at a very nascent stage. Efforts are needed on this front also.
- viii. Setting up an incubation centre for helping users/farmers/entrepreneurs for obtaining GI and traceability solutions of their produce may help GI products to grow.
- ix. Identification of select FPOs and pilot for GI-traceability solutions covering a survey of farms, weather advisory services, traceability solutions, reporting applications, inventory management, order management, satellite-based applications, and yield predictions.
- x. NABARD supports the registration of agricultural as well as non-agricultural products for getting GI tags. It also helps various agencies to form and nurture Off-farm (non-farm) Producers Organisations (OFPOs) which can be taken advantage of for promoting region-specific non-farm activity clusters. □



*Disclaimer: The views are personal and do not necessarily reflect the view of NABARD.*

## References

1. World Intellectual Property Indicators, WIPO, 2020 Chintala, G R and Gyanendra Mani (2020). NewAgri-reforms: Farmers-

collectivessettogainthemost. <https://www.financialexpress.com/2039242>. July 30, 2020.

2. Cogoport (2021) Foreign Trade Policy 2021-2026: Expectations for the Import-Export Sector. <https://www.cogoport.com/> August 02, 2021.
3. <https://www.gitagged.com>, Kundra Ashish and Gyanendra Mani (2020) Agri revolution 2.0: New ordinance set to revolutionise agriculture, but Centre needs state co-operation. <https://www.financialexpress.com/2015368>. July 07, 2020.
4. Claymone, Yoopin (2011). A Study on One village One Product Project (OVOP) in Japan and Thailand as an Alternative of Community Development in Indonesia: A Perspective on Japan and Thailand. <https://www.researchgate.net/publication/255801823>

## Farmer Welfare

The Prime Minister has announced a series of measures for the long-term welfare of the farmers. In his address to the Nation, the PM said that the Government has given the highest priority to agriculture development and farmer welfare. He added that a four-pronged measures of seeds, insurance, market, and savings were taken to ameliorate the conditions of farmers. Along with good quality seeds, the government also connected the farmers with facilities like neem coated urea, soil health card, and micro irrigation. Many initiatives have been taken for the farmers to get the right price for their produce in return for their hard work. The country has strengthened its rural market infrastructure.

The Prime Minister said, to improve the condition of the farmers, three agricultural laws were brought in

the country. The objectives were that the farmers of the country, especially small farmers should be strengthened, they should get the right price for their produce and maximum options to sell the produce. Earlier also many governments had brainstormed on this. This time also there was a discussion in the Parliament, brainstorming took place and three laws were brought up that will now be repealed through the due constitutional process.

He also announced the formation of a committee to promote zero-budgeting based agriculture, to change crop pattern as per the changing needs of the country and to make MSP more effective and transparent. The Committee will have representatives of the central government, state governments, farmers, agricultural scientists, and agricultural economists.

*Source: PIB*

## Capacity Building of PSUs

Trishaljit Sethi

Dr Praveen Kumari Singh

*In order to meet the training needs in the current dynamic scenario, it is imperative that there is synergising of resources and more active exchange of technical knowledge and other related ideas among PSUs. There is a need to bring about collaboration between training facilities of various PSUs and create a pool of shared resources. A successful collaboration between these training facilities owned by distinct PSUs will not only create cross-synergisation between them but also develop a vibrant pool of common resources to be shared with others.*

**T**raining and Capacity Building in Public Sector Undertakings is an area that is gaining importance, particularly due to rapid advancements in technology and other operational methodologies. To meet the training needs in the current dynamic scenario, it is imperative that there is synergising of resources and a more active exchange of technical knowledge and other related ideas among PSUs.

There is a need to bring about collaboration between training facilities of various PSUs and create a pool of shared resources. This would also be in line with the 'National Programme for Civil Services Capacity Building' (NPCSCB) being implemented by the Department of Personnel and Training.

There are 256<sup>1</sup> operational Central Public Sector Undertakings (CPSUs) in the country, employing around 10 lakh people. Out of these CPSUs, 96 have been conferred the Ratna status among which 10 are Maharatna companies, 14 are Navaratnas, and 72 are Miniratnas. The net profit of these organisations was 93,294 crore rupees<sup>2</sup> in 2019-2020. They also make a substantial contribution to the growth of the Indian Economy and critical infrastructure.

Since they are also expected to perform on a competitive basis with prudent management, quality decision-making while ensuring

accountability, efficiency, and transparency, the need for world-class training inputs cannot be overemphasised. Modern processes and capacity building in the form of functional competencies, skills, and attitudes will foster a culture of efficiency, competitiveness, integrity, and probity, will also curb administrative malpractices.

Many of these Public Sector Undertakings, especially the larger ones with 'Ratna' status have their own state-of-the-art training facilities which are used mainly for Training and Capacity Building of the employees working in these companies. Some PSUs even have more than one such training institute, each with a distinct field of specialisation. While most of these training institutes have some select core competencies in their operational field, some also individually cater to the development of managerial expertise like Leadership, Team building, Communication, Executive Development, Decision-making, and other similar soft skills for their employees. As

of now, there is no institutionalised system of collaboration between these training institutes and each one caters mainly to its own employees using in-house resources and some select outside resource persons.

A successful collaboration between these training facilities owned by distinct PSUs will not only create cross-synergisation between them but also develop a



**iGOT**

Integrated Government Online Training

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## Centres of Excellence

The premier training institutes of most of the bigger PSUs are equipped with the latest training infrastructure as well as human resources to cater to the needs of their personnel. Each of them has certain flagship programmes that they run for the senior management. In addition, each has its own 'core competency' or specialised area of training. Invariably, the Core Competency areas relate to the PSUs area of functioning. For example, Oil and Natural Gas Corporation Limited (ONGC) has a training institute that specialises in areas such as Drilling Technology, Geo- Data Processing, Reservoir Studies, Oil Field Equipment, etc. Coal India Limited has an institute in Ranchi which mainly deals with the training and development of executives.

vibrant pool of common resources to be shared with others. This collaboration would be most beneficial if it is done in a manner such that the distinct institutes complement each other's training capabilities in terms of their core competencies and also the general (managerial) areas of training. This collaboration may not be restricted to the training institutes of PSUs of the same sector. For the best optimisation of resources, this scheme could be extended to training institutes across various sectors. Common training areas could be identified and executives of one PSU could benefit from training/other inputs from another PSU's training institute.

It is seen that though some of these institutes are also designing customised courses for executives of other PSUs and even for foreign nationals, yet there is no institutionalised mechanism as of now for collaboration and resource sharing.

**A successful collaboration between these training facilities owned by distinct PSUs will not only create cross-synergisation between them but also develop a vibrant pool of common resources to be shared with others.**

This resource sharing needs to be institutionalised and two or more training institutes when collaborated could be designated as 'Centres of Excellence' (CoEs). To create the shared infrastructure of these combined resources, the core competencies of all the training facilities of the PSUs could be mapped first and then can

Recently, the Cabinet has approved the NPCSCB by setting up an Integrated Government Online Training (iGOT) portal. It essentially aims at the development of an integrated training infrastructure across services. One of its core guiding principles is to "create an ecosystem of shared training infrastructure including that of learning materials, institutions and personnel."<sup>3</sup>

be modalities developed for strengthening it. Different institutes could be identified to further enhance a 'specific' competency. This could be done in a manner, so as to avoid duplication of process and create specialisation in a particular field by the identified institute. This would be

The premier training institutes for Civil Services such as the Lal Bahadur Shastri National Academy of Administration, SVP National Police Academy, Indira Gandhi National Forest Academy, National Academy of Direct Taxes, Rafi Ahmed Kidwai National Postal Academy, National Academy of Indian Railways, etc., have been co-opted to synergise their resources for this mission.

It is therefore in the interest of training of personnel of PSUs that a similar integrated approach is adopted to create a common pool of resources among their training institutes.



followed by resource sharing between institutes which could be in terms of experts/faculty, infrastructure, R&D, etc. Common programmes could be designed for personnel of different PSUs which would also result in an exchange of ideas and sharing of best practices.

The areas where different sectors can best benefit from each other could be identified and each other's facilities be utilised. At times, some PSUs manufacture/supply key equipment for other PSUs. For example, BHEL (Bharat Heavy Electricals Limited), under the Ministry of Heavy Industries manufactures turbines for Power stations and also several other heavy equipment for the functioning of many PSUs. Orientation visits/training of employees of the user PSUs could be arranged at BHEL's training facility to familiarise them with the manufacturing process, size, scope, and other details of the equipment that they use, to better equip them to carry out their work.

In the case of smaller PSUs, there may not be any training facility at all. An arrangement could be made to provide training for the personnel of such smaller PSUs in the facility most suitable to them.

#### i. Geographical Clusters

To begin with, geographical clusters could be identified where, in a single location, several training institutes from

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Resource sharing needs to be institutionalised and two or more training Institutes when collaborated could be designated as 'Centres of Excellence'. To create the shared Infrastructure of these combined resources, the core competencies of all the training facilities of the PSUs could be mapped first and then modalities developed for strengthening it.

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separate fields are located. These could be made CoEs wherein institutionalised mechanisms are developed for sharing resource people, experts, R&D, and even the physical infrastructure.

Gradually, a pool of master trainers could also be built by these 'Centres of Excellence' who could further impart training at various locations.

In these Centres, apart from utilising each other's core competency areas, the general areas of training like modules on Management, Preventive Vigilance, and Leadership could be designed and conducted collaboratively. This will

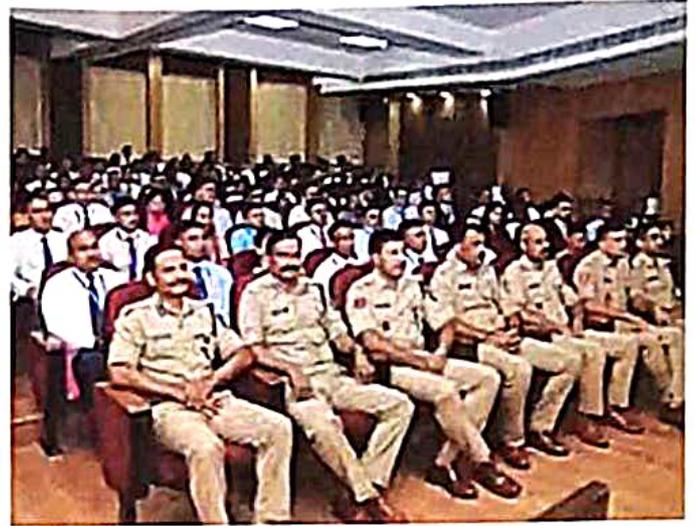
not only prevent duplication of the process but also create uniform modules across institutes and standardise the training process.

#### ii. Thematic Clusters

There may be different institutes offering similar core competencies. Tie-ups between such centres could help create Thematic Centres of Excellence. For this, institutes offering similar core competencies in the same specialised field could be brought together to share R&D and Training techniques.

The thematic clusters can also be helpful in the Banking Sector. Most of the Public Sector banks too have premier training institutes located in different stations. These institutes other than having executives/





management modules also impart domain-specific training like interest management, micro-finance, rural banking, credit management, etc. On similar lines for the training institutes of PSUs, the training institutes of banks could come together and provide training to officers and staff across banks.

The domain-specific core competencies of the various banking institutes could be mapped and ensure specialisation of a particular competency by a specific bank. This would avoid duplication of processes and the resources in terms of manpower, infrastructure, and expert faculty could be utilised optimally.

### Ethics and Moral Values

Another area that needs to be given paramount importance specially in training, is the awareness and the understanding that how work and values of organisations such as adherence to Rule of Law, transparency, and efficiency contribute towards the larger objectives of an inclusive, just, and equitable society. Role of Public Sector Enterprises (PSEs) as agents of socio-economic growth and change, creators of formal and informal economic opportunities, providing social benefits through CSR (Corporate Social Responsibility) activities can help in mitigation of poverty, fulfilling the health and education needs of the underprivileged sections of society.

Training inputs can help in developing a sense of responsibility towards nation-building. The CoEs as proposed, could collaboratively tie-up with specialised institutes which provide insights on these issues. Periodical training could be organised by these Centres to any of these selected institutes, to enable the participants to understand the economic and social

milieu of the country, and the ultimate goals governance strives at. Goals of growth and development for all, fair and efficacious governance can only be realised if all stakeholders are enthused and trained in ideals imbued with ethics and empathy. In addition, the PSUs could use their CSR activities' locations and organise field visits to provide a holistic view of the nation-building process to the trainees.

A developing economy like ours simply cannot afford to have its organisations working in silos without sharing resources and drawing upon each other's strengths

and competencies. Training and Capacity Building is an area where a large amount of resources in terms of financial outlays, manpower, material, and other infrastructure is used.

There is a requirement to create and develop an integrated training infrastructure across PSUs of the same sector and also different ones. One of the core guiding principles of the recently launched iGOT portal by the government is to "create an ecosystem of shared training infrastructure including that of learning materials, institutions, and personnel." On the same lines, the PSUs and Banks need to

collaborate on capacity building, share resources, identify and strengthen core competencies. This will optimise resource utilisation and have threefold benefits of avoiding duplication of process, standardise training, and creating specialisation. □

### References

1. Annual Report (2020-2021) of Department of Public Enterprises, Government of India (Page 101)
2. Annual Report (2020-2012) of Department of Public Enterprises, Government of India (Page 130)
3. Cabinet Decision – Mission Karmayogi dated 2<sup>nd</sup> September 2020.

# Farm to Fork

*Prithvi Sai Penumadu  
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*The Indian agricultural sector is largely production-oriented and plays a pivotal role in the Indian economy. About 55% of the total workforce of the country is still engaged in agriculture and allied sector activities, contributing about 18% to the country's Gross Value Added (GVA) for the year 2019-20. Despite the pandemic-led contraction in other sectors, the agriculture and allied sectors have shown a robust growth rate of 3.4% at constant prices during the year 2020-21. The Gross Capital Formation (GCF) in agriculture and allied sectors relative to GVA in this sector has been showing a fluctuating trend between the years 2013-2017 but consistently rising from the year 2017-18 to 2019-20. Consumer spending in India is also expanding in 2021 post the pandemic-led contraction.*

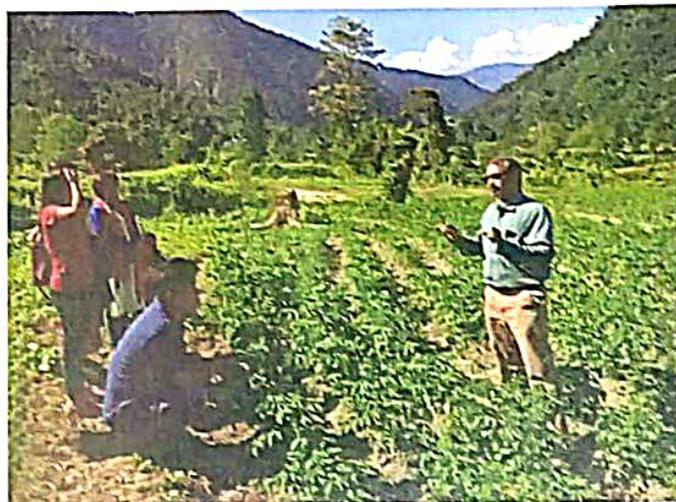
**I**n a typical farm to fork value chain, there are various components like production, Post-Harvest Infrastructure (PHI), processing and value addition, distribution, marketing, and consumption. The role of the farmer hitherto was limited to production and the other functions in the value chain like storage, distribution, and selling of produce were taken up by intermediaries. With the adaption of technology and the emergence of direct-from-farm concepts, farmers are directly connecting with the markets and discovering higher margins than conventional selling to the intermediaries. The Government is constantly striving to strengthen the agricultural sector through various programmes and initiatives by bridging the gaps in the value chain, yet the progress of these is delayed due to various factors.

Owing to the complex activities in the value chain, it is laborious for the farmer to manage multiple activities other than production. About 85% of the farmers in India are small and marginal farmers who hold less than two hectares of land and their exposure to education is minimal to zero. Hence, they are often ignorant of the type of interventions that are required to increase their income. Besides securing the support of government schemes, farmers can engage themselves in adopting various strategies to generate higher benefits. Some of these can be targeted at the production phase and some of them can

be applied during post-harvest management and marketing stages.

### **Production Phase**

Despite being one of the top producers of agricultural commodities across the globe, India's performance in terms of productivity is low compared to other countries due to subsistence farming. The recommendations from NITI Aayog to improve farm productivity are classified into six broader aspects that need immediate attention to lift the economic status of millions of farm families. These are Quality Inputs, Technology, Land Fragmentation,



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## Paddy procurement in KMS 2021-22



Nearly **11.57 Lakh** farmers benefited



Farmers received **Rs. 41,066.80 crore** as MSP value for their crop



Paddy procurement is progressing smoothly in **14 States/UTs**



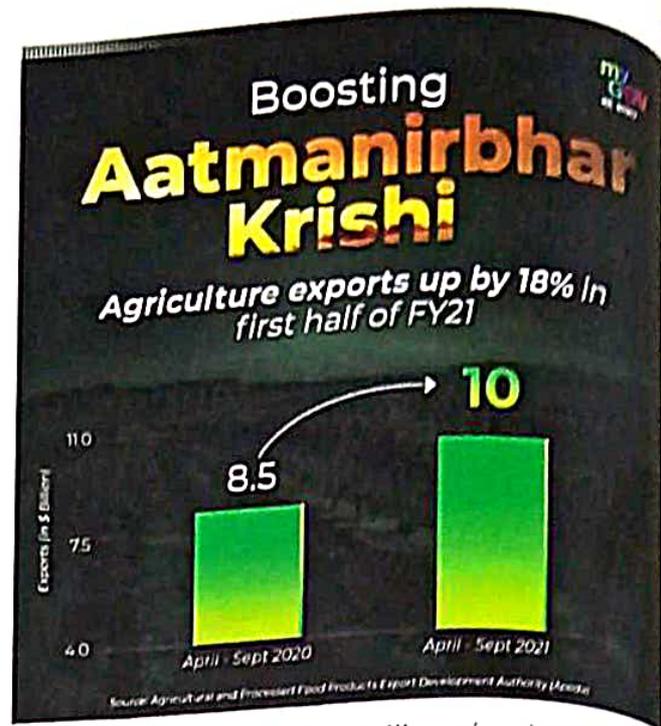
Irrigation & Electricity, Farm Credit, and Crop Insurance.

Initiatives like Soil Health Management under National Mission for Sustainable Agriculture, Mission for Integrated Development of Horticulture, National Mission on Oil Seeds and Oil Palm, Pradhan Mantri Krishi Sinchayee Yojana (PMKSY), and scientific techniques like bio-stimulants are being implemented with the objectives to make agriculture more productive, sustainable, adopt comprehensive soil health management practices and to optimise utilisation of water resources on the farm. An increase in the agricultural credit flow has been raised to Rs 15 lakh crores, ensuring convenient access to loans at concessional rates. These programmes will facilitate access to quality inputs, micro-irrigation techniques, and farm credit which boosts farm productivity.

Technology is massively empowering the farmers, from giving information on seeds, soil, fertilisers, weather reports, etc. through the Kisan Suvidha Portal. The use of high-quality certified seeds together with neem-coated urea and bio-stimulants has shown a phenomenal increase in the yield per hectare. The increase in income is factored-in by two parameters – quantity and quality of the yield. The use of high-quality inputs not only produced a higher yield per hectare but also a higher quality of the produce in terms of nutrients.

Effective use of irrigation at the field level can improve on-farm water utilisation, reduce water wastage, and expand the cultivable area under assured irrigation. While there is 35%-40% of overuse in surface irrigation systems, and 65% in case of groundwater

The adoption of water-saving technologies can recharge the aquifers and promotes watershed development. The Pradhan Mantri Krishi Sinchayee Yojana is one such initiative that aims to boost productivity by ensuring irrigation facilities.



use, water-efficient irrigation like micro-irrigation has not entered many parts of the country. The adoption of water-saving technologies can recharge the aquifers and promotes watershed development. The PMKSY is one such initiative that aims to boost productivity by ensuring irrigation facilities. The objective is to ensure access to efficient water conveyance and precision water application devices to agricultural farms through the programme 'Per Drop More Crop'. The impact evaluation of micro-irrigation in 2018 shows that the farmers were able to save the irrigation cost between 20-30% and reduction in fertilisers ranging from 7-21% varying across the States and soil conditions. The overall income enhancement of farmers of 14 States surveyed is in the range of 20-50%. The combined effects of implementing high-quality inputs and precision irrigation at the farm level generate higher returns by almost 50-90% to the farmer's income considering the impact of external factors to be minimal.

In recent years, organic farming has gained momentum as people have started becoming more health-conscious and prefer organic products. Farmers are rapidly transitioning to this chemical-free mode of farming, which not only has a lower production cost, but also a higher selling price. India is paving its way to becoming the hub for organic products. To address the gaps and encourage organic farming, the Government of India launched Paramparagat Krishi Vikas Yojana in 2015-16 to support farmers from production to certification and marketing. Post-harvest management support including processing, packing, marketing is made an integral part

of this scheme to encourage organic farmers. The growth in the organic farming sector, development of new products, research into genetically modified crops, and support from the government played a crucial role in sustaining and achieving the growth.

While the domestic market is nascent in generating demand for organic produce due to higher prices, the distant and global markets are positively responding spurring growth in the exports of organic products. Small and marginal farmers from various States have reported that they have observed an increase in the yield by 25% in organic horticulture farming generating profits and higher returns between 200-500% from organic cultivation varying between regions and crops. The growth is encouraging because, since its onset, the organic business has had to face challenges in terms of high production costs such as land preparation costs, preparing manures and organic fertilisers, high labour costs, marketing costs, and low demand from the consumers. While the extent of opportunities is advancing with the rise of digital marketing and e-commerce platforms, the supply-chain issues, and the capacity of small farmers find it difficult to have direct access to large-scale markets where the products will fetch a reasonable amount. A smooth transition from chemical-based farming to organic or natural farming needs a well-thought plan. In the beginning, the farmers can start with exotic vegetables like broccoli, capsicum, and shift to tomato, onion, and potato crops. Transition in phases can help the farmers to understand the organic farming dynamics and by producing the exotic fruits and vegetables, they can access the distant markets by earning higher returns. As the new generation becomes more aware of the benefits of organic products spurring the demand, the markets respond by encouraging farmers to take up organic farming like the way Sikkim became a 100% organic State.

### Post-harvest Phase

According to the economic survey 2018-19<sup>1</sup>, India's global position in post-harvest losses is at 70 of 125 nations. As per the estimates, the total food loss in agricultural

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**To facilitate infrastructure projects at farm-gate and for financially viable post-harvest management, a fund of 1 lakh crores has been set up through Agri Infrastructure Fund for 10 years.**

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products ranges between 4-10% for cereals, pulses, and oilseeds whereas 5-16% for fruits and vegetables. Post-harvest losses are primarily caused by a failure in the handling and connecting of food produced to consumption points or markets. Under the umbrella scheme Pradhan Mantri Kisan SAMPADA Yojana, the Government

is implementing various schemes which include Mega Food Parks, Integrated Cold Chain, and Value Addition Infrastructure, Infrastructure for Agro-processing Clusters, and Creation of Backward and Forward Linkages.

The Government has launched Production Linked Incentive (PLI) Scheme with an outlay of 1.97 lakh crores in 13 key sectors, including the food processing sector, for enhancing India's manufacturing capabilities and improving exports.<sup>2</sup> The food segments identified include ready-to-eat/ready-to-cook, marine products, processed fruits & vegetables, mozzarella cheese, and innovative/organic products. To facilitate infrastructure projects at farm-gate and for financially viable post-harvest management, a fund of 1 lakh crores has been set up through Agri Infrastructure Fund for 10 years. Funding will be provided by banks and financial institutions as loans to Primary Agricultural Credit Societies (PACS), marketing cooperative societies, Farmer Producers Organisations (FPOs), Self-Help Groups (SHG), farmers, Joint Liability Groups (JLGs), multipurpose cooperative societies, Agri-entrepreneurs, startups and central/State agency or local body sponsored public-private partnership project among others.

Post-Harvest Losses (PHL) in India arise due to lack of infrastructure, limited technical know-how on good agricultural practices, asymmetrical market knowledge, and inadequate market access. Fragmented land holdings and the inefficient post-harvest value chain cause losses to stack up progressively throughout the value chain. Small and marginal farmers are affected by these challenges of fragmentation and value chain inefficiencies in the form of weak access to markets, low investment in agriculture, low productivity, and low income. The high volume of losses, if reduced, can generate significant value and address food insecurity. As per the latest estimates by the High-level Dalwai Committee report<sup>3</sup>, India loses approximately Rs 92650 crores on account of PHL due to rejection at the farm gate and delays in the distribution process. The post-harvest value chain is driven by 4 phases- Harvesting and primary processing, Storage and crop protection, processing, and market linkages.

Currently, primary processing carried out by farmers is limited to small-scale efforts such as de-husking, deseeding, peeling, and drying in some crops, and





processing for products such as jams, jellies, dried fruits, and chili powder. Private sector investment requires scale in terms of numbers of farmers and quantity of the product which can be met by existing organised groups of farmers that collaborate and participate in primary processing of significant volumes of produce. The primary motive for these organisations has been to empower the marginal farmers to be able to earn better prices for their produce collectively. Equipment supply and leasing companies are increasingly engaging with farmers to supply and/or lease farm equipment and machinery for harvesting or near-farm processing such as harvesters, winnowers, dryers, and threshers at affordable prices by collaborating with banking institutions.

Besides the harvesting losses, a significant proportion of post-harvest losses are due to decay, diseases, and pests. These challenges can be targeted with proper storage infrastructure and efficient crop protection practices. Fruits and vegetables, due to their perishability and short shelf life, need a different storage infrastructure than those used for grains, wheat, and sugar. Developing storage infrastructure can be broadly divided into warehouses and integrated cold-chains as they also bring efficiency in demand-supply management and farmers can hold on to their produce when there is surplus supply in the market. As a key stakeholder in facilitating the required infrastructure, the Central Government is implementing Pradhan Mantri Kisan Sampada Yojana (PMKSY) to holistically address the gaps in post-harvest infrastructure. The Government is promoting scientific storage facilities for individual farmers, groups of farmers/growers, registered FPOs in rural areas through the scheme of "Agricultural Marketing Infrastructure (AMI)", which is a sub-scheme of Integrated Scheme for Agricultural Marketing (ISAM) and Gramin Bhandaran Yojana (GBY).

The food processing industry is one of the largest industries in India and ranks fifth in terms of production, consumption, and exports. However, the processing of perishable products in India is just below 10%, which is very low when compared to other countries<sup>1</sup>. Besides food

losses, the absence of processing facilities at the farm gate leads to distress sales by farmers, as the benefits of value addition mostly accrue to middlemen and large private sector firms. Processing near the farmgate can improve the value-addition of agriculture produce, ensure remunerative prices for farmers, and minimise losses.

The sector has also received a boost due to changing consumer preferences and rising demand for Indian products in international markets, leading to a recent spurt in private sector interest. Increased participation from the organised private sector combined with the hub and spoke model for processing activities can become a viable and efficient model to expand direct engagement between the industry and small and marginal farmers. Effective utilisation of the resources can not only reduce the wastage of resources but also generates higher returns by producing value-added products. Indian farmers have traditionally followed certain practices. By integrating the post-harvest management methods, farmers will overcome the distressed selling by utilising storage and processing facilities which can yield higher returns.

### Conclusion

The low per capita income of farmers – especially small and marginal farmers – is a major reason for agrarian distress. Doubling of farmer's income needs intervention at every node of the value chain. Right from increasing the Total Factor Productivity and increasing the

cropping intensity to diversification towards high-value crops and improving the terms of trade for the farmers are a must to cumulatively achieve the desired goal. The starting point of growth starts from making the quality inputs to farming, namely quality seeds, fertilisers, water, and power more accessible and affordable. The CSOs (NGOs, cooperatives, FPOs, and SHGs) need to scale-up support to the farmers by providing knowledge dissemination, training, and capacity building

**Post-Harvest Losses (PHL) in India arise due to lack of infrastructure, limited technical know-how on good agricultural practices, asymmetrical market knowledge, and inadequate market access.**



services across the pre-harvest and post-harvest phases. Integrating agricultural frontier changes to precision farming and crop diversification help farmers optimise costs and increase revenues respectively.

A bulk of income growth can be achieved by better price realisation and efficient post-harvest management. Minimising the post-harvest losses through value-addition products and an efficient value chain can prevent distress sale of the produce benefitting the farmers with returns ranging from 1.4-2.5 times. Access to distant and emerging markets through effective marketing and supply chain initiatives like e-NAM, contract farming can aid the farmers in generating 2 to 3 times returns with higher bargaining power and minimise the price volatility.

Through knowledge-based inputs, informed decisions can be taken up by the farmers to implement various scientific methods at the farm level, and by adopting effective post-harvest management techniques, farmers can upscale the productivity and develop new integrated farming approaches while doubling their income. □

*Views are personal.*

### References

1. Economic Survey 2018-19, <https://www.indiabudget.gov.in/budget2019-20/economicsurvey/doc/cchapter.pdf>
2. <https://www.pib.gov.in/PressReleasePage.aspx?PRID=1710134>
3. [https://farmer.gov.in/image/default/DFI/DFI\\_Volume\\_14.pdf](https://farmer.gov.in/image/default/DFI/DFI_Volume_14.pdf)
4. <https://www.unep.org/resources/report/unep-food-waste-index-report-2021>

## Agri Export

**I**n a major boost to export prospects of agricultural produce, India registered a significant surge in export of agricultural and processed food products in April-October period of current Financial Year, 2021-22, in comparison to the corresponding seven month period of last fiscal, 2020-21.

According to the Quick Estimates released by the Directorate General of Commercial Intelligence and Statistics (DGCI&S), the overall export of Agricultural and Processed Food Products Export Development Authority (APEDA) products witnessed 14.7 percent growth in terms of USD during April-October 2021 over the same period of the previous year.

The overall export of APEDA products increased from USD 10,157 million in April-October 2020 to USD 11,651 million in April-October 2021.

This rise in exports has been achieved notwithstanding Covid-19 restrictions. The significant jump in exports of agricultural and processed food products during the first seven months of current fiscal is in continuation of growth in exports witnessed in the financial year 2020-21.

The export of rice, which recorded a positive growth of 10.5 percent, increased from USD 4777.35 million in April-October 2020 to USD 5278.95 million in April-October 2021.

As per the Quick Estimates, the exports of fresh fruits & vegetables registered a 11.6 percent growth in terms of USD, while shipment of processed food products like cereals preparations and miscellaneous processed items reported a growth of 29 percent. In April-October 2020-21, fresh fruits and vegetables were exported to the tune of USD 1374.59 million which rose to USD 1534.05 million in April-October 2021-22.

India reported a significant 85.4 percent jump in export of other cereals while the export of meat, dairy & poultry products witnessed an increase 15.6 percent in the first seven months of the current fiscal (2021-22).

The export of other cereals increased from USD 274.98 million in April-October 2020 to USD 509.77 million in April-October 2021 and the export of meat, dairy and poultry products increased from USD 1978.6 million in April-October 2020 to USD 2286.32 million in April-October 2021.

The cashew export witnessed a growth of 29.2 percent in April-October 2021 as the export of cashew rose from USD 205.29 million in April-October 2020 to USD 265.27 million in April-October 2021.

The initiatives taken by APEDA, which functions under the Ministry of Commerce, has helped the country achieve this milestone at a time when most of the business activities suffered a huge setback due to the restrictions imposed after the outbreak of second wave of the pandemic.

The APEDA has also taken several initiatives to promote products having registered geographical indications (GI) in India by organising virtual Buyer Seller Meets on agricultural and food products with UAE and on GI products, including handicrafts with USA. APEDA is continuing with the initiative of conducting Virtual Buyer Seller Meets (VBSM) with potential importing Countries to popularise the GI products of major agricultural commodities exported.

In order to ensure seamless quality certification of products to be exported, APEDA has recognised 220 labs across India to provide services of testing to a wide range of products and exporters.

APEDA also assists in upgradation and strengthening of recognised laboratories for export testing and residue monitoring plans. APEDA also provides assistance under the financial assistance schemes of infrastructure development, quality improvement and market development for boosting the export. It also initiates registration of pack-houses for horticulture products for meeting the quality requirements of the international market. Registration of exports units for peanut shelling and grading and processing units, for instance is to ensure quality adherence for the EU and non EU countries.

APEDA carries out registration of meat processing plants and abattoirs for ensuring compliance with the global food safety and quality requirements. Another key initiative includes development and implementation of traceability systems which ensure the food safety and quality compliances of the importing countries. For boosting exports, APEDA compiles and disseminates various international trade analytical information, market access information amongst exporters and address trade enquiries. □

*Source: PIB*

## Har Ghar Jal

Yugal Joshi

*Atmanirbhar Bharat initiative was announced to reboot the economy with a long-term goal, to structurally reform the system, and simultaneously empower the economic agents to perform better, and to remove structural inefficiencies that restrict efficient functioning of business. The five key pillars of the Atmanirbhar Bharat, namely, economy, infrastructure, system, democracy, and demand are to strengthen the domestic industry as well as to make Indian economy more closely integrated with global value chain. At a deeper level, it strengthens the economy by policy interventions in unorganised sector and MSMEs as well as strengthens democracy by making communities capable, ensuring their partnership in socio-economic reforms, and transforming village community into a responsive and responsible leader. This implements Gram Swaraj in hundreds of thousands of villages across India in its true sense.*

**T**he government has been working to improve the quality of life and enhance the ease of living for people especially in villages. Speed, scale, and single-minded focus have ensured housing for all, electricity to every household, a toilet to every family, smoke-free lives for women, financial inclusion for every family, social security, and affordable health care for all.

Announced in 2019, Jal Jeevan Mission (JJM) is a huge step in improving the quality of life in villages and improving public health. JJM is under implementation in partnership with all the States to make provision of tap water supply to every rural household of the country. It is envisaged that by 2024, each household will have a potable tap-water supply in adequate quantity (55 lpcd) of prescribed quality (BIS: 10,500) on a regular and long-term basis. To implement this mission, institutional arrangements at various levels have been made



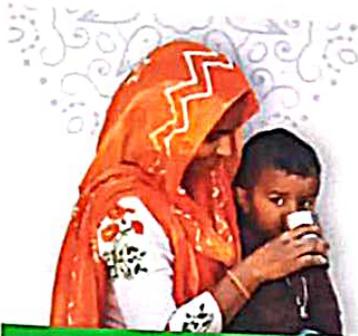
and States' Water & Sanitation/Public Health Engineering (PHE)/Rural Water Supply (RWS) departments are playing a central role. They are helping Gram Panchayats and/or its sub-committee, Village Water and Sanitation Committee (VWSC) or Pani Samiti to plan, implement, manage, operate, and maintain its in-village water supply systems. VWSCs/Pani Samitis are being empowered to take ownership of the programme.

### Collective Ownership and Action

Jal Jeevan Mission is pivoted on the 73<sup>rd</sup> Amendment of the Constitution that empowers Gram Panchayats with administrative control of water and related subjects.

JJM is a decentralised, demand-driven, and community-managed water supply programme. Gram Panchayat (GP) or its sub-committees (VWSCs)/Pani Samiti across States and Union Territories play a key role in planning, implementation, management, operation, and regular

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75  
Azadi Ka  
Amrit Mahotsav

2 Years of  
Jal Jeevan Mission  
Har Ghar Jal



## Freedom from drudgery



maintenance of in-village water supply system. It also plans and implements water source augmentation/ strengthening water conservation, and greywater treatment, and reusage of treated greywater. For this purpose, programmes for capacity building of GP/VWSC members are organised so that it can work as a local water utility for assured service delivery on a long-term and regular basis.

Out of 6.05 lakh revenue villages in India, so far VWSC/Pani Samiti have been formed in more than 3.93 lakh villages. Local village communities are contributing towards in-village water infrastructure and have a sense of ownership and pride.

Addressing about 1.75 lakh Gram Sabhas with over 62 lakh people in attendance and interacting with Pani Samiti members on 2 October, 2021 on Jal Jeevan Mission to realise Mahatma Gandhi's vision of Gram Swaraj, the Prime Minister emphasised the role of Gram Sabha in universal access of water, its conservation, and sustainable use in making villages *atmanirbhar* or self-reliant for their water needs.

The motto of the mission is that 'no one is left out' and every household in a village should be provided with tap water connection. In villages where ground/surface water of good quality is available in sufficient quantity, Single Village Schemes (SVS) are planned and executed as the most preferred option. In villages with adequate groundwater having quality issues, water is treated before its supply to every home and it is done in isolated tribal hamlets/hilly/forested areas, Stand-alone solar-based and/or gravity-based water supply systems are being given priority. In water-stressed areas, bulk water transfer, treatment plants, and distribution systems are planned and executed.

The Mission is providing tap water supply in quality-affected areas, especially in Arsenic & Fluoride-affected habitations, Japanese Encephalitis/Acute Encephalitis Syndrome (JE/AES) affected districts, socio-economically backward Aspirational districts, drought-prone & desert areas, Sansad Adarsh Gram

**In water-stressed areas, bulk water transfer, treatment plants, and distribution systems are planned and executed. The Mission is providing tap water supply in quality-affected areas.**

Yojana (SAGY) villages, and SC/ST majority villages on priority. For example, on 15 August 2019, at the announcement of JJM, only 8 lakh (2.6%) households in JE-AES affected districts were having tap water connections. In the last 26 months, despite the Covid-19 pandemic and lockdowns, tap water connections have been provided to 1.17 crore (38.5%) more households. Only 24 lakh (7.2%) households in Aspirational districts were having tap water connections before JJM, whereas more than 1.22 crore (36.9%) households are getting tap water supply now.

### Boosting Rural Economy

Village Water and Sanitation Committee (VWSC) prepares a 5-year Village Action Plan for water and sanitation, ensuring long-term source sustainability, greywater management, and water conservation works. These Village Action Plans (VAPs) are co-terminus with 15<sup>th</sup> Financial Commission period. It has provided for 60% of its total grant to local rural bodies/PRI as a tied grant

### Uttarakhand



alleviating rural women of their drudgery in fetching water and bringing them ease of living. During his interaction with VWSC members, the PM assured village people that in the days to come, no women will have to step out of the house to get water. At the same time, he called upon village communities for taking every measure in making their village water surplus.

While ease of living is envisaged to give rural women an opportunity in self-reliance or *atmanirbharta*, and leverages their experience as village water managers in VWSCs, women are also given a role of custodian of water quality in their villages. So far, more than 7.39 lakh women have been trained in water quality testing by using Field Test Kits (FTKs). Under the Mission, each village will have a cadre of 5 trained women formed to monitor the tap water quality provided in homes.

Praising the role played by VWSC members in the management of in-village water supply schemes, the Prime Minister applauded VWSC women who are working with efficiency and expressed his satisfaction with their training in water quality testing using FTKs. He also underscored the importance and significance of the role of women of VWSCs in a village's wellbeing and prosperity, and

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**Village Water and Sanitation Committee prepares a 5-year Village Action Plan for water and sanitation, ensuring long-term source sustainability, greywater management, and water conservation works.**

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ushering a positive transformational change in the lives of tribals, scheduled castes, backward and economically weaker rural communities.

The training of VWSC women members has promoted village communities' self-reliance in assessing water quality and ensuring its potability thus helping households keep in check water-borne health concerns in rural

areas.

### **Children's Health and Well-being**

A 100-day awareness programme was launched in Sep. 2020 for the need to have tap water connection in every school, Anganwadi Centres (AWCs), and Ashramshalas (tribal residential schools). A campaign was launched on 2 October 2020 to ensure that tap water reaches every learning centre which includes schools, Anganwadi centres, and Ashramshalas. Efforts are made by every State to ensure tap water availability for drinking, cooking, mid-day meals, washing hands, and usage in toilets. Today, 8.15 lakh (79.2%) schools and 8.15 lakh (73%) Anganwadi centres provide tap-water supply.

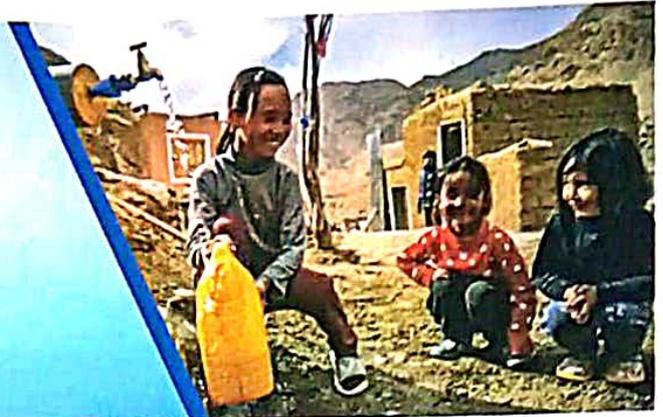
During Covid-19 pandemic, need for frequent washing of hands with soaps and maintaining hygiene was





## Jal Jeevan Mission Har Ghar Jal

Assured tap water supply to  
every rural household by 2024



experienced by everyone. Providing tap water supply to all these learning centres is a great investment in the health and well-being of the future generation.

In 1.08 lakh schools, provision for greywater reuse and in more than 93 thousand schools, provision of rainwater harvesting have been made. This will go a long way to make the students WASH enlightened citizens.

### Transparency and Accountability

Transparency and accountability are two key pillars of any successful programme. Online progress of implementation and status of tap water supply in homes, schools, and AWCs has been put in the public domain and can be accessed by anyone at <https://ejalshakti.gov.in/jjmreport/JJMIndia.aspx>

This dynamic dashboard not only provides detailed information about national progress in the implementation of JJM but one can see the status of implementation and progress at State/UT level, district level, and village level. Information related to water supply in villages including names of the head of households who have got tap water connection, status of water supply in schools and Anganwadi centres including piped water in toilets and handwashing facilities along with the provision of rainwater harvesting and greywater usage is also provided. The dashboard also provides information about institutional arrangements like people managing various aspects of water supply in villages including water quality testing.

To pave the way towards Atmanirbhar Bharat, the importance of developing technologically-sound human resources and infrastructure can hardly be overemphasised. The JJM dashboard also shows ongoing sensor-based IoT pilot projects in different villages which shows the status of daily water supply in terms of quantity, quality, and regularity. In these pilots, one

can see the quality of water including chlorination, water pressure in pipes at different places, and per capita supply on a daily basis.

Village-level IT support is being provided to monitor everyday water supply in terms of quantity, quality, and regularity along with a public grievance redressal mechanism. There are more than 2,000 water quality testing labs in the country which have now been opened for the general public at a nominal cost. Daily information about water quality samples tested, the number of villages where water quality testing was done, details about laboratories, contaminated samples found, etc., is also available in the public domain on the JJM dashboard.

To ensure speedy transfer of money to RLB/PRIs, States and UTs are advised to open an escrow account to receive a central allocation for JJM implementation. JJM financial progress of each and every State/UTs since 2019-20 is also available in the public domain that includes opening balance, allocation, assured fund, fund drawn, available fund, and expenditure.

When we look at the Jal Jeevan Mission objectives, its elements both in terms of vision and policy steps, along with sectoral reforms and community empowerment, we find it as an ideal model for Atmanirbhar Bharat. Jal Jeevan Mission is about the capacity building of the community in achieving water security. To repeat the Prime Minister's words, water influences the quality of life like none other. It truly anchors a village's peace and prosperity. Its inaccessibility has cost millions of women and girls their educational opportunity, its paucity or inaccessibility has forced millions to migrate, abandoning their homes. Ensuring that every home has potable tap water supply in an adequate quantity of prescribed quality on a regular and long-term basis, is the cornerstone of Atmanirbhar Bharat. □

**Under the Mission, each village will have a cadre of 5 trained women formed to monitor the tap water quality provided in homes. The training of VWSC women members has promoted village communities' self-reliance in assessing water quality and ensuring its potability thus helping households keep in check water-borne health concerns in rural areas.**

# Self-reliance in Energy Sector

Dr Amiya Kumar Mohapatra  
Tamanna Mohapatra

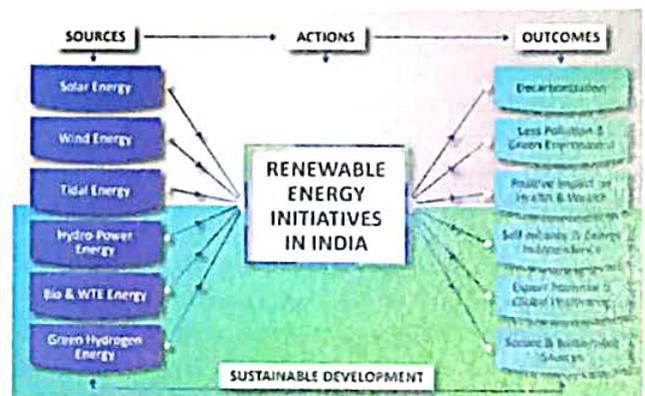
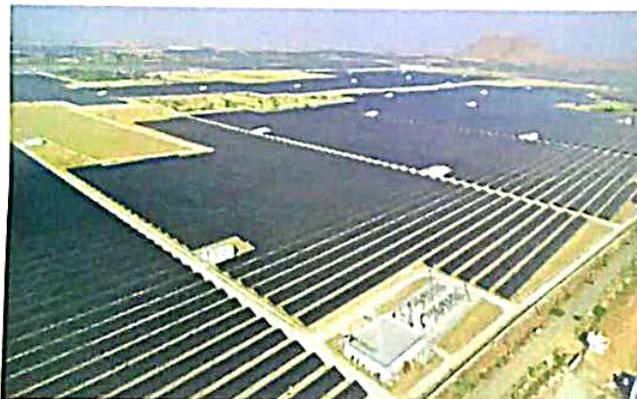
India is the third largest energy producing and consuming country in the world. The energy consumption pattern in India has been changed on account of better standard of living and high propensity to consume and also the overall energy use is doubled since 2000 due to macroeconomic factors like expanding economy, population, industrialisation and urbanisation to a great extent. Energy is considered as the key for all the economic activities of a nation and sets the foundation for faster economic development.

**I**ndia has made tremendous progress in providing energy services to its citizens. About 900 million people have already gained access to electricity in the last two decades including a record of 100 million alone in 2018. The per capita electricity consumption in India is only one-third of the global average even though the demand of energy has doubled. So to catch up with the increasing demand of energy, there is a need to make arrangement of secure and sustainable form of energy.

Self-reliance manifests self-sufficiency in terms of economic activities and is least dependent on other economies. More precisely, it tells of efficiency and efficacy in economic systems in attaining/providing the best for/to its citizen, out of the given economic resources. Aatmanirbhar Bharat: self-reliance is the new currency, not only it makes the country self-sufficient but it also enhances global

positioning of India and marks its contribution in the global economy. Aatmanirbhar Bharat in true sense is just not economic independence, it is rather creating infrastructure, systems and promoting innovation in achieving efficiency in terms of production and consumption and also enhancing people's choices and capabilities. It focuses on how to contribute the best for self (India) and to others (world) as a part of 'Vasudhaiva Kutumbakam'.

The Government of India along with the State governments have implemented various schemes to boost the energy sector, especially renewables. With the ongoing 'Azadi Ka Amrit Mahotsav: India at 75 Years of Independence', the government focuses on making India a leader in green and clean economy. It has presented various schemes including the recently launched 'National Hydrogen Mission'. These schemes are especially designed in meeting the desired goals based on the five principles



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(5-1) 'Intent, Inclusion, Investment, Infrastructure & Innovation'.

### Renewable Energy Initiatives

Renewable energy is becoming more relevant in today's time due to diminishing crude oil reserves, rise in prices of petroleum/fossil fuels, and due to global warming. It is a better and more viable alternative to fossil fuels, which is the need of the hour for a cleaner and greener environment. Over the years, demand for and consumption of energy has increased in the form of electricity and transport fuels. So to reduce the amount of pollution and CO<sub>2</sub> emission and to curtail the environmental hazards, the production of energy from renewables is very much necessary. Renewable energy initiatives will help in combating global warming and livelihood threat which in turn will set the path towards a greener and cleaner economy.

Globally, India is one of the leaders in the production of renewable energy and is playing a valuable role in contributing to a global green economy. There is a need to raise awareness of using renewables as a source of energy. Renewables including solar, wind, hydro, biofuels, and green hydrogen are the major sources of energy that lead to a low-carbon economy. To boost India's renewable energy production and usage, the government has taken various initiatives especially for the advancement of solar energy. The government is providing subsidies and other incentives to enhance capacity of electricity production. 'Rooftop Solar Energy' is one of such schemes introduced for enhancing the capacity of electricity generation. India has also introduced 'PM-KUSUM' and 'AJAY'

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in achieving sustainable development. India has witnessed a significant rise in production of electricity from solar energy i.e. 50.10 billion units in 2019-20 from 1.65 billion units in 2012-13.

India is privileged to have coastal regions which provide ample opportunities to harness wind energy production on a large scale. The production of wind energy has increased many folds in recent years. Among all the renewable resources, wind energy contributes 40.8% as per MNRE Report 2021. Due to the intervention of government as well as private players, wind power production has increased from 10.9 capacity GW in 2009 to 30.37 capacity GW in 2020.

Similarly, bio-energy is also a great source of renewable energy, considering its large availability and multipurpose uses. The Government promotes various schemes for biogas production, including the 'New National Biogas and Organic Manure Programme' (NNBOMP) and 'Biogas-based Power Generation and Thermal Energy Application Programme' (BPGTP) and these schemes contribute around 10170 MW of electricity across India. In addition to that, it is proposed to set up 5,000 compressed biogas plants across India by 2023. Hydro energy is economically exploitable and has high potential to harness, as not only does it provide energy but also strengthens the ecosystem by providing additional benefits of irrigation, flood barrier, drought saviour, recreation, and tourism. It has higher efficiency (over 90%) than other renewable sources.

### National Hydrogen Mission

'National Hydrogen Mission' was announced in August 2021 to produce carbon-free fuels from renewable resources and to make India a global hub of production as well as export of green hydrogen. The ultimate aim of this mission is to attain self-reliance in energy production and to achieve the set target by 2047 so as to celebrate the 100 years of independence. This is to increase the usage of natural gas in the economy from renewable sources. To achieve this target, a roadmap has been set for making India self-reliant in energy sector for which a Pan-India network of CNG and piped-natural gas is laid out which will help in achieving 20% ethanol blending target. National Hydrogen Mission will bring drastic changes in the energy sector and will contribute in gas-based cleaner economy.

Hydrogen is produced by splitting water into hydrogen and oxygen, through proton exchange membrane electrolysis and is also produced by steam methane reforming which utilises fossil fuels. So as to make cleaner and greener environment, the government has decided to produce green hydrogen through renewable electricity and

**Table 1: SDGs and Renewable Energy Linkage Matrix**

SDG	Thrust /Focus Area of SDG	Description of the SDGs	Degree of Linkage: SDG & Renewable Energy
SDG 1	No poverty	End poverty in all its forms everywhere	0
SDG 2	Zero hunger	End hunger, achieve food security and improved nutrition, and promote sustainable agriculture	2
SDG 3	Good health and well-being	Ensure healthy lives and promote well-being for all at all ages.	1
SDG 4	Quality education	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	0
SDG 5	Gender equality	Achieve gender equality and empower all women and girls	0
SDG 6	Clean water and sanitation	Ensure availability and sustainable management of water and sanitation for all	1
SDG 7	Affordable and clean energy	Ensure access to affordable, reliable, sustainable and modern energy for all	3
SDG 8	Decent work and economic growth	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	1
SDG 9	Industry, innovation and infrastructure	Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation	2
SDG 10	Reduced inequalities	Reduce inequality within and among countries	0
SDG 11	Sustainable cities and communities	Make cities and human settlements inclusive, safe, resilient and sustainable	2
SDG 12	Responsible consumption and production	Ensure sustainable consumption and production patterns	3
SDG 13	Climate action	Take urgent action to combat climate change and its impacts	3
SDG 14	Life below water	Conserve and sustainably use the oceans, seas and marine resources for sustainable development	3
SDG 15	Life on land	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	3
SDG 16	Peace, justice and strong institutions	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels	0
SDG 17	Partnership for the goals	Strengthen the means of implementation and revitalize the global partnership for sustainable development	1

(Degree of Association: 3 = Highest, 2 = Moderate, 1 = Lowest, and 0 = Not directly linked)

electrolysis which is expected to be achieved by 2050. This will help in reducing the burden of import dependency and will strengthen the mission for gas-based sustainable development. The Government has proposed to extract ethanol from sugarcane and other bio-elements in helping production of cleaner energy.

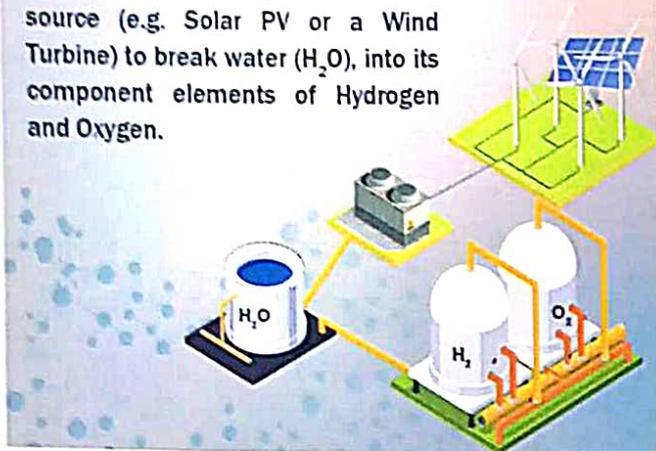
The new energy of map of India directly focuses on sustainable sources of energy in meeting the growing demand of people and industry. Based on the mission objectives, it is expected that 25% of the world's energy

needs will be made by India by 2050 and that will help India in becoming 10 trillion dollars addressable market. The production of green hydrogen will support in making India self-reliant and will help government, companies, and other production units to fulfill their long-term growth potentials without compromising on the set targets of carbon-free economy.

Hydrogen production and its storage are very much dependent on technology and innovation, where coordination between the government and industry is

## GREEN HYDROGEN

Green Hydrogen is produced by the electrolysis of water using an electric current generated by a renewable source (e.g. Solar PV or a Wind Turbine) to break water ( $H_2O$ ), into its component elements of Hydrogen and Oxygen.



essential. This will help in keeping the cost under control, which will aid in decarbonize the energy-dependent sectors. Production of hydrogen from renewables is not only cost-efficient but also carbon-free with the least adverse effects on human life and livelihood.

### SDGs and Renewable Energy

Sustainable Development Goals can be better accomplished only when Social, Economic, and Environmental (SEE) dimensions are addressed in a balanced and sustainable manner. The agenda for 'Sustainable Development Goals (SDGs 2030)' by the United Nations, enlisted 17 SDGs with 169 Targets, which are the milestones of holistic socio-economic transformation, primarily focusing on the well-being of the people and the environment. Self-reliance through green energy initiatives is the foundation of a green and sustainable economy. Green energy initiatives are the concerted efforts made to reduce energy imports and ensure alternative sources of energy for the amplification of sustainable domestic production. These initiatives focus on clean energy and its availability to all individuals and businesses. It is to make India's energy secure and to ensure the attainment of SDGs.

To find out the nature and degree of association between SDGs and renewable energy (Table 1), we have used a 0-3 point scale for matrix mapping. The degree of associations is mapped based on the factors that are derived from the SDGs descriptions and renewable energy. It is found that out of 17 SDGs, five SDGs are highly linked on a scale of 3, and three SDGs are moderately associated on a scale of

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**Hydro energy is economically exploitable and has high potential to harness, as not only does it provide energy but also strengthens the ecosystem by providing additional benefits of irrigation, flood barrier, drought savior, recreation, and tourism.**

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2. Similarly, four SDGs are least linked with renewable energy but the remaining five SDGs are not directly connected. So, it is found that the SDGs can be better achieved through advancement in renewable energy sector, and hence energy sector should be given top priority in the policymaking and budgetary allocation.

### Sectoral Overview

The Government of India has set up the Ministry of New and Renewable Energy (MNRE) to promote renewable energy and set a target to attain the capacity of 227 GW by 2022, including 114 GW from solar, 67 GW from wind, and other including bio and hydro energy. In addition to that, it is proposed to set up 5,000 compressed biogas plants across India by 2023. The renewable sector is projected to attract investment worth USD 80 billion in the next couple of years. Further, it is estimated that 49% of total electricity will be generated by renewable energy to be achieved by 2040. Considering the scarcity of fossil fuels and resultant carbon emissions, renewable energy is the future energy and will mitigate the energy crisis of India and will provide sustainable and affordable energy to its citizens. The Government has made plan to increase the renewable electricity capacity to 175 GW by 2022 and to 450 GW by 2030.

Further to strengthen the sector, the Government is focusing on setting a policy framework to provide secure and affordable clean energy for its people. The increasing importance of renewable capacity will shift India's power system from dominance of coal to renewables and thereby open up the window for a green and clean gas-based economy. Increasing the use of renewable energies will lead to low dependency on fossil fuels that will in turn help in decarbonisation by replacing carbon-based industries. This will help in better ecosystem with less pollution. Usage of renewables will help in producing eco-friendly energy which will make India energy secure and energy independent. It will help in export that will increase countries' foreign exchange earnings and strengthen India's global positioning.

Renewable energy initiatives also face some inherent challenges which may hinder our target achievement. The major challenges are affordability for consumers, financial stability for DISCOMS (Distribution Companies), integration issues, gaps or barriers in regulatory and market frameworks, uncertain cost-benefit outcomes, issues in power system flexibility, etc.

Other than a macro overview, State-wise initiatives and achievements will give the true scenario of renewable energy. It is found that the share of penetration of renewable energy is

highly variable and skewed among the Indian States. States like Tamil Nadu, Rajasthan, Gujarat, Karnataka, Andhra Pradesh, Madhya Pradesh, Maharashtra, Telangana, Punjab, and Kerala contribute to renewable energy more than the national average (8.2%). Ten States of India contribute 97% of total solar and wind energy. States rich in renewable energy are also found advanced in their power sector development. On the contrary, other States are lacking in green initiatives and suffers from integration and technical issues. To attain the potential power, there is a need of optimum mix of flexibility considering regional and national context. This flexibility includes demand-side, power and, storage flexibility, and needs well-documented policies for market and regulatory solutions.

### Way Forward

Green energy has tremendous potential in contributing to income, employment, and entrepreneurship and undoubtedly fosters sustainable development. In addition to job creation and income generation, it opens up opportunities/avenues for investment and markets for new products and services. In view of the increasing demand for electricity by households and corporates, the production of renewable energy as a substitute for fossil fuels energy is essential to make a carbon-free economy. India must exploit solar and wind energy, and especially the green hydrogen energy in its electricity system to

**Table 2: Contribution of Solar and Wind Energy in Select Indian States 2020-21**

S.N.	State	Contribution (% Share)
1	Karnataka	29 %
2	Rajasthan	20 %
3	Tamil Nadu	18 %
4	Andhra Pradesh	16 %
5	Gujarat	14 %

Source: MNRE Report

meet the ever-increasing demand of the people. It will be possible primarily by addressing the demand flexibility, plants flexibility, and storage & grid flexibility along with the market and regulatory support. Even though the schemes/initiatives are encouraging and have a great role to play in the future days to come, yet there are some challenges that need to be addressed. The areas like higher investment, infrastructure development, private-public partnership, green financing, policy framework need to be strengthened both at a regional and national level to cater to inclusiveness in the development process. Considering India's size, demography, green initiatives, and its global positioning, India has a key role to play in the world's transition to a clean energy economy. □

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# Riverfront Development: Policies & Regulations

**U**rban Riverfront Planning and Development (URFD) in India currently focuses on the built environment (construction, landscaping, and beautification) and the potential economic benefits to be derived from these projects. There are limited considerations of the social, hydrological, environmental, and ecological impacts of these projects as well as impact on the project itself. Also, erratic climatic events like flood and drought have direct impact on riverfront projects. Discounting these aspects of riverfront planning and development has time and again led to failed outcomes, hydrological/ecological/environmental stresses, and disasters like floods with loss of life and property.

India, with its many urban rivers and culturally important sites such as the ghats (like Varanasi on river Ganga), is well poised to demonstrate the benefits of water and eco-sensitive urban riverfront developments. URFD projects along various rivers are already attracting significant investments (Mumbai alone is investing Rs 685 million to develop the Mithi Riverfront (Das 2017)). A balanced approach to URFD where ecological, environmental, and water concerns are addressed harmoniously along with development, can accrue multiple benefits to people and riverine ecosystems and also generate economic dividend for cities.

Across India, rivers continue to be revered and their cultural significance is embedded into festivals and rituals, but the deep connections engendered by daily access and use of local rivers for domestic and economic purposes has dwindled. This has in turn led to a reduction of local activities that enabled river protection and its rejuvenation. While in India, the focus of river restoration is still on river cleaning and aesthetic appeal, the concept of clean rivers on a global

level has shifted towards the creation of healthier rivers which are able to sustain a wider diversity of fish, birds, and other wildlife.

Currently, river management is not empowered by an Act or Policy that focuses on it exclusively. There are several acts and policies aimed at regulating and managing many of the environmental and social components of a river system. Water quality, environment, biodiversity, and disaster risks are aspects addressed through specific acts and policies. The table presents a few key environmental and social regulations applicable to URFD projects.

In addition, there are a few empowered agencies that can provide or have provided directions for URFD projects.

**National River Conservation Directorate (NRCD), under the Ministry of Environment, Forest and Climate Change (MoEF&CC)**- The objective of NRCD is to improve the water quality of the rivers which are the major water sources in the country, through the implementation of pollution abatement works (NRCD 2014).

**National Green Tribunal (NGT)** – A special judicial entity equipped with the necessary expertise to handle environmental disputes involving multi-disciplinary issues. They also have power to issue orders in cases where legalities and regulations are compromised, or are not abided by individuals or entities including government agencies (NGT 2016).

**City and Regional Land use plans and Building regulations** are local-level development management mechanisms, under the purview of Development Authorities and the respective State-level Town Planning Departments along with the urban local bodies. These land use regulations, building

Act/ Rules	Purpose	Applicability	Authority
Jal Jeevan Mission (URBAN), 2021	This mission's primary objective is to provide universal coverage of water supply across 4,378 statutory towns in accordance with United Nations Sustainable Development Goal 6. This mission takes an integrated approach and recognizes that rejuvenation of water bodies and sustainable aquifer management will be critical to augment sustainable fresh water supply.	Urban green spaces and sponge cities will mitigate flood impact and support development of urban water assets (surface and groundwater) through circular practices for recycle and recharge of treated wastewaters.	Ministry of Housing and Urban Affairs, urban local bodies
River Ganga (Rejuvenation, Protection and Management) Authorities Order, 2016	This order is for the purpose of effective abatement of pollution and rejuvenation, protection and management of the River Ganga, maintain ecological flows through its entire length, impose restrictions as required on industries and processes abutting River Ganga and to make provision for inspection of premises, plants, machinery, etc., to assess their impact on the river.	This Order shall apply to the states comprising the River Ganga Basin and its tributary rivers and streams and will guide during plan, implementation and evaluation phases.	Ministry of Jal Shakti, State Ganga Basin Authorities
National Water Policy, 2012	The National Water Policy, 2012 is envisioned as a framework law that can support essential legislation on water governance at State and Union level. This law enshrines the value that water be considered as element that sustains life and ecology and not merely as a scarce resource that has to be divided among various competing uses.	Section 8 about 'Conservation of River Corridors, Water Bodies and Infrastructure' details the value of urban rivers. Section 8.2 elaborates: Encroachments and diversion of water bodies (like rivers, lakes, tanks, ponds, etc.) and drainage channels (irrigated area as well as urban area drainage) must not be allowed. Wherever encroachment has occurred, restoration to the extent feasible should be undertaken and maintained properly.	Government of India, State governments Ministry of Jal Shakti, Ministry of Housing and Urban Affairs

Environment (Protection) Act, 1986	To protect and improve overall environment.	As all environmental notifications, rules and schedules are issued under this umbrella act.	Ministry of Environment, Forests and Climate Change, DoE, State Govt. Central Pollution Control Board, State Pollution Control Boards
Coastal Regulation Zone (CRZ) Notification 1991 (2011)	Protection of fragile coastal belts.	If project location is located along coastal belt.	
Land Acquisition Act, 1894 (as amended)	Sets out rules for acquisition of land by government.	Applicable in case of acquisition of land.	Revenue Department, State Government
Environmental Impact Assessment Notification 14th Sep-2006 (as amended)	Mandatory environmental clearance to a certain category of new development activities following environmental impact assessment.	Applicable in case built up area of the project is more than 20,000 sq.m and the total construction area is more than 1,50,000 sq.m	State Pollution Control Boards, State Environment Impact Assessment Authority
Wildlife (Protection) Act, 1972	To protect wildlife in sanctuaries and national parks.	This act is applicable if any sanctuary/national park exists within 10 km radius of project site. This act will be applicable, if there are any points of protected wildlife crossings in proximity to project locations like River Dolphin, which is a schedule-I animal.	Chief Conservator Wildlife, Wildlife Wing, State Forest Department, Ministry of Environment, Forests and Climate Change
Air (Prevention and Control of Pollution) Act, 1981	To control air pollution by controlling emission of air pollutants as per the prescribed standards.	This act will be applicable during construction phase and may be applicable during operational phase (for e.g., if the project has any diesel generator set of more than 15 kVa capacity or a crematorium).	State Pollution Control Boards
Water Prevention and Control of Pollution) Act, 1974	To control water pollution by controlling discharge of pollutants as per the prescribed standards.	This act will be applicable during construction phase and may be applicable during operational phase.	State Pollution Control Boards
The Noise Pollution (Regulation and Control) Rules, 2000	The standards for noise for day and night have been promulgated by the MoEF&CC for various land uses.	This act will be applicable during construction phase.	State Pollution Control Boards
Central Motor Vehicle Act, 1988	To check vehicular air and noise pollution.	This act will be applicable during construction phase and may be applicable during operational phase.	Motor Vehicle Department
National Forest Policy, 1988	To maintain ecological stability through preservation and restoration of biological diversity.	This policy will be applicable if any eco-sensitive feature exists in and around the project.	Forest Department, State Government and Ministry of Environment, Forests and Climate Change

regulations, and activity regulations have the greatest role in influencing the condition of the river and its watershed in the long-term.

Projects under Special Purpose Vehicle (SPVs) and National Missions such as HRIDAY, PRASAD, SMART CITY, AMRUT, etc., are development plans and projects which target towns, cities, and tourist hubs/corridors and religious hubs. If the location of these proposed projects is along or near a river, these projects will need to look at riverfront development guidelines to inform their project proposals to avoid any conflict (HRIDAY); (AMRUT); (Ministry of Tourism 2016). Therefore, concerned authorities in charge of preparing and implementing these other mission-based projects near riverfronts should ensure that there is no conflict.

Urban Riverfront Planning and Development in India is limited to commanding and controlling river waters and exploiting its floodplains for the use and convenience of people, as well as for commercial gains realised from real estate development. The modern concept of URFD in India has originated with Sabarmati riverfront development in Ahmedabad, which involved a grey infrastructure-based development for a stretch of around 10 km. Following this, several other URFD projects have been approved. This list includes Godavari riverfront development in Maharashtra, Patna riverfront development in Bihar, Dravyavati riverfront development in Rajasthan, Gomti riverfront development in Lucknow, etc., besides similar development proposals for other rivers across India. □

Source: [https://nmcg.nic.in/writereaddata/fileupload/34\\_RFT%20Document-8\\_com.pdf](https://nmcg.nic.in/writereaddata/fileupload/34_RFT%20Document-8_com.pdf)

# Recharging Economy

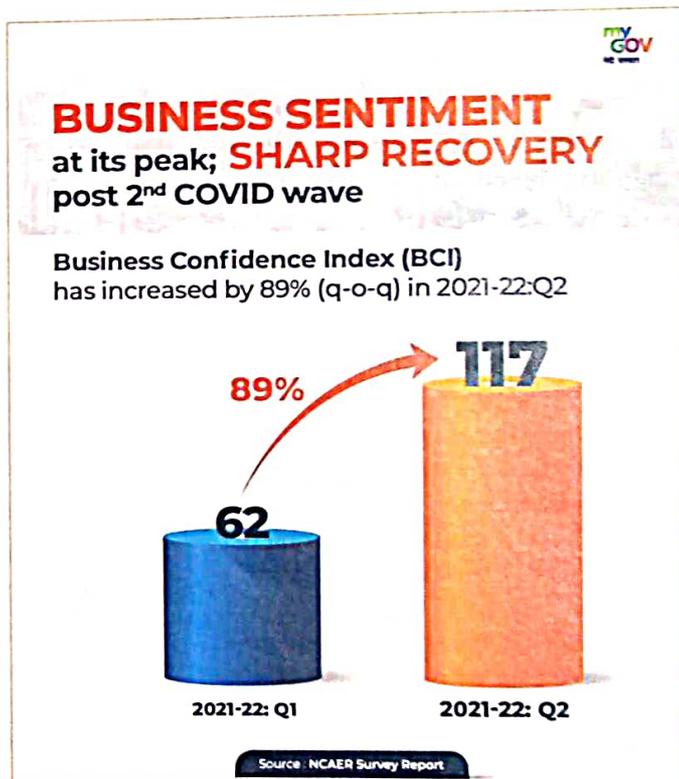
*Prof Tanay Kurode  
Dr Meghana Bhilare*

*The current crisis caused due to coronavirus pandemic has been negatively affecting the economy of most countries of the world. This includes developing as well as some highly-developed nations. It was more critical for countries like India to think about robust financial assistance to be provided to various sectors considering the scarcity of economic resources we hold. Atmanirbhar Bharat Abhiyaan or Self-reliant India is one such significant initiative by the Government. It aims to make the country and its citizens independent and self-reliant in all aspects. The five pillars of Atmanirbhar Bharat are Economy, Infrastructure, System, Vibrant Demography, and Demand. This article reviews such economic measures enacted during this pandemic to curb the financial distress in India.*

**T**he pandemic has left many economies in a bad shape. The fear of a higher probability of serious breakdown of the health infrastructure has pushed the countries to impose various measures on industrial as well as the societal level to control or rather reduce the destruction the pandemic may infuse. Various developed regions like the United States, United Kingdom, Spain, Italy, etc., and developing countries like India, China, Brazil, Philippines, etc. have seen consequences and its after-effects. Many countries imposed prolonged lockdown policies considering the scale of damage it may cause to society. Various important segments contributing significantly towards the sustenance and growth of the economy were getting affected and were failing to make any progress in terms of business or revenue. Overall, the economies were falling into a dismaying state, especially the MSMEs, as they were most vulnerable to such a slowdown. Everyone was ultimately focusing on strengthening the health ecosystem, so as to prevent the spread of infection. All the financial and economic resources of the country were being focused on providing assistance to the people working in the health and medical sector. Due to this, it was of importance to assess the economic damage incurred and take effective steps for the survival of the economies.

India has the second highest population in the world and has limited financial resources, as well as insufficient

medical infrastructure, was looking very vulnerable to the economic turmoil initially. But the Government of India was dedicated to providing the required assistance to the sectors or industries which were quite susceptible to the



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## Realising the Dream of Self-Reliant India



Global tenders to be disallowed in Govt procurement tenders upto ₹200 crores



Necessary amendments of General Financial Rules will be effected



This will be a step towards self-reliance & boost Make in India



Will also help MSMEs to increase their business

## New Definition of MSMEs



MSMEs now need not fear in growing size



Investment limit to define MSME will be revised upwards



Distinction between manufacturing and service sector to be eliminated



Additional criteria of turnover to be introduced



Necessary amendments to law will be brought about

loss. The Ministry of Finance and Reserve Bank of India quickly enacted upon providing relief packages to the industry and the taxpayers of the country. The concerned authorities started preparing for the first response during the first wave, which resulted in the lockdown. It was indeed the most important step to control the escalation of the disaster. The first phase of lockdown started on 24 March 2020, imperative with the objective of aiming for a balance between the economy and health of the country.

The majorly hit sectors of the Indian economy consisted of areas like local manufacturing units, recreation, real estate, education, hospitality, logistics, Information Technology, retail, aviation, etc. As the services industry contributes the highest to the Indian GDP, the current state of services was leading to a collapse of the economic growth.

The MSME Sector i.e. Micro, Small and Medium Enterprises of the country were the worst to get affected by the restricted business activity in terms of import-export, transport, supply chains, ultimately leading to negligible or very low industrial and retail consumption. Indian MSME sector is one of the major contributors to the Gross Domestic Product (GDP) of the country, as it shares more than a quarter of GDP contribution through service-related activities and more than one-third GDP contribution from manufacturing activities. Various economists and think-tanks urged the Government to come out with rapid measures and policies, incentive and

relief packages for the so needy sectors for their survival.

When the Indian economy was badly affected due to continuous restrictions on various business and social activities, it was need of the hour for the Indian Government to come out with robust economic relief and financial assistance measures in order to resurrect the country from slowdown. On 12 May 2020, Govt came out with a comprehensive all-inclusive stimulus package which is called 'Atmanirbhar Bharat Abhiyaan'. This package containing special economic provisions was aimed to provide assistance upto Rs 20 lakh crore for various segments of the society including labourers, cottage industry, middle class, MSMEs, industries, and others. This is almost equivalent to 10% of the country's GDP. This included driving focus towards local production and pushing the nation towards self-sustenance and uplifting the country's global economic positioning. This was a phase-wise programme focusing on five pillars as mentioned below:

**Indian MSME sector is one of the major contributors to the Gross Domestic Product (GDP) of the country, as it shares more than a quarter of GDP contribution through service-related activities and more than one-third GDP contribution from manufacturing activities.**

- i. Indian Economy
- ii. Infrastructure in the country
- iii. System
- iv. Vibrant Demography
- v. Demand

Specific focus areas under the Atmanirbhar Bharat Yojana includes:

Part 1: Businesses including MSMEs

Part 2: Poor, including migrants and farmers

Part 3: Agriculture

Part 4: New Horizons of Growth

Part 5: Government Reforms and Enablers

The highlights of various important reforms provided by Atmanirbhar Bharat Abhiyaan are given below:

**Support to MSMEs:** Businesses and MSMEs required additional financing to meet their operational demands like paying off existing loans, buying raw material, and restarting the business activities. This was aimed at providing Rs 3 lakh crore worth liquidity for such players in the form of working capital at concessional interest rates. The biggest feature of this reform was that the businesses will not have to provide any collateral to avail such funding. This scheme for emergency credit is supposed to provide financial aid to more than 45 lakh MSMEs in India. Further, the promoters of the MSMEs which are facing financial distress will be given loans upto Rs 20,000 crore which they can further infuse as equity in their businesses. In addition to this, such evolving enterprises will be encouraged to be enlisted on exchanges and a Fund of Funds would be established to provide equity infusion of roughly Rs 50,000 crore.

**Support to Non-banking and other financial institutes:** It was important for funding agencies to have enough liquidity to create required confidence in the system. So under this package, a special scheme focusing on the liquidity needs was taken into consideration

#### Overall Stimulus provided by Atmanirbhar Bharat Package

S.N.	Item		Rs Cr.
1	Part 1		5,94,550
2	Part 2		3,10,000
3	Part 3		1,50,000
4	Parts 4 and 5		48,100
		Sub-Total	11,02,650
5	Earlier Measures incl PMGKP	(earlier slide)	1,92,800
6	RBI Measures (Actual)		8,01,603
		Sub Total	9,94,403
		<b>Grand Total</b>	<b>20,97,053</b>

(Source: The Ministry of Finance, Inter-Ministerial Notification, National Informatics Centre)

wherein Government provides assistance upto Rs 30,000 crore by investing it into various debt instruments of such funding bodies in the primary market and secondary market. Further, such entities having low credit ratings are given special consideration through a partial credit guarantee scheme aiming to infuse liquidity to 45,000 crores.

**Tax-related measures:** A reduction of upto a quarter in the existing rates of TDS and TCS disposable funds upto Rs 50,000 crore. The government decided to swiftly release the pending tax refunds of all the concerned parties. Deadlines to be followed for various compliance-related aspects like income tax return filing, etc. were extended by a few months to provide enough time.

#AatmaNirbharApnaBharat

my GOV

### Reforms enabling Ease of Doing Business



- India's rank in World Bank's Doing Business Report (DBR) improved from 142 in 2014 to 63 in 2019
- Helping attract potential investors and making India the easiest place to do business
- Streamlined processes for grant of permits and clearances, self-certifications and third party certifications among others

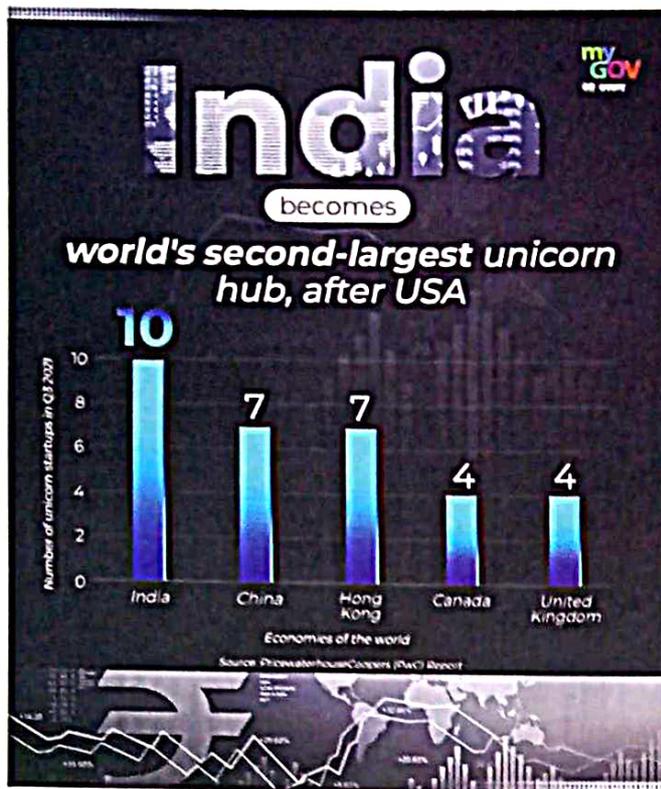
#AatmaNirbharApnaBharat

my GOV

### Corporate Law measures to boost Ease of Doing Business

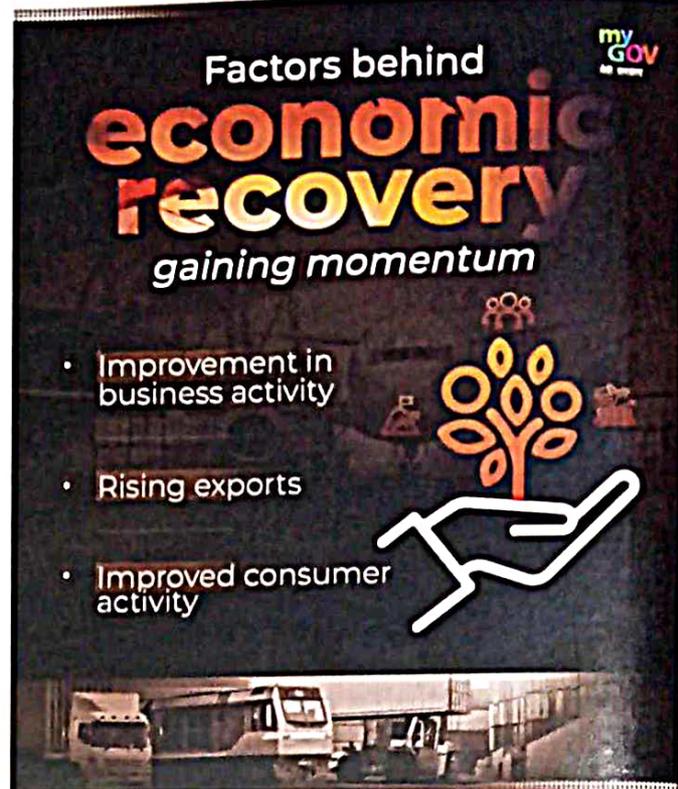


- Decriminalization of Company Law defaults in 2018
- 16 compoundable offences were shifted to in-house adjudication & penalty mechanism
- Databank of Independent Directors launched



**Support to migrants, farmers, and poor:** There was a huge migration of labourers within different States amid the declaration of lockdown and consequential job loss. It was the question of day-to-day survival for such a category of society. The State governments were directed to utilise funds under State Disaster Responses Fund along with central government's contribution to the tune of Rs 11,000 crores for providing food, shelter, and water to the migrants. This was also followed by providing masks and sanitisers for their safety measures. Higher loan disbursement, the extended moratorium on loans, refinancing of loans, sanctioning of Kisan Credit cards were a few of the supportive measures provided towards the agricultural sector. Besides various other financial and nonfinancial assistance, measures were included for the benefit of the poor.

**Reforms related to Ease of Doing Business:** In the last few years, sustained reforms related to doing business smoothly in India has uplifted its global ranking to 63 in 2019 from 142 in 2014. This included streamlining processes such as self-certification, granting of permits and clearance, and third-party certification among others. The government is now focusing on taking things to next level. Major areas would be simplifying the taxation norms, making the registration of property easy, faster resolution



of commercial disputes, etc., apart from Rs 40,000 crore increase in allocation for MGNREGS to provide employment boost.

**The State governments were directed to utilise funds under State Disaster Responses Fund along with central government's contribution to the tune of Rs 11,000 crores for providing food, shelter, and water to the migrants. This was also followed by providing masks and sanitisers for their safety measures.**

**Insolvency and Bankruptcy Code (IBC)-related measures:** For providing protection to MSMEs, the minimum threshold was raised to Rs 1 crore from the earlier 1 lakh to start the proceeding for insolvency. Central Government has been given the power to exclude debt related to the pandemic from the definition of 'default' for the purpose of initiating insolvency proceedings.

Various reforms are implemented in the wake of the current pandemic to address the distress caused in the economy and business. □

#### Endnotes

1. GOI. (2020). *Atmanirbhar Bharat Abhiyaan*. Retrieved from <https://aatmanirbharbharat.mygov.in/>
2. GOI. (2020). *Building Atmanirbhar Bharat & Overcoming COVID-19*. Retrieved from National Portal of India: <https://www.india.gov.in/spotlight/building-atmanirbhar-bharat-overcoming-covid-19>
3. GOI. (2020). *Covid-19, Inter-Ministerial Notifications*. Retrieved from Ministry of Finance: <https://covid19.india.gov.in/document-category/ministry-of-finance/>
4. PTI. (2020, April 09). Covid-19 pandemic to hit MSME exporters more: Trade experts.
5. <https://cdnbbsr.s3waas.gov.in/s3850af92f8d9903e7a4e-0559a98ecc857/uploads/2020/05/2020051740.pdf>

# Reviving MSMEs

Nilesh Trivedi

India is one of the fastest-growing economies in the world. In India's GDP, the contribution of agriculture is 15%, manufacturing is 31%, and 54% is catered by the service sector. India is ranked third in the world in terms of Purchasing Power Parity (PPP) GDP, with USD 8.9 trillion. This article discusses the schemes under the Atmanirbhar Bharat Abhiyaan for MSMEs in India.

**T**he government implemented numerous ambitious reforms under the Atmanirbhar Bharat Abhiyaan, including agricultural supply chain improvements, rational tax systems, simple and clear laws, capable human resources, and a strong financial system. India's PPE industry grew to 10,000 crores making it the world's second-largest.

Collateral-free Automatic Loans for Businesses, including MSMEs Guaranteed Emergency Credit Line (GECIL) Scheme, announced in February 2020, helped businesses, including MSMEs, with a revenue of up to 100 crore and outstanding credit of up to 25 crores. A financial support provided in the form of a sub-debt credit issued by the lending institution to the promoters of MSME units up to 15% of the promoter's share, or Rs 75 lakh, whichever is less was another fillip.

### MSME Sector in India

The contribution of the MSME Sector is 31% to the overall GDP of the country, out of which 6.1 % is from the manufacturing sector and the rest from the trade and service sector. MSME's contribution to manufacturing output is around 35% while contribution to total export is 48%. There are around 33000 registered MSME exporters in India. The total number of MSME units in India is 6.34 crores and the sector employs 11.75 crores people which constitutes 40% of the workforce in India. Unfortunately, only 14% of MSMEs have a formal source of finance. Their Non-performing assets (NPA) are around 8 to 11%, which is very high.

The following criteria for the categorisation of micro, small, and medium firms are in force, with effect since 2020.

1. A micro-enterprise, defined as an investment in Plant and Machinery or Equipment of less than one crore

2. A small firm with an investment in Plant and Machinery or Equipment of less than ten crore rupees and revenue of less than fifty crore rupees.
3. A medium-sized firm, with an investment in Plant and Machinery or Equipment of no more than fifty crore rupees and a turnover of no more than two hundred and fifty crore rupees.

### Production-Linked Incentive (PLI) Scheme

PLI programme was created to build national manufacturing champions and provide job possibilities for the country's young, as well as to promote manufacturing

**The Ministry of MSME Makes Historic Tech Contribution in the Fight Against Corona**

- Technology based Initiatives & Interventions taken by MSME Ministry to tackle COVID19 challenge
- Production and manufacturing of sanitizer pump to PPE, fragrance to face shield, mask to box, moulding to testing
- Continuous Initiatives have helped in lowering the cost of medical items including Hand Sanitizers

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at home by giving production incentives and encouraging investments from both within and outside the country. The minimum output in India because of PLI Schemes is anticipated to be more than USD 500 billion in five years. The Finance Minister declared expenditure of Rs 1.97 lakh crores for the Production-Linked Incentive (PLI) Schemes for 13 important industries in the Union Budget 2021-22. The first three PLI Schemes (Electronic/Technology Products, Pharmaceuticals Drugs, and Telecom & Networking Products) were approved in March 2020 and were quickly followed by another seven New PLI Schemes in food processing, specialty steel, automobiles and auto components, solar photovoltaic modules, white goods such as air conditioners and LEDs Advance Chemistry Cell (ACC) Battery, Textile Products such as MMF segment and technical textiles. The Production-Linked Incentive (PLI) provides incentives for increased sales (over the fiscal year 2019-20) from items made in domestic facilities.

### Startup India Seed Fund Scheme

The Startup India Seed Fund Scheme supports companies with proof of concept, prototype development, product testing, market entrance, and commercialisation. The Seed Fund is distributed to qualified companies across India via approved incubators. Grants of up to Rs 20 lakhs are provided for the validation of Proof of Concept, prototype development, or product testing. Investment of up to Rs 50 lakhs for market entrance, commercialisation, or scaling up via convertible debentures, loans, or debt-linked securities.

MSMEs are offered training under the Skill India programme to improve and provide practical training

### Rs 50,000 cr. Equity infusion for MSMEs through Fund of Funds

- MSMEs face severe shortage of Equity
- Fund of Funds with Corpus of Rs 10,000 crores will be set up
- Will provide equity funding for MSMEs with growth potential and viability.
- FoF will be operated through a Mother Fund and few daughter funds
- Fund structure will help leverage Rs 50,000 cr of funds at daughter funds level
- Will help to expand MSME size as well as capacity.
- Will encourage MSMEs to get listed on main board of Stock Exchanges.



to entrepreneurs on a variety of skills. Every Central Ministry/Department/PSU sets an annual goal for procurement from the sector at the beginning of the year, to achieve an overall procurement goal of at least 25% of total annual purchases from the products or services produced or rendered by MSMEs. In the fiscal year 2020-21, the Government of India purchased products worth around Rs 1.25 lakh crores, of which approximately Rs 40000 crores came from the MSE sector. International Cooperation scheme provides 100% of space rent paid to MSME units, limited to Rs 3 lakhs. Collateral-free loans for businesses, including MSMEs are also provided under Atmanirbhar Bharat Abhiyaan. □

### Endnotes

1. <https://mofpi.nic.in/pmfmf/>
2. <https://www.investindia.gov.in/production-linked-incentives-schemes-india>
3. <https://skillindia.nsdindia.org/>
4. <https://msme.gov.in/all-schemes>
5. <https://www.startupindia.gov.in/>

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Ahmedabad	4-C, Neptune Tower, 4th Floor, Nehru Bridge Corner, Ashram Road	380009	079-26588669
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## Direct-to-Consumer Model

Karishma Sharma

*Before the advent of large modern economies and consequently, globalisation, individuals around the world preferred buying locally, and in fact that was the only channel of economic activity known to man marked by the low development status of transportation and communication platforms. What has now become an economic model, 'direct-to-consumer' (D2C) was the only way individuals and businesses ran economic activities for a long time.*

**T**he manner in which direct-to-consumer models function now is vastly different from how they functioned before modern economies were built with the onset of the internet, wider and diverse consumer base, specialised firms and industries, and the general development over the years. The point, however, is that the model was prevalent then because most businesses operating around the world were small in size, often limited to one township or locality. The model gained prevalence again when small businesses increasingly gained momentum again around the economies of the world.

The dot-com bubble of the late 90s and early 2000s is not a proud part of our economic history for obvious reasons but like a silver lining around every cloud, the dot-com bubble gave us internet-only retailers who sold products and services to consumers directly without any extensive physical setup. The dot-com bubble is where we can trace back the origin of direct-to-consumer as how we know it today.

While the world was introduced to the modern-day direct-to-consumer model as early as two decades back, the model has become a part of Indian vocabulary only recently. And fortunately for India, direct-to-consumer became a part of our economic system via a much more positive phenomenon, so to say, called Atmanirbhar Bharat.

Self-reliance has several different meanings in several different contexts and the context India chose relied heavily on digitisation. In the words of the Prime Minister, "When India speaks of becoming self-reliant, it doesn't advocate a self-centred system. In India's self-reliance, there is a concern for the whole world's happiness, cooperation, and peace."<sup>1</sup> Digital India has, thus, been an integral part of

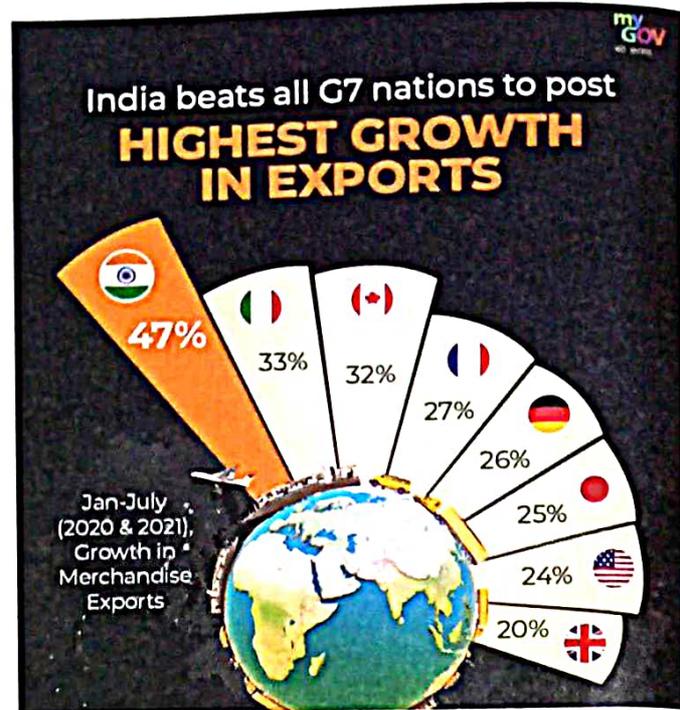
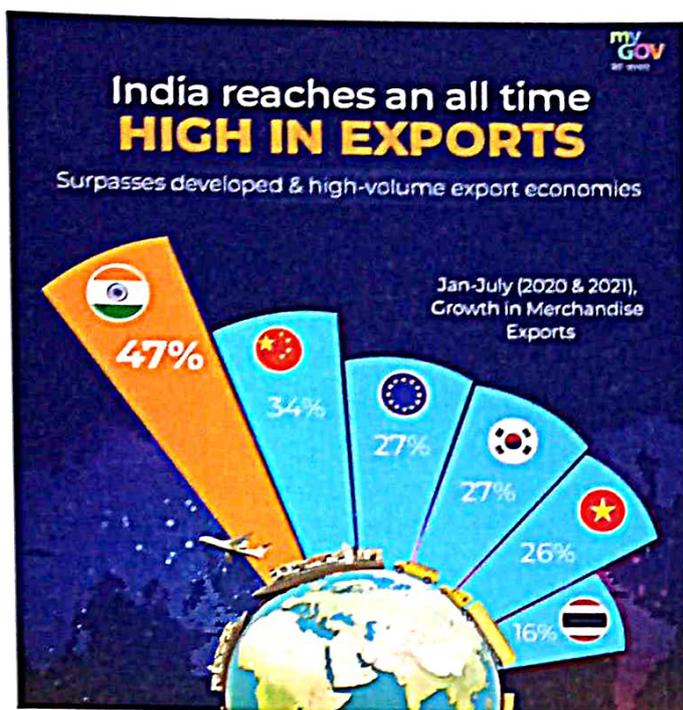
Atmanirbhar Bharat, and it is Digital India that has enabled and continues to facilitate the Indian direct-to-consumer market.

An Indian tea startup, Vahdam Teas, founded in 2014, presents an excellent example of the Indian direct-to-consumer model and Atmanirbhar Bharat's ambition of productively adding to the world economy. The startup came about when a family business was digitised and brought out of the narrow lanes of Darjeeling to metropolitans around the world. A tea brand combining the goodness of typical Indian tea and Ayurveda, it has reached the doorstep of consumers without a single brick and mortar setup, powered by a higher reach of smartphones and increasing broadband connections. With the help of a radical supply chain, it eliminates unnecessary middlemen, sources premium teas and superfoods from renowned gardens in India, packages them garden-fresh, and brings them to the consumer's doorstep.

Many such Indian startups have leveraged the digitisation revolution in the country and entered the direct-to-consumer market in recent times. The most popular and



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successful consumer brand startups of India have followed the direct-to-consumer model and beyond marketing and production strategies. It is certainly mass digitisation that has contributed to the success of these firms. As of 2021, D2C startups of India have been able to raise USD 783 million only in the first 7 months of the year.<sup>2</sup> Direct-to-consumer is preferred by sellers and also enjoys popularity among investors.

The model allows businesses to experiment with distribution models and change them according to the fast-changing needs of society and the economy. Covid-19 happens to be the best example of why flexible distribution channels are a new norm for all businesses. D2C also facilitates better consumer insights owing to the close connection between consumers and producers, allowing for smooth feedback and review mechanism. The new-age consumer is becoming increasingly aware and demands end-to-end attention from producers or sellers. The D2C model will perhaps become some sort of a revolution in the near future if consumer demands continue to rise.

Product differentiation is another feature that the D2C model facilitates when sellers have the power to make immediate changes in the consumer interaction setup. The D2C model also facilitates easy liquidation of business in a situation of failure, offering a relatively convenient exit to entrepreneurs who can then move their capabilities to other, more productive businesses, causing minimum loss to the individual and economy.

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**Digitisation has powered grassroots entrepreneurship by giving power to business owners to create their own terms of business and reach consumers without using extensive capital for building physical infrastructure.**

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What is happening in India through the direct-to-consumer model is that entrepreneurship is leaving the elite circles of the country and reaching the grassroots minds of India. This not to say that there haven't been entrepreneurs in India who have risen out of the margins of the society to create the now uber-successful businesses but to highlight that the high cost of business operations and monopoly of middlemen made entrepreneurship a sort of 'elitist' profession. Even if individuals created great products and ideas, the end goal, reaching consumers, remained a challenge for most entrepreneurs before the advent of mass digitisation.

Digitisation has powered grassroots entrepreneurship by giving power to business owners to create their own terms of business and reach consumers without using extensive capital for building physical infrastructure. Essentially, D2C, through digitisation, has shortened the time it takes for a business to hit breakeven by reducing the cost side of the equation and enabling business owners to make quick profits. Success, when measured purely on profit parameters, can now be achieved sooner by an entrepreneur owing to the reduced non-monetary investment, time. More young entrepreneurs feel empowered to take up entrepreneurship because the time input does not contradict with responsibilities of these young founders towards their families.

When speaking of enablers, a niche segment of digitisation, digital payments has had a tremendous impact on the success of online retail. Before digital payments became

a household phenomenon, the online retail industry favoured the buyers unfairly over the sellers by shifting the risk cost that is to be borne by buyers and sellers alike, only on the sellers in economic interaction. While the sellers had to bear the cost of manufacturing and partly the cost of delivery, the buyers were free to exit the contract at any point with the cash-on-delivery system. The buyers essentially had no risk share in the contract.

Digital payments system empowered entrepreneurs to distribute the risk in an economic contract by imposing monetary liability on buyers as well. Many new businesses choose to function only on an online payment system until the positive word of mouth makes cash on delivery a less risky alternative. This risk distribution has given the same platform to online retailers as that of offline retailers while the cost aspect still remains skewed in favour of digital businesses.

While the online D2C market has been facilitated by businesses like the digital payments industry, the D2C market itself has created additional business segments in the economy like logistics startups that go beyond wholesale deliveries to reach the doorstep of the consumer. The producers directly become retailers, bypassing the wholesale market altogether.

Atmanirbhar Bharat in this way has created a new ecosystem in the Indian economy. It is powered by digitisation and the Indian entrepreneurial spirit. This manifestation of Atmanirbhar Bharat could not have been highlighted at a better time when Covid-19

has forced isolation on nations around the world and traditional-supply chains have been compromised.

With the larger economic change being obvious, Atmanirbhar Bharat has created a more individual-level change in our economy with consumer and producer preferences changing one at a time and leading to a larger economic phenomenon which can be termed the Indian D2C revolution. What has happened and what continues to happen is not a mass movement of the consumer but a gradual and sustainable individual shift towards digital channels that has been facilitated by Digital India, entrepreneurs, and more recently, Covid-19. The economy is changing and it is being led by an individual with a smartphone in one hand and rising income in the other.

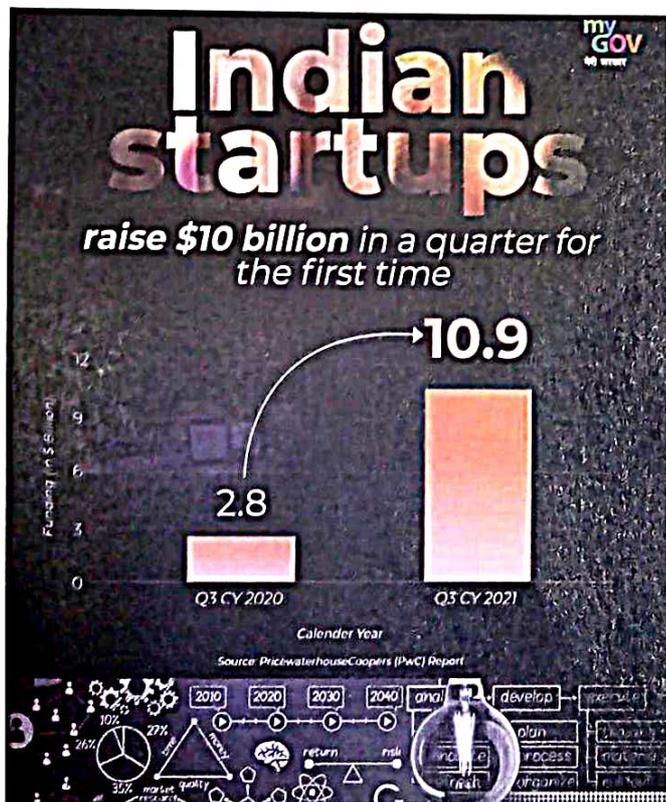
We have reached a position now where a new phenomenon called 'clicks and mortar' is gaining popularity and is soon to become the next big thing. With rising profits, businesses are now moving towards a hybrid model by establishing flagship stores while continuing a dominant online presence. These stores do not just capture offline consumers but allow the better function of the online model by allowing for physical pick-up of products purchased online.

A term popularised as an alternative to bricks and mortar, the clicks and mortar model represents the best of what digital D2C has to offer. As opposed to the traditional system of business where investment in physical capital has historically been the prime deterrent for small businesses and first-time entrepreneurs, the digital D2C model allows new businesses to first establish and flourish with low capital requirements over online platforms, and then reinvest those earnings into building physical capital. Many Indian online retailers and aggregators have capitalised on their large online presence to now bring consumers to their physical stores as well.

With Covid-19 bringing out the constraints in our economic system, D2C, particularly via digital platforms, presents an alternative to traditional business models around the world. An alternative that is flexible, low cost, and easy to reconsider in case of failure. D2C will be a USD 100 billion market in India by 2025.<sup>3</sup> These factors, coupled with further digitisation across the country and India's significant population, make India a potential hub for the global D2C industry in the near future, with plenty of opportunities for sellers, buyers, and investors, and all this started with an ambitious move towards self-reliance, Atmanirbhar Bharat. □

**References**

1. <https://aatmanirbharbharat.mygov.in/>
2. <https://inc42.com/datalab/indian-d2c-startups-raised-783-mn-in-the-first-seven-months-of-2021/>
3. <https://www.avendus.com/india/d2c-brands-report>



# Women Entrepreneurship

Purva Agarwal

*Economic empowerment of women is the most effective way for integrating women into Atmanirbhar Bharat's developmental goals. Women's entrepreneurship is an important aspect to make India self-reliant. It not only benefits the economy by creating jobs, but also benefits women in terms of social and personal transformation. This article explains its significance, challenges faced by women entrepreneurs, and discusses their role in the economy.*

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omen's entrepreneurship has grown rapidly, earning widespread acceptance among industries. Women make a major contribution to entrepreneurial activity and economic development in terms of job creation and GDP growth, poverty reduction, and social inclusion. According to a study, women's entrepreneurial motivation determines the impact on entrepreneurial success. The entrepreneurial motivational variables include ambition, skills and experience, family support, market potential, independence, government subsidies, and work satisfaction.

In today's scenario, it becomes necessary to analyse and explore the concept of women entrepreneurship; to review and explore features and challenges faced by Indian women entrepreneurs, and to focus on their role in the Indian economy and their contributions towards self-reliant India.

A woman entrepreneur is the one who assumes dominant financial control (minimum financial interest of 51 per cent of the capital) in an enterprise.

## Challenges

While the route of entrepreneurship itself is fraught with difficulties ranging from fundraising and financing to marketing, training, government backing, creativity, and idea generation, here are some of the unique problems experienced by women entrepreneurs.

The demands of work and personal commitment can put women under a lot of stressful responsibilities.

At the same time, uncertainty is an important concern for women. They fear failing, especially if the people are sceptical about their business capability. Struggling in the business can be a result of an inadequate support system for them. The women face challenges in getting support from relevant connections. Women have to work in the male-dominant world facing discrimination and social stigma. There is no doubt that laws and policies have created a favourable business environment for women but the changes have not been implemented.

One of the challenges faced by women entrepreneurs is a less established business network, along with societal and traditional constraints. These factors restrict women's participation in the business sphere.



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With the constant expansion of the Indian startup ecosystem, an increasing number of women are pursuing the entrepreneurial dream and succeeding in their businesses. According to the National Sample Survey, women entrepreneurs account for only 14% of all enterprises in India. The majority of the businesses are self-funded and operate on a small scale.

In a country like India, where a majority of women do not realise their potential and become unconcerned about their aspirations (particularly in rural areas), there are a few who have achieved higher than expected by the societal parameters. These entrepreneurs serve as role models for others who want to establish their own businesses. As a result, India is progressively climbing the ranks when it comes to providing a favourable startup environment for women entrepreneurs, as well as robust government support.

### Government Initiatives

Women Entrepreneurs play an important role in the growth of the economy so there is a need for favourable environment that motivates women to engage in entrepreneurial activities. The Government of India has framed various training and development cum employment generations programmes for women to start their ventures.

- **Specific target group:** It was suggested to treat women as a specific target group in all major development programmes of the country.

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Women entrepreneurs are the ones who initiate, organise, and take responsibility to manage the resources of their enterprises. According to the Government of India, a woman entrepreneur is the one who assumes dominant financial control (minimum financial interest of 51 per cent of the capital) in an enterprise.

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- **Developing new equipment:** Efforts should be made to increase their efficiency and productivity through appropriate technologies, equipment, and practices.
- **Marketing assistance:** It was suggested to provide the required assistance for marketing the products produced by women entrepreneurs.
- **Decision-making process:** It was also suggested to involve the women in the decision-making process.

In addition to this, there are a lot of organisations that help women to delve into the entrepreneurial journey by providing support for development.

#### 1. The Women Entrepreneurship Platform (WEP)

The Women Entrepreneurship Platform (WEP) was launched by NITI Aayog with the motive of providing an ecosystem for upcoming young women entrepreneurs across the country. NITI Aayog has partnered with Small Industries Development Bank of India (SIDBI) to promote and implement this initiative.

#### 2. Pradhan Mantri MUDRA Yojana

This is one of the top schemes launched by GoI to support and encourage women entrepreneurs who are looking to start a small business with minimum efforts such as beauty parlours, retail shops, or tuition centres.

#### 3. Stree Shakti Loan

This is a unique scheme run under SBI to support



women entrepreneurship by providing certain concessions. To avail of the Scheme, women entrepreneurs have to first enroll themselves in the Entrepreneurship Development Programme (EDP)– a training programme initiated to develop entrepreneurial skills required to run a business successfully.

### Way Forward

A woman entrepreneur is one of the most important pillars in the growth of Indian economy. We can consider the following suggestions for the growth of women-

1. Different training programmes should be conducted at minimum prices or free of cost to develop entrepreneurial skills in women.
2. Establishment of institutes providing free quality education to women right from childhood and further for higher education.
3. To provide financial aid to promote entrepreneurial engagement.
4. To spread awareness of incentives and schemes provided by the government.
5. To minimise documentation and make procedure simple for availing schemes.

A woman plays multiple roles in life finding it difficult to stay motivated and work hard for her venture ascertaining to the societal taboos she encounters. The government policies and schemes have provided measures to encourage women entrepreneurs. Indian women are kept unaware of the opportunities offered by the government and other agencies for the development of their entrepreneurial journey. There is an urgent need for improvement in initiatives and contributions which could be taken into deliberation for progress and development of woman as an entrepreneur by providing her with special training facilities for polishing her knowledge, talents and skill set. Women in small cities, towns, and villages continue to encounter obstacles and problems when it comes to socioeconomic advancement.

The Atmanirbhar Bharat vision of innovation, self-sufficiency, and enterprise has yet to reach the rural hinterland, where hundreds of millions of women have the potential to reach the next level. □

### Endnotes

1. V Krishnamoorthy and R Balasubramani, "Motivational Factors Among Women Entrepreneurs And Their Entrepreneurial Success: A Study" International journal of management research and business strategy.
2. Bowen, Donald D. & Hirsch Robert D. (1986), *The Female Entrepreneur: A Career Development Perspective*, Academy of Management Review, Vol. 11 no. 2, Page No. 393-407.
3. *Handbook on Women-owned SMEs, Challenges and Opportunities in Policies and programmes*, International Organization for Knowledge Economy and Enterprise Development.
4. Kubeczko, K., Rametsteiner, E. (2002). Innovation and entrepreneurship — a new topic for forest related research? Discussion Paper P/2002-1, Institute of Forest Sector Policy and Economics, BOKU Vienna.
5. Lall, Madhurima, & SahaiShikha, 2008, *Women in Family Business*, presented at first Asian invitational conference on family business at Indian School of Business, Hyderabad.
6. Murmann, J. P., & Tushman, M. L. 2001. From the technology cycle to the entrepreneurial dynamic. In C. Bird Schoenhoven, & E. Romanelli (Eds.), *The Entrepreneurship Dynamic*. Stanford, California: Stanford University Press.
7. Myers, S. C. 1984. The Capital Structure Puzzle. *The Journal of Finance*, 39(3): 575-592.
8. *Amity Journal of Entrepreneurship* 1(1), (86-100) ©2016 ADMAA Barriers Facing Women Entrepreneurs in Rural India: A Study in Haryana.
9. *International Journal of Applied And Pure Science and Agriculture* www.ijapsa.com @IJAPSA-2015, All rights Reserved 75 e- ISSN: 2394-5532 p- ISSN: 2394-823X A study on the Development of Women Entrepreneurship in Ghaziabad, UP, India Seema Johar Research Scholar, MVGU.
10. Why research needed in women entrepreneurship in India: A viewpoint Article in *International Journal of Social Economics*. February 2018.
11. Dr Ranjana Sharma "Women Entrepreneurs in India - Emerging Issues And Challenges" *International Journal of Development Research* Vol. 07, Issue, 12, pp.17917-17923, December, 2017. ISSN: 2230-9926.



## Police Reforms

*Nuti Namita*

*The history of Police in India is characterised by trials, errors, vicissitudes, imperatives of an imperial government, changing priorities, and changing context. India, after Independence, retained the basic structure of police organisation, though the nature of policing did change. Police as an institution, as it exists today, has evolved over several centuries, tracing its roots to the long-gone period. It acts as an independent administrative institution in India, however, developed only during the British colonial period, which to a great extent was an amalgamation of various features prevalent during the Medieval ages and some borrowed from the British structure of law and order. The present Police System structurally and functionally owes its existing structure to the various Acts and Enactments promulgated by the colonial rulers.*

**P**olice as being a part of the administrative machinery of the State to protect life and property came into existence with the inception of civilised society. It was considered the primary tool of the state/ruling class. The 'police' connotes a system of administration or regulation, but the word is now generally used to indicate the organised body of civil officers in a place whose particular duty is the preservation of law and order.<sup>1</sup> "Indian police history can be seen as the expansion and contraction of an imperial power always set upon an impermeable stratum of village institutions. Structures came and went, but there was no qualitative evolution from one imperial high-point to another."<sup>2</sup> The present Police System structurally and functionally owes its existing structure to the various Acts and Enactments

promulgated by the colonial rulers. The Indian State has retained, consolidated, and expanded the inherited police structure.

### Ancient Period

Policing in the ancient period in India was intricately concurrent with the institutions of religion, community, and ethics. There are several references in ancient texts of India which indicate the existence of a specialised unit to deal with the detection of crime and offences against the State. We get glimpses of a city police organisation in the Arthashastra of Kautilya.<sup>3</sup> Police was an important functionary for maintenance of peace which was a necessary pre-condition for the general welfare.<sup>4</sup> The indigenous Police System in India was organised on the basis of land tenure and also on the

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collective responsibility of the village community.

### Medieval Period

Under the Muslim rule in North India in the twelfth century, the Police System evolved slowly but steadily. The centre of power and political activity was the Sultan. Faujdar, being the head of the criminal justice delivery system at the provincial level, was entrusted to maintain peace and security.<sup>5</sup> Kotwal was the magistrate, head of the police, Chowkidar was responsible for the village peace and order under the local landholder or the village headman. The chowkidars were maintained by the villages themselves and were paid remuneration out of the share of the crops.

### The Colonial Period

As the grip of the British tightened over the Indian territory, issues of security of trade and property necessitated some kind of police arrangements. Through various trials and error, the British perfected a Police System which served them throughout their colonial rule in India.

Warren Hastings, in 1772, established criminal courts as a measure to suppress and prevent violent crime.<sup>6</sup> In 1792, Lord Cornwallis, "took police administration out of the hands of the large landowners (the *zamindars*) and established in their place a police force responsible to agents of the Company. Districts were divided into parts and over each, a police official, known as a *Darogha*, was placed. ...The kotwal remained in charge of police administration in the towns."<sup>7</sup> These reforms however did not yield desired results.

It was the great widespread movement against the British rule by many sections of the Indian society in 1857 that made the British realise the imperative need for a regularised institution to control the vast lands that they had conquered. "The formation of 'civil' police forces was intended to lessen somewhat by the 1850s had come

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to be seen as a dangerous reliance on the army for internal policing"<sup>8</sup> The excessive dependence on the army was expensive as well. So a police force was conceptualised that could 'develop a sense of fear of authority in the entire population and could serve as the first line of defence.'<sup>9</sup> A Police Commission was appointed in 1860. The purpose of the Commission was to reorganise the police department, to make it more effective and efficient. The Commission recommended the abolition of the military police and

the establishment of the single uniform civil police force which would be under the provincial government. It resulted in the enactment of the Police Act (Act V) of 1861. It is the basic foundation of the present-day Indian Police.

### The Police Act, 1861

A bill passed on 16 March 1861, came into force as the Indian Police Act on 22 March 1861. The Police Commission of 1860 established the following principles of police organisation: "(1) military police were to be eliminated and policing was to be entrusted to a civil constabulary; (2) civil police were to have their own separate administrative establishment headed by an inspector-general in every province; (3) the inspector-general was responsible to the provincial government as the superintendent was to the civilian collector; and (4) the superintendent was to supervise village police."<sup>10</sup>

The Inspector-General was assisted by District Superintendents of Police who were in turn assisted by several Assistant Superintendents of Police. The Subordinate Police service was also reorganised and the officers were designated as Inspectors, Head Constables, Sergeants, and Constables. An organisational hierarchy was reinforced for the first time in the Indian Police with a clear command and control. The higher ranks of officers were, to begin with, exclusively European, and it was in the subordinate ranks of police that Indians



were recruited, although not in entirety.

Another feature of the Act was the emphasis to improve village policing which was to be under the supervision and control of the local magistrate. It was also recommended that the salaries and remuneration of the police should be improved and made more equitable with that of the military forces. In 1892, the Provincial Civil Service was created.

In 1902, Lord Curzon constituted another Commission to look into the functioning of the Police System and to suggest effective measures to ensure prevention of torture of police, better magisterial supervision over police, and several other allied matters.<sup>11</sup>

The Commission was quite critical of the functioning of the police, however, it did not recommend any major structural reforms in the Police System. It recommended that educated Indians be admitted to police organisation at the officer level. In 1902, a new rank was formed especially for Indian officers- Deputy Superintendent of Police, which was although one rank junior to the Superintendent, belonged to the highest rank of the Provincial or subordinate service. As the years went by, 'Indianisation' of the police service picked up. In 1920, Indians were allowed to enter the higher ranks of the Police through an entrance exam which was to be held in India as well as in England. Lee Commission was formed in 1924 through which recruitment shifted in favour of Indians. Indianisation of police service continued to be very slow, however Police reforms undertaken during the nineteenth and early twentieth centuries did create a uniform and highly hierarchical police which was made subordinate to the needs of the colonial State.

As the nationalist movement gathered momentum and ferocity in the twentieth century, Indian police was increasingly used to suppress and control these movements. Herein lay the dilemma of the Indian police: Indians were very cleverly utilised against the Indians. It was "an agonising time of trial"<sup>12</sup>. India after independence in 1947, built up its administrative and police structure primarily based on what the British



had established.

### History of Police in Madras Presidency

South India, as we can discern from historical evidence of the Vijayanagar empire, had an evolved policing system.

Kavalkars were originally State appointees who also acted as local auxiliaries. They were, unlike the taliyaris, responsible for several villages and had the right to collect protection fees (kaval) for the task they performed as protectors. They became predatory and corrupt assuming the role of 'robber police'.<sup>13</sup>

Madras was a huge province and there was inadequate supervision of European officers over the area. There were frequent complaints of torture committed by the local indigenous police functionary. The remoteness of several interior districts of the Madras Presidency created additional problems. There was an implicit realisation of the failure of the existing police administration in the province; to assure security and uninterrupted flow of revenue, to create secure environment for trade and property.

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In 1920, Indians were allowed to enter the higher ranks of the Indian Police through an entrance exam which was to be held in India as well as in England. Lee Commission was formed in 1924 through which recruitment shifted decidedly in favour of Indians.

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The Madras Police Act of 1859 distinctly separated the unarmed police from the armed sections of the police. They hardened into two separate, distinct branches of the force "with no interchange of personnel below the inspectorate."<sup>14</sup> Another major feature of the Act was the total integration of the police force with the provincial State structure. Police was organised on a provincial, rather than an all India basis.<sup>15</sup> It was felt that the Madras Presidency was vast with huge regional variations that



made it impossible to supervise police work from a single centre. Through this Act, “three levels of supervision and control was enacted. One, was the supervision of the civil administration over the police department; second, the supervision of European officers over Indian subordinates; third, a rigid hierarchical division between the superintendency at the top, inspectorate in the middle and constabulary at the bottom.”<sup>16</sup> The Chief Secretariat acted as the nodal agency for police in Madras province. At the district level, the police were subordinated to the District Magistrate/Collector, although, in 1856, a post for Superintendent was created. However, the Superintendent was outranked by the Magistrate in the District.

### Special Police Force

The twentieth century ushered in a period of renewed and more persistent nationalist agitations throughout the country. The existing district police, though expanded over a period, was not enough to enforce control. Therefore, it was decided to constitute armed ‘striking forces’. Two major striking forces were formed in the Madras Presidency— the Malabar Special Force and the East Coast Special Force. Both the forces were specialised, well trained, disciplined, and armed with latest weapons. They may be called the harbingers of today’s paramilitary forces.

With the spread and aggressiveness of the Quit India agitation in 1942 and the onset of the Second World War in 1939, the government perforce had to increase the strength of the police reserves as well as paramilitary forces.

### Police Reforms

‘Police’ and ‘Public Order’ are State subjects under the Seventh Schedule of the Constitution of India. However, the Government of India, in September 2017, approved implementation of umbrella Scheme of “Modernisation of Police Forces (MPF)”. This Scheme has two verticals – Police Modernisation & Security Related Expenditure (SRE) & includes central sector sub-schemes such as Crime and Criminal Tracking Network and Systems

(CCTNS) project and e-Prisons project, which have been made operational in all the States/Union Territories. The Government also implemented Special Central Assistance (SCA) scheme to undertake development interventions in Left Wing Extremism (LWE) districts. Additionally, focus is also laid upon upgradation of police wireless and other infrastructure.

This Scheme also includes centrally sponsored sub-schemes of ‘Assistance to States for Modernisation of Police’ and ‘Assistance to States for Special Projects/ Programmes for upgrading Police Infrastructure’ to assist State Governments in modernisation of their police forces. The second vertical of SRE comprises sub-schemes for Jammu & Kashmir, North Eastern States, and LWE affected States as well as Special Infrastructure Scheme (SIS). One of the major aims of the Scheme was to bolster the Government’s ability to address challenges faced in different theatres such as areas affected by LWE, Jammu and Kashmir and North East effectively, and undertake development interventions which will catalyse in improving the quality of life in these areas and help combat these challenges effectively at the same time.

To combat Left Wing Extremism, the Government, in 2015, had approved ‘National Policy and Action Plan’, which includes a multi-pronged approach covering areas of security, development, ensuring rights and entitlements of tribals/local communities, and perception management. The steadfast implementation of the Policy and Action Plan has resulted in decline of LWE-related violence and geographical spread of LWE influence. □

### References

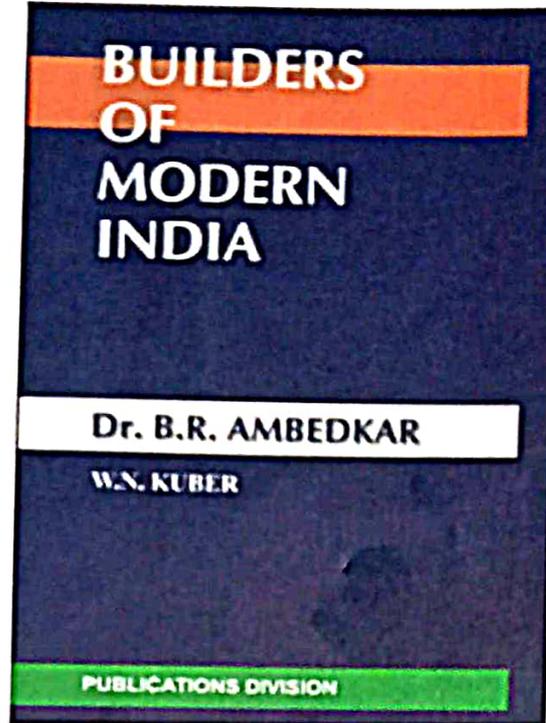
1. Sen, Sankar. *Police Today*. New Delhi, 1986, p86
2. Bayley, David. *The Police and Political Development in India*. Princeton University Press, Princeton. 1969. P39
3. Chatterjee, S.K, *The police in Ancient India*, p11
4. Sham vyayamo yogshemayoyouni Kautilya, *Arthashastra*, 97/2/1
5. Sharma, P.D.and B.M. *Indian Administration; Retrospect and Prospect*. Rawat Publications, New Delhi.p20
6. Pandey, AK. *Development Administration and the Local Police*. Mittal Publications. Delhi, 1987. pp150-151
7. Ibid.
8. Arnold, David. *Police Power and Colonial Rule; Madras 1859-1947*. Oxford University Press. New Delhi. 1986p13
9. Gupta,S, Anand. *The Police in British India (1861-1947)* 1979, New Delhi p7
10. *Op.cit.* Bayley.p45
11. <http://www.Police in India/independence/html>
12. *Op.cit.* Bayley, p49
13. *Op.cit.* Arnold p19
14. *Op.cit.* Arnold p28
15. MPAR,1874, pxxxix
16. Ibid p29

**Builders of Modern India**  
**Dr B R Ambedkar**



Author: W N Kuber  
Price: Rs 150  
Publisher:  
Publications Division

The Builders of Modern India is a series of handy volumes written by scholars, giving a brief account in simple words, of the life, time, and activities of distinguished leaders. The objective of the series is to record, for the present and future generations, the story of the struggles and achievements of the leading pioneers who were instrumental in our national renaissance and the attainment of independence. The volumes do not intend either to be comprehensive studies or to replace the more elaborate biographies.



This book provides an insight into the multifaceted genius of Dr B R Ambedkar, an eminent national leader of our country. The erudition, masterly statesmanship, expertise in Constitution drafting, and fearless debating characterised this great personality. The author W N Kuber gives us a glimpse into how Dr Ambedkar championed the cause of the downtrodden and contributed towards revitalising the Indian society. □



With members of the Drafting Committee of the Constituent Assembly



With Shyama Prasad Mukherjee



With Mahar Regiment on his birthday in 1950



With lady activists of Dalit Movement



With Samita Sainik Dal Volunteers at Tadwadi, Bombay, 1938



In Diksha robe



On his way to Columbia University to receive an honorary Degree (1952)

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Convergence with the other Central Government and State Government Schemes is available as per their eligibility under the guidelines of those schemes. This will enhance the competitiveness of the textiles industry, by helping it in achieving economies of scale and will create huge job opportunities for millions of people. Leveraging 'Economies of Scale', the Scheme will help Indian companies to emerge as Global Champions.

### Agreement to Strengthen Health Systems in Meghalaya



The Government of India, the Government of Meghalaya, and the World Bank signed a USD 40 million health project for the State of Meghalaya. This project will improve the quality of health services and strengthen the State's capacity to handle future health emergencies, including the Covid-19 pandemic.

The Meghalaya Health Systems Strengthening Project will enhance the management and governance capabilities of the State and its health facilities; expand the design and coverage of the State's health insurance programme; improve the quality of health services through certification and better human resource systems, and enable efficient access to medicines and diagnostics.

All 11 districts of the State will benefit from the project. It will also benefit health sector staff at the primary and secondary levels by strengthening their planning and management capabilities and building their clinical skills. The project will enable women to better utilise healthcare services at the community level.

The project will help strengthen the effectiveness of Meghalaya's health insurance programme known as the Megha Health Insurance Scheme (MHIS) – which currently covers 56% of the households. With its merger into the national Pradhan Mantri Jan Arogya Yojana (PM-JAY), MHIS now plans to offer a more comprehensive package and covers 100% of the households. This will reduce barriers to accessing hospital services and prevent catastrophic out-of-pocket costs for poor families.

As a key strategy, the project will move towards a performance-based financing system where Internal Performance Agreements between the Department of Health and Family Welfare and its subsidiaries would foster more accountability at all levels. This is expected to go a long way in improving the management of the system to deliver quality health services. The project will also focus on promoting synergy between various schemes and augmenting the capacity of the State insurance agency.

The project will invest in infection prevention and control for a more resilient response to future outbreaks, pandemics, and health emergencies. Improved health services may also lead to an incremental increase in bio-medical waste. Any improper management of wastes including bio-medical waste and other hazardous wastes such as plastic waste and e-waste poses environmental risks. The project will invest

in improving the overall ecosystem for bio-medical waste management (both solid and liquid waste). It will include segregation, disinfection, and collection while safeguarding the environment and improving the quality of health service and patient safety.

### Biotechnology Centre for Tribals in the Northeast



A new Biotechnology Centre for Northeast tribals has been launched in a remote area of Arunachal Pradesh called Kimin.

The "Centre for Bio Resources and Sustainable Development" has also established academic linkages with several Indian Council of Agricultural Research (ICAR), Council of Scientific and Industrial Research (CSIR) Institutions, for efficient implementation of these programmes as they will create employment opportunities for the prospective young entrepreneurs of the State of Arunachal Pradesh. The facilities for the implementation of these programmes will be established in 4 districts of Arunachal Pradesh, covering over 50 villages and benefit over 10,000 farmers in the next 2 years.

The Government is focusing on the implementation of the following three major programmes for benefit of the region. (i) State-of-the-Art Orchidarium in the main Centre at Kimin for conservation and multiplication of priority orchid species along with establishing satellite units in selected districts of Arunachal Pradesh, (ii) Establishment of banana fibre extraction and processing units in selected districts of Arunachal Pradesh, and (iii) Establishment of Aroma Unit for promotion of cultivation of aromatic crops and entrepreneurship development.

Through this programme, four different types of training programmes are being implemented which include: (1) Students Training Programme, (2) Technician Training Programme, (3) Faculty Training Programme, and (4) Entrepreneurship Development Programme. Three different Skill Development Councils of National Skill Development Corporation India - Ministry of Skill Development and Entrepreneurship are as part of these training and signed MoUs with Arunachal Pradesh State Council for Science & Technology, to extend their support for implementing the Skill Vigyan Programme for the State of Arunachal Pradesh along with various Institutions.