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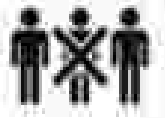




## Sustainable & Inclusive Rural Growth



# #IndiaFightsCorona



A set of 15 promises, we need to follow,  
as part of COVID Appropriate Behaviour

1.  Greet without physical contact.	2.  Maintain physical distance.	3.  Always and properly wear a mask.
4.  Avoid touching eyes, nose and mouth.	5.  Maintain respiratory hygiene.	6.  Wash hands frequently and thoroughly.
7.  Regularly clean and disinfect frequently touched surfaces.	8.  Do not spit in the open.	9.  Avoid unnecessary travel.
10.  Do not discriminate against anyone.	11.  Discourage crowd. Encourage safety.	12.  Do not circulate social media posts which carry unverified or negative information.
13.  Seek information on COVID-19 from credible sources.	14.  Call national toll-free helpline 1075 or state helpline numbers for any queries.	15.  Seek psychosocial support for any stress or anxiety.



Sustainable development focuses on judicious use of resources which is a case of balancing the trade-off between present and future generation. The ongoing pandemic and related health issues stalled human life and all kinds of business activities. As a consequence, there has been widespread poverty, inequality and joblessness in most parts of the world. This pandemic-driven recession also opens up the need for resource planning and its right uses. Safeguarding lives and livelihoods became the need of the hour and hence constitute the core of sustainable development.

Sustainable development follows three key dimensions (i.e., economic growth, social inclusion and environmental protection), as a part of well-being of the individuals, communities, nations and world development. It focuses on human rights and human dignity and attempts to bring end to all kinds of exploitation and misery. It can be positive only when all the segments get equal rights and social opportunities and enjoy a decent standard of living. In this context, rural development played a vital role in attainment of sustainable development and contribution overall progress of the country. Rural development and its concomitant outcomes will not only reduce poverty and inequality, but also will empower the community, especially the women and the underprivileged sections of the society.

Women are the key agents for rural development in achievement of transformational economic, environmental and social changes required for sustainable development in India. Women entrepreneurs can contribute to the economic well-being of their family, reduction in poverty and inequality. Rural entrepreneurship can create new economic opportunities in generating self-employment, spreading industrial and economic activities and utilising local labour as well as locally available raw materials. Strong rural infrastructure is essential in bridging gaps between urban and rural India. It allows better access to education, healthcare and economic success. Skill development amongst the rural masses in various steps such as operation of machines, manufacturing of goods, sports, music and usage of technology, computers etc. will lead to the economic growth and social development of the country.

Access to quality education that has equity and inclusion at its core becomes crucial in Indian context considering its diversity. The aim of education should not be limited to academic excellence only but also to ensure social, ethical, and emotional capacities and outlooks. Education is also expected to equip individuals to face the challenges and helps them in attaining holistic development of their personality. It must cater to address the social needs of a human being. The digital revolution has opened the doors for social and economic revolution in rural India where women have faster and better access to business opportunities, employment, services and now digital. There is a need to harness the power of ICT as it offers ways for improving access to technologies, services and finance for effective governance and monitoring.

Agriculture will continue to play an important role in addressing food security, increasing income and generating employment opportunities. Contribution of agriculture and allied sector is increasing due to increased investment in agricultural infrastructure such as irrigation facilities, warehousing and cold storage. A strong linkage between farm and non farm sector needs to be developed for augmenting income and creating jobs in rural areas. Besides, the impact of fast pacing of mining would have a direct impact on the income as well as employment generation in rural areas. The country's mining sector has to the best source of direct and indirect employment without compromising with the environmental sustainability. Supported by the initiatives of the Government, India's rural sector is increasingly becoming key economic drivers for the national economy. However, a vast potential of opportunities that lies in the rural economy have not yet been explored to its full potential. A well-crafted rural development strategy will certainly help in attaining the inclusive and sustainable development.

# Drivers of Inclusive Rural Growth

Dr. Jagdeep Saxena

Currently India is the fifth largest economy of the world having net worth of 2.94 trillion dollar, but the Government has set a goal to become a five trillion dollar economy by 2025. To achieve this, India has set a target of one trillion dollar from agriculture, three trillion dollar from services and one trillion dollar from manufacturing sector. The rural economy of India generates about half of the national income and more than two-third of the employment is generated in the rural areas.

**I**f today you go to rural or semi-rural areas, then you will be confronted with an unexpected scenario. You will witness a new hope and a new belief. Today's rural India is undergoing an exceptional change. Did you know that there are more active internet users in rural India than in cities? Did you know that more than half of India's start-ups are in Tier 2 and 3 cities? said Prime Minister Shri



Narendra Modi while urging India Inc to invest in India's villages. While citing various government-led interventions for rural growth, he said, 'The ambitions of rural India are increasingly on the rise, they want socio-economic mobility. That's why investors like you should not miss any opportunity to invest in villages and rural India. Your investments will open up new avenues for our brothers and sisters in rural India.' Besides roping in private sector for investment, Government of India has developed elaborate plans and strategies to accelerate rural economy and socio-economic upliftment of rural citizens. Further, Government is also cycling rural markets as a means to push-up national economy due to their significant share in national income of India. Currently, India is the fifth largest economy of the world having net worth of 2.94 trillion dollar, but the Government has set a goal to become a five trillion dollar economy by 2025. To achieve this, India has set a target of one trillion dollar from agriculture, three trillion dollar from services and one trillion dollar from manufacturing sector.

The rural economy of India generates about half of the national income and more than two-third of the employment is generated in the rural areas (NITI Aayog, 2017). More than half of the value added in manufacturing sector is contributed by rural areas. The agriculture and allied sectors alone contributed 17.8 percent to the total gross value added of the country during 2020-21. Most of the current studies indicate that the growth, income and consumption patterns of rural India hold the key to boost demand, revive the economy, and sustain economic growth at national level. Among various other sectors, agriculture and allied sectors are the major drivers of rural economy along with Fast Moving Consumer Goods (FMCG), Consumer Durables, Banking and MSMEs (Micro, Small and Medium Enterprises).

## Agriculture – The Fulcrum of Rural Economy

Agriculture and allied sectors are the mainstay of rural economy as they drive demand for other sectors including retail, FMCG, and e-commerce, which are dependent on agriculture.

sector for inputs. Besides, agriculture directly steers consumption and demand in seed, fertilisers and chemicals, agricultural machinery and implements, energy and transport sectors. Hence, the Government has launched various forward looking policies and initiatives that aim at doubling the income of farmers by 2022 and also increase the non-farm income in rural areas. It is anticipated that the sector will grow to Rs. 88.2 lakh crore by 2023 at a CAGR of 12.2 percent. Expected growth in agriculture sector shall stimulate demand for processing services, packaging, transportation and for finance, retail and other services. Untapped potential exists for public and private sector to contribute across the agricultural value chains, mainly in four areas of activities – market linkage and farm to fork connections, logistics and supply chain, agro-processing, and research and development.

In recent years, Government of India has initiated a number of reform measures related to agriculture market that cumulatively aim at providing best prices to farmers for their produce. Government sponsored electronic National Agriculture Market (eNAM) has removed barriers of handling, movement and storage by providing online trading facilities to farmers for a great number of farm commodities. So far, over 1,000 major whole sale agriculture markets (APMCs) across 18 States and three UTs have been integrated on eNAM to develop the concept of 'one nation, one market' for agriculture produce. The online and transparent bidding system is encouraging farmers to increasingly trade on eNAM. More than 1.22 crore farmers and 1.55 lakh traders are trading on the platform as registered users. Total trade volume of 4.13 crore MT of bulk commodities and 3.68 crore numbers of coconut and banana worth approximately Rs. 1.22 lakh crore has been recorded on eNAM platform. Motivated by its success, Government has further announced to integrate 1,000 more mandis in the current Union Budget (2021-22). A massive campaign is underway to aggregate small, marginal and landless farmers into Farmer Producer Organisations (FPOs) to enhance economic strength and market linkages. Formation and promotion of 10,000 new FPOs has been announced with a budgetary provision of Rs. 6855 crore. FPOs will be provided financial assistance upto Rs. 18,00 lakh per FPO for a period

of three years. Besides increasing income, FPOs will facilitate farmers with access to improved technology, credit, better inputs at affordable cost and more markets. In broader sense, FPOs will improve rural economy and create job opportunities for rural youths in villages itself. FPOs can also trade through eNAM from their collection centre without bringing the produce to APMC. Recently, eNAM has introduced a warehouse based trading module that allows trading based on electronic-Negotiable Warehouse Receipts. Expansion of online marketing facilities required matching infrastructural support at the ground level. Hence, Government created a dedicated Agri-market Infrastructure fund with a corpus of Rs. 2,000 crore for development and upgradation of marketing infrastructure at 10,000 Gramin Agricultural Markets and 585 APMCs (2018-19). The financial support from fund is helping modernise marketing, processing, storage and ancillary infrastructure/logistics including better assaying facilities at APMCs.

Recently introduced new farm laws (2020) are intended to help small and marginal farmers (86 percent of total farmers) who don't have means to bargain for their produce to get a better price. The specific law on agri-market allows farmers to sell their produce outside APMC 'mandis' to buyers of their choice. Any interested buyer can purchase farmers' produce even at their farm gates at mutually agreed price. Farmers will be able to get better prices through competition and cost-cutting on transportation. The new law on contract farming gives freedom to individual farmers to enter into a contract with agri-business companies or retailer-chains on pre-agreed prices of their produce. Such contracts will help small and marginal farmers as the new law transfers the risk of market unpredictability from the farmer to the sponsor. Another law removes some of the major agri-commodities from the list of essential commodities, thereby attracting private/foreign direct investment into the agriculture sector. Government has recently made MSP (Minimum Support Scheme) scheme more comprehensive and remunerative by assuring at least 50 percent margin over and above the production cost. The network of procurement centres has also been enlarged and strengthened so that benefits of MSP reach to maximum number of farmers. Some

of the key initiatives to boost rural economy are as follows:

- Agriculture Export Policy aims to double exports by 2022 and reach Rs. 7.4 lakh crore in next few years;
- National Policy on Electronics promotes incentives that encourage rural development and increase rural employment;
- Kisan Credit Card scheme has eased institutional credit facilities to farmers, fishermen and livestock owners directly enhanced cash flow in rural markets;
- Rs. 40,000 crore special package to MGNREGS for enhancing work opportunities in rural areas;
- DDJ-Lite in skilling and transforming rural youth into economically relevant force;
- Garib Kalyan Rojgar Abhiyan launched in 115 districts of six states at a cost of Rs. 50,000 crore to tackle the reverse migration of workers to their villages; and
- Strengthening all-weather road connectivity to un-connected villages under PM Gram Sadak Yojana.

### Industries and Enterprises – Wheels of Rural Growth

Consistent and intensive efforts to improve infrastructural facilities in rural areas have now yielded desired results. Better road connectivity, high-speed internet facility, adequate power supply, plenty of local resources, availability of skilled and un-skilled workers, and improved credit facilities, have transformed rural areas into a favourite destination for setting up new enterprises. On the other hand, industrial/entrepreneurial activities in rural areas, boost rural economy by providing job opportunities to local people, offering remunerative prices for local produce and triggering supportive logistical services. Among various industrial activities, agro-processing/food processing is a sunrise sector, especially in rural areas, with huge untapped potential and a number of encouraging interventions by Government. Currently, food processing industry engages around 1.93 million people in nearly 40,000 registered units with a fixed capital of 37.75 billion US dollar and aggregate output of around 150 billion US dollar. The Ministry of Food Processing Industries, Government of India is making all efforts to

encourage investments across the value chain. A comprehensive, ambitious and umbrella scheme, 'PM Kisan SAMPAD (Scheme for Agro-Marketing Processing and Development of Agro-Processing Clusters) Yojana' was launched (2017) with an initial allocation of Rs. 6,000 crore for three years. Through this scheme, Government aims to create modern infrastructure with efficient supply chain management from farm gate to retail outlet, and link farmers to consumers in the domestic and overseas markets. Efforts in this direction are not only bridging gap between farmers and entrepreneurs but it is also motivating farmers to take up agro-processing activity as a part-time vocation.

'SAMPADA' scheme is supporting creation of mega food parks and agro-processing clusters, especially in rural areas, to address the need of small and micro food processing enterprises by providing plug and play facilities. To arrest post-harvest losses of horticulture and non-horticulture produce at farm-gate locations, financial assistance is being provided for setting up integrated cold chain from the farm gate to the consumer. So far, the Government has sanctioned 37 food parks across the country for funding, of which 21 are operational and 16 are under implementation. Government of India further sanctioned over 134 food processing projects during 2020 across different states. Out of which, there are 21 agro-processing units supported by backward and forward linkages and food testing laboratories. Newly sanctioned projects are expected to leverage private investment of Rs. 2026.12 crore and are likely to generate direct and indirect employment for over 77,000 persons with major share in rural areas. Dairy, fruits and vegetables, poultry and meat processing, and fisheries are major sectors getting push from rural areas and villages. A novel 'One District One Product' scheme is designed to promote value chain and infrastructure development for the specialised indigenous product (food or other wise) of a district so that it gets state/national exposure. The OODP product could be a perishable agri-product, cereal based product, or a food product widely produced in a district and their allied sectors. Support for agricultural products would be for their processing along with efforts to reduce wastage, proper assuring, and storage and marketing. Under OODP scheme, 135 district-specific unique products

for 728 districts have been identified across the country for support and promotion.

Micro, Small and Medium enterprises (MSMEs) are regarded as the growth accelerators of the Indian economy, and more so for the rural economy as more than half of the MSMEs operate in rural India. MSMEs contribute about 30 percent in the national GDP, contribute about 40 percent to the overall exports and employ nearly 110 million people across the country. To push up the growth of MSME sector, Government of India has from time to time launched various supportive schemes mainly targeting ease of doing business, credit support, and marketing facilities with infrastructure development. Recently, as a step towards ease of doing business, Government revised financial norms for classification of MSME units. As per new definition, units having investment of less than Rs. 1 crore and turnover less than 5 crore are called micro enterprises; small enterprises have investment of less than Rs. 10 crore and turnover less than Rs. 50 crore; and units having investment of less than Rs. 50 crore and turnover less than Rs. 250 crore are defined as medium enterprises. Recently, Government has introduced a simple, online registration scheme for MSMEs, which is based on self-certification. Named as 'Udyam' registration, it offers a host of benefits to MSMEs.

- In case of micro and small enterprises, the payment for invoices is assured within 45 days, otherwise buyer is liable to pay compound interest.
- Government departments and public sector companies are mandated to procure 25 percent of their requirement from registered MSMEs only.
- Registered MSMEs get benefits of schemes related to collateral/guarantee free loans, interest subvention scheme and schemes for market support and export promotion, etc.
- Commission in electricity bills is provided to registered MSMEs.

To increase credit flow, an emergency credit line is introduced wherein special loans are sanctioned to MSMEs by banks/financial institutions without additional guarantees. In order to assist promoters during ongoing pandemic, a subordinate debt scheme is launched that provides a debt facility of up to 15 percent of the promoter contribution or Rs. 75

lakh, whichever is lower. A novel initiative called units of Fund scheme is launched with a corpus of Rs. 10,000 crore for providing financial relief and lending to MSMEs with growth potential and viability.

During ongoing pandemic, to further boost rural economy through MSMEs, Prime Minister launched a special CHAMPIONS portal [31] June, 2020 for making the smaller units big by helping and hand-holding them. To operate the portal and provide services, a central control room in New Delhi and 68 state level control rooms have been created which have been providing every possible support on a local level to MSMEs in the relevant areas, such as finance, market access, raw materials, permissions, technology upgradation, skill development etc. Public and private sector banks and some of the key financial institutions are on-board to address the queries related to credit in a fast track manner. The portal also seeks to help MSMEs to tap into new opportunities including manufacturing of medical items and accessories combined with a long term view to identify the MSMEs with growth potential. World bank has also recently step in by allocating about Rs. 5,800 crore for emergency funding to the MSME sector.

Ministry of MSME is also implementing a 'Scheme of Fund for Regeneration of Traditional Industries' (SFURTI) to promote cluster of small-scale industries especially in rural areas. SFURTI is striving to organise the traditional industries and artisans in villages into clusters to make them competitive and financially sustainable. Most of the traditional industries are facing challenges in product development as per new age demands and marketing. Hence, SFURTI scheme is providing support for new products, design intervention and improved packaging, and also the improvement of marketing infrastructure. Traditional artisans are being equipped with improved skills and capabilities through training and exposure visits. The scheme undertakes three types of interventions, namely soft, hard and thematic interventions, for the overall improvement and modernisation of SFURTI clusters. Government has established 18 MSME Technology Centres to develop and promote new appropriate technologies, and their transfer to rural artisans for enhancing their income. During current pandemic period, these Technology Centres could develop and manufacture various components/products related to COVID-19, and

shared with MSMEs for domestic/indigenous production. Such technologies include some parts of PPE kit, some parts of corona testing kit, various types of sanitizer machines, safety goggles, face shields, prototype of pulse oximeters etc. In a win-win move, Khadi and Village Industries Commission (KVIC) has initiated manufacturing of Khadi Mask which are reusable and washable. This initiative, on one hand gave opportunity to rural artisans for more employment during COVID-19 and on other hand, masks could get quality mark at bare minimum price. With a continued focus on MSMEs by the government, this sector is expected to continue with its role as the growth engine of the rural economy vis-a-vis national economy, and providing employment to millions of un-skilled and semi-skilled people across the country.

### FMCG- Gamechanger of Rural Economy

Fast Moving Consumer Goods (FMCG) sector is the fourth largest sector in India employing over three million people. This sector primarily consists of three segments – household and personal care (50%), food and beverage (31%) and healthcare (19%). Growing awareness, easier access, changing lifestyles and enhancing income have been the key growth drivers for FMCG sector. Due to various socio-economic factors, the urban segment had been the largest contributor to the overall revenue generated by the FMCG sector. However, in the last few years, the FMCG market has grown at a faster pace in rural India compared to its urban counterpart. As a result, FMCG products account for nearly 50 percent of the rural spending. The growth of rural markets is driven by higher aspirations of the rural population, increased spend capacity, increased brand awareness arising from media exposure and deep penetration of mobile phones and internet. Higher production of agricultural commodities, reverse migration during pandemic and increasing employment rate are other major drivers fuelling growth in rural market. Traditionally, it has been observed that in terms of products, essential staple food items attract maximum spending in rural segment.

Major FMCG companies in private sector are eyeing rural markets with launch of new product series especially suited to the likes of rural consumers. FMCG companies are also focussing on strengthening their e-commerce engagement mainly to attract business from rural youth. On the other hand, Government has made some

policy interventions to push up sectoral growth, especially in rural areas. These initiatives include – 100 percent approval of FDI in single-brand retail and 51 percent FDI in multi-brand retail; lower tax regime for FMCG products; transformation of the logistics and warehousing facilities; and expansion of infrastructural facilities for better retail management.

Consumer durables is another major sector influencing rural markets and rural economy. This sector is broadly divided into two major categories – Brown Goods (TV, PC, laptops, digital camera, etc.) and White Goods (AC, washing machines, microwaves, etc.). Spectacular growth in consumer durable market is registered across the country including rural areas. Recent initiatives by the Government have directly or indirectly promoted the rural demand for consumer durable products. Products such as refrigerators and consumer electronics are experiencing a surge in demand as festive purchase owing to the government investment in rural electrification. Interestingly, rural markets have recently recorded an increased demand for fully automatic washing machines, as more and more rural women are finding employment in the manufacturing industry. Easy access to finance, easy EMI schemes and buy now-pay later schemes have also contributed to demand in the consumer durables sector. In addition, both Government and private sector banks and financial institutions have implemented novel initiatives to bring banking to the doorstep in rural India. Schemes such as Direct Benefit Transfer (DBT), RuPay Cards, Kisan Credit Cards and the ambitious Jan Dhan scheme have improved the financial inclusion set-up in rural areas. Improved banking services in rural areas have directly promoted and escalated rural entrepreneurship to push up rural economy.

Supported by the initiatives of the Government, India's rural region are increasingly becoming key economic drivers for the national economy. However, a vast potential of opportunities that lies in the rural markets have not been completely explored. There is much scope and hope that the rural economy of India will drive Indian economy towards a five trillion dollar plus economy by the year 2025.

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## Inclusive, Equitable and Quality Education

Rashi Sharma

Education should ensure that all students despite inherent abilities, are provided unbiased regulated opportunities to enter and excel in the educational system. The Sustainable Development Goal 4 (SDG-4) seeks to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all" by 2030. The NEP 2020 envisions an education system rooted in Indian ethos that contributes diversity to transforming India, first as a power, subsequently into an equitable and robust knowledge society, by providing high quality education to all, and thereby making India a global knowledge superpower.

**I**ndia is bracing itself to celebrate 75 Years of Independence, a significant milestone in Nation's journey as a democratic republic which is so diverse in culture, religion, language yet so united in spirit. The nation has a young population full of dreams and aspirations, and education plays a pivotal role in the progress of individuals as well as society.

Access to quality education that has equity and inclusion at its core becomes crucial in Indian context considering the unique nature of its society divided by caste, religion, and language. The caste system has created layers in the society where one is considered superior to other on the basis of his/her birth in a dominant caste. This has resulted in a significant percentage of population falling into Socio-Economic Disadvantaged Group (SEDGs). The Constitution makers realised

this complicated system and its adverse impact on the society and incorporated provisions in the form of 'reservation' to ensure equal opportunities for all. However, this cannot be the holistic solution to this problem and the role of education becomes vital as it can be a great leveler or equaliser if we are able to provide universal access to quality education. Education is vital in creating opportunities and level playing field for all. Therefore, the aim of the education system must be to provide to all students, irrespective of their place of residence, a quality education system, with particular focus on historically marginalised, disadvantaged, and underrepresented groups. Further, children with disabilities should also be enabled to fully participate in the regular schooling process from the Foundational Stage to higher education. The



Rights of Persons with Disabilities (RPWD) Act 2016 defines inclusive education as a 'system of education wherein students with and without disabilities learn together and the system of teaching and learning is suitably adapted to meet the learning needs of different types of students with disabilities. Education should ensure that all students from such groups, despite inherent obstacles, are provided various targeted opportunities to enter and excel in the educational systems. The Sustainable Development Goal 4 (SDG 4) also seeks to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all" by 2030.

### Post-Independence Era

After independence, education was identified as a vital tool for an equitable and just society. Post-independence, our education system has evolved and expanded phenomenally: from a literacy rate of 18 percent in 1951, we have moved up to 73 percent as of 2011. Currently, the school education system in India is the largest in world with around 15 lakh school, 94 lakh teachers and 25 crore students.

### Previous Policies and Commissions

A series of commissions were appointed to survey, study, review and recommend improvements in the different sectors of education after independence. To take into the problems of university education, the University Education Commission was appointed by the Government of India in 1948 under the chairmanship of Dr. S. Radhakrishnan. Secondary Education Commission was appointed in 1952 under the chairmanship of Dr. A. Lakshmanaswamy Mudaliar. The commission identified secondary stage of education as the important link of our education system because it prepares individual for vocation as well as higher education. Thereafter, the most famous Kothari Education Commission was formed on 14 July 1954 (under the chairmanship of Dr. Dadao Singh Kothari). Based on the report and recommendations of the Education Commission (1964-1966) the government announced the first National Policy on Education in 1968, which called for a "radical restructuring" and equality of educational opportunities so that national integration and more cultural and economic development can be achieved. It promoted adoption of broadly uniform educational structure in all parts of the country, i.e. 10+2+3 pattern.

Thereafter, the second National Policy on Education (NPE) was adopted by Parliament in May 1986. This new policy called for "special emphasis on the removal of disparities and to equalise educational opportunity. The NPE (1986) recommended for an overhaul of the system of planning and the management of education. In May 1990, a committee under the chairmanship of Acharya Ramamurti was set up to review NPE and to make recommendations for its modifications. At the National level, a CAIE (Central Advisory Board of Education) committee was set up in July 1991 under the Chairmanship of Shri K. Janardhana Reddy to consider modifications in NPE, i.e. to renew educational development, determine the changes required to improve the system and monitor implementation. This Committee submitted its report in January 1992 which is known as the National Programme of Action, 1992. The National Education Policy, 2020 is the third in the series of National Education Policies (1958 and 1986 modified in 1992) in India and is the first education policy of the 21<sup>st</sup> century. The NEP 2020 envisions an education system rooted in Indian ethos that contributes directly to transforming India, that is Bharat, sustainably into an equitable and vibrant knowledge society, by providing high quality education to all, and thereby making India a global knowledge superpower.

### Programmes/Schemes

Apart from policies, there have been many programmes/schemes to provide targeted interventions and implement the vision of National Education Policies. These efforts were intensified in the 1980s and 1990s through several schematic and programme interventions, such as Operation Black Board (OBB), Shiksha Karmi Project (SRP), Andhra Pradesh Primary Education Project (APPEP), Bihar Education Project (BEP), LP Basic Education Project (UPBEP), Mahila Samakhya (MS), Lok Janshiksha Project (LJP), District Primary Education Programme (DPEP) and the Sarva Shiksha Abhiyan (SSA) - the flagship Centrally Sponsored Scheme in partnership with State Governments for UEE across the country. The Rashtriya Madhyamik Shiksha Abhiyan (RMSA) scheme, initiated in 2009, demonstrated the government's ambition for a secondary education system that can support India's growth and development. In the year 2013-14,



Four other Centrally-sponsored Schemes for secondary education viz., ICT in Schools, Girls' Hostel, Vocationalisation of Secondary and Senior Secondary Education and Inclusive Education for Disabled at Secondary stage were subsumed under RMSA. The Centrally Sponsored Scheme of Restructuring and Reorganisation of Teacher Education (CSSTE) was initiated in 1987 pursuant to the formulation of the National Policy on Education (NPE, 1986). In 2018, an integrated scheme for school education called 'Samagra Shiksha' was launched by subsuming erstwhile schemes of SSA, RMSA and CSSTE. Samagra Shiksha aimed to treat education holistically from pre-primary to Sr. Secondary and is aligned with SDG(4) goals.

### The RTE Act

However, the most significant event came in the year 2002 with 86<sup>th</sup> amendment in the Constitution of India wherein article 21 A was inserted to ensure that every child has a right to full-time elementary education of satisfactory and equitable quality in a formal school which satisfies certain norms and standards. This subsequently resulted in passage of the Right of Children to Free and Compulsory Education (RTE) Act, 2009 which gave a legal mandate to provide free and compulsory elementary education to every child in the age group of 6-14 years. India became one

of the 135 countries who have made education a fundamental right for every child. The RTE Act has many provisions for ensuring quality, equity, and inclusion in education systems such as notification of weaker and disadvantaged group by the appropriate Government and reservation of 25 percent seats in private-aided schools for them, improvement in learning outcomes and Continuous and Comprehensive Evaluation (CCE), non-discriminatory learning environment and holistic development of child.

### Qualitative Steps Taken and Suggestions

The aim of the education is not limited to cognitive capacities or academic excellence only but also to ensure social, ethical, and emotional capacities and dispositions. Education is also expected to equip individuals to face the challenges of 21<sup>st</sup> century therefore, it must be more experiential, holistic, integrated, inquiry-driven, discovery-oriented, learner-centred, discussion-based, flexible, and, at the same time enjoyable. Further, as envisaged in National Education Policy 2020, the purpose of the education system is to develop good human beings capable of rational thought and action, possessing compassion and empathy, courage and resilience, scientific temper and creative imagination, with sound ethical moorings and values. It aims at producing engaged, productive, and contributing citizens for

building an equitable, inclusive, and plural society as envisaged by our Constitution.

Ensuring equality of treatment and outcome has always been a focal point of all the policies/schemes/programmes/Act etc. These constant efforts since independence have yielded positive outcomes. As per UDISE 2018-19 (Provisional), the GER for boys and girls of SCs is 104.4 and 107 respectively and for ST boys and girls is 106.5 and 105 respectively at elementary level which is more than the GER of all categories, however, at secondary and senior secondary level (the enrolment) ratio needs more focus and improvement. The enrolment ratio for SCs to total enrolment at elementary level is 19.16 percent, at secondary level 18.46 percent and senior secondary level 17.20 percent. Similarly, the enrolment ratio for STs to total enrolment at elementary level is 10.52 percent, at secondary level 9.11 percent and Senior Secondary level 7.41 percent. In respect to CWSN, a total 23.45 lakh CWSN children are enrolled at primary, upper primary, secondary and higher secondary level, however, low transition rate from elementary to secondary level, high drop out rate at secondary level (17.9 percent as per UDISE 2018-19 (provisional)) and low learning levels of students as pointed out by many national and international surveys are challenging factors which are required to be addressed to ensure the quality of education.

Although, there have been many steps taken to improve the education system in the past, however, there are some crucial areas where the initiatives have been taken in the recent years or are required to be taken in future.

1. **Emphasis on Early Years:** Over 85 percent of a child's cumulative brain development occurs prior to the age of 6, indicating the critical importance of appropriate care and stimulation of the brain in his early years, in order to ensure healthy brain development and growth. Therefore, strong investment in ECE has the potential to give all young children such access, enabling them to participate and flourish in the educational system throughout their lives. In order to ensure quality ECCE both at Anganwadis and pre-schools, NCFERT is preparing a National Curriculum Framework

for ECCE which will be adopted/adapted by all.

Secondly, to ensure universal acquisition of foundational skill by all children by grade III, a National Mission on Foundational Literacy and Numeracy is being set up by the Ministry of Education (MoE) on priority as a part of announcement under Atmanirbhar Bharat and recommendations of NEP 2020; foundational learning is the basis of all future learning for a child. Not achieving basic foundational skills of being able to read with comprehension, writing and doing basic mathematics operations, leaves the child unprepared for the complexities of the curriculum beyond grade 3. The Mission will focus on five areas – providing access and retaining children in foundational years of schooling, teacher capacity building, development of high quality and diversified student and teacher Resources/Learning Materials, and tracking the progress of each child in achieving learning outcomes.

2. **Focus on Learning Outcome:** Although RTE Act in Section 22 (2) talks about the all round development of child, learning through activities, discoveries and exploration and Continuous and Comprehensive Evaluation (CCE) of child's ability to understand the knowledge and its application, still in practical rote learning was promoted. However, in a paradigm shift to enhance the quality of education, the Rules to the RTE Act were amended in February, 2017 and for the first time, the class wise, subject wise Learning Outcomes were delineated till Class VIII. Further, a National Achievement Survey (NAS) based on learning outcomes to assess the competencies of children was conducted, on 1<sup>st</sup> November, 2017 through which the learning levels of around 22 lakh students of Classes III, V and VIII from 1.10 lakh schools across 700 districts in all 35 States and UTs were assessed. The learning outcomes developed by the NCFE have been adopted/ adapted by all States and UTs. This change in approach will bring much desired improvement at ground level in terms of pedagogy, assessment, and teachers' capacity.
3. **Reforms in Teacher Education:** If there is one area which is in dire and urgent need of

reforms that is teacher education. The National Council for Teacher Education (NCTE) set-up in 1993 after passing the NCTE Act 1993 somehow could not achieve its objective of stimulating planned and coordinated development of the teacher education system throughout the country, the regulation and proper maintenance of norms and standards in the teacher education system and for matters connected therewith. The mandate given to the NCTE is very broad and covers the whole gamut of teacher education programmes including research and training of persons for equipping them to teach at pre-primary, primary, secondary and senior secondary stages in schools, and non-formal education, part-time education, adult education and distance (correspondence) education courses. However, rapid and unplanned growth of Teacher Education Institutions (TEIs) across the country has affected the quality of teacher education programmes adversely, thereby resulting in poor quality and mechanical attitude of teachers. NCTE confined itself only to regulatory work related to granting permission to teacher education institutes and was unfortunately negligent towards the following of norms, standards and quality of TEIs. NEP 2020 took the cognizance of this fact and recommended various measures to improve this sector. The major recommendations include four year B.Ed. integrated programme to become the preferred degree for appointment of teachers, closure of sub-standard TEIs, extension of Teachers Eligibility Test (TET) at all stages from pre-primary to Sr. Secondary, formulation of new National Curriculum framework for Teacher Education (NCTFTE) based on new NCF of School Education and NCTE to become part of the Higher Education Commission of India (HECI). The implementation of these recommendations is expected to bring much desired improvement in the sector.



4. **Building Capacities of Teaching Teachers** are the core of any education system and the entire responsibility of delivering quality education and instilling values and ethics among learners, rests on the shoulders of teachers. Therefore, the pre-service teacher education programme and continuous professional development of in-service teachers becomes crucial and one of the most important aspect of the system. In India, many teachers lack professional qualifications as mandated by the NCTE. Therefore, the RTE Act, 2009 was amended in 2017 to ensure that all in-service elementary teachers acquire the minimum qualifications prescribed under the Act by 31<sup>st</sup> March, 2019, as this would ensure an improvement in the overall quality of teachers and teaching processes, and consequently learning outcomes of children. The National Institute of Open Schooling (NIOS) conducted the mandatory training for untrained in-service elementary teachers through ODL (Open Distance Learning) mode. The online ODL course has been completed successfully and more than 10 lakh in-service teachers have been trained.

Further to ensure continuous professional development (CPD) of teachers which has also been recommended by NEP 2020, a National Initiative to improve learning outcomes at the Elementary level through an Integrated Teacher Training Programme called NISHTHA (National Initiative for School Heads' and Teachers' Holistic Advancement) has been launched on 21<sup>st</sup> August, 2019. The aim of this integrated teacher training programme was to build the capacities of around 42 lakh teachers and Heads of

Schools, faculty members of SCERTs and DIETs and Block Resource Coordinators and Cluster Resource Coordinators. However, in the wake of the COVID-19 pandemic, this programme was transformed to the needs of teaching and learning during the pandemic and made 100 percent online. DIKSHA Online for elementary teachers was launched on 07 October, 2020 on DIKSHA Platform of NCERT. It includes multiple approaches for interaction i.e., Text Modules along with videos, Live Sessions by National level Resource persons on DTH Swamyam Prabha TV Channel and Interactive Voice Response System. In addition, Assessment is in-built in every Module and Online Certificates will also be automatically generated for participants after completion of the course.

5. **Revamping Assessments:** The exam-centric assessment system has prohibited rote learning rather than higher-order thinking skills or critical thinking. The assessment should be aligned with the learning outcomes and based on assessing competencies. Hence, NEP 2020 envisions a transformation in assessment pattern by making board exams a low-key affair and introduction of an Artificial Intelligence (AI) based holistic progress card which will be a 360-degree, multidimensional report that reflects, in great detail, the progress as well as the uniqueness of each learner in the cognitive, affective, and psychomotor domains. It will include self-assessment and peer assessment, and progress of the child in project-based and inquiry-based learning, quizzes, role plays, group work, portfolios, etc., along with teacher assessment. As envisioned in NEP 2020, assessment will now be more regular and formative, more competency-based, to promote learning and development among students, and tests higher-order skills, such as analysis, critical thinking, and conceptual clarity. The primary purpose of assessment will indeed be for learning; it will help the teacher and student, and the wider schooling system, continuously revise teaching-learning processes to optimise learning and development for all students.
6. **Equity and inclusion at all Levels:** Due to equity and inclusion being the focal point of

all policy and reforms, we have progressed quite a lot as Gender Parity Index is now 1 which shows equal participation of girls. Many specific interventions have been designed for this purpose such as under Samagra Shiksha, an integrated centrally sponsored scheme for school education, provision for text books, uniforms, self-defense training for girls, KGBV residential school for girls, assistive devices for Children with special needs (CWSN) etc. are integrated to promote equity and inclusion at all levels. However, these efforts are required to be intensified particularly for CWSN children so that they get equal opportunity. As mentioned in NEP 2020, most classrooms have children with specific learning disabilities who need continuous support. Research is clear that the earlier such support begins, the better the chances of progress. Therefore, teachers must be helped to identify such learning disabilities early and plan specifically for their mitigation. The use of appropriate technology allowing and enabling children to work at their own pace, with flexible curricula to leverage each child's strengths, and creating an ecosystem for appropriate assessment and certification will certainly pave way for integrating inclusion in entire education system.

The above list of crucial areas of an education system is not conclusive at all, these are broad areas which touch upon each and every spectrum of the system. As the country is stepping ahead towards celebrating 75 years of independence, we must remember that "education is fundamental for achieving full human potential, developing an equitable and just society, and promoting national development. Providing universal access to quality education is the key to India's continued ascent and leadership on the global stage in terms of economic growth, social justice and equality, scientific advancement, national integration, and cultural preservation" as rightfully mentioned in NEP 2020.

#### Footnote

1. UDISE-2017-18

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# Women, Youth and Rural Transformation

Dr. Y. S. Shivay and Dr. Teekam Singh

*Women are key agents for rural growth and development in India. They play a catalytic role towards achievement of transformational economic, environmental and social changes required for sustainable development. On the other hand, youth being enthusiastic, vibrant, innovative and dynamic in nature make them the most valuable human resource for fostering economic, cultural and political development of a nation.*

**I**ndia is an agrarian country where more than 65 percent population live in rural areas and still 54.6 percent of the total workforce in the country is engaged in agricultural and allied sector activities which accounts for approximately 27.3 percent of the country's Gross Value Added (GVA) for the year 2019–20 (GOI, 2021). India is a country which attained independence in 1947, but the rural-urban divide and the rich-poor divide are still plaguing India. Gender is the

inevitable push factor for growth and development of a nation like India. In India, women and youth constitute a major share of population. It is urgently needed to mobilise this vast human resource of women and youth, if the country has to progress in all spheres and also compete globally. Women play the important roles in the rural economy as farmers, wage earners and entrepreneurs. They also take responsibility for the well-being of the members of their families, including food provision and care for children and the elderly. Rural women's unpaid work, particularly in poor households, often includes collecting wood and water. Women from indigenous and grassroots communities are often also custodians of traditional knowledge, which is the key for their communities' livelihoods, resilience and culture. Yet, women in rural areas face constraints in engaging in economic activities because of gender-based discrimination and social norms, disproportionate involvement in unpaid work



and unequal access to education, healthcare, property and financial and other services. They are also disproportionately vulnerable to the impacts of environmental disasters and climate change. Promoting and ensuring gender equality and empowering rural women through decent work and productive employment, not only contributes to inclusive and sustainable economic growth, but also enhances the effectiveness of poverty reduction and food security initiatives, as well as climate change mitigation and adaptation efforts. On the other hand, youth being enthusiastic, vibrant, innovative and dynamic in nature is the most important section of the population. Youth shows strong passion, motivation and will power which also make them the most valuable human resource for fostering economic, cultural and political development of a nation. In spite of the draw backs in the implementation of the legislation, significant benefits have already started accruing to women and youth through

better access to local employment, at minimum wages, skill development schemes with relatively decent and safe work conditions. The Government has framed different programmes/schemes to uplift the women and youth from poverty and vulnerability of life in rural areas.

### Status of Rural Women

Rural women in India are less literate than rural men. According to 2011 census, the population of rural women who are literate are 50.8 percent (Census, 2011). The status of women is not effectively recognised in rural communities. They experience discriminatory treatment as compared to their male counterparts. Mostly women are deprived of certain rights and opportunities in rural areas because of the people's mindset. Rural women are vital and productive workers in India's national economy. There is also statistical bias in under estimating the role of rural women in development. Women work for longer hours than men and contribute substantially to family income, they are not perceived as productive workers (Parlijaam and Lalitha, 2005). Women are silent workers who are struggling to complete her household duties from dawn to dusk. In rural areas, very few women have ownership over land or productive assets. This proves to be a road block in institutional credit. Majority of the agricultural labourers are women and they mainly assigned manual labour. Men, especially perform operations involving machinery. Agriculture which is the mainstay of the rural Indian economy is mainly sustained by the female workforce. Women are the invisible life line of the agrarian rural community life. Rural women from childhood days have to bear the burden of taking care of younger siblings, cooking, engaging in domestic chores, looking after the fodder of the domestic animals in their parents' house. Most of the dairy farm work is being done by the women, especially milking and processing of milk etc. In the present scenario, rural women are continuously empowered through various skill development trainings, greater opportunities to acquire education. Many government institutions and non-government organisations working towards empowerment of this vast human resource, so that they can contribute in greater way to the rural economic growth and development of India.

### Status of Youth

A country's ability and potential for growth is determined by the size of its youth population. The energy and passion of the youth if utilised properly, can bring huge positive change to the society and progress to the nation. Youth are the creative digital innovators in their communities and participate as active citizens, eager to positively contribute to sustainable growth and development. This section of the population needs to be harnessed, motivated, skilled and streamlined properly to bring rapid progress for a country. The total youth population increased from 164 million in 1971 to 421 million in 2011. The share of youth population in total population has been increasing continuously from the level of 30.6 percent in the year 1971 to 34.8 percent in the year 2011. It was expected to have 34.33 percent share of youth in total population by 2020. The share of youth among male and female is indicative of prevalence of healthy fertility levels in the general population and net addition to the population pool in India. In 2011, about 725 million youth, or 29 percent of all youth in the developing world, are "fully" not in education, employment training, knowledge and education are key factors to the full and effective participation of youth in the processes of social, economic and political development. Increased attention to improving participation rates of young people, particularly marginalised youth, is needed to ensure that they acquire the knowledge, capacities, skills and ethical values needed to fulfil their role as agents of development, good governance, social inclusion, tolerance and peace.

There is not much information available about young farmers in India in spite of the rhetoric of youth being a demographic dividend; we know even less about young women farmers (Vijayabaskar et al., 2018). In 2017, 56.6 percent of India's rural youth in the age group 15-29 years derived their livelihood from agriculture, forestry, or fishing (Vijayabaskar et al., 2018). According to a recent International Labour Organisation (ILO) estimate, female employment in agriculture was 57 percent in 2018, compared to 19 percent female employment in industry and 24 percent in services. Young women farmers' experiences are first between the two categories of rural

youth and women. Even in the substantial body of work focused on women farmers in India, the generational aspects of women farmers are often under-researched.

### Role of Women in Rural Growth

Women are key agents for rural growth and development in India. They play a catalytic role towards achievement of transformational economic, environmental and social changes required for sustainable development. When women are economically and socially empowered, they become a potent force for change. Women are an integral part of any society and they play a crucial role in the economy of both developed and developing ones. The rural women, play many social and economic roles inside as well as outside the home, but their contribution does not receive due recognition by the society. The rural women are extremely skilled on various income generating activities. They are playing a vital role in the economic well-being of the families and society as a whole in rural India.

- 1. Agriculture:** In rural areas, ILO has estimated that almost 99 percent of work force of young men and women engaged in informal sector like agriculture. The rural women are extensively involved in agricultural activities. However, the nature and extent of their involvement differ with the variation of agriculture production systems. The mode of women participation in agricultural production varies with the land owning status of farm household. Women are mainly involved in harvesting, drying, threshing, winnowing and storage of field crops. Participation of women in planting and weeding is significantly higher than that of men. If women are empowered with latest technical advancement in agriculture and equipments, the productivity of agriculture will be enhanced through timely and proper application of agronomic practices.
- 2. Animal Husbandry:** In animal husbandry, women have played a multiple role. With regional difference, women take care of animal, grazing, fodder collection, cleaning of animal sheds to processing milk and livestock products. In livestock management, 90 percent below jobs like milking, feeding, cleaning etc. are done by women.

- 3. Allied Sectors:** Sericulture, handloom and textile industries in rural economy especially in north eastern region, has huge potentiality for women employment generation. Some rural communities have basic skills and the local market for such products.

- 4. Small Scale Industries:** Women in rural economy are directly or indirectly involved in processing of Non-Timber Forest Product (NTFP) particularly in the small-scale enterprises. This includes basket, broom, rope making, tasar silk cocoon rearing, lac cultivation, oil extraction and bamboo works etc. Women constituted almost 50 percent of the total employed in to forest based small scale industries. In Orissa men collect grass for basket making while women cure it and make the basket.

- 5. Other Job Opportunities:** Education among women has opened some other job opportunities in the rural area at a large scale. These are the insurance agent, company representative, NGO workers, Anganwadi workers etc. Due to globalisation and IT sectors on the rural area, the Business Process Outsourcing (BPO) has grown exponentially across the country in recent years. The gigantic growth of this sector is now reaching out to the most conservative part of the rural India as well where educated women can play vital role for further rural growth.

Women's economic empowerment increases women's access to economic resources and opportunities including jobs, financial services, property and other productive assets, skills development and market information. Women's economic participation and empowerment are fundamental to strengthening their rights and enables them to have control over their lives and exert influence in society.

### Role of Youth in Rural Growth

Young people are innovative and creative in problem solving and in finding solutions- they are the key to helping communities in meeting their subsistence needs, improving the security of the people and even acquiring control over their own lives. The youth can lead to economic

development as well as the social development of their communities and society. There have been various areas that demand for the role of rural youth; these have been stated as follows:

1. **Agriculture:** Agriculture is stated to be the main occupation in the rural areas and this occupation requires extensive research, production, utilisation of science and technology, cropping, irrigation and many more functions. Youth, who are well educated and possess efficient knowledge of how to implement agricultural activities, assist in the development of agricultural activities. Making use of technologies in the agricultural sector, implementing extensive research is the work of the rural youth (Bennell, 2007).
2. **Small Scale Industries:** In rural areas, besides agriculture, setting up of small-scale industries require workers. There has been key investment of youth in the development of skills of the workers who are not educated, so that they can acquire jobs in these small scale industries and make a living. Employment in industries requires skills and expertise; therefore, the skill development amongst the rural masses is essential, especially amongst the women so that they can acquire jobs.
3. **Skill Development:** It is stated that development of skills and expertise of the people is essential for a sector to progress and develop. Whether or not an individual is able to read or write, but skill development is imperative for his/her progression. Skill development is in various areas such as operation of machines, manufacturing of goods, sports, music, and usage of technology, computers and so forth. Skills and talents amongst the rural masses lead to the economic growth and development of the country.
4. **Education:** Educational institutions are essential amongst the rural areas; an education enables an individual to seek a living for himself. There has been encouragement of education amongst the rural masses by establishing educational institutions, and providing education free of cost. Every individual should be granted admission, irrespective of one's age and socio-economic background, so that

they acquire literacy and live a meaningful life. After getting proper education, an individual has the capacity to contribute for the welfare of his family which ultimately leads to better growth and development of the nation.

5. **Employment Opportunities:** Every individual longs for employment, to have a job, and have some kind of work so that they can sustain their living and livelihood. The youth is contributing towards generation of employment opportunities for the rural masses, whether they work in the agricultural sector, industrial sector, production, manufacturing, own small tea stalls, sell snacks/daily use items and other products and so forth.

Rural growth and development is vital for the overall progress of the country. In rural areas, there have been many aspects that need to be focused upon, such as generation of jobs and employment for the rural youth, construction of houses, schools and educational institutions, medical and health care facilities, agriculture, industries, nutritional requirements, focusing upon the skill development of the youth and facilities such as electricity, energy, water, gas and cooking equipment. All these areas need to be focused upon and the role of youth is very essential in these areas. Thus, it can be understood that the role of youth has been imperative in the case of rural growth and development, provided if the youth whole heartedly contribute and work with zest and enthusiasm.

### Challenges of Women and Youth

Most rural women and youth are either employed (waged and self-employed) or not in the labour force. The issue, therefore, is not so much about unemployment, but serious under-employment in low productivity, predominantly household-based activities. Almost one-quarter of young people live in households where income per head is less than one dollar a day (Bennell 2007). It is better, therefore, to focus on livelihood improvement of the most disadvantaged youth rather than unemployed. Rural women are still facing lot of challenges of unequal access to productive resources, limited access to services of education, extension, credit and social protection; widespread inequalities in rural labour markets, combined with heavy burden of unpaid

work in households and communities and limited participation, voice and influence in rural organisations. However, rural youth face quite different challenges of limited access to productive and profitable employment in the agricultural sector; limited access to skills development and education; excluded from institutions that provide access to financial services, such as credit, savings and insurance and lack of curricula tailored to the labour market's needs. Apart from these rural women and youth often face major health problems, including malnutrition, malaria and other diseases. All these issues mainly impact rural women and youth's productivity and livelihoods. Moreover, women and youth, especially in rural areas, do not usually have any organised and vocal organisation with the economic and social power to lobby for their rights and needs.

### Improving Women and Youth Livelihoods in Rural Areas

Women and youth comprise such a large proportion of the rural labour force, that most development programmes in rural areas do promote women and youth livelihoods to a large extent. The gender and health bias issues should be solved through the proper implementation of healthy policies in rural areas. The main problems of rural areas are lack of opportunities of employment for women and youth. The employment policies should focus on (i) increasing the demand for labour in relation to supply; and (ii) increasing the 'integrability' of disadvantaged women and youth so that they can take advantage of labour market and other economic opportunities when they arise. The provision of good quality post school skills training (both pre-employment and job-related) remains very limited in most rural areas. However, now Government of India has made some interventions by introducing Skill India development program for the rural youth. There are large number of policy interventions to improve the livelihoods of rural women and youth. These policy interventions and rural training institutions are very useful to make rural women and youth more productive in their respective works. Rural women and youth should be suitably empowered enough socially as well as an capital front so that they can take decisions in capital formation and their family welfare.

### Conclusion

The role of women and youth in bringing growth and development in rural areas is immense, however it need to be further explored. In rural areas, the various capital formation activities like agriculture, small-scale industries, skill development, education and other job opportunities need efficient and fullest participation of women and youth. These areas are in an under-developed state; thus, participation of women and youth make them sustainable and bring more prosperity and growth to the rural areas. Hence, the women and youth contribute in bringing about improvements in the infrastructural facilities and promote empowerment opportunities. In this way, if rural India will shine the whole country will have immense contributions nationally, regionally and also globally in this century.

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## Fostering Growth in Rural India

Arunshi Aggarwal

*Fostering rural India's self-reliance and self-determination has motivated the course of robust urban-to-rural infrastructure. Improving and expanding India's infrastructure is essential in bridging gaps between urban and rural India, it offers better access to education, healthcare and economic success.*

**T**he goal of equitable and inclusive growth, prosperity and access to equal opportunities has been aptly captured in 'Sabka Saath Sabka Vikas'—a cornerstone tenet of the Government of India. The focus on the village economy attests to the shifting centres of economic activity in India, as tier-II and tier-III cities and towns take the lead in innovation and business excellence. At the same time, bringing rural India into this changing milieu will create self-sustaining and inclusive modes of growth. To that end, the government of Prime Minister Narendra Modi has given start to numerous central government schemes that prioritise the developmental needs of the Indian village.

Improving and expanding India's infrastructure is essential in bridging gaps

between urban and rural India. It allows better access to education, healthcare and economic success. The Pradhan Mantri Gram Sadak Yojana (PMGSY) that seeks to provide all-weather access to eligible unconnected habitations, is a physical embodiment of this bridge. At present, 162,540 road works totalling 663,972 kilometres have been completed under the PMGSY scheme.<sup>1</sup> Enhanced rural connectivity increases agricultural incomes through better access to markets and ensures sustained access to productive employment opportunities and social services. PMGSY is fundamental to building robust and independent village economies—a Village Swara<sup>2</sup>—as Gandhi described them over a century ago, in nurturing national pride, patriotism, community spirit, self-confidence and infrastructure development. The Sarva Shiksha Akshari Gram Yojana (SSAGY), too,



embodies the government's commitment to the Mahatma's vision. It extends the basic amenities and opportunities to rural India and seeks to create model villages (Adarsh Gram) across the country.<sup>1</sup>

Combating homelessness is a crucial element of building a robust village infrastructure. Under the public housing system scheme Pradhan Mantri Awas Yojana-Gramin (PMAY-G), the government aims to provide 'housing to all' by 2022. The PMAY-G provides a pucca house with basic amenities to all eligible houseless persons and those households living in katcha and dilapidated houses.<sup>2</sup> The scheme provides unit assistance of Rs. 2.75 lakh in the plains (increased from Rs. 70,000) and between Rs. 25,000 to Rs. 1.30 lakh in hilly states, difficult areas and Integrated Action Plan (IAP) districts. The housing scheme is an element of the concerted effort at poverty alleviation in rural India that can pave the roadmap to greater economic productivity, better education and more viable employment opportunities.

So too is the goal of Digital India to democratise the sweeping benefits of digitalisation. Not only does it allow millions of Indians to access the infinite world of the internet for learning and entertainment, but it also extends government services to heretofore excluded communities and brings rural India into the folds of digital banking. As of January 2021, there are over 530 million rural telephone subscribers in India while the share of rural subscribers is nearly 45 percent of the total subscribers in the country.<sup>3</sup> The digital revolution in rural India has opened the floodgates of a social and economic revolution in rural India where users have faster and better access to business opportunities, employment, services and new ideas.

Digital India gives strength to the Pradhan Mantri Jan Dhan Yojana (PMJDY), the National Mission for Financial Inclusion. Launched in 2014, PMJDY envisages universal access to banking facilities with at least one basic banking account for every household, financial literacy, access to credit, insurance and pension. In 2018, the goal of reaching every household was revised to 'every adult.' PMJDY has become the vessel of India's rapidly changing financial canvas. So

far, it has 42.81 crore beneficiaries with a total of Rs. 143,297.84 crore balance in beneficiary accounts. Among these, 7.58 crore have accounts in regional rural banks with deposits totalling Rs. 27322.77 crore.<sup>4</sup> The PMJDY has also been an integral platform for disbursing the benefits of social security schemes like Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY), Pradhan Mantri Suraksha Bima Yojana (PMSSBY), Atal Pension Yojana (APY) and Pradhan Mantri Mudra Yojana (PMMY).

Prime Minister Narendra Modi took another step towards making rural India financially safe by launching the Svanidhi Scheme in April 2020 on Panchayat Day. This central government scheme aims to provide an integrated property validation solution for rural India wherein village household owners can be granted the 'record of rights' that will enable them to use their property as a financial asset for undertaking loans and other financial benefits from banks. The initial allocation of Rs. 79.05 crore was also increased to Rs. 200 crore in this fiscal budget.

The Union Budget 2021-22 also allocated Rs. 933.83 crore to the Panchayati Raj Ministry, an increase of 12 percent over the previous year.<sup>5</sup> The Ministry of Panchayati Raj is responsible for empowering, enabling and ensuring accountability of Panchayati Raj institutions that foster inclusive development with social justice, and efficient delivery of services to rural India. In 2018, the central government launched the Kashiya Gram Swaraj Abhiyan (KSSA) that aims to strengthen Panchayati Raj or achieving Sustainable Development Goals (SDGs) with main thrust on convergence with Mission Antyodaya and emphasis on strengthening PRIs in the 117 Aspirational districts.<sup>6</sup> This is testimony to the recognition of self-governance as an inalienable component to ensuring sustained growth in rural India. Furthermore, facilitating rural India's self-governance and self-determination has motivated the creation of robust centre-to-rural infrastructure. The most recent example of the efficacy of this system has been the utilisation of the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) scheme to extend government benefits to rural households during the COVID-19 pandemic that helped them avert harsh consequences of country wide lockdowns.

Through the channels of this, the centre disbursed Rs. 77,849.11 crore in wages in 2020/21. The MNRGA scheme covers 740 districts and 2,68,983 Gram Panchayats, ensuring that Indians in every part of the country have access to means of employment. In coming months, as the economy opens up gradually, the MNRGA scheme will once again be a crucial ally in assuring equitable access to opportunity.

The Deen Dayal Upadhyaya Gramin Kaushalya Yojana (DDU-GKY) is similarly dedicated on creating employment opportunities in rural India albeit with a focus on the youth population aged between 15 and 35, 69 percent (180 million) live in rural areas.<sup>13</sup> The objective of the DDU-GKY scheme is to bring income diversity to rural families and cater to youth aspirations from these households. In conjunction with Skill India and Make in India, this employment scheme is preparing a new generation of Indians to take the reins in leading economic and social development in India's rural hinterland.

The expansive central government schemes all targeted towards extending the benefits of India's changing landscape to rural areas promise to usher sustainable growth across India's rural

areas. The numerous schemes are the vessel through which the potential and aspirations of rural India get the stage they have for so long awaited.

### Endnotes

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**MYTHBUSTERS**

**MYTH**  
An oxygen concentrator can be used at home in an emergency.

**FACT**  
Oxygen concentrators are to be used with accurate guidance from a chest physician or an internal medicine specialist as this can potentially be harmful.

## Expanding Economic Activities

Rajiv Theodore

The role of agriculture will continue to be important for achieving food security, increasing income and generating employment opportunities. However, there is a need to ensure promotion of modern agriculture that is driven by technology and markets. Growth in rural areas should be driven by non-farm industrialisation, which may gradually shift to the non-farm sector. A strong linkage between farm and non-farm sectors needs to be developed for absorbing excess and creating jobs in rural areas.



**T**he rural economy of India has continuously been supporting and contributing to the growth parameters of the country. Moreover, as India paves its way towards rapid urbanisation, the rural economy continues to play a pivotal role as the prime mover towards the country's Gross Domestic Product (GDP). With the bulk of the population living in rural belts, parameters including the growth, income, and consumption trends of these residents hold the key to boost demand, revive the economy, and sustain economic growth. According to the Economic Survey 2020-2021, the share of agriculture in gross domestic product (GDP) has reached almost 20 percent for the first time in the last 17 years, making it a bright spot in GDP performance. The resilience of the farming community in the face of adversities, especially

the ongoing COVID-19 pandemic, made agriculture the only sector to have clocked a positive growth of 2.4 percent at constant prices in 2020-21, when other sectors had slid. The share of agriculture in GDP increased to 19.9 percent in 2020-21 from 17.8 percent in 2018-20. The last time the contribution of the agriculture sector in GDP was at 20 percent was in 2003-04. The second wave of the pandemic sweeping across the country has hit the rural areas. However, the forecast of a normal monsoon is expected to sustain rural demand and overall output in 2021-22. The RBI has noted that the record foodgrain production and buffer stocks in 2020-21 has provided food security and support to other sectors of the economy in the form of rural demand, employment and agricultural inputs and supplies, including for exports. The Ministry of Finance, in its recent monthly economic report,

has echoed the RBI's view. It said agriculture continues to be the silver lining with record foodgrain production estimated in the ongoing crop year on the back of predicted normal monsoons and added that rural demand indicators would remain robust. Overall the government has been optimistic that the rural economy will withstand the onslaught of the pandemic.

The big picture that emerges according to latest estimates is that the government has set the foodgrain production target at 307.1 million tonnes for the 2021-22 crop year, up by 1.3 percent from last year's estimated foodgrain production of 303.3 million tonnes and there is comfort level regarding the availability of farm inputs including seeds and fertiliser. Another important aspect, the production of horticulture crops in India has been estimated at a record 320.48 million metric tonnes (MMT) in FY20 as per second advance estimates. Besides, India has the largest livestock population of around 535.78 million, which translates to around 51 percent of the world's milk production in the country is set to increase to 208 MT in FY21 from 193 MT in FY20, registering a growth of 10 percent y-o-y. India's sugar production rose by 20 percent to 758.68 lakh tonne till March 15 on higher cane production. Last year 87.18 lakh tonne sugar was produced compared to 54.25 lakh tonne so far this year. Overall, the agriculture and allied activities clocked a growth of 3.4 percent at constant prices during 2020-21 (first advance estimate), says the latest Economic Survey. The agri report from India is likely to reach the target of US\$ 60 billion by the year 2022 as major export destinations of USA, Saudi Arabia, Iran, Nepal and Bangladesh have continued to receive their share of marine products, rice, buffalo meat, spices, cotton raw, oil meals, sugar, castor oil and tea from India.

### Road Ahead - Need To Expand Economic Activities

Against this backdrop, let's have a swift look at the sector from an analytical and theoretical point of view. Farming is the fabric of rural society and, in many countries of the world today it still is the key economic activity, so much so that any sudden and profound changes which impact the farm sector could have severe consequences even in terms of social and political stability. In rural areas throughout the world, agriculture represents

the predominant land use and a major component of the viability of rural areas. Farming and related activities contribute significantly to the employment and business opportunities, infrastructure and quality of the environment in the rural landscape. In most economically developed countries, farming accounts for a relatively small part of a diversified rural economy, and in addition the significance of agriculture in terms of the proportion of national wealth and employment is going down. However, this does not lessen the potential role of farming despite the fact that the contribution of economic activities to rural development in different countries vary. In developing countries, rural development policies should look at the contribution of farming, both in terms of improving on-farm activities and supporting ancillary services, to secure sustainable development. The main potential contributions of farming to rural development are in terms of supporting employment, ancillary businesses, and environmental services. In peripheral regions, farming may be necessary to support the economic and social infrastructure. In the context of agricultural reforms, it should contain sufficient flexibility to allow countries to promote rural development, especially to preserve social and political stability.

As of now, India is gearing up to touch the target of doubling farm income by 2022. The agriculture sector which is expected to generate better momentum in the next few years is mainly due to increased investment in related infrastructure such as irrigation facilities, warehousing and cold storage. Also, the growing use of genetically modified crops is likely to boost yield for the farmers as the country launches itself on the road to self-sufficiency especially in pulses over the coming few years mainly due to the concerted effort of scientists to get early maturing crop varieties and the increase in minimum support price. Going forward, some initiatives include the adoption of food safety and quality assurance mechanisms such as Total Quality Management (TQM) including ISO 9000, ISO 22000, Hazard Analysis and Critical Control Points (HACCP), Good Manufacturing Practices (GMP) and Good Hygienic Practices (GHP) by the food processing industry will help increase the critical mass of agriculture production. In the next five years, the government will target US\$ 9 billion in the fisheries sector under PM Matsya Sampada.

Ujjana and is also planning to raise fish production to 210 lakh tonnes by 2024-25.

As India aims for the US \$5-trillion economy status by 2024-25, it needs to grow at 5 percent per year in real terms from FY20 to FY25. Rural revitalisation is a promising first step for achieving this economic target as well as being self-reliant or *Atma Nirbhar*. Rural revitalisation requires a transformative approach that ensures making rural areas a better place to live and work. The government has taken several steps to boost rural economic growth and make it more sustainable in the long run. Some of them are as follows – the Rural Infrastructure Fund has been increased to Rs. 40,000 crore; the amount for Micro Irrigation Fund created with NABARD doubled to Rs. 10,000 crore for 2021-2022; Operation Green Scheme has been widened to 22 perishable products; and 1,000 more mandis are being linked with e-NAM. Along with the necessary reforms, the government has also planned a production linked incentive (PLI) of about Rs. 12,000 crore, which the industry can avail. The scheme aims to strengthen select Indian brands of food products for global visibility and wider acceptance in international markets, ensure remunerative prices of farm produce and higher income to farmers, and increase employment opportunities. Its duration will be for six years from 2021-22 to 2026-27. Under the Operation Greens scheme, 50 percent subsidy is being provided on transportation of all fruits and vegetables through Kisan Rail, as it has become a powerful medium of cold storage network in the country today. The Kisan Rail is succeeding in connecting small farmers and fishermen with large and high-demand markets. In the last six months, about 275 Kisan Rails have been operationalised and about 100,000 metric tonnes of fruits and vegetables have been transported benefitting the consumers and the industry. Going forward, there is a need to expand the country's agriculture and related sectors while integrating them into the global market. Besides, the 100,000 odd micro food processing units in the country need to be strengthened and so is the need to increase the number of agro-industry clusters near the villages to help boost village employment.

The role of agriculture will continue to be the key for achieving food security, increasing income and generating employment opportunities. However,

there is a need to promote modern agriculture that is driven by technology and markets. Growth in rural areas should be driven by agro-based industrialisation, which may gradually shift to the non-farm sector. It will require investment in post-harvest rural activities, such as agro-processing, packaging, cold chains, cold storage and transport. It will also require creating an enabling and favourable regulatory environment to stimulate private sector investment in rural areas. A strong linkage between farm and non-farm sectors needs to be developed for augmenting income and creating jobs in rural areas. Farm-sector driven industrialisation may be evolved from production to processing and marketing. Such a linkage will help the farm sector to produce market-driven commodities, reduce transportation costs, receive remunerative prices at farm gate, and minimise farm waste. Amul is an excellent example of farm-led processing, branding and marketing of milk for various dairy products. Such a model should be replicated for other agricultural commodities in different parts of the country. Collectivising farmers through Farmer Producer Organisations (FPOs) would offset disadvantages for small and marginal farmers and raise bargaining powers to enhance their incomes.

Another important aspect is the role of the Micro, Small & Medium Enterprises (MSMEs). This will be very critical in developing rural industrialisation as their share in national gross value added is about 32 percent and they provide employment to about 111 million workers. With a share of MSME-related products in exports at about 48 percent during 2018-19, the government is gearing to increase their contribution to 75 percent and in the gross value added to 50 percent. It projects to generate jobs for about 150 million workers. Such overwhelming targets will require huge investment to create necessary infrastructure; effective institutions for enabling MSMEs to have access to technologies, finance and markets; and vocational education and skill development in manufacturing and business planning. Thus, the role of rural-urban linkages will be a key driver in rural transformation. It is seen that strengthening rural-urban linkages, from farms to small towns to megacities, will benefit rural labour, production, distribution, markets, services, consumption, environmental sustainability and the new market opportunities.

thus created will promote local, regional and global value chains.

Next, the concept of provision of Urban Amenities in Rural Areas (PURA) needs to be relooked here. It calls for urban infrastructure and services to be developed in rural hubs to create economic opportunities outside of urban areas. These include better road networks, education, health, drinking water, power, sanitation and social safety net. These are measurably poor in rural areas compared to urban centers. Investment in education and health in rural areas also significantly contribute in reducing poverty and increasing agricultural growth. An enabling business environment needs to be created by simplifying regulatory requirements, and reforming land and labour laws. The government has launched initiatives such as Make in India, Start-Up India, MUDRA Bank, Skill India, etc. There is a need to identify areas for developing rural hubs based on resources, markets and infrastructure where cooperation of state governments in implementation would be vital.

Also, the private player can play an important role in rural industrialisation. The role of the government should primarily be of an enabler of conducive business environment for setting up roads, rail, air and water infrastructure; assured power supply; simplifying tax compliance; single-window clearance for construction and starting a business; easy access to credit; and stable policies. On the other hand the private sector will invest where the business environment is more favourable which could be more often in cities and its vicinity. On the event of the private sector not coming forward in underdeveloped and marginal areas, the government may offer incentives and launch programmes under PPP mode. It is in such cases that key components may be identified for meeting the 'viability gaps' through government funding while giving tax holidays to incentivise private sector investment in underdeveloped and marginal areas would be a great enabler. And finally there is a need to harness the power of ICT. Information and communication technology (ICT) is an extensional term for information technology (IT) that stresses the role of unified communications and the integration of telecommunications (telephone lines and wireless signals) and computers, as well as necessary enterprise software, middleware,

storage etc and offers critical tools for improving access to technologies, services and finance. ICT tools could be used for effective governance, monitoring and programme implementation. Tech start-ups may play a meaningful role in bridging any ensuing digital gap.

## Conclusions

During these challenging times, how does the sector respond to the crisis and how do government measures affect 140 million farm households across the country and thereafter impact the economy of a very important country in the developing world? Soon after the first nation-wide lockdown was announced, India declared an Rs 1.7 trillion package, mostly to protect the vulnerable sections (including farmers) from any adverse impacts of the Corona pandemic. The announcement, among a slew of benefits, contained an advance release of Rs 2000 to bank accounts of farmers as income support under the PM-KISAN scheme. The government also raised the wage rate for workers engaged under the NREGS, the world's largest wage guarantee scheme. A special scheme to take care of the vulnerable population, Pradhan Mantri Sarb-Balvan Yojana (Prime Minister's scheme for welfare of the poor) has been announced. Additional grain allotments to registered beneficiaries were also announced for the next three months. Cash and food assistance to persons engaged in the informal sector, mostly migrant laborers, have also been announced for which a separate PM-CARES (Prime Minister's Citizen Assistance and Relief in Emergency Situations) fund has been created. As the second wave of the pandemic hit the nation, the government increased the agriculture credit target to Rs 1.45 trillion this time. Priority has been given to the animal husbandry, dairy and fisheries sector.

## Immediate Challenges:

In spite of all these measures and in view of continuing restrictions on movements of people and vehicular traffic, concerns have been raised regarding negative implications of COVID-19 pandemic on the farm economy. This is the time when the rabi season in India has ended and crops like wheat, gram, lentil, mustard, etc. (including paddy in irrigated tracts) are to be harvested. This is also the time when the farm harvests reach the mandis/market yards for assured procurement operations by designated government agencies.

Moreover, any severe disruption to the supply of perishable fruits and vegetables, dairy products, fish, etc., having mobilised to meet the increasing demand from urban and rural consumers, may create irreparable damage to all actors in the supply chain. The migration of workers from low parts to their native places has also triggered panic buttons, as they are crucial for both harvesting operations and post-harvest handling of produce in storage and marketing centers.

Making the food grains, fruits and vegetables and other essential items available to consumers, both in rural and urban areas, is the most critical challenge for government machinery during the lockdown period. Smooth functioning of the supply chain, with adequate safety measures for the people involved, is of paramount importance. Transportation of public distribution system (PDS) items to last mile delivery agents, by both rail and road, has to be ensured by respective government agencies. Distribution of the commodities to vulnerable populations, while maintaining prescribed guidelines and protocol, particularly of social distancing, must be effectively monitored.

The poor sections of society are always the hardest hit in any disaster or pandemic situation. With about 85 percent of Indian farm households being small and marginal farmers, and a significant part of the population being landless farm labourers, welfare measures to contain any damage from COVID-19 pandemic are being aimed at them. To sustain the demand for agricultural commodities, investments in key logistics must be enhanced. Moreover, e-commerce and delivery companies, and start-ups need to be encouraged with suitable policies and incentives. The small and medium enterprises, running with raw materials from the agriculture and allied sector or otherwise, also need special attention so that the rural economy doesn't collapse.

To obviate the immediate concerns of scarcity of farm labor, policies must facilitate easy availability of machinery through state entities, Farmer Producer Organisations (FPOs) or custom hiring centers (CHCs) with suitable incentives. It is also suggested to explore leveraging rural employment guarantee schemes such as NREGS funds to pay part of the farm labour (with farmers paying the balance wage amount) to lessen the monetary burden on the farmer,

while ensuring wage employment to the landless labourers and workers. To answer queries relating to the announced measures of government and addressing grievances of farmers, besides providing advisories on farm operations availability of agrinputs, dedicated toll-free helpline/call centers (in local/vernacular languages) are being established.

The COVID-19 pandemic being a health crisis of unprecedented proportions, the major share of future budget allocations obviously (and logically so) would be apportioned for the health sector. However, investments should not be crowded out of the primary sector to prevent irreversible damage to the farm economy. Manufacturing and services sectors may be severely hit in the short run till the time the economy bounces back, it will be, thus, very appropriate to focus attention on the agriculture sector as a growth engine and also to bring resilience in food and nutrition security. At this critical stage, where climate change has already adversely impacted the agriculture sector, productive investments, including on research and innovation, would be very purposeful.

Most importantly, these reforms need significant political will. Structural reforms such as land leasing, contract farming and private agricultural markets, etc. have long been advocated to bring enhanced investments into the agriculture sector and to push its growth. However, there has not been uniform implementation of these legislations by the states and so the full potential of the sector is still unrealised. Concerns of a slowdown in the real of states, post-COVID scenario, could be tackled with suitable incentive mechanisms by the government to the states. With a burgeoning population, there is a corresponding rise in food demand in India. However, the negative externalities of the Green Revolution, particularly the environmental trade-offs and staple cereals fundamentalism, have since been realised. It is, thus, desirable to switch over to a suitable model with a far stronger nutrition focus where diets are more diverse. The post-COVID situation offers that unique opportunity to repurpose the existing food and agriculture policies for a healthier population.

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# Rural Entrepreneurship

Souvik Ghosh and Usha Das

Rural entrepreneurship can be defined as the activity taken up by the individuals or the entrepreneurs that supports either manufacturing products or provides services or adoption of new technologies for an economic benefit. It brings value addition to rural resources engaging largely scarce resources of rural area. Rural Entrepreneurship is synonymous of rural industrialization. The development and growth of it help in promoting self-employment, spreading industrial and economic activities and utilizing local labour as well as locally available raw materials.

**I**ndia lives in villages and its true spirits lives in rural areas—Mahatma Gandhi. A large proportion of rural population have been facing challenge of unemployment or underemployment resulting in migration to urban areas in search of employment opportunities that can be addressed through entrepreneurial development in rural areas. Entrepreneurial activities contribute to economic development with increased rural income and growth of employment opportunities making maximum utilization of the local labour as well as locally available raw materials.

Indian enterprises are deeply entrenched in traditional industrial system that requires a 180 degree change at present. This calls actively

to divert those practices which are not falling into the category of sustainability. Sustainability has been an increasingly important issue for most enterprises in India especially since the focus on UN Agenda 2030: Goals for Sustainable Development has been in discussion. And this sustainable development in Indian context particularly should address resources inclusive of human and household as a whole. However, the rural community in India is yet to be fully aware of the value of these resources.

The word entrepreneurship describes the activity undertaken by an entrepreneur which usually involves moderate risk with an aim to make profit from the activity. The term "entrepreneur" has French origin. Rural entrepreneurship



can be defined as the activity taken up by the individuals in the countryside that supports either manufacturing products or provides services or adoption of new technologies for an economic benefit. It brings value addition to rural resources engaging largely human resources of rural area. Rural entrepreneurs represent a complex heterogeneous social structure and can be broadly classified as farm entrepreneurs, village entrepreneurs, merchant and trading entrepreneurs, tribal entrepreneurs and general entrepreneurs. Rural entrepreneurship concentrates on identifying rural entrepreneurial talents, promoting indigenous enterprises by augmenting village economy wise through employment generation for the rural people. Since independence, both central and state governments have implemented diverse policies and schemes for the support and development of rural entrepreneurship but less than achievable benefits are derived so far. Rural entrepreneurship must emerge in rural areas and sustain for economic development.

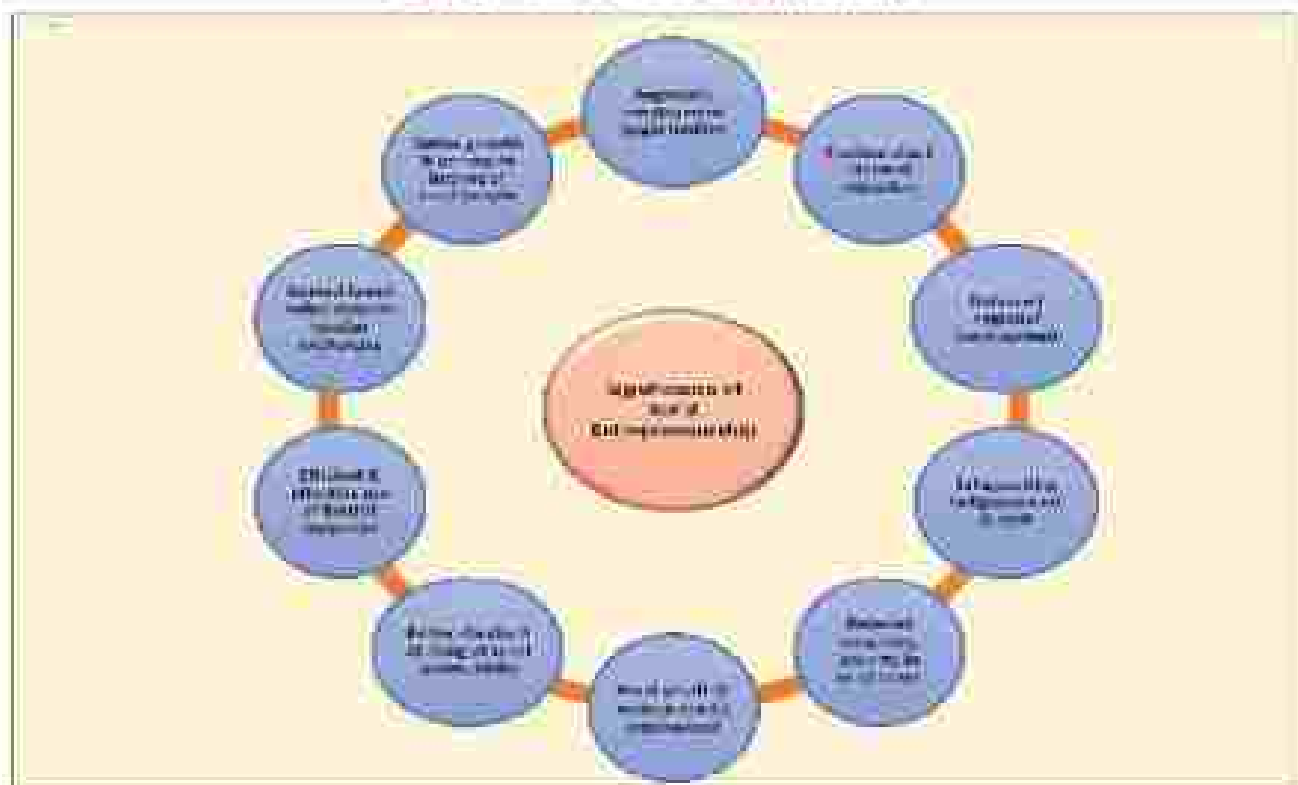
### Why Rural Entrepreneurship?

In rural India, unlike the urban India,

with cyclic and disguised unemployment, it suffers with chronic underemployment. Due to distress migration of rural people to mega cities, the villages remain deserted and village resources are remaining unexplored. Besides, lack of infrastructure, market and financial access further aggravate rural livelihoods. The livelihood of trained village artisans stands at stake due to unorganised structure and lack of market. Apart from this, the purchasing power of rural people is crippling down and that of urban areas is turning due to over-crowding. The traditionalist ways of rural industries somehow contribute meager to the productivity levels in rural India, so neither the new technological support nor the IT revolution has made any significant alterations in the pace of rural growth. The above mentioned causes are underlying as a necessity to promote rural entrepreneurship so that the chronic underemployment and out migration issues of rural areas are tackled on priority basis.

Rural Entrepreneurship is synonymous of rural industrialisation. The development and growth of it helps in generating self-employment, spreading industrial and economic activities and

Fig 1. Significance of Rural Entrepreneurship



utilising local labour as well as locally available raw materials. In India, rural industries have been promoted since establishment of Khadi and Village Industry Commission (KVIC) during 1956-57 with social objectives of providing employment in rural areas, economic objectives of providing saleable articles and wider objectives of creating self-reliance amongst people and building up a strong rural community spirit. Entrepreneurial activities have enhanced in the rural areas over a period of time, however it is less as compared to urban areas. Moreover, it is dominated with manufacturing activities and micro level enterprises.

### Progress of Entrepreneurship in India

Micro, Small and Medium Enterprise (MSME) sector has emerged as highly vibrant and dynamic sector of the Indian Economy over the last decades. MSME sector not only plays a crucial role in providing large employment opportunities at comparatively lower capital cost than large industries, but also helps in industrialisation of rural and backward areas; thereby, reducing regional imbalances, assuring more equitable distribution of national income and wealth. It brings significant economic and social development of the country by fostering entrepreneurship. It contributes nearly 29 percent of the country's GDP, 45 percent of the manufacturing output and 66 percent of the exports (2018-19) providing the largest share of employment (11.10 crore) after agriculture. The Share of MSME Gross Value Added (GVA) in total GVA during 2016-17 was 31.8 percent (PIB, ICI, Ministry of MSME, July 22, 2019 and June 1, 2020).

The entrepreneurial ventures in India are usually classified into micro, small and medium categories based on their investment and annual turnover. The classification based on MSME Act, 2006 is revised as follows (MSME Notification, The Gazette of India, June 1, 2020) and effective from July 1, 2020:

- a. A micro enterprise, where the investment in machinery/plant/equipment does not exceed one crore rupees and a turnover is upto five crores.
- b. A small enterprise, where investment in machinery/plant/equipment does not exceed

ten crore rupees and a turnover is upto fifty crores.

- c. A medium enterprise, where investment in machinery/plant/equipment does not exceed fifty crore rupees and a turnover is upto two hundred and fifty crores.

The sectoral contribution to overall growth in value addition (GVA) since 2014-15 to 2020-2021 is much dispersed (NSSO, 2020). The growth curve is negative for sector like industry and services while agriculture remains the only steady positive sector. And the peculiarity yet remains the same (that service sector despite its low contribution, is still visibly getting contribution, while agriculture, despite its positive contribution even at the times of pandemic like COVID-19, is yet to have remarkable investments; the story for industries is alike to the agricultural sector).

According to National Sample Survey 28<sup>th</sup> Round (2015-16), there are 533.88 lakh MSMEs in the country engaged in different economic activities creating about 1120 lakh jobs. In rural areas, 324.88 lakh units have provided 497.78 lakh employment. The manufacturing units are more in rural areas while trade and other services are more in urban areas. It is further critical to notice that MSMEs are playing crucial role in providing large employment opportunities as compared to the large industries in India. Activity wise, MSMEs that are majority marked in providing employment opportunities (M/o MSME Annual Report, 2020-21) are from trade sector (35 percent) followed by other services (33 percent) and manufacturing enterprises (32 percent) in rural area. And the percentage share of MSMEs in rural (51 percent) is higher than the urban MSMEs (46 percent) but it is reverse when percentage share of employment is looked out. This raises a concern that despite greater share of entrepreneurial opportunities in rural areas, the potential is yet un tapped and un channelled. State wise contribution of MSMEs brings into light that Uttar Pradesh has highest share in the number of enterprises (14.20 percent) followed by West Bengal (13.99 percent). (However, West Bengal has a significantly explored rural entrepreneurship as a potential nation for inclusive rural growth 17.44 percent of total rural enterprises followed by Uttar Pradesh (14.93 percent), Bihar (7.39

percent), Andhra Pradesh (5.99 percent), Maharashtra (5.94 percent) and Karnataka (5.47 percent) among the top states in the number of enterprises.

### Statutory Bodies Promoting MSME

A number of statutory bodies are included under MSMEs that promotes sustainable employment opportunities for rural families ensuring their inclusive growth because of its target mode involves targeting large families and not just farmers. Some of these organisations are Khadi and Village Industries Commission (KVIC), Technology Centres, Coir Board, The National Small Industries Corporation (NSIC) Limited, Mahatma Gandhi Institute for Rural Industrialization (MGRII), National Institute for Micro, Small and Medium Enterprises (NI-MSME). The employment opportunities extended to the rural families at village level industries through KVIC can be classified into six categories namely Agro Based Food and Processing Industry (ARFPI), Mineral Based Industry (MBI), Wellness & Cosmetics Industry (WCI), Hand Made Paper, Leather and Plastic Industry (HMPLEI), Rural Engineering and New Technology Industry (RENTI) and Service Industry. Also, a number of initiatives undertaken by KVIC for an inclusive rural growth accounts Prusa Minister's Employment Generation Programme (PMEGP), Modified Market Development Assistance (MMDA), Work shed scheme for Khadi Artisan, Convergence of Aam Admi Bima Yojana to Pradhan Mantri Suraksha Bima Yojana, Mission Solar Charkha, Kumbhar Shashaktikaran Yojana, Scheme of Fund for Regeneration of Traditional Industries (SFURTI), Honey Mission etc. Technology Centres are playing crucial roles in providing practical skill development training to the unemployed farm youth. In total 18 such centres are established. The extent of contribution of these centres towards employment generation, growth and sustainability can be understood by looking into their significant contribution during COVID-19 pandemic. When during pandemic most people were losing jobs and many were returning back to their natives, the MSME Technology Centres offered jobs in designing, developing and manufacturing various COVID related products (like Corona testing kits, Face mask moulds,

Safety goggles, Sanitiser bottle pumps, PPE kits, Hospital furniture, automatic sanitiser machines etc. The sustainability of such an effort can be further inferred from the fact that those existing 18 technology centres are augmented with 15 more centres and 100 extension centres under Hub and Spoke model for various skill seekers in an area.

Rural entrepreneurial ventures are not just limited & dependent on its capacity building by RVC and Technology centres rather it has a draw-over from Coir board, Small industries as well. These all help in accelerating the rural industrialisation for sustainable village economy and empower village livelihoods.

### Challenges and Opportunities of Rural Entrepreneurship

For a rural entrepreneur, a number of risks are associated like technical risks (relating to technical methods, techniques and materials etc.), economic risks (relating to market risks, price fluctuations etc.) and social risks (relating to environmental, cultural and belief systems).

A number of challenges stand in the path of rural entrepreneurs viz., financial challenges, social challenges, low/low level of education, lack of experience and expertise, limited purchasing power, Locals born urban entrepreneurs, opaque market entries, technological challenges, existence of middleclass, lack of logistic and infrastructure support, involvement of risk element, shortage of raw materials, lack of security, etc.

However, besides challenges, there do exist some of the opportunities for the rural entrepreneurs

- Low establishment costs involved
- Availability of raw materials
- Competitive advantages exists
- Low cost of production compared to the urban enterprises
- Optimum utilization of products
- Government policies and subsidies are slowly diverted into this
- Support and inspiration to native people through employment generated

- Reduced promotional costs
- Existing customer base for the produce
- Ethical and goodwill building is smooth for rural enterprise in comparison to a foreign enterprise in rural setting

The rural entrepreneurial opportunities can be streamlined (fig. 2)

The approach of sustainability brings in benefits to the overall growth of person and family in a rural household. Gross farm household return becomes sustainable due to-

- a. Profits (from margin improvement due to price power, cost savings etc.)
- b. Mobility of cash flows (from revenue growth due to better market share of rural entrepreneurs)
- c. Valuation multiple (in terms of risk and cash capital involved in the venture)

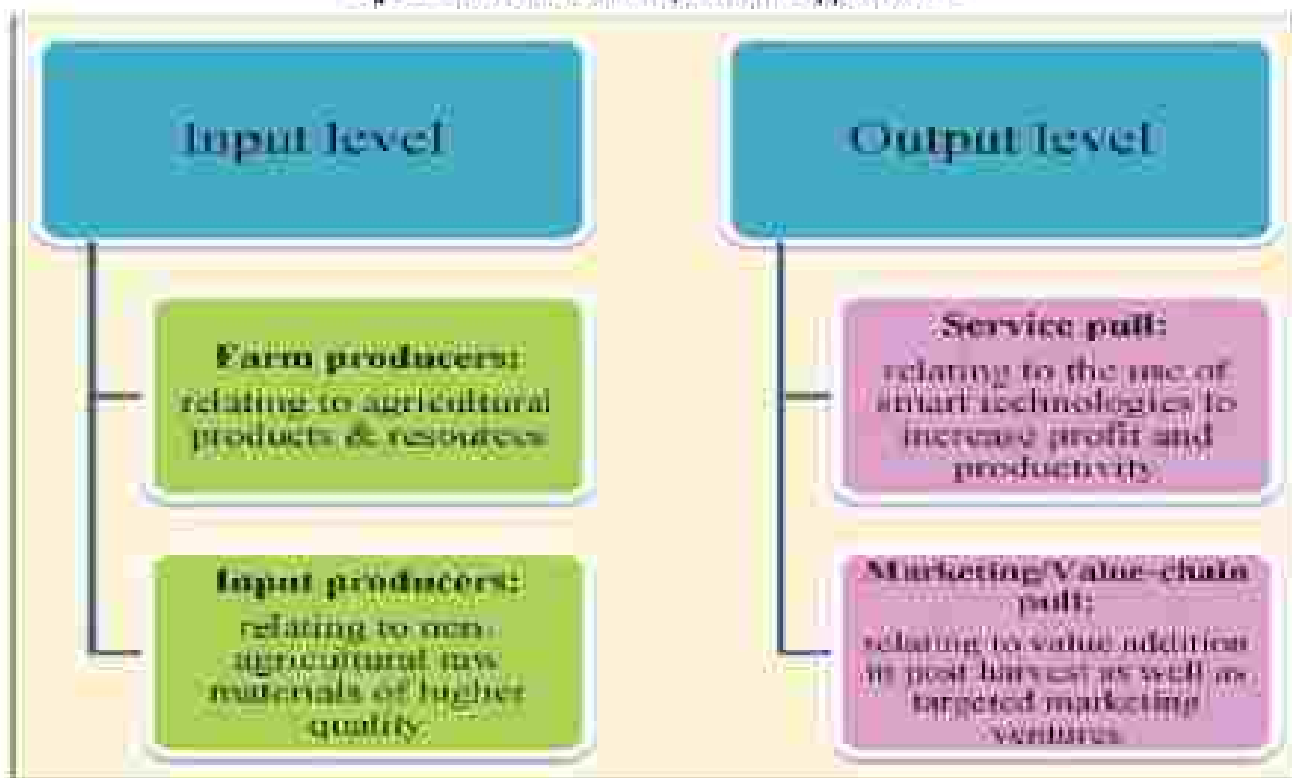
#### Initiatives for Promotion of Rural Entrepreneurship

The government has implemented numerous schemes to support and develop rural industries, and to provide credit and financial assistance,

skill development training, technological and quality up gradation, infrastructure development and marketing assistance. The government has initiated new schemes for rural entrepreneurship development besides the old ones. Such major schemes and initiatives by Ministry of MSME, Govt are listed below:

1. **Scheme for credit & financial assistance to the rural enterprises**
  - a. Prime Minister's Employment Generation Programme (PMEGP)
  - b. Credit Linked Capital Subsidy Scheme (CLCSS)
  - c. Credit Guarantee Trust Fund for MSEs (CGTMSEs)
  - d. Interest Subvention Scheme for Incremental Credit to MSEs
2. **Schemes for Skill Development and Training:**
  - a. A scheme for Promotion of Innovation, Rural Industry & Entrepreneurship (ASPIRE)
  - b. Entrepreneurship and Skill Development Programmes (ESDP)
  - c. Gramodyog Vikas Yojana (GVY)
3. **Schemes for Infrastructure Development:**

Fig 2: Sectors of Rural Entrepreneurial Opportunities



- a. Scheme of Fund for Regeneration of Traditional Industries (SFURTI)
- b. Scheme for Micro and Small Enterprises Cluster Development Programme (MSE-CDP)
4. Scheme for Marketing Assistance:
  - a. Scheme for providing financial assistance to Khasi institutions under MPDA.
5. Scheme for Technology Upgradation and Competitiveness:
  - a. Financial Support to MSMEs in ZED certification
5. Other Schemes for the MSMEs across the country:
  - a. The National Scheduled Caste and Scheduled Tribe Hub
  - b. Scheme for Promotion of MSMEs in N.E. Region and Sikkim
  - c. Building Awareness on Intellectual Property Rights (IPR) for MSMEs

Under the Prime Minister's Employment Generation Programme (PMEGP) the estimated employment generated (number of persons) in micro enterprises during the years 2014-15, 2015-16, 2016-17, 2017-18 and 2018-19 are 3.58 lakhs, 3.23 lakhs, 4.08 lakhs, 3.87 lakhs and 5.87 lakhs, respectively. The Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) was launched by the Government of India to make available collateral-free credit to the micro and small enterprise sector (PIB, Govt, Ministry of MSME, July 21, 2019).

A total of 18 Tool Rooms, established for integrated development of the industries by way of providing quality tools, trained personnel and consultancy in tooling and related areas and upgradation of technology, trained 1.47 lakh and 2.08 lakh persons during the year 2017-18 and 2018-19, respectively, that helped them in self-employment. The Make in India, Skill India, Digital India schemes are being implemented by the Government with an aim to enhancing the employment base. START UP and MUDRA schemes are also introduced for facilitating self-employment.

Organisations under the Ministry MSME are providing skill training to the youths for wage employment and self-employment. Skill up-

gradation trainings are also provided to existing entrepreneurs and working force to enhance their performances. Total number of 127380 persons were trained in the year 2020-2021 (Min. MSME Annual Report 2020-21).

MSMEs formed a very prominent part of the announcements made under the AatmaNirbhar Bharat Abhiyan. Under this package, the MSME sector has not only been given substantial allocation but has also been accorded priority in implementation of the measures to revive the economy. A robust ICI based system called CHAMPIONS has also been launched by the Ministry of MSME. The portal is not only helping and handholding MSMEs in the present situation, but is also providing guidance to grab the new business opportunities (PIB, GOI, June 3, 2020).

### Empowering Rural Women through Entrepreneurship

Rural Entrepreneurship can create new economic opportunities for rural women and contribute to overall growth and development of the economy. Women entrepreneurs can contribute to the economic wellbeing of their family, reduction in poverty, and their empowerment, achieving upward social and economic mobility as focused in fifth Sustainable Development Goal (SDG) of United Nations (UN). Rural women entrepreneurs deal with enterprises requiring little organising skills with less risks under the self-help groups (SHGs)' activities that ranges from making of dairy products, pickles, fruit juices, pappad, jaggery, etc. Women entrepreneurship is found to be less (about 18 percent of registered enterprises) as observed in MSME sector with 5/152 units engaging 11048 women entrepreneurs; maximum number of registered enterprises are in Tamil Nadu (9518) followed by Uttar Pradesh (7980), Kerala (5407) and Punjab (4791), Maharashtra (4330), Gujarat (3872), Karnataka (3822) and Madhya Pradesh (2967) (Report of MSME, 12<sup>th</sup> FYP 2012-17). Development of women entrepreneurship in rural areas is low due to several challenges and problems faced by rural women like dual roles of housemakers and entrepreneurs, lack of ownership of resources, low level of knowledge, skills and entrepreneurial motivation, lack of education, low risk bearing abilities, lack of family

support, socio-cultural barriers, difficulties in getting financial assistance and poor degree of financial freedom, weak bargaining positions, poor infrastructure facilities, lack of marketing abilities, etc. Addressing these challenges Government has taken several capacity building initiatives through implementation of schemes like Support to Training and Employment Programme for Women (STEP), Mahila e-Haas, Trade Related Entrepreneurship Assistance and Development (TREAD), Stand-Up India, etc. To provide financial assistance to women entrepreneurs several initiatives are taken viz., Rashtriya Mahila Kosh (RMK) by GOI, Mahila Udyami Yojana of IDBI, SBI Scheme Sakshi Package, Prayodamini Yojana by Bank of India, NITI Aayog established Women Entrepreneurship Platform on 5<sup>th</sup> March 2018, International Women's Day, with a purpose of making the women understand their entrepreneurial aspirations, scaling up innovative initiatives and formulating long-term business strategies. This initiative focuses on increase in number of women entrepreneurs through three pillars: Ichha Shakti (motivating aspiring entrepreneurs to start their enterprise), Gyan Shakti (providing knowledge and ecosystem support to women entrepreneurs to help them foster entrepreneurship) and Karma Shakti (providing hands-on support to entrepreneurs in setting up and scaling up business).

### Towards Sustainable Rural Prosperity

Rural entrepreneurship links the process of socio-economic realignments in rural areas. It is

important to note that rural entrepreneurship must not be drawn in isolation rather it must be drawn keeping in view the entire rural community in a long-term basis. Along with income generation, the rural-preneurship helps in elevating standard of living of the rural communities and enriching eco-system and heritage of rural hinterland. Alongside it opens up avenues for inclusive growth in times to come. And the desired policy initiatives must have organized efforts to ensure the survival of village enterprises. The direction of policy initiatives must include creation of entrepreneurial environment, promoting market linkages, national brand recognition efforts and easy policy initiatives for better understanding of the rural people. In short, the nucleus of growth of entrepreneurship in rural areas will answer a number of ill-faiths and taboos on the path of rural growth by eradicating rural poverty, increasing employment opportunities, raising the per capita income level and improving rural livelihoods. Transformational economic, environmental and social changes through rural entrepreneurship would bring inclusive rural growth and sustainable rural development.

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**TOOK FIRST DOSE OF COVISHIELD VACCINE?**

**PLEASE NOTE**

- Take second dose preferably after a gap of 10-14 days.
- Further after 4 weeks, appointments cannot be booked. If gap for the second dose is less than 28 days.
- Cannot provide appointments for second-dose with gap less than 28 days on 07/08/2020. However, it is advised to reach for the second dose with gap more than 28 days.
- Cash/ partial amount **not** allowed to book second dose with gap less than 28 days.

**DON'T LET YOUR GUARD DOWN IN THE FIGHT AGAINST COVID-19**

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# Yoga for Health and Well Being

Dr. Ishwar V. Dasavaraddi

Yoga is a path towards realization of true nature of the self. Practitioners of Yoga in search of this spiritual goal have evolved this art and science from their immaterial. Yoga is a continuous experiential path which transcends various states of consciousness to ultimately merge with the reality or the infinite pure consciousness (referred by Kavalaya or spiritual freedom).

**Y**oga is essentially a spiritual discipline based on an extremely subtle sciences, which focuses on bringing harmony between mind and body, thought and action; restraint and fulfillment; man and nature; a holistic approach to health and well-being. It is an art and science of healthy living. The word 'Yoga' is derived from the Sanskrit root 'Yuj', meaning 'to join' or 'to yoke' or 'to unite'. As per yogic scriptures the practice of Yoga leads to the union of individual consciousness with that of the Universal Consciousness, indicating a perfect harmony between the mind and body, man and nature. According to modern scientists, everything in the universe is just a manifestation of the same quantum firmament. One who experiences this oneness of existence is said to be in yoga, and is termed as a yogi, having attained to a state of freedom referred to as *mukti*, *nirvana* or *moksha*. Thus, the aim of Yoga is Self-realisation, to overcome all kinds of sufferings

leading to 'the state of liberation' (*Moksha*) or 'freedom' (*Kavalaya*). Living with freedom in all walks of life, health and harmony shall be the main objectives of yoga practice. "Yoga" also refers to an inner science comprising of a variety of methods through which human beings can realise this union and achieve mastery over their destiny. Yoga, has proved itself catering to both material and spiritual upliftment of humanity. Basic humane values are the very identity of Yoga Sadhana.

Yoga has spread all over the world by the teachings of eminent yoga masters from ancient times to the present date. Today, everybody has conviction about yoga practices towards prevention and management of diseases and promotion of health. Millions of people across the globe have benefited by the practice of Yoga and the practice of Yoga is blossoming and growing more vibrant with each passing day.



## Salient Features of Yoga

1. Yoga is Essentially Spiritual
2. It is a Darshana (Philosophy)
3. It is a Subtle Science
4. It is an Art of Healthy Living
5. It brings Harmony
6. Yogic practices are mind-centric

## The Fundamentals of Yoga

Yoga works on the level of one's body, mind, emotion, intelligence and energy. This has given rise to following broad classifications of Yoga: Jnana Yoga where we utilize the intelligence (Buddhi); Bhakti Yoga where we utilize the emotions (Bhava); Karma Yoga where we utilize the body (Shareera); Dhyana Yoga where we utilize mind (Manas); and Kriya Yoga where we utilize the energy (Prana). Each system of Yoga we practice falls within the gamut of one or more of these categories.

Every individual is a unique combination of these five factors. Only a guru (teacher) can advocate the appropriate combination of these five fundamental paths as it is necessary for each seeker. All ancient commentaries on Yoga have stressed that it is essential to work under the direction of a guru.

## Traditional Schools/Kinds of Yoga

The different philosophies, traditions, lineages and guru-shishya paramparas of Yoga led to the emergence of different traditional schools. These include Jnana Yoga, Bhakti Yoga, Karma Yoga, Patanjali Yoga, Jnana Yoga, Kundalini Yoga, Hatha Yoga, Mantra Yoga, Laya Yoga, Raja Yoga, Jain Yoga, Buddhist Yoga etc. Each school has its own approach and practices that lead to the ultimate aim and objectives of Yoga.

## Yogic Practices for Health and Well-being

The widely practiced Yoga sadhanas are: Yama, Niyama, Asana, Pranayama, Pratyahara, Dharana, Dhyana, Sandehi, Bandhas and Mudras, Shatkarmas, Vaitāhāra, Mantra japa, Rudrakarna etc. Yama's are restraints and Niyama's are observances. These are considered to be pre-requisites for further Yoga practice. Asanas, capable of bringing about stability and

comfort to the body and mind, "kurayattadasevanti-shilayam", involve, adopting various psycho-physical body postures and giving one an ability to maintain a body position (a stable awareness of one's structural existence) for a considerable length of time.

Pranayama consists of developing awareness of one's breathing followed by willful regulation of respiration as the functional or vital basis of one's existence. It helps in developing awareness of one's mind and helps to establish control over the mind. In the initial stages, this is done by developing awareness of the "flow of in-breath and out-breath" (swasa-prasava) through nostrils, mouth and other body openings, its internal and external pathways and deviations. Later, this phenomenon is modified, through regulated, controlled and monitored inhalation (vidsa) leading to the awareness of the body space getting filled (pūraka), the space(s) remaining in a filled state (kūñbhaka), and it getting emptied (rechaka) during regulated, controlled and monitored exhalation (pravyāsa).

Bandhas and Mudras are practices associated with Pranayama. They are viewed as the higher Yogic practices that mainly adopt certain physical gestures along with control over respiration. This further facilitates control over mind and paves the way for a higher Yogic attainment. Pratyahara indicates dissociation of one's consciousness (withdrawal) from the sense organs which connect with the external objects. Dharana (concentration) indicates broad based field of attention (inside the body and mind) which is usually understood as concentration. Dhyana (meditation) is contemplation (focused attention inside the body and mind) and Samādhi (absorption). Sankhara are detoxification procedures that are clinical in nature and help to remove the toxins accumulated in the body. Vaitāhāra (Right Food and other inputs) advocates appropriate food and food habits for healthy living. A few dietary guidelines can ensure that the body and mind are flexible and well prepared for practice. A vegetarian diet is usually recommended, and for a person over 30 years, two meals a day should suffice, except in cases of illness or very high physical activity or labour.

However, the practice of Dhyana (Meditation) helping in self-realisation leading to transcendence is considered as the essence of Yoga Sadhana. However, 'a judicious combination of practice of Asana, Pranayama and Dhyana daily, keep individuals healthy and disease free'.

The knowledge aspect of Yoga Sadhana is being extensively researched, with advantage to Yoga practitioners. Psychological, Anatomic-physiological, Bio-chemical and philosophical phenomena underlying Yoga Sadhana have been commendably understood by us today. It is a matter of satisfaction for the entire humanity Teaching methodology in Yoga has also upgraded modern educational methodological rigours into it. There is also a worldwide growth of teaching schools of yoga. An earnest scientific and philosophical literary research has also caught up globally and is yet another encouraging sign of further evolution of Yoga.

## Principles of Yoga Therapy and Methods

### Yoga Therapy:

It is important to adopt holistic lifestyle and follow a healthy regimen to live a healthy and peaceful life. The modern world is facing a pandemic of lifestyle disorders that require changes to be made consciously by individuals themselves. Yoga places great importance on a proper and healthy lifestyle whose main components are:

1. **Ahara** – Yoga emphasises on the need for a healthy, nourishing diet that has an adequate intake of fresh water along with a well balanced intake of fresh food, green salads, sprouts, unrefined cereals and fresh fruits. It is important to be aware of the need for a Sattvic diet, prepared and served with love and affection.
2. **Vihara** – Proper recreational activities to relax body and mind are essential for good health. This includes proper relaxation, maintaining quietude of action-speech-thoughts and group activities wherein one loses the sense of individuality. Karma Yoga is an excellent method for losing the sense of individuality and gaining a sense of universality.

3. **Achara**–Yoga stresses the importance of healthy activities such as exercise and recommends Asana, Pranayama and Krityas on a regular basis. Cardio-respiratory health is one of the main by products of such healthy activities.
4. **Nichara**– Right thoughts and right attitude towards life is vital for well being. A balanced state of mind is obtained by following the moral restraints and ethical observances (Yama and Niyama). As Mahatma Gandhi said, "there is enough in this world for everyone's need but not enough for any one person's greed".

The Yoga therapy is based on the following doctrines and concepts:

- Doctrine of "Chitta-vrittikoshha", "Kriyayoga" and "Astanga" as found in Patanjali's Yoga Sutra.
- Doctrine of "Panchakosha" (five sheaths/ bodies) as found in Upanishads.
- Doctrine of various kinds of "Shuddhi" found in Patanjali Yoga Sutra and Hathayoga.
- Doctrine of opening blocked channels of sushumna and prana (nadishuddhi), opening of lotuses and chakras, pranayamas, mudras and dandas as found in Hathayoga and Kundalini Yoga.
- Working with the mind on the lines of Patanjali Yoga Sutra, Mantra Yoga and Hathayoga.
- Working on the lines of "Karma-Jnana-Bhakti" from Bhagavadgita.
- Certain aspects of Tantra Yoga also get integrated in various Yoga practices.

### Practices to purify the body:

The aim of Hathayoga is to create a balance among activities and processes of body, mind and energy. This balance helps in the awakening of the central force, sushumna nadi which is responsible for the evolution of human consciousness. Purification of the chakras and nadis is the first step; the assumption is that complete removal of impurities from whole body purifies the nadis through six different ways which facilitates the flow of prana. These are purificatory processes usually classified into six divisions and therefore they are often called Shatkriyas or shatkarma.

These are Dhauti, Basti, Neti, Natasana, Nauli and Kapalabhati.

The main effects of shudhhi kriyas are:

- a. Cleansing, activating and revitalising the organs.
- b. Tones up the functions of the organs.
- c. Desensitisation.
- d. Development of deep internal awareness.

### Principles of Yoga therapy in the Management of Panchakosha

The application of yoga as a therapy can be correlated with the Upanishadic model of the Pancha Kosha (the five aspects of our existence) and hence various Yogic practices may be used as therapeutic interventions at different levels in this respect.

- At the Annamaya Kosha (anatomical level of existence), Yogic Sukshma Vyayam (simple movements for all body parts), Mudras (gestures for energy generation and conservation), Kriyas (structured movements), Asanas (steady and comfortable postures) along with the dietary modifications are useful.
- At the Pranamaya Kosha (physiological level of existence), Shatkarma (six cleansing processes), various Pranayamas, development of breath awareness and working on breath-movement coordination with emphasis on balancing Pranic energy is to be done. Work on reenergising and integrating the energies of the Pancha Prana and Upa Prana Vayus needs to be done at this level.
- At the Manomaya Kosha (psychological level of existence), there are numerous practices such as Trataka (concentrated gaze), Dharana (concentration), Dhyana (meditation), Japa and Japa Ajapa practices that are useful. Various aspects of concentration such as the Chakra Dharana and other Yoga Drishti techniques are also available in Yoga. An awareness of all aspects of the Antahkarana needs to be developed at this level.
- When trying to deal with the Vijñanamaya Kosha (intellectual level of existence) Swadhyaya (self analysis), Sabhanga (lectures and spiritually uplifting exchange) along with

the wonderful Jnana Yoga and Raja Yoga relaxation and concentration practices of Yoga are useful.

- To understand and work with the Anandamaya Kosha (our universal level of existence), it is important to lose sense of the limited individuality. Learning to implement principles of Karma Yoga (Yoga as skilled action performed without expectation) and following the principle of action in relaxation help us to achieve a sense of joy in all activities. A realisation that we live in a blissful universe and that all life is joy, is to be brought about in this intervention through use of Bhakti Yoga, Karma Yoga and other aspects like Bhajana, Yogic counseling and Satsanga.

**Practice of Jnana Yoga:** The present age of science has made man a rational being. Intellectual sharpness is imminent. Analysis forms the tool. Jnana Yoga helps to discriminate between real and unreal nature, because avidya (wrong knowledge) is the root cause to perceive the worldly phenomena as real but in reality it is not. The path of philosophy (Jnana Yoga) is apt for the keen intellectuals and is centered on the analysis of 'reality and happiness', the vital contribution of Upanishads. Also many other fundamental questions regarding the mind, the outside and inside world are taken up. Basic questions are raised even involving the intellect itself to reach the very basis of intellect.

**Practice of Karma Yoga:** This path of working in relaxation involves doing action with an attitude of detachment to fruits of action. This makes man release himself from the strong attachments thereby brings in him a steadiness of mind, which verily is Yoga-*'Samatvamyojanh Uchyate'*. Instruments of action and understanding (Karmendriyas and Jnanendriyan) get cleansed (Bhagavadgita 2:48-49).

**Practice of Bhakti Yoga:** The control of emotions is the key in the path of worship that involves pure love to the divine and is characterised by total surrender. In the age of globalisation, man is tossed up and down due to emotional onslaughts. The path of bhakti is a boon to gain control over emotional instabilities by properly harnessing the energy involved in it.

Yoga is basically a preventive life science and hence Yogic counseling is a vital component of Yoga Chikitsa when dealing with all lifestyle disorders. The counseling process is not a 'one off' matter but is a continuous process that starts from the very first visit and continues with every session at different levels. Helping the patients understand their condition, finding the root cause of the problem and creating a healthy opportunity for them to change themselves, is the Dharma of the therapist. Dharma has been defined as, doing the right thing for the right person at the right place and at the right time in the right manner. It may take many months before we start to witness benefits of these Yogic lifestyle changes and Yoga Chikitsa practices.

### Mechanism of Action of Yoga

The following are just a few of the mechanisms through which Yoga works as an integrated mind-body medicine.

1. Cleanses the accumulated toxins through various shuddhikriyas and generates a sense of relaxed lightness through sukshma vyayama (simple movements for all body parts). Free flow in all bodily passages prevents the many infections that may occur when pathogens stagnate therein.
2. Adoption of a Yogic lifestyle with proper nourishing diet, creates positive antioxidant enhancement thus neutralising free radicals while enabling a rejuvenated storehouse of nutrients packed with life energy to work on anabolic, reparative and healing processes.
3. Steadies the entire body through different physical postures held in a steady and comfortable manner without strain. Physical balance and a sense of ease with oneself enhances mental/emotional balance and enables all physiological processes to occur in a healthy manner.
4. Improves control over autonomic respiratory mechanisms through breathing patterns that generate energy and enhance emotional stability. The mind and emotions are related to our breathing pattern and rate and hence the slowing down of the breathing process influences autonomic functioning, metabolic processes as well as emotional responses.
5. Integrates body movements with the breath creating psychosomatic harmony. In Yoga the physical body is related to annamayakosha (our anatomical existence) and the mind to manomayakosha (our psychological existence). As the pranayama kosha (our physiological existence sustained by the energy of the breath) lies in between them, the breath is the key to psychosomatic harmony.
  - i. Focuses the mind positively on activities being done, enhances energy flow and results in healthy circulation to the different body parts and internal organs. Where the mind goes, there the prana flows!
  7. Creates a calm internal environment through contemplative practices that in turn enable vocalisation of homeostatic mechanisms. Yoga is all about balance or samatvam at all levels of being. Mental balance produces physical balance and vice versa too.
  8. Relaxes the body-emotion-mind complex through physical and mental techniques that enhance our pain threshold and coping ability in responding to external and internal stresses. This enhances the quality of life as seen in so many terminal cases where other therapies are not able to offer any solace.
  9. Enhances self-confidence and internal healing capacities through the cultivation of right attitudes towards life and moral-ethical living through yama-niyama and various Yogic psychological principles. Faith, self confidence and inner strength are most essential for healing, repair, rejuvenation and re-invigoration.
  10. Yoga works towards restoration of normalcy in all systems of the human body with special emphasis on the psycho-neuro-immuno-endocrine axis. In addition to its preventive and restorative capabilities, Yoga also aims at promoting positive health that will help us to tide over health challenges that occur during our lifetime. This concept of positive health is one of Yoga's unique contributions to modern health care as Yoga has both a preventive as well as promotive role in the health care of our

misses. It is also inexpensive and can be used in tandem with other systems of medicine in an integrated manner to benefit patients.

### Principles of Yoga in the Management of Kleshas and Vrittis

Yoga is a path towards realisation of 'true nature of the self' and practitioners of Yoga, in search of this spiritual goal, have evolved this art and science from time immemorial. It is a continuous experiential path which transcends various states of consciousness to ultimately merge with the reality or the infinite pure consciousness featured by Kaivalyam or eternal freedom. This state of Kaivalyam can be attained only through 'chittavritti-rodha' i.e., the cessation of all the mental processes. Patanjali advocates development of correct psychological attitudes such as Maithri (friendliness towards those who are at peace with themselves), Karuna (compassion for the suffering), Mudita (cheerfulness towards the virtuous) and Upekshanam (indifference and avoidance of the evil) as first step and then suggests the practice of Abhyasa-Vairagya, Ashtanga yoga and Kriya yoga to achieve the state of Chittavritti-rodha. Abhyasa is regular/punctual practice with patience and perseverance and Vairagya connotes a virtual freedom from attachment and indulgence to all worldly things and all pleasure of life. The practice of Abhyasa and Vairagya leads to vivekikyai (discriminating wisdom). Raja yoga has three parts: 1) training and purifying the senses (Niyas), 2) self-study in the context of teachings (svadhyaya), and 3) devotion and letting go into the creative source from which we emerged (ishvara-pranidhana). The practice of both Abhyasa-vairagya and kriya yoga reduces the gross and subtle thought patterns (vrittis and kleshas) such as thoughts / information perceived through the interaction with sense organs. This reduces the kleshas into an attenuated state called taru. When the impulsiveness of the kleshas are reduced, Patanjali advocates the practice of graded course of meditation ashtanga yoga such as Yama, Niyama, Asana, Pranayama, Pratyahara, Dharana, Dhyanam leading to a state of Samadhi which burn the attenuated kleshas with the light of prajna (super-sensuous knowledge) known as Atambhara Prajna (PYS, 1:48) which reveals the

true nature of purusha and its distinctness from Buddhi known as vivek-kyai.

**Yoga as a Therapy:** Yoga as a therapy (Chikitsa) is being practiced now as an alternative health care practice in many parts of the world. The number of yoga practitioners continues to rise tremendously. Of the many benefits ascribed to Yoga practice, blood pressure control is among the most studied. There are several reviews regarding the potential benefits of Yoga for reducing blood pressure and other cardiovascular disease risk factors but the degree to which yoga therapy may decrease blood pressure and its potential modifying effects remain unclear. Yoga therapy has also been seen to improve indices of risk in adults with type-2 diabetes, including glucose tolerance and insulin sensitivity, lipid profiles, anthropometric characteristics and blood pressure. It also leads to a reduction in oxidant damage, improve coagulation profiles and pulmonary function, and decreases sympathetic activation in adults with diabetes and related chronic disorders. Yoga may also be useful in reducing medication requirements in patients with diabetes and could help prevent and manage cardiovascular complications in this population. Many research papers have been published in indexed peer reviewed journals to prove the efficacy of Yoga therapy in the management of many muscular-skeletal disorders and lifestyle-related diseases.

### International Day of Yoga

The United Nation's Resolution adopted by the General Assembly on 11 December, 2014, forms the basis of the observation of International Day of Yoga (IDY), and it emphasises the potential of Yoga to secure health and wellbeing for all. Over the years, IDY has become a global movement for health. India feels privileged by the global acceptance of Yoga, which is one of its precious inheritances; and has been playing a leadership role in the observation of IDY around the world.

Ministry of AYUSH, being the nodal Ministry for IDY in India, has initiated a host of activities aiming to motivate as many people as possible to participate in IDY-2021, through convergence of activities among various stake-holders. The Ministry has initiated multiple programmes and

collaborations to build on the progress achieved over the last six years in taking the message of Yoga across India and the world, and to widen its reach further this year.

### Role of Yoga in Present Pandemic Conditions

The practice of Yoga has become of utmost importance in the current scenario as the world is on the road to recovery from a deadly pandemic—leading greater focus to public health, preventive medicine, and personal care on both physical and mental fronts. Adoption of daily practice of Yoga can be of great help for the thousands of people who suffered from COVID-19 in the difficult days that passed, and in aiding their complete recovery from various adverse effects of the disease. The selected combination of pranayama modules (Navdshodhana, Ujjayi, Bhramari etc.) makes it a comprehensive intervention to reduce COVID-19 infection; here emphasis has to be laid on deep, slow, rhythmic breathing with awareness. 15 minutes of deep breathing practice (or anuloma-viloma pranayama) before sleep, ensure the quality of sleep which is very crucial in determining immunity. Adoption of

the Yoga practice as their routine, will also help the population to improve general health and immunity and thus to serve as a preventive measure against the deadly disease.

### Conclusion

Yoga is the most perfect health and wellness module as it is comprehensive and holistic in its nature. Yogic principles of wellness help to strengthen and develop positive health enabling us to withstand stress better. This yogic “health insurance” has achieved by normalising the perception of stress, optimising the reaction to it and by releasing the pent-up stress effectively through the practice of various Yogic practices.

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**CORONA FACTS**  
A few common **Myths**

**MYTH**  
5G mobile networks spread/transmit COVID-19

**FACT**

- Viruses cannot travel on radio waves or mobile network.
- COVID-19 is spreading in many countries that do not have 5G mobile network.

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# Integrated Rural Development and Sustainable Development Goals

Dr. Anitya Kumar Mohapatra and Dr. Malay Kumar Mohanty

The overall well-being of India very much rests on rural prosperity and its development. Achievement of SDGs are mainly connected with rural India and its progress. The rural development and its concomitant outcomes will not only reduce the poverty and inequality, but also will empower the community, especially the women and the underprivileged sections of the society. Hence, the attainment of SDGs can be possible in India through integrated and inclusive development of the rural India in three areas.

"Everything we do during and after this crisis (COVID-19) must be with a strong focus on building more equal, inclusive and sustainable economies and societies that are more resilient in the face of pandemics, climate change, and the many other global challenges we face"

By António Guterres, Secretary-General of the United Nations

**T**he 2030 agenda for 'Sustainable Development Goals (SDGs)' by United Nations, was implemented with effect from January 1, 2016. It ensures peace, prosperity and opportunity for all and for well-being of the masses; and to end all kinds of deprivation and socio-economic evils including poverty and inequality. The agenda enlisted 17 SDGs with 169 Targets, which are the milestones of holistic socio-economic transformation, having priority focus on well-being of people and planet earth at large. As a global mandate, the SDGs cover three key

dimensions of sustainable development, viz. (a) economic growth (b) social inclusion and (c) environmental protection, which are closely interconnected and inevitable, as a part of well-being of the individuals, communities, nations and world development.

The primary focus of SDGs has been on proactive participation of all the stakeholders like National and State Governments of UN member nations, policymakers, local governance bodies, industries, local communities and people across all layers of society. Although, it has been universally



accepted by 193 countries, however, its success predominantly depends upon the country-specific development initiatives and commitment in effective implementation of SDGs, with "GLOBAL (Global thinking, Local action)" approach. In this regard, its gratifying fact that India is committed, by heart and soul, for the effective and integrated implementation for attaining the desired SDGs by 2030, especially focusing on "Leave No One Behind" and "A Life of Dignity for All".

## The SDGs and Rural Development in India

The well-being of Indian economy certainly depends upon the living and livelihood patterns of the rural economy in India, more than 65 percent of the total population lives in villages and, therefore, rural development itself signifies its importance in all kinds of public policy-making. Thus, 'integrated rural development' can be used as a major index of sustainable development of

**Table 3: SDGs and Rural Development Linkages**  
(If (High=3), (Medium)=2 and (Low)=1)

SDGs	Level / Focus Area of SDG	Description of the SDGs	Linked with Rural Development?
SDG 1	No poverty	End poverty in all its forms everywhere	Yes (3)
SDG 2	Zero hunger	End hunger, achieve food security and improved nutrition and promote sustainable agriculture	Yes (3)
SDG 3	Good health and well-being	Ensure healthy lives and promote well-being for all at all ages	Yes (3)
SDG 4	Quality education	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	Yes (3)
SDG 5	Gender equality	Achieve gender equality and empower all women and girls	Yes (3)
SDG 6	Clean water and sanitation	Ensure availability and sustainable management of water and sanitation for all	Yes (3)
SDG 7	Affordable and clean energy	Ensure access to affordable, reliable, sustainable and modern energy for all	Yes (3)
SDG 8	Decent work and economic growth	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	Yes (3)
SDG 9	Industry, innovation and infrastructure	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	Yes (3)
SDG 10	Reduced inequalities	Reduce inequality within and among countries	Yes (3)
SDG 11	Sustainable cities and communities	Make cities and human settlements inclusive, safe, resilient and sustainable	Yes (3)
SDG 12	Responsible consumption and production	Ensure sustainable consumption and production patterns	Yes (2)
SDG 13	Climate action	Take urgent action to combat climate change and its impacts	Yes (2)
SDG 14	Life below water	Conserve and sustainably use the oceans, seas and marine resources for sustainable development	Yes (1)
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	Yes (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	Yes (1)
SDG 17	Partnerships for the goals	Strengthen the means of implementation and revitalize global partnerships for sustainable development	Not directly linked to SDGs

Note: In the 17 SDGs, 8 SDGs have a high degree of linkage (3) with Rural Development.  
Source: UN Reports, Mantra Reconstructed by Authors.

appraising enlargement of people's choices and capabilities, across India. In other words, the 'secret of success of SDGs in India' predominantly revolves around development with core focus on inclusion and holistic development of rural India, and also taking special care to avoid/indure all sorts of deprivation and exploitation.

To find out the nature of association between SDGs and rural development (Table 1), we have used the qualitative scale 1-3 to measure the degree of linkages. The parameters of associations are mostly framed from the SDGs' descriptions and outcomes. It was found that out of 17 SDGs, 8 SDGs are highly linked in the scale of 3 with rural development, and 4 SDGs are moderately associated in a scale of 2. Similarly, 4 SDGs are dimly linked in a scale of 1 and the last one goal, SDG-17 is not directly connected with the rural development. So, based on the nature and degree of association, it is found that the SDGs can be better achieved only when rural development will be given additional importance in the policy making and in our nation's fiscal landscape. The rural development contributes to 4 'P' out of the 5 'P' as delineated in the policy agenda and these are - People, Planet, Prosperity, and Peace.

### Attainment of relevant SDGs and Rural Well-being in Indian Context

The overall well-being of India very much rests on rural economy and its development. Accomplishment of SDGs are mainly connected with rural India and its progress. The rural development and its concomitant outcomes will not only reduce the poverty and inequality, but also will empower the community, especially the women and the underprivileged sections of the society. Hence, the attainment of SDGs can be possible in India through integrated and inclusive development of the rural India in true sense. The development of rural infrastructures like health, education, sanitation, housing, drinking water, rural banking, electricity, rural infrastructure and rural/cottage/village/agro-based industries will play the vital roles in attaining inclusive development in a sustainable manner, as per SDGs agenda.

### SDG 1: No Poverty

Poverty is multidimensional and complex, and especially rural poverty is more deep-rooted and privative. Hence to attain the SDG-1, eradication of rural poverty is essential and can be achieved by better infrastructure development, agricultural development, and better credit support facility and also through socio-economic transformation in rural India. A well-designed policy to remove rural poverty is essential which further laid the foundation for the rest of the SDGs.

### SDG 2: Zero Hunger

Hunger and food insecurity, which are quite prevalent, and very much associated with extreme form of poverty. Millions of children are living under malnutrition and suffering from various diseases in general and in rural segment in particular. Therefore, the focus should be on human rights and human dignity. This can be achieved by focusing on food security. In addition, self-sufficiency in food grain production and assurance of food security for masses very much elucidates the significance of agricultural sector. The food price have increased manifold over the recent years making the food basket costlier and threatens the survival of the poor masses. So, agricultural development is imperative for rural development through which sustainable development would be possible.

### SDG 3: Good Health and Well-Being

For better health and well-being, health care facility is very much essential. Health related challenges still persist at large and the existing progress is not enough to meet the daunting challenges in the rural health segment. Persistent health related issues affect the productivity and efficiency of the work force and create unnecessary economic burden on their standard of living.

### SDG 4: Quality Education

Well-being of the nation rests on the quality education. It sounds how children are getting education along with the ancillary supports. The challenges in quality education in the rural areas are more because of higher dropouts, due to lack of infrastructure and motivation. However quality education is essential to fight against all kind

of deprivation and also will support remaining SDGs.

### SDG 5: Gender Equality

Inclusiveness is possible only when all the segments get equal rights and equal opportunities in every aspects of life. The major challenges in the society are gender inequality and socio-economic discrimination. This is rampant in rural sector and hence greater importance is given for gender equality and for empowerment of girls and women without any discrimination in the SDGs. To achieve the same, rural development is inevitable and need of the hour.

### SDG 6: Clean Water and Sanitation

Fooding alone cannot support sustainable rural development unless supported by basic amenities like drinking water, sanitation, etc. For better health and rural well-being, safe and clean drinking water is very essential. The government of India is making continuous efforts to provide healthy drinking water to all the citizens, especially to rural population. Importance of clean water, sanitation and hygiene is essential for protecting human health and human dignity. Clean water and sanitation always have positive impact on the rural people in terms of health, employment, income, wealth, productivity and welfare as well.

### SDG 8: Decent Work and Economic Growth

Unemployment and lack of opportunities adversely affect the economy and also affect the health and socio-economic status of the unemployed people. Unemployment in various forms are rampant in the rural sector and hence to achieve sustainable growth, focus should be given in situ employment creation at the rural economy. It will not only enhance the economic well-being but also raises the socio-cultural status and will add to positive mindset of the people.

### SDG 9: Industry, Innovation and Infrastructure

Adequate and accessible infrastructure not only enriches the quality of life but also brings betterment of rural livelihood. Better infrastructure always have positive correlation with economic development. It is found that there is a clear need of uplifting of rural economy especially the rural infrastructure development. Setting of rural industries and promotion of innovation at the grass-root level will certainly add to living standards and well-being of the rural people.

### Effects of COVID-19 and Environment Mapping with SDGs

The whole world is reeling under pandemic-driven recession of the worst kind one can

Table 2: Rural Areas and SDGs Environment Mapping

	Societal & Environmental Threats	Sectoral Approach	Synergic Effects	Development Perspectives
Rural Areas	Poverty and Marginalised Communities	Education and Health Services	Rural – Urban Migration	Quality of Life Improvement
	Fertile and Sub-sovereign Agriculture	Biodiversity Protection	Rural Security	Sustainable Agriculture
	Land Degradation and Deforestation	Forestry Health	Climate Change	Rural Resilience
	Lack of Sanitisation	Waste/Water/Sanitation/ Hygiene	Environmental Pollution	Circular Economy
	Gender Development Rights	Rural – Urban Gaps	Governance & Territorial Cohesion	Reducing Inequalities

Local – National - Cross Countries - Global Cooperation - SDGs - Agenda 2030

Source: Author (MIRAF) (2020)

Imagine. Most of the social and economic gains we have come to a rise due to COVID-19 pandemic. As a consequence, there has been widespread poverty, inequality and joblessness in most parts of the world. Mass unemployment, stories of jobs cut from various companies are pretty alarming. COVID-19 pandemic has certainly devastated the life of a large section of the working population. The world economy has withered by 4.4 percent, which has stalled the socio-economic development processes and act as the biggest challenge in attaining SDGs by 2030.

The linkage and matrix of 'Rural areas and SDGs' is done for environment mapping, which is crucially important, along with integrated socio-economic rural development (Table 2).

### **Integrated Rural Development and Road Ahead for SDGs**

A structured and well-crafted rural development strategy will certainly help in attaining the sustainable development goals. The initiatives like Make in India, Skill India, Digital India, Start-up India, and Stand-up India, etc., have been successfully launched and effectively operationalised since 2015-16 in India, which has enabled India to expedite the socio-economic development. However, amidst of COVID-19 crisis, several steps have been taken by various Ministries to overcome the bottlenecks and focus on the basic and fundamental of provisioning for human subsistence, especially for the marginalised section of the society, who are significantly affected by pandemic by (a) affecting livelihoods, (b) reduced income/ employment, (c) increased

inequality due to adverse effects of pandemic, just to mention a few.

It's needless to mention that vital roles are being played by media (print/electronic/digital), NGOs, civil society, CSR initiatives in creating the awareness, enrolment, effective participation in embracing the SDGs and their implementation, as proactive partners. Further, with the significant focus on livelihood enhancement through MGNREGA, agriculture, dairy farming, fisheries and poultry, horticulture, forestry etc., systems can be hoped to rejuvenate and strengthen the integrated rural development in Indian context. The three 'P' i.e. funds, functions, and functionaries are needed to optimally operate to enhance the desired benefits that can percolate down to the last person in the society. Simply stated, the strategic planning, commitment in effective implementation of SDGs, with GLOBAL approach, timely execution, close monitoring and evaluation (M&E) with clearly defined accountability, etc. are inevitable for ensuring the sustainable rural development in India. This will in turn set the path for attaining the SDGs, as rural India is the significant contributor for the most of the criteria of SDGs and overall development in Indian context.

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## **Kurukshetra**

**FORTHCOMING ISSUE**

July 2021 : Rural Infrastructure

**COMING SOON**

India: An Agricultural Powerhouse



## Sustainable Mining

Aman Sharma

India's mineral sector is very small and the country is a very small player when it comes to mineral exports. This is because India has the potential to be a big player in global mineral trade, owing to its huge Unconformable Geological Potential in several minerals. Even in minerals such as coal and iron ore, where India has huge proven reserves, we are a net importer of thermal coal and our iron ore exports are insignificant in comparison to countries like Australia and Brazil.

**E**ven after 74 years of country's independence, minerals contribute only 1.65 percent to the country's GDP. Out of this, the share of coal and lignite is the maximum at 0.80 percent followed by major minerals like iron ore, Bauxite and limestone at 0.52 percent and minor minerals like marble, sandstone, dolomite, sand etc at 0.37 percent. This is despite India being extremely rich in mineral resources including coal (4<sup>th</sup> largest reserves in the world), iron ore, Manganese ore (7<sup>th</sup> largest reserves in the world), Mica, Bauxite (5<sup>th</sup> largest reserves in the world), besides large reserves of Chromite, Limestone, Thorium, Diamonds and Natural gas.

The total value of mineral production (excluding atomic minerals, fuel and minor

minerals) was at Rs. 71,257 crore during 2018-19. Among the principal metallic mineral, iron ore contributed Rs. 45,184 crore (71 percent), lead (concentrate) and zinc (concentrate) together Rs. 7,140 crore (11 percent), chromite Rs. 3,584 crore (about 5 percent), manganese ore Rs. 2,270 crore (about 4 percent), silver Rs. 2,582 crore (4 percent), Bauxite Rs. 1,717 crore (3 percent) and the remaining value was from copper (ore and concentrate), gold (ore and meta), lead and zinc ore and tin concentrates. The value of production of non-metallic minerals was at Rs. 9,315 crore during 2018-19. Limestone contributed almost 92 percent of the total value of non-metallic minerals, other important non-metallic minerals in value terms, were phosphite/rock phosphate (4 percent) and garnet (abrasive) (3 percent).

During the year 2018-19, the value of exports (including re-exports) of ores and minerals stood at Rs. 2,19,368 crore and accounted for about 9.50 percent of the total value of all merchandise exported from India. Diamond (total) continued to be the largest constituent item with a share of 80.22 percent in the total value of mineral exports in 2018-19; however, majority of diamond export were of the nature of re-exports via rough diamond was imported and then after doing a value addition (in the form of cutting-polishing), was re-exported. Next in the order of share was granite with the contribution of 4.65 percent followed by iron ore 4.23 percent, alumina 2.54 percent and emerald (cut and uncut) total 1.05 percent.

During 2018-19, the total value of imports of ores and minerals as Rs. 12,95,156 crore accounting for 26.14 percent of the total value of all merchandise imported into India. Petroleum (crude) continued to be the largest constituent item with a share of 61.04 percent in the total value of minerals imported in 2018-19. Next in order of importance was diamond (total) with a share of 13.79 percent followed by coal (excluding lignite) with a share of 13.16 percent and natural gas with 5.38 percent. The combined share of these four minerals was 93.38 percent in 2018-19 as against 91.00 percent in the previous year. If we exclude petroleum and gas and diamonds from the mineral import basket, coal was the major import item in value terms.

Coal production (provisional) at 728.72 million tonnes in 2018-19 was higher by 7.9 percent from that of 675.40 million tonnes in 2017-18. In 2018-19, out of the total production of coal, 5.54 percent (41.13 million tonnes) was of coking coal and the remaining 94.36 percent (687.59 million tonnes) was of thermal coal. As our domestic coal production is less than our total consumption, India imports close to 225 Million ton thermal and coking coal every year from countries like South Africa (thermal coal) and Australia (coking coal).

Indian mineral sector is therefore very small and India is a very small player when it comes to mineral exports. This is logical because India has the potential to be a big player in global mineral trade, owing to its huge Obvious Geological Potential (OGP) in several minerals. Even in minerals such as Coal and Iron ore, where India has huge proven reserves, we are a net importer

of thermal coal and our iron ore exports are insignificant in comparison to countries like Australia and Brazil. Countries such as Australia and South Africa, which are geologically similarly placed with India (owing to their emergence from Gondwanaland), are big players in mineral export. Mining contributes to more than eight percent of South Africa's GDP and minerals constitute 35-40 percent of the country's exports in value terms. For Australia, mining and the mining equipment, technology and services (METS) sector accounts for approximately 15 percent of Australia's GDP and supports (directly and indirectly) 1.1 million jobs – around 10 percent of Australia's total workforce. For Canada, mining represents about 16 percent of the Canadian economy and 32 percent of exports.

### National Mineral Policy 2019

NMP 2019 was approved by the Union Cabinet, on 23<sup>rd</sup> February 2019. The aim of NMP, 2019 is to have a more effective, meaningful and implementable policy that brings in further transparency, better regulation and enforcement, balanced social and economic growth as well as sustainable mining practices. NMP, 2019 clearly states that "minerals continue to be an important source of foreign exchange earnings. For exports, the policy shall keep in view the dynamics of mineral inventories as well as the short, medium and long term needs of the country. On the other hand, the import of minerals shall be coordinated as far as possible with the indigenous development of mineral based industries. Areas of cooperation with other countries having complementary resource base shall be developed for mutual advantage. The approach shall be to make mineral based materials available to domestic users at reasonable prices as determined by market forces. To develop mining as a modern stand-alone industry substantial investment is required. A long term export-import policy for the mineral sector would provide stability and prove to be an incentive for investing in large scale commercial mining activity. Assurances, through such a policy for minerals, will be a key factor for investment decisions, particularly Foreign Direct Investment (FDI) decisions in the sector."

The very fact that the NMP, 2019, aims to develop mining as a modern stand-alone industry, points to the fact that the role of the mineral

Industry is not just to play second fiddle to the domestic manufacturing industry, but to act as an independent industry. This means that the domestic indirect tax as well as Foreign Trade Policy (FTP) has to be aligned in such a manner that wealth creation in the mining sector is promoted. This would be possible by removing tariff and non-tariff barriers towards mineral export, atleast in those minerals where domestic revenues are more than adequate.

### India's Position in Iron Ore Mining and Export

As discussed above, Iron ore is the most important metallic mineral currently mined in the country and constitutes more than 71 percent of the total value of metallic minerals mined in the country. The country mined 242 Million Tons of iron ore in 2015-20, out of which about 36.5% (iron ore and pellets) was exported (mainly to China) and the rest used domestically. Despite India being richly endowed with iron ore, we are a minor player (market share 1.8 percent) in the international iron ore market. Largest exporters of iron ore are Australia (53.8 percent market share) and Brazil (18.1 percent market share) and major importing consumers are China, Japan, Korea, Middle East and EU. The overall size of the iron ore export market is more than USD 120 Billion and India's earnings are hardly USD 2.16 Billion viz Rs. 18000 Cr. This is in contrast to USD 64 Billion earned by Australia from export of iron ore alone.

### Challenges in Enhancing Export of Iron Ore

Iron ore with Fe content more than 58 percent attracts an export duty of 30 percent in India. This has been introduced with the aim of discouraging export of high grade iron ore and conserving it for domestic steel industry. This 30 percent export duty has been a bone of contention between the steel and the mining industry for a long time and is also being fought at the Apex Court for iron ore mined in Karnataka. As iron ore pellets of any grade are not subject to export duty, an anomaly is also created wherein high grade pellets are exported at Nil export duty whereas high grade iron ore cannot be. This is also a source of continuous war of words between the iron ore mining and the pellet industry. The primary reason for this conflict and India's extremely low share in the global iron ore export market is our failure to ramp up iron ore production in the

country. Scarcity of iron ore often leads to iron ore price rise, as is being experienced in the last one year, mainly on account of delays in restarting production in atleast 10 newly auctioned iron ore mines in Odisha, which together account for over 40 MTPA iron ore production.

### Reasons for Low Iron Ore Production

Iron ore is a mineral where reconnaissance and prospecting are not important as it is found mainly near the surface and most of the proven reserves are adequately prospected. Exploration is therefore not much of a problem in case of iron ore. The main problem lies in issue of Mining Leases for the following reasons:

- New blocks either not put on auction by States or held on by CPSEs/SFSEs who have either failed to issue MLs or start production/examination, owing to multiple reasons, after reservation or obtaining ML.
- Non-issue of EC or EC or both in a number of several iron ore mines, being located in forest areas. The Management Plan for Sustainable Mining (MPSM) prepared by Indian Council of Forestry Research and Education (ICFRE) has placed a complete ban on iron ore mining in the Sarania and Chelbasa forests of West Singhbhum district of Jharkhand. This area has proven reserves of 1.8 Billion tons, most of which is currently not available for mining. Although MoEF&CC has recently undertaken an exercise to review the MPSM, it is a time taking exercise owing to time involved in cadastral mapping.
- Several mines not having started production and dispatch despite getting ML.
- Captive iron ore mines not mining normally as they did not have the permission to sell surplus iron ore in the market. As a result, huge reserves in such captive mines are lying unutilised.

All these factors have contributed to a situation where in the country has not been able to significantly enhance iron ore production in the last 5 years.

The following table gives a bird eye view of the iron ore scenario in the country.

(in million tonnes)

Iron Ore	2010-11	2015-16	2018-19	MTL-18	2019-20	2020-21
Production	140	141.73	136.45	137.45	146.13	154.77
Export	85	1.27	22.81	8.73	4.89	7.04
Total	55	143.00	159.26	146.20	151.02	161.81
Requirement						

Despite vast reserves, India imports iron ore. The reasons for import are lower landed cost of imported iron ore, especially for steel plants near the coast. Higher logistics cost are an additional problem in the country as railway freight is very high in India, thereby adversely affecting the raw material cost for steel plants located in Karnataka, Andhra Pradesh, Tamil Nadu or Maharashtra.

### Steps taken by Government to Enhance Iron Ore Mining

In order to enhance the production of iron ore in the country, following steps have already been taken by the Ministry of Mines by way of amendments to the MMDR Act and Rules:

- Invention of Section 8B, which has allowed for seamless vesting of statutory clearances from earlier lessees to the new ones.
- To allow captive mines to sell up to 70 percent of their production after meeting the requirements of the end-use plant and also paying additional royalty to the state government.
- Fixing a time frame for Government companies to obtain a ML from the date of reservation and for commencing production & dispatch from the date of obtaining a ML.
- Empower the central government to conduct auctions or re-auction processes for the grant of a mining lease if a state government fails to complete the auction process in a specified period, decided after consultations between the Centre and state.
- Termination of RO/PL under Section 10A(2b) of MMDR Act so as to make available more than 100 iron ore blocks for re-auction.
- Applying a sun-set clause on mines reserved for Government companies so that ML is obtained and production/dispatch commenced within a certain time frame, otherwise the reservation and ML shall be terminated.

- Allow private entities engaged by the Government to undertake mineral exploration without the need for RO/PL, in addition to public sector entities.

The impact of these amendments is expected to be the following:

- Open up blocked mines for mining.
- Use captive mines optimally by giving lessees the option of selling surplus mineral in open market.
- Decreasing the time required for auctioning mines, either by State or Central Government.
- Involving private agencies in exploration.

### Impediments in Enhancing Production

The biggest impediment in opening up Greenfield mines remains forest diversion and Environmental Clearance. This is a complex issue which involves not only amendments to the EIA notification but also to go ahead from the judiciary. Draft EIA Notification 2020 has already got delayed and the Supreme Court has barred iron ore mining in Goa and imposed several restrictions on iron ore mining in Karnataka. These issues need to be resolved at the earliest.

### Suggestions for Promoting Environmentally Sustainable Mining

Environment protection and mining should not be seen as each other's opponents. Instead, a balanced approach needs to be followed wherein sustainable mining can be practiced. However, it is easier said than done. The following suggestions are worth considering:

- Reduce the term of ML from current 30 years to 15 years, with only one extension being allowed for 5 years. There should be a stiff penalty in case the lessee fails to extract the entire reserve from the leased mine.
- The lessee should undertake proper mine closure within a specified time frame after the expiry of lease. This would also open up large areas in closed mines where Compensatory Afforestation can be taken up. Presently, in some mines where ground was broken up a century ago we yet to see mine closure, as some reserves are still there or more reserves are being prospected. Slow pace of mining enhances environmental degradation.

and therefore the lease period needs to be significantly reduced with a clear sunset clause.

- c) All mineral blocks should be auctioned with pre-approved FC/EC so that ML should be granted within 4 weeks of declaring the preferred bidder.
- d) Manual mining should be banned and only mechanised mines should be allowed to operate. For this the size of the auctioned blocks offered for lease should be large, so as to justify investment in mechanization.
- e) Make it mandatory for evacuation of minerals to be done using conveyors (overhead or ground) upto the Railway siding or slurry pipeline/beneficiation plant/pumping station. No truck based movement from the mine head through the forest roads should be allowed. These rules would indirectly ensure that smaller mines are not economically viable and thus the market would automatically shift to larger blocks.
- f) Zero waste mining should be the norm and not an exception. Beneficiation plants should be mandatory along with ore processing plants and no surface lease for sludge ponds should be granted along with the mine. Dry stacking of gangue should be mandatory.
- g) There should be a limitation on number of persons/businesses and their families getting settled in the lease area, so as to reduce degradation of nearby forests due to population pressure. These conditions should be inbuilt in the EC.
- h) Rules relating to Compensatory Afforestation (CA) should be amended and a pan India pool of CA land should be created. This would reduce the time required for identifying CA, which is a major reason for delay in obtaining FC.

The environmental issues in mining are real. However, environment protection cannot be a reason for not exploiting the mineral wealth of the country optimally. As is done in developed countries like Australia, Canada, USA etc. mining has to be carried out scientifically, using state-of-the-art technology, within a specified timeframe and with minimum ecological damage. Even this

small ecological damage can be undone at the time of mine closure. Unfortunately, none of this is presently being done in the country.

### Why It Is Necessary to Mine Fast?

Steel making is done through the iron ore route as well as scrap route. Both the routes are equally popular across the world. The Blast Furnace route uses Coking coal to reduce the iron ore to hot metal, which is thereafter purified, alloyed and rolled. The reduction process releases a lot of CO<sub>2</sub>, which is a major greenhouse gas. Globally, the steel industry is responsible for more than 8 percent CO<sub>2</sub> emissions. As a result, most of the developed countries have either shifted or are in the process of shifting steel making from the BF route to the scrap route, besides exploring the Hydrogen route for reduction of iron ore. In fact, the developed countries that have sustained a high per capita steel consumption (viz. more than 200 kg) for a long time, have reached a stage of circular economy, which means that scrap generated in the country is enough to meet the ongoing steel consumption in the country.

In order to meet the CO<sub>2</sub> emission targets under COP21, the steel industry in EU is already bearing a cost of about Euro 50 per ton of steel produced through the BF route. With EU thinking of imposing a Carbon Border Adjustment tax on steel imports, the future of BF or iron ore route of steel making is not very bright. Sooner or later, most of the countries would shift steelmaking to scrap route majority, unless and until the cost of making Hydrogen from water reduces significantly. Iron ore reserves, just like coal therefore have an expiry date written on them.

If India does not exploit its iron ore and coking coal reserves in the next 30 years, these reserves would become dead assets very soon. The country needs to aim for mining atleast 400 MTPA iron ore and atleast 120 MTPA coking coal, starting 2024-25. An export of 150 MTPA iron ore would easily bring in more than Rs 1 lakh crore revenue in forex, every year.

### The Coal Scenario

To add a para on thermal coal, the same principle shall apply, as has been stated in the case of iron ore. As the world moves towards reducing CO<sub>2</sub> emissions, and as the cost per unit of solar power goes on falling with each passing

year, demand for coal shall keep on shrinking. Already, South Africa is finding it difficult to sell its coal to EU and instead focusing on the Indian market. Today, more than 60 percent of South African thermal coal is shipped to India. China has already announced that it would start reducing coal consumption in the plan window 2025-30 and become carbon neutral by 2050. The coal consumption across the world including within the country is therefore all set to go down. India therefore has a very small window of 30 years to conserve its coal reserves. It is high time that we start mining our coal out at a fast pace viz 1 Billion tons per annum for self-consumption as well as export. The Government's decision to auction coal blocks for commercial mining instead of for specific end use, would go a long way to reach this potential.

## Conclusion

The impact of this fast pacing of mining would have a direct impact on the income as well as employment generation in rural areas, as all the mines, without exception, are located in rural areas. The country's mining sector which currently provides direct employment to over 30 lakh people can easily become an employment provider to over 60 lakh people directly and 3 Cr people indirectly. Environmental sustainability of this enhanced pace of mining can be easily ensured by following the international best practices as have been enumerated above.

*(The author is Deputy Director General, Department of Posts, Email: amon3172@gmail.com. Views expressed are personal)*



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## MAINTAIN COVID APPROPRIATE BEHAVIOUR

### Do NOT lower your guard!

**Wear Double Masks**

Wear two masks for extra protection. If you have access to a N95 mask, you do not need to double mask.





**Wash Hands with Soap Often**

Wash your hands with soap several times a day, and do not rely solely on a sanitizer to maintain hygiene.

**Keep Your Home Well Ventilated**

Leave windows and doors open as often as you can.





**Maintain Physical Distancing**

Stay at least 6 feet away from others and avoid crowded spaces.

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