

Kurukshetra Summary August 2018

CREATING EFFICIENT TRANSPORT INFRASTRUCTURE FOR INCLUSIVE GROWTH

- An efficient transport infrastructure is required to provide essential linkage between resources centres of production and market as well as for promoting balanced regional growth.
- Growth in India had long been hampered by the lack of good infrastructure. On the transport front, movement of goods and people was slow and inefficient, penetration of the transport network in remote areas was inadequate.
- The slow movement of traffic was leading to valuable loss of time and heavy pollution. Precious lives were being lost in rampant accidents. The extensive network of rivers with their tremendous navigational potential remained unutilized.

The Highways Revolution

- National Highways are now being built at the rate of 27 kms per day as opposed to just 12 km per on 2011.
- Prime Minister recently inaugurated two world class expressways in NCT Delhi- the *Eastern Peripheral Expressway* and Phase I of *Delhi Meerut Expressway*. Many more such expressways are coming up in different parts of the country to reduce travel time for goods and people and bring down pollution.
- Bridges and tunnels are being built in many places to shorten distance, and bring the hitherto remote and inaccessible areas within easy reach. The *Bhupen Hazarika Bridge* over River Brahmaputra in Assam, the *Chennai-Nashri Tunnel* in Jammu & Kashmir and the *Kota Bridge* over Chambal are just a few examples.
- The Road Transport & Highways Ministry launched its ambitious programme Bharatmala.
- The programme aims to enhance the efficiency of road transport by building 50 Economic Corridors, Feeder and Inter Corridors, Border, Coastal and Port Roads and Expressways.
- It will provide improved connectivity to areas of economic activity, places of religious and tourist interest, border areas, backward and tribal areas, coastal areas and trade routes with neighbouring countries.
- With the completion of *Bharatmala*, all 550 districts in the country will get connected to national highways as against 300 districts at present.

- 35 Multimodal Logistics Parks will also be built. These parks will have go-downs, cold storage and other services required for efficient transport of goods.
- They will also have access to multi-modal transport including roadways, railways, waterways and airways wherever feasible.
- *Bharatmala* will be a major driver for economic growth in the country. It is estimated that more than 35 crore man-days of employment will be generated under Phase-I of the programme.

Promoting Green Fuel

- Government is promoting the use of clean fuels like ethanol, methanol, bio diesel, Bio-CNG and electricity. Besides bringing down pollution, these fuels, produced indigenously from agriculture waste, plants like bamboo, non-edible oilseeds, or municipal waste, will help reduce the country's huge import burden. Nagpur city is running buses on 100 percent bio ethanol and Bio CNG derived from methane from sewage water.

Safety on Highways:

- India sadly has the highest number of road accident fatalities in the world.
- 779 accident black spots have been identified across the country and are being rectified, safety features and being incorporated in road designs at DPR state and safety audit of roads are being carried out. Improved vehicular safety standards have been notified.
- The Motor Vehicle (Amendment) Bill has been passed by the Lok Sabha. The Bill addresses road safety issues by providing for stiffer penalties, making fitness certification of vehicles and issue of drivers licenses transparent by computerizing it, statutory provisions for protection of Good Samaritans and recognition of IT enabled enforcement system.

Ports as Engines of Growth:

- Government launched the *Sagarmala* programme, and declared 111 waterways as National Waterways in order to harness the potential of our seas and rivers. Sagarmala envisages industrializing ports areas so that they become engines of growth.
- There is a thrust on the setting up of Special Economic Zones (SEZs) and 12 Coastal Economic Zones around Major Ports. In addition, there are projects for modernizing ports so that they become more efficient and profitable, enhancing connectivity of ports with the hinterland through road, rail and waterways and preparing the local population with necessary skills and infrastructure for the job opportunities that will open up.
- Coastal shipping and Cruise Tourism are also poised for a big leap ahead.

- An MoU with Bangladesh for coastal movement of goods has been signed. This will open up economic opportunities in the North Eastern states.
- It is expected that *Sagarmala* will save Rs 3500-Rs 40,000 as logistics cost annually and will boost exports by about USD 110 billion. The programme is also expected to generate more than one crore direct and indirect jobs in the maritime sector, the factories that come up in port areas, the service industry, fisheries, tourism and many more.

Making Water Transport a Reality:

- Government has declared 111 waterways as National Waterways and are developing them for navigation. Water transport is cheaper than road and rail transport and also less polluting. Transportation of goods over waterways will reduce logistics cost of our products, making them more competitive.
- Work is already under implementation over 10 waterways including Ganga and Brahmaputra, Barak, Krishna, Mahanadi, Amba, Narmada etc. The World Bank aided, Jal Marg Vikas project on Ganga is progressing at tremendous speed.
- Roll On-Roll Off (Ro-Ro) services on several waterways have already started. These services are providing to very effective means of transport for local goods like fruits and vegetables as they reduce travel time between places that were earlier connected through circuitous routes. Ro-Ro service on NW-2 or River Brahmaputra is in operation between Dhubri and Hatsingimari.
- National Waterway-16 (River Barak) even has international movement of cargo to Bangladesh.

Setu Bharatam Projects for safer roads

- Launched with an aim to ensure road safety by making all National Highways free of railway level crossings, by 2019 by building railway over bridges/under passes.

Ministry of Road Transport and Highways: Green Initiatives

- **Green Highways Division in NHAI:** 2.5 lakh trees planted last year in order to make National Highways green, clean and pollution free.
- **Linking of Construction of Highways with digging of Water in drought affected areas:** This arrangement would help in restoration of such dried-up water bodies without any charge and the contractors will be able to source the requisite soil without any payment.
- **Bridge cum Barrage:** To serve the dual purpose of crossing the water body and storing water on the upstream/down stream side to serve as water reservoirs/ground water

recharging bodies.

- **Measure undertaken to combat vehicular pollution:** Emission norms for Tractors and Construction Equipment, vehicles have been notified for low Sulphur fuel, to be implemented from 01st October, 2020. The Electric vehicles are being a big push by the Ministry. India's first multi modal Electric Vehicle passenger transport project was launched in Nagpur with integrated solution of buses, taxis and E-Ricksahws.

Bharatmala Pariyojana A Stepping Stone Towards 'New India'

Bharatmala Pariyojana is a new umbrella programme for the highways sector that focuses on optimizing efficiency of freight and passenger movement across the country by bridging critical infrastructure gaps through effective interventions like development of Economic Corridors, Inter corridors and Feeder Routes, National Corridor Efficiency Improvement, Border and International connectivity roads, Coastal and Port connectivity roads and Green-field express ways.

Highlights of Bharatmala Pariyojana:

- Improvement in efficiency of existing corridors through development of Multinational Logistics Parks and elimination of choke point.
- Enhance focus on improving connectivity in North East and leveraging synergies with Inland Waterways.
- Emphasis on use of technology & scientific planning for Project Preparation and Asset Monitoring.
- Delegation of powers to expedite project delivery - Phase I to complete by 2022.
- Improving connectivity in the North East.

Key Feature:

- **Improving the quality of roads**
- **Total road construction:** The ministry will strive to complete new roads, which will add up to a whopping 34,800 kms.
- **Integrated scheme**
- **Total tenure of the program:** All is set for finishing the first phase before the end of 2022.

Bharatmala Project Category:

- Economic Corridor

- Feeder Route or Inter Corridor
- National Corridor Efficiency Improvement
- Border Road and International Connectivity
- Port Connectivity and Coastal Road
- Green Field Expressway

RURAL INFRASTRUCTURE: AN OVERVIEW

- The Rangarajan Commission (2001) defined infrastructure as having natural monopoly, non-tradability of output, bestowing externalities on society, high sunk costs or asset specificity, non-revalness in consumption and possibility of price exclusion.
- The Rakesh Mohan Committee Report (1996) and the Central Statistical Organisation (CSO) presents infrastructure as Electricity, gas, water supply, telecom, roads, industrial parks, railways, ports, airports, urban infrastructure and storage as infrastructure.

Road Infrastructure:

- The Pradhan Mantri Gram Sadak Yojana (PMGSY) primarily aims at providing all weather road connectivity to unconnected villages with about 82% connected by December 2017.
- India has one of the largest road networks in the world with about 47 lakh km of roads, which includes National Highways (NHs), Expressways, State Highways (SHs), districts roads, PWD roads, rural roads, etc. Road infrastructure caters to transport over 60% of total goods and 85% of total passenger traffic.

Invigorating India's villages with the Shyama Prasad Mukherji Rurban Mission

- To create 300 such Rurban growth clusters over the next 3 years, which will be ODF, green and also create agro based and thematic clusters based on skilled manpower and access to economic opportunities.

Communication Infrastructure:

- About 1.5 lakh Gram Panchayats are being connected with optical fibre for providing internet and Wi-Fi hotspots and access to digital services at low tariffs, through Digital India and the Bharat Net Project.
- Further the Digi-Gaon is being planned for providing the platform for the financial services, tele-medicine, education, e-governance, e-marketing and skill development.
- The Digital India Program was launched by GoI in July 2015 with a vision to transform India into a digitally empowered society and knowledge economy, with three primary

focus areas of creation of digital infrastructure, electronic delivery of services and digital literacy, and empowerment of citizens with e-participation in governance.

Renewable Energy Infrastructure:

- India is emerging as one of the largest producer of energy from renewable sources, catering to about 20% of the total installed power capacity (69.02 GW) as of 31 March 2018 and with hydro power it contributes about 33 percent.
- The wind power capacity is about 34,046 MW as of 31 March 2018, making India the fourth-largest wind power producer in the world, and it is aimed to generate 100 GW of solar power by 2022.
- Biomass power from biomass combustion, biomass gasification and bagasse co-generation reached 8.3 GW installed capacity and family type biogas plants reached 3.98 million as of 31 March 2018.
- International Solar Alliance Project is promoting the growth and development of solar power internationally to over 120 countries and India set a target of achieving 40% of its total electricity generation from non-fossil fuel sources by 2030.

Housing Infrastructure:

- Housing as a basic need and right both in rural and urban area is reflected in the Pradhan Mantri Awas Yojana - Housing for all.

National Rural Drinking Water Programme:

- The National Rural Drinking Water Programme (NRDWP) is targeted at providing every person in rural India with adequate safe water for drinking, cooking and other domestic basic needs on a sustainable basis.

Swachh Bharat Abhiyan:

- Swachh Bharat Abhiyan has been a revolutionary initiative for embedding the sense of sanitation, hygiene and health, introduced in 2014 and exhibited remarkable progress with a 85% coverage in 2018-19.
- With Swachh Bara Gramin, over 7.4 crore individual household toilets (IHHLs) have been built by May 2018, with an aim to cover 100% toilet coverage by December 2018.

Irrigation Infrastructure under PMKSY:

- A very innovative Govt of India Programme to promote productive agriculture is the Pradhan Mantri Krishi Sinchayee Yojana (PMKSY). Under this scheme convergence of investments to expand cultivated area, ensuring water use efficiency, improvement in

recharge of aquifers, treatment of waste water from all sources for agriculture etc. one taken up.

Rural Infrastructure under the Mahatma Gandhi National Rural Employee Guarantee Act (MGNREGA):

- Works undertaken under the Mahatma Gandhi Rural Employee Guarantee Act (MGNREGA) are primarily rural infrastructure development works.

Conclusion:

- Giving priority to infrastructure is a progressive measure, which can be treated as the social capital that accelerates the productive activities, livelihood and quality of lives.
- The Central Government's priority in irrigation infrastructure development supported by MSP and crop insurance, health infrastructure in terms of AIIMS and Health insurance, Stand Up and Start Up initiatives, Cashless Transaction, Direct Benefit Transfer, e-governance and m-governance, and the like, are forward looking futuristic sustainable economic and social development initiatives.

LINKING FARMERS TO eNAM

- The reforms such as enactment of APMR act in 1960, and Model APMR Act in 2003 have ushered in some desirable in some states but private investment in agriculture marketing has not been commensurate with the commercialization and diversification that have taken place in the agriculture sector.
- The agricultural marketing system in India today remains uncoordinated and fragmented, characterized by an inadequate and poorly equipped network of markets in most states, limited market support services, more efficient operations are impeded by a number of regulations and control enjoyed by the States.

Multi-faceted focus on Doubling farmers income

- *Special Focus on irrigation with sufficient budget, with the aim of "Per Drop More Crop"*
- *Provision of quality seeds and nutrients based on **Soil health of each field***
- ***Large Investments in warehousing and cold chains** to prevent post-harvest crop losses.*
- ***Promotion of value addition** through food processing.*
- *Creation of a National Farm Market and **e-platform across 585 stations.***
- *Introduction of a **New Crop Insurance Scheme** to mitigate risks at an affordable cost.*
- *Promotion of ancillary activities like **poultry, beekeeping and fisheries.***

Value addition on better income & getting the supply chain right

- *Pradhan Mantri Kisan Sampada Yojana launched to modernise supply chain infrastructure in the agricultural sector.*
- *Budget allocation doubled under the Krishi Sampada Yojana to push the food processing industry.*
- *Operation Greens: To address the challenge of price volatility of perishable commodities like tomato, onion and potato (IOP) to help farmers and consumers.*
- *Gramin Agricultural Markets (GrAMs): To develop and upgrade existing 22,000 rural haats into GrAMs to take care of the interests of more than 86% small and marginal farmers. These GrAMs, electronically linked to e-NAM will provide farmers facility to make direct sale to consumers and bulk purchases.*

Paramparagat Krishi Vikas Yojana***Blue Revolution opens up new avenues for Farmers******Umbrella Scheme, "Green Revolution-Krishonnati Yojana"***

- *11 Schemes/Missions in agriculture sector merged under one Umbrella Scheme. "Green Revolution- Krishonnati Yojana".*

- In the light of the need to have 'one nation, one market' and a barrier free marketing, it was felt to further liberalize the Act. Thus, the new Model Act "The State/UT Agricultural Produce and Livestock Marketing (Promotion & Facilitation) Act, 2017" has been introduced in the current agricultural market environment of the country.
- As per New act, the new definition of market area restricting the power of the market committee to enforce regulation in the principal market yards and sub-market yards only which is something in tune with the concept of unified market for agricultural produce.
- The Act will help in reducing price spread by enabling direct contact between farmers and consumers or other end-user categories. APLM Act provides multiple options to farmers to sell his produce. It also provides for declaring warehouses and other storage facilities as markets or sub-markets yards, it will enable linkage between the farmer and the buyer. Most important it has provisions for promoting e-trading to link markets across different geographies that will make trade more transparent.
- The Central Government announced the networking of markets through the central sector scheme of Electronic National Agricultural Market (eNAM) in 2016. eNAM is a pan-India electronic trading portal which networks the existing Agricultural Produce

Marketing Committee (APMC) markets to create a unified national market for agricultural commodities.

E National Agricultural Market-Technology Innovation

- eNAM aims for integration of marketing process and flow of goods is to be achieved by bringing inter-connectivity of markets through information technology.
- The unified online agricultural market initiatives was launched in Karnataka in 2014 and has been a precursor to E National Agricultural Market.
- The eNAM Portal provides a single window service for all APMC related information and services. This includes commodity arrivals & prices, buy & sell trade offers and provision to respond to trade offers and among other services.
- eNAM addresses the challenges of marketing by creating a unified market through online trading platform, both, at State and National level and promotes uniformly, streamlining of procedures across the integrated markets, removes information asymmetry between buyers and sellers.
- It promotes real time price discovery, based on actual demand and supply, transparency in auction process, and access to a nationwide market for the farmer, with prices commensurate with quality of his produce and online payment and availability of better quality produce and at more reasonable prices to the consumer.
- The national e-market platform will facilitate transparent sale transaction and price discovery initially in regulated markets.
- eNAM is beneficial to stakeholders and organisations.

Stakeholders	Functions	Benefits
Farmers	<ul style="list-style-type: none"> • Bring clean produce to the market • Get their name registered • Vigilant about sale proceeds, sms notification and payment settlement 	<ul style="list-style-type: none"> • Access to market and information • Transparent price discovery • Competitive price • Quick payment settlement • Quality based premium price • Better placed producers • Incentive to quality • Direct money transfer • Reduction in transaction cost • Encourages farmer's participation
Commission agents	<ul style="list-style-type: none"> • Obtaining license • Facilitating grading and quality testing of the commodities by the assayers 	<ul style="list-style-type: none"> • Increase value and volume will lead to better commission • Vertically integrate and enhance

	<ul style="list-style-type: none"> • Display of commodity for buyers • Display of quality specification and lot code • Arranging weighing of commodity 	business base
Traders, processors, exporters, retailers	<ul style="list-style-type: none"> • Obtaining license and registration • Depositing prescribed amounts as margin money before participating in online bidding • A bidding timing of trade 	<ul style="list-style-type: none"> • Availability of larger commodity base • Direct purchase will lead to reduced cost • May operating in many mandies through single license • Reduction in transaction cost
APMC	<ul style="list-style-type: none"> • Registration of farmers • Necessary arrangements for assaying of commodities • Required infrastructure like hardware, software, internet, continuous power supply, assaying equipments, personnel, etc • Shift in focus from regulation to efficiency 	<ul style="list-style-type: none"> • Larger volumes of arrivals • Efficient operations • Book keeping and reporting system collection and distribution of reliable information • Efficient delivery of duties • Better monitoring • Improvement in fee collection • Reduction in transaction cost

Major constraints in implementation of eNAM

- **Harmonization of Grades and Standards:** Trading on virtual platform will require a strong and well-established standardizing and grading system.
- **Integrating value chains:** It is required to work for the inclusion of farming commodities and farm operations into other segments of the marketing chain like storage, logistics so that it will help capture a larger share of the final value realised. A wide correlation between value chains of the producer, market channels, retailer and consumer is required to be developed.
- **Capacity building of market participants:**
- **Synergy of network organisation and market services:** There is a need for synergy of network organisation and market agencies like warehousing and collateral management agencies, financial insitutions, logistic providers training and extension organizations.

- **Pathways to integrate farmers to market:** Linking sellers and buyers to markets is a key factor that will bring better participation in the evolving markets and ensure better returns to both sellers and buyers.
- **Linkage with Market:** The ability and willingness to participate in the emerging markets driven by information technology will depend on :
 - Well-functioning markets to give them appropriate incentives.
 - Farmers have access to finance and information.
 - Efficient infrastructure to store and transport the produce at a reasonable rate.

If one component is missing, the farmer producers will not be willing to participate to the same extent. Therefore, concentrating on these components to bring holistic approach to market development is imperative to have better market integration.

- **Enabling market connectivity through market information:** FPO and collective action can help to enhance farmer's competitiveness and increase their advantage in emerging marketing system of eNAM.
- **Market Led Extension and capacity building:** Market led extension to transmit signals to farmers on new market opportunities will make physical markets to buyers and sellers.
- Empowering farmers with linking them to eNAM information, services and linkages through Led Extension is a long-term solution.
- **Linking rural periodic markets by upgrading them as GRAM:** the Rural periodic markets (RPM) need to be upgraded as Gramin Agricultural Markets (GrAM) to a function that enables aggregation and transformation from village level to wholesale market.
- **Adopting Model Agriculture Produce Livestock Market Act (2017):**
- **Warehouse and Silos to be declared as market point:** This will provide better market access to farmers. In order to declare a warehouse as a sub-market yard, warehouse which are fit to serve the purpose may be notified.
- **Towards a fully unified market:** E National Agriculture Market needs to be implemented in a phased manner to achieve a fully integrated market to the nation.
- **New Features of eNAM:** In the continuous pursuit to engage more and more farmers on eNAM, Ministry of Agriculture & Farmers Welfare has built in the mobile payment facility through BHIM App. Besides this the eNAM website is now available six regional languages besides Hindi and English.

Conclusion:

- One of the biggest challenge is creating awareness about eNAM amongst the small and marginal farmers. It is suggested to have a sensitization and awareness campaign to

bring the required information to the farmers. A national e-literacy campaign needs to be initiated to touch 130 millions farmers of the country so that the right integration of farmers with the eNAM portal can take place and give impetus to the benefit for price discovery and better access for enhancing income of farmers.

PMAY-G RURAL HOUSING REVOLUTION

- Pradhan Mantri Awaas Yojana-Gramin (PMAY-G) previously Indira Awaas Yojana (IAY), is a social welfare flagship programme, created by the Indian Government, to provide housing for the rural poor in India.
- Under the scheme, financial assistance worth Rs. 70,000 in plain areas and Rs. 75,000 in difficult area is provided for construction of houses. These houses are equipped with facilities such as toilet, LPG connection, electricity connection, drinking water and electricity connection. Convergence with other schemes e.g. Swachh Bharat Abhiyan toilets, Ujjwala Yojana, LPG gas connection, and Saubhagya Yojana is a hallmark feature of this scheme.
- The houses are allotted in the name of the woman or jointly between husband and wife.
- The broad purpose of the scheme is to provide financial assistance to some of the weakest sections of society to upgrade or construct a house of respectable quality for their personal living.
- Prime Minister launched Pradhan Mantri Awas Yojana - Gramin (PMAY-G) on 20th November 2016.
- To achieve 'Housing for all by 2022", a target of completing one crore PMAY-G new pucca houses in rural areas by 31st March, 2019 and 2.95 crore pucca houses by 2022 was set.

Transparent Implementation:

- The faster completion of quality houses under PMAY-G has been facilitated by payment of assistance directly into the beneficiary account through IT-DBT platform.
- Direct Benefit Transfer (DBT) has led to
 - Reduction in time and cost in house construction
 - Transparency leading to stoppage of leakages.
 - Ease in tracking fund flow to beneficiaries
 - Better quality of construction of houses.
- Ministry of Rural Development had developed a performance Index incorporating various parameters of progress under PMAY-G. The index acts as a tool not only to monitor progress of PMAY-G on various parameters across States, Districts, Blocks and Gram

Panchayats, but also helps in identifying areas of improvement and in motivating them towards better performance in implementation of the programme.

Ensuring Quality Construction:

- To ensure quality construction of a house and to facilitate availability of trained masons in the rural areas, Rural Mason Trainings are being organized.
- The fund are allocated to the states based on 75% weightage of rural housing shortage and 25% weightage of poverty ratio.
- A software called "AWAAS Soft" was launched to assist in improved administration of this scheme.

Shyama Prasad Mukherji Rurban Mission:

- Apart from Pradhan Mantri Awaas Yojana - Gramin (PMAY-G), the Rurban Mission has also contributed in building urban-rural clusters in villages. Large parts of rural areas in the country are not stand-alone settlement but part of a cluster of settlements, which are relatively proximate potential for growth, have economic drivers and derive locational and competitive advantages.
- These clusters once developed can then be classified as 'Rurban'. Hence taking cognizance of this, the Government of India is implementing the Shyama Prasad Mukherji Rurban Mission (SPMRM), aimed at developing such rural areas by provisioning of economic, social and physical infrastructure facilities.
- The Mission aims at development of 300 Rurban clusters.
- The larger outcomes envisaged under this Mission are : i. Bridging the rural-urban divide-viz: economic, technological and those related to facilities and services. ii. Stimulating local economic development with emphasis on reduction of poverty and unemployment in rural areas. iii. Spreading development in the region. iv. Attracting investment in rural areas.

RURAL HEALTH: EMERGING CHALLENGES

- Lack of quality infrastructure, dearth of qualified medical functionaries, and non-access to basic medicines and medical facilities thwarts its reach to more than half of India's population.
- In rural India, where the number of Primary health care centres (PHCs) is limited, 8% of the centres do not have doctors or medical staff, 39% do not have lab technicians and 18% PHCs do not even have a pharmacist.

Sub Centre:

- The Sub Centre is the most peripheral and first contact point between the primary health care system and the community. Sub centres are assigned tasks relating to interpersonal communication in order to bring about behavioral change and provide services in relation to maternal and child health, family welfare, nutrition, immunization, diarrhoea control and control of communicable diseases programme.
- Each Sub Centre is required to be manned by at least one auxiliary nurse midwife (ANM)/female health worker and one male health worker. Under National Rural Health Mission (NRHM), there is a provision for one additional second ANM on contract basis. One Lady Health Visitor (LHV) is entrusted with the task of supervision of six Sub Centres.

Primary Health Centre (PHC):

- PHC is the first contact point between village community and the medical officer. The PHCs were envisaged to provide an integrated curative and preventive health care to the rural population.
- It acts as a referral unit for 6 Sub centres and has 4-6 beds for patients.

Community Health Centres (CHCs):

- A CHC is required to be manned by four medical specialist i.e. surgeon, physician, gynecologist and pediatrician supported by 21 paramedical and other staff. It has 30 in-door beds with one OT, X-ray, labour room and laboratory facilities.
- It serves as a referral centre for 4 PHCs and also provides facilities for obstetric care and specialist consultations.

Challenges and Opportunities:

- As per the latest estimates put forward by the Minister of State for Health and Family Welfare, of the total 28,650 Primary Health Centre (PHC) in the country, 15,700 have only one doctor and 1,794 centres do not have as single doctor. Furthermore, in about 10,000 centres, there are lab technicians needed while 480 are yet to have a pharmacist.
- According to a United Nations report on healthcare, around 75% of the healthcare infrastructure, including medical specialists and doctors are concentrated in urban areas in India even though only 27% of the population lives in urban parts.
- A parliamentary committee has very recently recommended that all doctors passing from the Indian medical colleges must serve in the rural areas for at least one year so that the shortage of doctors can be addressed. Some states have made it compulsory for the medical graduates from the government medical colleges to serve in the remote areas.

Way Forward:

- The Union Budget 2017-18 has given a lot of impetus to rural health with allocation for the sector increased by around 27% but the investment can bring huge change only if the private sector provides a matching investment to boost rural health care infrastructure.
- Information Technology (IT) can play a big role with IT applications being used for social-sector schemes on a large scale to improve access to healthcare in rural parts.

Ayushman Bharat: Rural Healthcare Redefined

- The country has one of the lowest per capita healthcare expenditures in the world. Government contribution to insurance stands at roughly 32 percent, as opposed to 83.5 per cent in the UK. The high out-of-pocket expenses in India stem from the fact that 76 per cent of Indians are yet to get health insurance.
- The Government has introduced universal health protection scheme called Ayushman Bharat. Twenty five states have already signed with the Union Health Ministry till end of June to start the scheme.
- Ayushman Bharat will provide comprehensive healthcare to the people as 1,50,000 sub-centres will be converted into Health and Wellness Centres (HWCs). "The H&WC would provide preventive, promotive, and curative care for non-communicable diseases, dental, mental, geriatric care, palliative care, etc. "It will be cashless and paperless access to services and will be available for the beneficiary families at the point of service in both public and private empanelled hospitals across India"
- The scheme will cover over 10 crore poor and vulnerable families providing coverage upto 5 lakh rupees per family per year for secondary and tertiary care hospitalization. Ayushman Bharat - National Health Protection Mission will subsume the on-going centrally sponsored schemes - Rashtriya Swasthya Bima Yojana (RSBY) and the Senior Citizen Health Insurance Scheme (SCHIS).
- At the national level to manage, an Ayushman Bharat National Health Protection Mission Agency (AB-NHPMA) would be put in place. States/UTs would be advised to implement the scheme by a dedicated entity called State Health Agency (SHA).
- The expenditure incurred in premium payment will be shared between Central and State Governments in specified ratio as per Ministry of Finance guidelines in vogue.

Conclusion:

- Healthcare delivery in rural India is now uniquely poised to undergo a change at all its stages - prevention, diagnosis, and treatment, as the government focus on the sector

has increased a lot in the recent past. The real change will come when public and private sectors come together to fill in the gaps and ensure that medical personnel are deployed in adequate numbers in rural India.

TRANSFORMING DRINKING WATER INFRASTRUCTURE

- To quickly and effectively transform backwards districts by 2022 in line with the Government's vision of creating a 'New India', NITI Ayog has recently launched the Aspirational Districts Programme.
- In this context, 115 districts have been selected by NITI Ayog from 28 states based on six socio-economic parameters, pertaining to health and nutrition, education, financial inclusion and skill development, agriculture and water resources, and basic infrastructure including drinking water is one of the core dimensions. For this, the Government promotes Public-Private Partnerships (PPPs), aided by technology to bring radical transformation of these aspirational districts.
- A direct relationship exists between drinking water, health and overall well-being. Consumption of contaminated drinking water along with lack of personal hygiene and improper disposal of waste has been the major causes of many diseases in rural areas of India. High rates of infant mortality, severe wasting and stunting among children, high rates of morbidity among the populace and overall low life expectancy can be largely attributed to unsafe drinking water.
- It was in this context that the NRDWP was launched in 2009 with the aim to provide every rural person with adequate safe water for drinking, cooking and other basic needs on a sustainable basis, with water quality standards, which should be conveniently accessible at all times and in all situations.
- The NRDWP emphasizes on community contributions and community management for providing safe drinking water at grassroots level through institutions like Panchayat Raj Institutions (PRIs) and Village Water and Sanitation Sub committees (VWSSCs).
- The focus of NRDWP is shifting towards providing piped water supply.
- The recently announced Swajal schemes in 155 aspirational districts of the country aim to provide villages with piped water supply powered by solar energy. The scheme trains hundreds of rural technicians for operation and maintenance of Swajal units.
- This scheme is launched by the Government for sustained water supply in rural areas. 90 percent of this project is funded by the Government and 10 per cent is funded by the beneficiary communities. The management of this operation is in the hands of local

villagers and hundreds of technicians would be trained under this scheme to maintain and operate the units.

Youth as agents of change

- According to government of India data, 63.5 million people in 20-35 age group have entered the workforce in the last five years. With 55 per cent of the Indian population below the age of 25, India can boast of the largest youth population in the world - a trend that is likely to continue for at least the next two decades. This is called a demographic dividend - a large number of growth for a long time.
- India as a young Nation, after conceding its position as the fastest growing major economy to China for a year in 2017, is likely to reclaim the position in 2018, with growth expected to accelerate to over 7.3% in the year as per the World Bank's Global Economic Prospects report.
- The World Bank also revised India's growth estimate for 2017 to 6.7% from 7% projected in October, blaming short-term disruptions caused by the newly introduced goods and services tax (GST) and a softer-than-envisioned recovery in private investment. Global growth is projected to edge up to 3.1% in 2018, as growth in advanced economies is projected to slow while growth in emerging economies is expected to accelerate.
- India jumped 30 spots to rank 100 in the Ease of Doing Business list brought out by World Bank.
- While India saw an improvement in six out of ten indicators of ease of doing business, the country still didn't see improvement in trading across borders.
- To ensure that tax compliances the government has also introduced 'RAPID-revenue, accountability, probity, information and digitalization' for administrating the tax reforms. To improve trade across borders, online message exchange system for import clearances of agricultural commodities has been established along with the Import Data Processing and Management System (IDPMS) for data processing for payment.
- By curbing cascading taxes, GST has also reduced the cost of local production. GST is expected to bring more businesses from the unorganised to the organised sector, thereby increasing efficiency and productivity and attracting more foreign direct investment.
- Paying taxes has become easier in India because of factors like the introduction of GST and digitization of process. A fact that is captured succinctly in the World Bank Doing Business Report 2018. India improved its ranking on the Paying Taxes indicator in the report by 53 places.

- A social revolution is brewing in India under the Jan Dhan Yojana for financial inclusion, Aadhar biometric identification and mobile telecommunications.
- Through Bharat net project more than 100,000 Gram Panchayats or Village Councils now have access to high-speed broadband.
- BharatNet is expected to make digital delivery of services for health, education, livelihood, skills training, e-agriculture and e-commerce available to the rural poor, in addition to generating massive employment opportunities. Apart from BharatNet, India has more than 1 billion mobile phone subscriptions and 462 million Internet users. India improved its ranking on the Technology Readiness Pillar of the World Economic Forum's Global Competitiveness Index 2017 by three places.
- With all these developments taking place in India, there are several challenges the country is confronting with today such as rapid urbanization, corruption, healthcare, education pollution, poverty, women safety, infrastructure gap, unemployment etc.
- A recent report from the World Health Organization, drawing on measurements and calculations as of 2016 from air monitoring stations in 4,300 cities, establishes clearly that air pollution is a global problem. A whopping nine in 10 people on Earth breathe highly polluted air, and more than 80 percent of urban dwellers have to endure outdoor pollution that exceeds health standards, according to the WHO's World Global Ambient Air Quality Database. 11 of the 12 cities with the highest levels are located in India.

National Generic Document Registration System adopted in Punjab and Andman & Nicobar Islands

- To aptly address the diversity and variations prevailing across Resources has developed a National Generic Document Registration system (NGDRS) through the National Informatics Centre (NIC) to include the requirements of all the states. This generic customizable software, when universally adopted in the country, will enable 'anywhere access' to data and information to both the common man and the enforcement and regulatory agencies. The transparency will be promoted due to registration through digital means and people will get the benefits in a hassle-free manner.
- The NGDRS system has been piloted in 3 states (Punjab, Rajasthan, Maharashtra,). 6 more states and UTs(Goa, A&N Islands, Bihar, Jharkhand, Manipur, Mizoram) are moving towards this system.

- Computerization of sub-registrar offices is being given focussed attention. Out of total 5083 sub-registrar offices in the country, 4509 have been computerized and 2769 have been connected with tehsils.

Connecting the unconnected

- Rural connectivity is a key component of rural development in India. The construction of roads brings various socio economic benefits to the rural areas and result in forming a strong backbone for the agro-based economy. Pradhan Mantri Gram Sadak Yojana (PMGSY) mainly focuses on development of rural roads. PMGSY was launched on 25th December, 2000 as a centrally sponsored scheme to provide road connectivity in rural areas of the country.
- The primary objective of the programme was to provide connectivity by way of all-weather roads to unconnected habitations with population of 1000 and above by 2003 and those with population of 500 and above by 2007 in rural areas.
- Upgradation of selected rural roads to provide full farm to market connectivity is also an objective of the scheme.
- The works are executed by the state governments and monitored by the Ministry of Rural development through National Rural Road Development Agency (NRRDA) set up for the purpose.
- Adequate maintenance of the existing 4.6 million km of road network is emerging as a major challenge. Many parts of the existing road network are either vulnerable to or have already suffered damage from climate induced events such as floods, high rainfall, sudden cloud bursts and land-slides.
- The PMGSY and the World Bank's involvement under this additional financing, will emphasize on managing the rural road network through green and climate-resilient construction using green, low-carbon design and new technologies.
- The Additional Financing will also fill the gender gap by creating employment opportunities for women in construction and maintenance. The earlier project had piloted community-based maintenance contracts through women self-help groups (SHGs) for routine maintenance of 200 km of PMSGY roads in Uttarakhand, Meghalaya and Himachal Pradesh.

Impact of PMGSY:

- In agriculture sector, the scheme has opened avenues for increase in usage of fertilizers and improved seeds, affected change in cropping patterns, facilitated increase in use of motorized agriculture vehicles and equipments, triggered increase in production of dairy,

poultry and allied activities besides increase in accessibility to markets for selling agricultural produce. It has led to increase in employment opportunities in agriculture sector and increase in employment opportunities outside the village due to greater mobility.

- The all weather roads have provided better access to Health Centres, better Availability of vehicles to reach hospitals PMGSY has to some extent contributed to increase in attendance and enrolment of Primary & Middle schools. The other benefits of PMGSY include a diversified livelihood's portfolio, and improved quality of life for rural communities.

PMGSY Bottlenecks:

- Wide variation in unit costs among the states.
- Maintenance of road network i.e. generating funds for road maintenance through appropriate local mechanism.
- Delays in execution due to adverse weather conditions e.g. monsoon, landsides etc.
- Delays in acquiring land and in forest clearance
- Law and order problems
- Non-availability of labour and material
- Lack of technically trained staff to execute and monitor road works.

The Way Forward:

- For reducing cost of rural road construction the non-traditional but durable and less expensive materials such as iron and steel slag, fly ash and lime that are locally and easily available may be adopted for road maintenance.
- Work should be scheduled after monsoons to avoid cost overruns due to delays. Build-Operate-Transfer (BOT) should be adopted for developing rural roads.

Lighting a billion lives

- Rural electrification is the backbone of rural economy and a basic input for rapid rural development. It is also the main infrastructure for ensuring speedy growth of the agriculture sector and agro based industrial structure in rural areas.
- A village is considered electrified if it has provision of basic infrastructure such as distribution transformers and lines in the inhabited locality, provision of electricity in public places like schools, panchayat office, health centres, dispensaries, and community centres, and at least 10% of the total number of households in the village are electrified.

Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY)

- The Deen Dyal Upadhyaya Gram Jyoti Yojana (DDUGJY) was launched on 25th July 2015 in Patna by the Prime Minister. The DDUGJY is one of the flagship programmes of the Ministry of Power aimed at facilitating 24x7 supply of electricity.
- It focuses on feeder separation (rural households and agricultural) and strengthening of sub-transmission and distribution infrastructure including metering at all levels in rural areas.
- The feeder separation is a strategic move to provide round the clock power to rural households and adequate power to agricultural consumers as well. One of the earlier schemes for rural electrification viz. Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) has been subsumed in the new scheme as its rural electrification component.
- The major components of the scheme are feeder separation; strengthening of sub-transmission and distribution network; Metering at all levels (input points, feeders and distribution transformers); Micro grid and off grid distribution network & Rural electrification-already sanctioned projects under RGGVY to be completed.

Pradhan Mantri Sahaj Bijli Har Ghar Yojana (Saubhagya):

- Under Saubhagya free electricity connections to all households (both APL and poor families) in rural areas and poor families in urban areas are being provided.
- Rural Electrification Corporation (REC) has been designated as its nodal agency for the Saubhagya scheme. Under the Saubhagya scheme, DISCOMs or the state electricity distribution utilities organize camps in villages or cluster of villages to facilitate on-the-stop filling up of applications to households, They also adopt innovative mechanism through dedicated web-portal and mobile app for collection and consolidation of application form in electronic mode and also capturing process of release of electricity connections.

Salient Features:

- All DISCOMs including the private sector DISCOMs, State Power Departments and RE Cooperative Societies are eligible for financial assistance under the scheme in line with DDUGJY.
- The prospective beneficiary households for free electricity connections under the scheme would be identified using SEC 2011 data. However, un-electrified households not covered under SECC data are also provided electricity connections under the scheme on payment of Rs. 500, which shall be recovered by DISCOMs in 10 instalments through electricity bill.

The Way Forward:

- The per capita energy consumption in India remains well below the world averages. This low level of energy availability and consumption tends to affect the poorest the most.
- The Government has made clean energy a priority. It has set ambitious target to achieve 175 GW energy through renewable sources of energy, which include 100 GW of solar energy.
- A capacity addition of 22,566 MW was achieved in the last year which is the highest ever. The peak shortage has reduced from 11.9% in 2008-09 to 3.2%, the lowest ever. Energy deficit during the current year has also reduced from 11.1 in 2008-09 to 2.8%, the lowest ever in the history of India.
- On transmission front, there used to be a lot of constraints in supplying power from surplus states to deficit states. Efforts were made to expeditiously synchronize the Southern Grid leading to 'One Nation, One grid, One Frequency'.
- Areas like energy efficiency have seen a dynamic growth with more than 75% reduction in LED bulb prices and distribution of more than 4 crore bulbs in less than one year.
- The domestic and streetlight LED bulb programmes will help reduce the peak-load demand by nearly 22 GW, save 11,400 crore units of electricity annually and bring about a reduction of 8.5 crore tons in carbon dioxide emissions every year.

