

2ND INDIA-NORDIC SUMMIT



HOLISTIC HEALTHCARE



RAILWAY CONNECTIVITY



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PIB

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GENERAL STUDIES - II

01

2ND INDIA-NORDIC SUMMIT

Context

- Recently, the Prime Minister of India participated in the 2nd India-Nordic Summit along with the Prime Minister of **Denmark, Iceland, Norway, Sweden and Finland**.

About the summit

- The Summit provided an opportunity to review the progress of the India-Nordic relations since the **1st India-Nordic Summit**, which was held in 2018 in Stockholm.
- The summit focus discussion on various area which include:
- Multilateral cooperation in post-pandemic economic recovery**
- Climate change**
- Sustainable development**
- Innovation and digitalization**
- Green and clean growth.**

Principal focus

The principal focus of discussion and partnership was on:

- Blue Economy and its various facets especially **in India's Sagarmala project**.
- Renewable energy-in particular, cooperative possibilities in hydroelectric and green hydrogen technology and investment ties-in.
- Cooperation relating to joint research in vaccines and the development of health infrastructure.
- Cooperation in building and restoring water bodies.



India's Arctic Policy

- India's Arctic Policy, released by the Government of India in March 2022 fulfills a longstanding need for a clear articulation on a rapidly transforming Arctic, which is warming three times faster than the rest of the world.
- This is leading to major transformation of global shipping routes and increased availability of mineral and hydrocarbon resources, both of which are likely to have an immense impact on the geo-political and resources landscape of the world, including India, in the coming years.
- The Prime Minister noted that India's Arctic Policy provides a good framework for expansion of India-Nordic cooperation in the Arctic region.
- The Prime Minister invited the sovereign wealth funds of the Nordic countries to invest in India.



02

PLASTINDIA 2023

Context

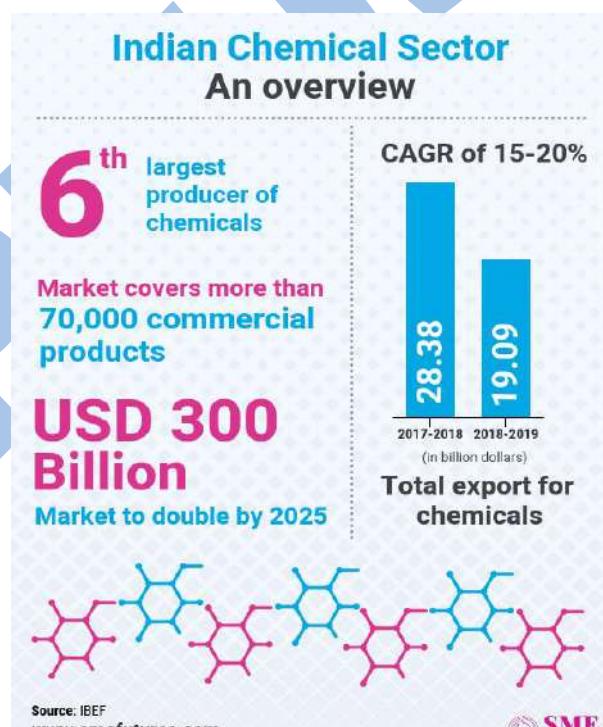
- The Union Minister for Chemicals & Fertilizers has recently launched the PLASTINDIA 2023.

About PLASTINDIA 2023

- PLASTINDIA refers to a series of exhibitions under the Plastindia Foundation.
- The exhibition provides opportunities for employment generation, facilitates the growth of the Indian plastic industry and makes India a hub for sourcing plastic for global needs.
- PLASTINDIA 2023 will showcase India as the global hub for sourcing processed items related to Plastics, Raw materials, Machinery and products for use in all segments of human life.

India's Chemical industry

- The India's Chemical industry has become a global player and earns foreign exchange for the nation with the "Make in India, Make for World" approach.
- India's Petrochemical Industries has been one of the fastest-growing industries in the Indian economy with high demand growth.
- India is projected to contribute more than 10% of the incremental global growth in Petrochemicals over the next decades.
- Exports of Indian Chemicals have registered growth of 106% in 2021-22 over 2013-14.
- The Indian government is supporting the plastic industry by developing common infrastructure for all industries.



Significance

- The exhibitions of PLASTINDIA 2023 are important because it will attract international plastic players to the country and provide a platform to learn and exchange ideas and technology.
- The petrochemicals industry should develop a strategy to reduce high carbon footprint, and ocean pollution and focus on adopting green technologies to achieve net-zero emissions by 2070 to realize the Prime Minister's Vision of Panchamrit.
- There is a need for a holistic approach to create an atmosphere for the industrialists to be able to compete globally.

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03

MISSION AMRIT SAROVAR

Context

- Recently, the Prime Minister launched a new Mission on Amrit Sarovar in April 2022, With a view to conserve water for the future.

About the mission

- This Mission has been launched with a whole Government Approach in which 6 Ministries/Department namely Dept of Rural Development, Department of land resources, Department of Drinking Water and Sanitation, Department of Water resources, Ministry of Panchayati Raj, Ministry of Forest, Environment and Climate changes.

Aim of Mission

- The Mission is aimed at developing and rejuvenating 75 water bodies in each district of the country as a part of celebration of Azadi ka Amrit Mahotsav.
- In total, it would lead to creation of 50,000 water bodies of a size of about an Acre or more.
- The Mission would encourage the mobilization of citizen and non-govt resources for supplementing these efforts.

Targets under the mission

- The Mission Amrit Sarovar is to be completed by 15th August 2023.
- Around 50,000 such Amrit Sarovar may be constructed in the country.
- Each of these Amrit Sarovar will have approx. area of 1 acre with a water holding capacity of 10,000 cubic meter.

04

BHARAT TAP INITIATIVE

Context

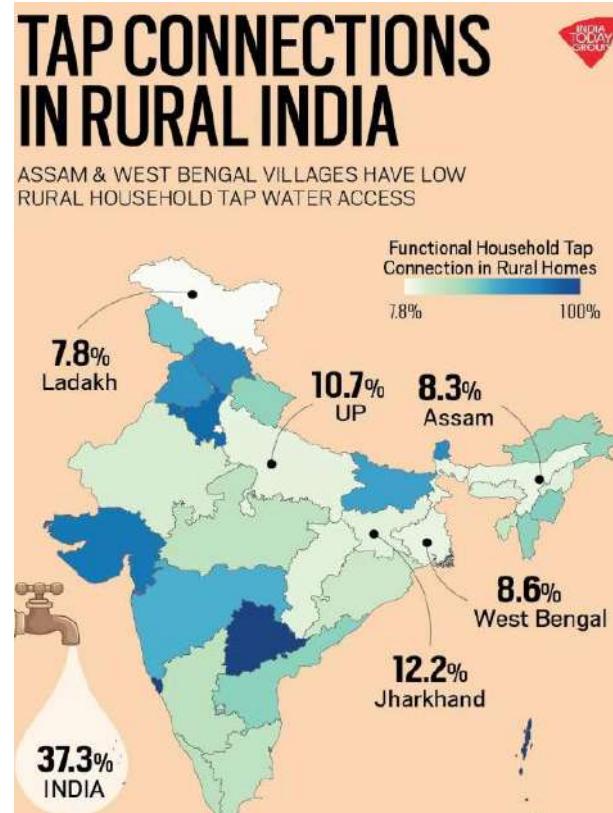
- Recently, the Union Minister for Housing and Urban Affairs has launched the BHARAT TAP initiative at the 'Plumbex India' Exhibition.

About BHARAT TAP Initiative

- BHARAT TAP initiative is to provide low-flow, sanitary-ware at scale, and thereby reduce water consumption at source considerably.
- The initiative will be accepted quickly in the country and will lead to a renewed focus on water conservation efforts.
- It is a concept to use low flow taps and fixtures.
- It is estimated to save approximately 40% of water. This will in turn result in water saving and energy saving due to less water and energy will be required for pumping, transporting, and purification.

Toilet coverage in India

- India went from 38% toilet coverage to 100% toilet coverage in rural areas while also building 73.32 lakh household and community toilets in urban areas.
- The Swachh Bharat Mission became a Jan Andolan that inspired the country towards safe and proper sanitation.



AMRUT

- AMRUT has been critical in facilitating the journey of Swachhata, the mission has been instrumental in the creation of basic infrastructure – with the major allocation going towards water supply and sewerage/septage, he added.
- AMRUT 2.0 will provide 100% coverage of water supply to all households in around 4,700 ULBs through 2.68 crore tap connections and 100% coverage of sewerage and septage in 500 cities through 2.64 crore sewer connections.

Basic need unmet

While seven States in the country have 100% tap water coverage in schools, three have abysmally low coverage of less than 15%

States with 100% tap-water coverage

State

Andhra Pradesh

Goa

Tamil Nadu

Haryana

Himachal Pradesh

Telangana

Punjab



Least coverage

State	% of schools with tap water supply
Uttar Pradesh	7.93
West Bengal	10.89
Jharkhand	12.99

05

PM CARES BENEFITS FOR COVID ORPHANS

Context

- The Prime Minister has recently released benefits under PM Cares for children who lost parents to Covid-19.
- Under this Scheme, an initiative was started in Feb 2022 to provide financial assistance to support such children who have lost both the Parents or legal Guardian or Adoptive Parents or Surviving Parent to COVID-19 pandemic.

PM Cares for Children Scheme

- The PM Cares for Children Scheme was launched by the Prime Minister on May 29, 2021, to support children who have lost both their parents or legal guardian or adoptive parents or surviving parents to the pandemic.
- The Prime Minister said if someone needs an education loan for professional courses, for higher education, then the PM-Cares will help in that too.
- ₹ 4,000 have also been arranged for them every month through other schemes for other daily needs.
- The scheme offers a lump sum amount of ₹10 lakh when children turn 23 years old as well as a monthly stipend from the age of 18 to 23.



Objective of the scheme

The objective of the scheme is to:

- Ensure comprehensive care and protection of children in a sustained manner by providing them boarding and lodging
- Empowering them through education and scholarships
- Equipping them for self-sufficient existence with financial support of ₹10 lakh on attaining 23 years of age and ensuring their wellbeing through health insurance.

Online portal children

- An online portal by the government was launched to register the children.

- The portal is a single-window system which facilitates the approval process and all other assistance for children.

PM Cares fund

- In March 2020, Prime Minister's Citizen Assistance and Relief in Emergency Situations Fund or PM CARES Fund was set up to tackle distress situations such as that posed by COVID-19 pandemic.
- The fund receives voluntary contributions from individuals and organizations and does not get any budgetary support.
- Donations have been made tax-exempt, and can be counted against a company's corporate social responsibility (CSR) obligations.
- The PM Cares fund helped a lot in preparing hospitals, buying ventilators, and setting up oxygen plants during the pandemic.

GENERAL STUDIES - III

01

AMENDMENTS TO THE NATIONAL POLICY ON BIOFUELS - 2018

Context

- Recently, the Centre had approved amendments to the National Policy on Biofuels, 2018, to advance the date by which fuel companies have to increase the percentage of ethanol in petrol to 20%, from 2030 to 2025.
- The policy to introduce 20% ethanol in petrol will take effect from April 1, 2023.

The main amendments approved to the National Policy on Biofuels of 2018 are

- Allowing more feedstocks for production of biofuels
- Advancement of the target of 20 percent blending of ethanol in petrol to ESY 2025-26 from 2030
- Promotion of the production of biofuels in the country, under the Make in India programme, by units located in Special Economic Zones (SEZ)/ Export Oriented Units (EoUs)
- Granting permission for the export of biofuels in specific cases.

Merits of decision

- As per the government the new policy would allow more feedstock for producing biofuel and foster the development of indigenous technologies.
- A 2021 report by the NITI Aayog said that "immense benefits" would accrue to the country by 20% ethanol blending by 2025, such as saving ₹ 30,000 crore of foreign exchange per year.
- Other major advantages include:
 - Increased energy security
 - Lowered carbon emissions
 - Better air quality
 - Self-reliance
 - Better use of damaged foodgrains
 - Increased farmers' incomes and investment opportunities

Ethanol blending status

- According to the Ministry of Petroleum and Natural Gas, India achieved 9.45% ethanol blending as on March 13, 2022.
- The government had projects that Ethanol blending will reach 10% by the end of financial year 2022.
- The Centre first announced its plans of advancing the 20% blending target in December 2020.

About biofuel policy

- The National Biofuel Policy was introduced in 2018 and is aimed at reducing dependence on imports by encouraging fuel blending.
- With bioethanol, biodiesel and bioCNG in focus, its key parts include:
- Ethanol Blending Programme (EPB)

- Production of second-generation ethanol (derived from forest and agricultural residues)
- Increasing capacity for production of fuel additives
- R&D in feedstock, which is the starting material for ethanol production
- Financial incentives for achieving these goals

02

GATISHAKTI SANCHAR PORTAL

Context

- The Union Minister of Communications, Electronics and IT has launched GatiShakti Sanchar Portal for Centralized Right of Way (RoW) approvals.

About the Portal

- The Gati Shakti Sanchar portal will centralize and speed up approvals for laying of fiber and tower installations, boosting upcoming 5G roll out.
- The portal will facilitate centralised Right of Way (RoW) approvals.
- An online platform for the industry to apply for RoW approvals as they build telecom infrastructure, including for 5G services.
- The portal offers a unified, integrated, centralised approach covering all states and UTs, and central government ministries.
- The portal will enable applicants from various Telecom Service providers (TSPs) as well as Infrastructure providers (IPs) to apply for Right of Way permissions to lay down Optical Fiber Cable.

Significance

- GatiShakti Sanchar Portal will help in the rollout of 5G network across the country.
- Integration of various infrastructures on this portal will help get clearance of right-to-way applications within a span of 20 to 22 days.
- The portal will act as an enabler to the objective of Ease of doing business for telecommunications infrastructure works.
- The Portal is expected to give a fillip to the nation's Atma Nirbhar movement, contributing actively to transforming the country into a digitally empowered society and knowledge economy.

03

LAUNCHES OF TWO INDIENOUS FRONTLINE WARSHIPS

Context

- Recently, the defence Minister has launched two frontline warships namely - Surat (Guided Missile Destroyer) &Udaygiri (Stealth Frigate) of the Indian Navy which will mark a significant milestone in their construction.

Under what projects are they built

- Both ships are designed by the Directorate of Naval Design.
- Surat is the fourth ship built in India under Project 15B.
- Surat is a Visakhapatnam Class guided-missile destroyer, which has the capability to attack other ships.
- The ship 'Surat' is the fourth and last of the stealth destroyers under the 'Project 15B' programme.
- The Project 15B class of ships are the next generation stealth guided missile destroyers of the Indian Navy being built at the Mazgaon Docks Ltd in Mumbai.
- The second ship, Udaygiri is the second warship produced under Project 17A of the Nilgiri Class frigates.
- Udaygiri is a Nilgiri Class frigate, which is usually faster and more maneuverable.
- The first vessel under the project, INS Nilgiri, was launched in September 2019.
- Ships under the P15B and P17A projects are being built at the Mazagon Dock Shipbuilders Ltd.

Capability of Navy

- The Indian Navy present fleet includes more than 130 ships and submarines and over 230 aircraft.

- The Navy divides its combat capabilities under three large categories: Surface ships, Naval aviation; and sub-surface.
- Surface ships form the largest part of the Navy's fleet.
- It includes corvettes, frigates, destroyers; amphibious warfare vessels like landing platform docks, landing ship tanks; amphibious boats like landing craft utility; large offshore patrol vessels; several types of auxiliary ships; small fighting ships; fast attack craft; survey ships and training vessels.

Underwater capacity

- In underwater capacity, the Navy has 16 conventional diesel-electric submarines, which are classified as SSKs, with two more Kalvari Class subs launched but yet to be commissioned.
- India also has two nuclear ballistic submarines, classified SSBN, but these are under the Strategic Forces Command.

04

JITO CONNECT 2022

Context

- Recently, the Prime Minister addressed the inaugural session of Jain International Trade Organization's 'JITO Connect 2022' via video conferencing.

About Jain International Trade Organisation

- The Jain International Trade Organisation (JITO) is a global organisation connecting Jains worldwide.
- JITO Connect is an endeavor to help business and industry by providing an avenue for mutual networking and personal interactions.

Objectives

- Create managed knowledge Institutions and Value Based Education.
- Growth in business by mutual cooperation, avoidance of criticism and opposition-'Ekta se Safalta'.
- Create Platform for young entrepreneurs for right Business contacts.
- Promote governance and politics & value-based people.
- To encourage fellow brethren to positively participate and contribute in the political, bureaucratic and legal framework.
- To channelize united and systematic efforts towards creating a bright future for the youth.
- To provide a platform for young entrepreneurs to interact and gain purposeful knowledge from the experienced and well-established business leaders.



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NEWS IN BRIEF

National Data & Analytics Platform

- NITI Aayog has recently launched the National Data & Analytics Platform (NDAP) for open public use.
- The platform aims to democratize access to public government data by making data accessible, interoperable, interactive, and available on a user-friendly platform.
- It hosts foundational datasets from various government agencies, presents them coherently, and provides tools for analytics and visualization.
- NDAP follows a use-case based approach to ensure that the datasets hosted on the platform are tailored to the needs of data users from government, academia, journalism, civil society, and the private sector.



National Open Access Registry (NOAR)

- Recently the National Open Access Registry (NOAR) has successfully gone live from 1st May 2022.
- NOAR is part of the Ministry of Power; Government of India's initiative and the required regulatory framework has been notified by the CERC through operationalization of the 5th Amendment Regulation of Open Access in inter-State Transmission
- It has been designed as an integrated single window electronic platform accessible to all stakeholders including open access participants, traders, power exchanges, national/regional/state load dispatch centers for electronic processing of short-term open access application thereby automating the administration of the short-term open access in inter-state transmission system.
- The NOAR platform shall act as a repository of information related to short term open access in inter-state transmission including standing clearance issued by RLDCs or SLDCs and short-term open access granted to the open access customers etc.

Growth in India's Pharma exports

- Indian pharma exports witnessed a growth of 103% since 2013-14, from Rs. 90,415 Crores in 2013-14 to Rs. 1,83,422 Crores in 2021-22.
- It is a remarkable growth with exports growing by almost USD 10 billion in 8 years.
- The pharma exports in 2021-22 sustained a positive growth despite the global trade disruptions and drop in demand for COVID related medicines.
- India ranks 3rd worldwide for production by volume and 14th by value.
- The current market size of the Indian pharmaceutical industry is around USD 50 billion.
- As part of the trade agreements, India also signed a cooperation agreement with UAE and Australia which will give enhanced access to Indian pharma products to these markets.



Bharat Drone Mahotsav 2022

- The Prime Minister has recently inaugurated the Bharat Drone Mahotsav 2022 at Pragati Maidan, New Delhi.
- Bharat Drone Mahotsav 2022 is a two-day event and is being held on 27th and 28th May, 2022.
- More than 70 exhibitors will display various use cases of drones at the exhibition.
- Mahotsav will also witness a virtual award of drone pilot certificates, product launches, panel discussions, flying demonstrations, display of a Made in India Drone Taxi prototype, among others.



PARAM ANANTA Supercomputer

- Recently, the Centre for Development of Advanced Computing (C-DAC) and IIT Gandhinagar have unveiled India's latest supercomputer known as PARAM ANANTA Supercomputer.

About Param Ananta Supercomputer

- It is a joint initiative of Ministry of Electronics and Information Technology (MeitY) and Department of Science and Technology (DST),
- The high-power supercomputer can process 838 lakh crore calculations per second.
- It is Indigenously developed, Manufactured and assembled under 'Make in India'.

Significance

- PARAM ANANTA Supercomputing Facility will be of great benefit to IIT Gandhinagar to pursue the Research and Development (R&D) activities in multidisciplinary domains of science and technology at the Institute.



The supercomputer other advantages include:

- Artificial Intelligence (AI), Machine Learning (ML), and Data Science
- Bio-engineering for Genome Sequencing and DNA studies
- Climate Change and Environment studies
- Fire Dynamics Simulation
- Nanotechnology and Robotics

BILATERAL AGREEMENTS AND SUMMITS

India-UAE Comprehensive Economic Partnership Agreement (CEPA)

- The historic India-UAE Comprehensive Economic Partnership Agreement (CEPA) was signed between India-UAE recently.
- The FTA Comprehensive Economic Partnership Agreement (CEPA) is expected to be in focus during a virtual summit between the Prime Minister of India and the Crown Prince of Abu Dhabi.
- The agreement will provide both the leaders an opportunity to discuss “bilateral cooperation and exchange views on regional and international issues of mutual interest”.
- India-UAE trade was expected to revert to pre-pandemic level this year and touch \$60 billion in this financial year.

Investment in Jammu and Kashmir

- The government of India has also noted that UAE was one of the foreign countries that had displayed interest in investing in the Union Territory of Jammu and Kashmir.
- Investment from the UAE has steadily grown and has reached \$17 billion.
- UAE's Century Financial has signed an MoU to invest \$100m in Jammu and Kashmir.
- The investment will cover three hotels and one commercial-residential complex in the union territory.
- UAE-based retail major Lulu group will invest ₹ 200 crore in Jammu and Kashmir to set up a food processing and logistic hub.

Gem exports

- The FTA has found support from the Gem and Jewellery Export Promotion Council (GJEPC) which has announced that the deal will push jewellery exports to the Gulf country to the level of \$10 billion.
- The GJEPC said that the sector has already crossed ₹ 2.4 lakh crore, marking a post-pandemic recovery.
- UAE is a gateway to the entire Middle East region and the proposed abolition of 5% import duty in UAE would lead to increased prosperity on both sides.
- CEPA is expected to increase the total value of bilateral trade in goods to over US\$100 billion and trade in services to over US\$ 15 billion within five years.

India-Japan ICT Comprehensive Cooperation Framework

- Recently, the 7th India-Japan information and communication technology (ICT) Joint Working Group meeting has been held virtually under India-Japan ICT Comprehensive Cooperation Framework.
- The meeting deliberated on the best practices and experience on Open RAN, Massive MIMO, Quantum Communications, Connected Cars, 5G Use cases and 6G Innovation.
- The 7th JWG agreed to enhance cooperation under the framework of the Memorandum of Cooperation (MoC) between India and Japan.

India-Japan Digital Partnership

- India-Japan aims to enhance the digital economy through the promotion of joint projects for digital transformation.
- India and Japan share a common vision of a peaceful, stable and prosperous world and this has now taken the shape of a “Special Strategic and Global Partnership”.
- The year 2022 marks the 70th anniversary of India Japan Diplomatic relations, the ICT is being considered the key driver of cooperation between both countries to build a robust foundation for the present and future world.

MILITARY EXERCISES IN NEWS

EXERCISE EX SAMPRITI-X

- A joint military training exercise between India and Bangladesh has commenced recently at Jessore military station in Bangladesh.
- Exercise SAMPRITI is an important bilateral defence cooperation endeavor conducted alternately by both countries which aims to strengthen and widen the aspects of interoperability and cooperation between both the armies.

Aim

- The aim of the exercise is to strengthen interoperability between the two armies and to understand each other's tactical drills and operational techniques.
- During the joint military exercise Ex SAMPRITI-X, armies of both the Nations shared expertise in multiple simulated scenarios of Counter Terrorism, Humanitarian Assistance & Disaster Relief and UN Peacekeeping Force under UN mandate.

Ex Khaan Quest 2022

- A Multinational Peacekeeping exercise "Ex Khaan Quest 2022" featuring participation from military contingents from 16 countries has commenced in Mongolia.
- The Indian Army is represented by a contingent from the LADAKH SCOUTS.
- The exercise will also enable sharing of best practices between the Armed Forces of participating nations and will include field training exercises, combat discussions, lectures and demonstration.

Aim

- The 14-day exercise is aimed at:
- Enhancing interoperability
- Building military to military relationships
- Developing peace support operations
- Military readiness among participating nations
- The military exercise will enhance the level of defence co-operation between Indian Army and participating countries especially with the Mongolian Armed Forces which will enhance bilateral relations between the two countries.



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YOJANA

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- Holistic Healthcare
- Safeguarding Children
- Bridging Accessibility Gap

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- Sustainable Economic Growth
- Safety Net for Farmers
- Digital Service Delivery

APTI PLUS

The table of content is segregated as per its relevance with Mains Syllabus of CSE Examination.

The article mention under GS paper in table of content might be important for many other topics in GS Papers as well.

The details relevance of each article/Topics with respect to GS syllabus has been mention at the starting of each article.

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KAJALE



AIR 355
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AIR 469
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AIR 541
RITESH



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RAJNISH



AIR 622
RAJESH K.



AIR 636
SHANTANU



AIR 644
SPARSH



AIR 648
SHUBHAM



AIR 650
DHARAVATH



AIR 658
SAPAVATH



AIR 673
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01

EMPOWERING DIVYANGJAN

GS Syllabus Covered

GS - II: Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes; mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections.

GS - II: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

Introduction

- As per 2011 Census, there are **26.8 million Persons** with Disabilities in India.
- Among which 14.99 million are males and 11.82 million are females with disabilities.
- The Prime Minister coined the term “Divyangjan” to address persons with disabilities, with a view to change the **social attitude towards them and recognise their potential**.

Background

- The centre has forecasted its proactive role for Divyangjans related issues at the forefront of Government initiatives.
- Prior to May 2012, at the Central Government level, the Ministry of Social Justice and Empowerment through its **Disability Bureau** was acting as the focal point for handling the matters of persons with disabilities.
- In order to manage disability in the country, the **Department of Empowerment of Persons with Disabilities (Divyangjan)** was carved out under the Ministry of Social Justice and Empowerment.

Rights of Persons with Disabilities Act, 2016

- India is a party to the **United Nations Convention on Rights of Persons with Disabilities**, which obliged the government to streamline domestic law, governing the disability sector.
- Accordingly, the Government has enacted the Rights of Persons with Disabilities Act, 2016 which came into force on 19 April 2017.
- Under the Rights of Persons with Disabilities Act, 2016, Disability has been defined based on an evolving and dynamic concept.

Advantages of Disabilities Act, 2016

- Rights of Persons with Disabilities Act, 2016 calls for inclusiveness, which broadens the horizon of rights and entitlements of persons with disabilities.
- The act guarantees **equality, protection from cruelty, exploitation and violence, the right to live with family and community, access to justice, accessibility to voting, legal capacity, etc.**
- The act also mandates the Government to take measures to promote health, education, skill development, and employment opportunities for PwDs and to create recreation, and cultural activities.

Government Intervention

Reservation and recruitment

- Reservation in seats has been **increased from 3% to 5% for persons** with benchmark disabilities (ic. disability of 40% or more), whereas reservation in the Government/Government-aided higher educational institutions has been increased from 3% to 4% under the said Act.
- The Department of Personnel and Training being the nodal Department on recruitment matters in Central Government establishments issued a circular in January 2018 for implementation of the provision of reservation in government jobs.

Unique Disability Identity Project

- With a view to having a uniform and hassle-free mechanism for the certificate of disability and creating a national database for PwDs, the Government has launched the Unique Disability Identity (UDID) Project since 2015-16.
- The first Unique Disability Identity Card was generated in January 2017 at **Datia district, Madhya Pradesh**.

- So far, around 70 lakh UDID cards have been generated in 715 districts across India.

Accessible India Campaign

- The Prime Minister launched the Accessible India Campaign in December 2015, which focuses on accessibility in the built-up environment, transportation system, and ICT ecosystem.
- Under the Campaign, about 577 State Government buildings and more than 1030 Central Government buildings have been made accessible.
- Apart from this International airports, domestic airports, railwaystations and buses have been made fully accessible,
- Around 603 State Government websites and 95 Central Government websites have already been made accessible.
- The Ministry has also developed **Sugamya Bharat App**, a mobile application for crowdsourcing problems related to accessibility.

Scholarships Program

- In order to encourage students with disabilities to pursue education at all levels, Government is providing scholarships for Pre-Matric (25,000), Post-Matric (17,000), Higher Class education (300) at reputed professional institutes, M.Phil/PhD courses (200) and for pursuing higher studies overseas (20).
- The numbers of post-Matric scholarships and Scholarships for Higher class education for PwDs have been showing incremental growth in the recent past that indicates wide participation of PwDs in higher education.

Educational support

- The Department of Empowerment of Persons with Disabilities is also **providing free coaching facilities** to students with disabilities to enable them **to prepare for competitive examinations for Group A, B and C posts and entrance examinations** for various professional courses.
- The **New Education Policy 2020** is in tune with the provisions of the RPwD Act, 2016 and has the ingredients for inclusive education.

Participation of PwD in sports

- The Government is also working towards promoting the participation of PwD in sports.
- Talent among Divyang sportspersons in the country is immense, which is evident from the fact that India won **19 medals including 3 Gold medals in Tokyo 2020 Paralympics**.
- DEPwD has set up a Centre for Disability Sports at Gwalior which is expected to be functional during the current financial year.
- The Centre will have state-of-the-art facilities for the training of sportspersons with disability across all major sports.



UNIQUE DISABILITY ID (UDID)

The UDID card will be the single document of identification, verification of the disabled for availing various benefits

Persons with disabilities will not need to make multiple copies of documents, maintain, and carry multiple documents

The card will capture all the necessary details which can be decoded with the help of a reader

It will help in tracking physical and financial progress of beneficiaries at all levels – from the village, Block, District, State and National level

Apply for UDID at <http://socialwelfare.ladakh.gov.in/> or at swavlambancard.gov.in

- Apply for UDID at <http://socialwelfare.ladakh.gov.in/> or at swavlambancard.gov.in
- Enrolment /Application Registration number will be generated for the application submitted successfully.
- SMS confirmation will be sent to the applicant with the enrolment/application registration number.
- Applicants who do not have Disability Certificate will receive SMS with date and time to visit the nearest CMO office for assessment.
- SMS confirmation will be sent to the applicant with the allocation of UDID number.
- The status of the application can be checked online by enrolment/application registration number.
- The Disability Certificate /UDID Card will be generated online after assessment and verification.

Cultural activities

- The DEPWD has created a new platform “**Divya Kala Shakti**” for showcasing the potential of PwDs in performing fine arts.
- The Department has so far organised two National level programmes in Delhi and two regional level programmes in Chennai and Itanagar.
- Though relief to the disabled is a State subject by virtue of **Entry 9 of the State list**, the Central Government through its schemes and programmes has been supplementing the efforts of the States/UTs in this regard.

Way forward

- The Department of Empowerment of Persons with Disabilities is continuously working towards strengthening these institutions for capacity development in the rehabilitation sector as well as enhancing the outreach of the array of rehabilitation services.
- The goal of having a truly inclusive society cannot be achieved through Government initiatives alone without the active participation of all stakeholders including NGOs, PwD associations, academic bodies and civil society organisations will together promote the vision of an Inclusive India.

02

HOLISTIC HEALTHCARE

GS Syllabus Covered

GS - II:

- Government policies and interventions for development in various sectors and issues arising out of their design and implementation.
- Issues relating to development and management of Health.

GS - III:

- Inclusive growth and issues arising from it.

Introduction

- Holistic health is considered an approach to life that incorporates multidimensional aspects of wellness.
- These approaches include the use of traditional medical systems, mind body- spirit interventions, manipulative and body-based approaches, biological therapies and energy therapies.
- There are many instances and successful integration stories of **Ayush which would enable strategic integration into public health at large**.

Background

- India has a distinctive and unique traditional medicine base, with each system having its own ancient philosophy, medicinal knowledge, perception, and practices that align with the regional cultures, traditions, and beliefs.
- The traditional medicine systems in India include **Ayurveda, Yoga, Naturopathy, Unani, Siddha, Sowa Rigpa, and Homoeopathy which is known as Ayush**.
- All these systems were formulated, practised, and perfected in a continuum much before the advent of modern health science.
- According to a **World Health Organisation report**, about **80 percent of the world population uses traditional medicine systems** in some or the other way.

Traditional medicine in India

- The holistic patient-centred and individualised approach is the trademark of traditional systems and enables the patient-physician partnership to design or customise treatment and lifestyle advice in order to achieve the highest potential for well-being.
- The diverse activities ranging from the provision of prophylactic care to the management of disease and the effective implementation and integration of Ayush system to the public healthcare during the pandemic has garnered global attention to Ayush systems.

Integration of Ayush

- The work on effective integration of Ayush was expedited after the formation of the Ministry of Ayush in 2014.
- This integration has been realised through coordination and collaboration at various levels of healthcare between the Ministry of Health and Family Welfare and the Ministry of Ayush.
- This integration was deemed successful in the avenue of **Non-Communicable Diseases** owing to the fruitful outcomes observed in the patients, with the incorporation of Ayush interventions.
- The National Ayush Mission (NAM) is an example of such elaborate integration wherein Ayushman Bharat – Health and Wellness Centres (HWCS) are being established across the country.



Objective of Ayush

- The primary objective is to provide cost-effective Ayush services, with universal access through **upgrading Ayush Hospitals and Dispensaries**.
- Ayush HWCS are being operationalised to **establish a holistic wellness model**.
- The use of Ayush as stand-alone or adjunct therapy in Covid-19 has been highlighted through case reports available in the public domain reflecting the successful management in even severe Covid-19.

Way forward

- The use of traditional medicines has increased and the **Traditional Medicinal (TM)** industries are growing fast, along with the globalisation of TM products/services which are pervasive. Integration of the knowledge base of modern tools and techniques with applications of Ayush principles can help in its wider acceptance globally.
- Holistic healthcare architecture is the surest way for effective, economic, and conservative health coverage.



Promoting Holistic Health of Indians

Continuation of Centrally Sponsored Scheme National AYUSH Mission Approved

National AYUSH Mission (NAM) to continue till 31-03-2026 with financial implication of ₹4,607.30 crore

Better access to AYUSH healthcare services, more medicines and trained manpower

Improvement in AYUSH education; Focus on reducing diseases through targeted public health programmes



03

SAFEGUARDING CHILDREN

GS Syllabus Covered

GS - II: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

GS - II: Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes; mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections.

Introduction

- India is one of the **youngest countries** in the world.
- A major part of India's population (around 158 million) consists of children in the age group of 0-6 years.
- India is home to 472 million children upto the age of 18 years and comprising **39 per cent of the country's population**.
- There are roughly 30 million orphaned and abandoned children in India.
- It is also projected that till 2050, half of the world's population growth will come from nine countries including India.

Orphaned and abandoned children

- According to the **United Nations Children's Fund** (UNICEF), India has 29.6 million orphaned and abandoned children.
- At present millions of children are being denied opportunities to live a life of safety and good health.
- Adoption rates in India have always been low, but they have been dropping in the past few years.
- The Government's **Central Adoption Resource Authority** (CARA) statistics show that in 2010, there were 5,693 in-country adoptions, while in 2017-2018, there were only 3,276 in-country adoptions.
- This fall occurred because out of approximately 30 million children abandoned, only 261,000 are under institutionalised care, accounting for 0.87%.

Adoption in India

- Adoption laws in India are strict, leading to exceptionally low numbers of adoptions taking place. From March 2019-2020, only 3,351 children were adopted.
- Data shows that while more than 29,000 prospective parents are willing to adopt, just 2,317 to 3,000 children are available for adoption.
- This suggests a wide gap between adoptable children and prospective parents, which may increase the length of the whole process.

Low levels of adoption

- The reasons for low levels of adoption in India are manifold.
- There aren't enough children available for adoption because the ratio of abandoned children to children in institutionalised care is lopsided.
- The **District Child Protection Officer** is entrusted with the duty to take the street children to a Child Care Institution (CCI), and if their parents aren't found, then they should be placed for adoption.
- The **National Commission for Protection of Child Rights** (NCPCR) data shows that there are 5,850 registered CCTs in India.

Disability and adaptation

- In January 2020, **Central Adoption Resource Authority (CARA)** held a national consensus to discuss the possibility of improving and streamlining the adoption process.
- Among other points of discussion, it stated that the institution prepared a classification of children with special needs, spanning 14 sub-categories.
- The categorisation would enable prospective adoptive parents to understand the children's needs better and enhance their chances of adoption.

Central Adoption Resource Authority (CARA)

- The year 2015 saw a moment of transition in the adoption process with the introduction of the Central Adoption Resource Authority (CARA). CARA is an **autonomous and statutory body of MoWCD** under the Government of India.
- The system acts as a centralised digital database of adoptable children and prospective parents.
- It functions as the nodal body for the **adoption of Indian children**.
- It is mandated to monitor and regulate in-country and inter-country adoptions. CARA is designated as the Central Authority to deal with inter-country adoptions in accordance with the provisions of the **1993 Hague Convention on Intercountry Adoption, ratified by the Government of India in 2003**.

Functioning of CARA

- It primarily deals with the adoption of "orphaned, abandoned and surrendered" children through recognised adoption agencies.
- In 2018, CARA allowed individuals in a live-in relationship to adopt children from and within India.
- Although the main focus of the CARA mechanism is to quicken the process of adoption, the waiting period is growing longer.
- Adoption practices in India are primarily governed by the **Hindu Adoptions and Maintenance Act, 1956 (HAMA)** and **Juvenile Justice (Care and Protection of Children) Act, 2000 (JJ Act)**.
- **Both legislations have different provisions and objectives.**
- HAMA is the statute that governs the adoption of and by Hindus.
- The definition of 'Hindus' here includes **Buddhists, Jains, and Sikhs**.
- It gives an adoptive child all the rights of a naturally-born child, including the right to inheritance.

Stakeholders in Adoption Process

1. **Central Adoption Resource Authority (CARA):** CARA ensures smooth functioning of the adoption process from time to time, issues **Adoption Guidelines** laying down procedures and processes to be followed by different stakeholders of the adoption programme.

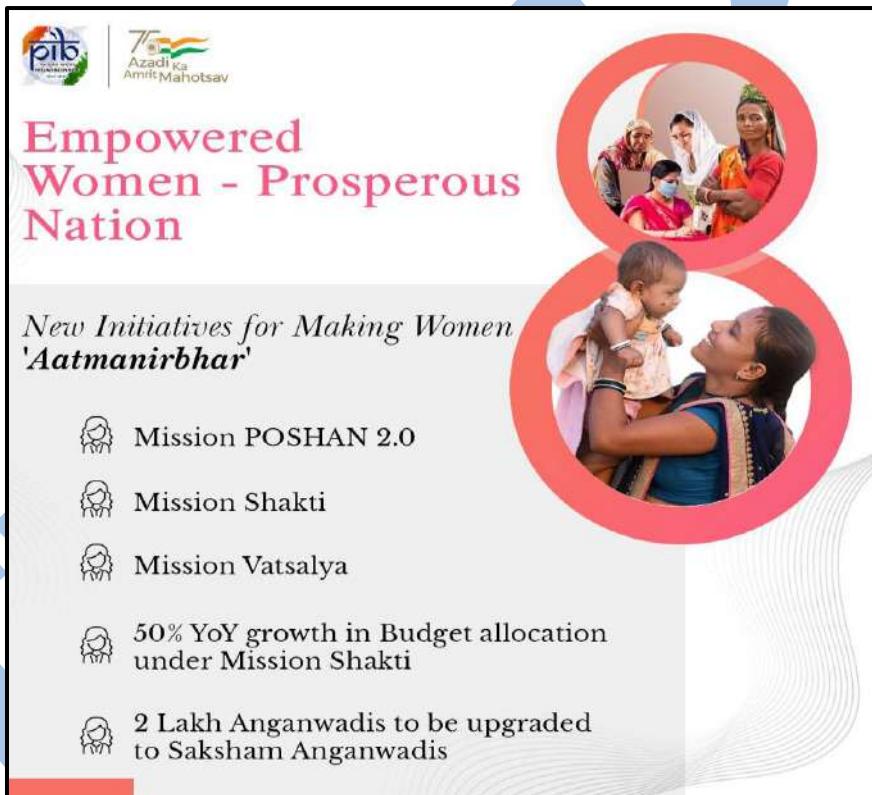
2. **State Adoption Resource Agency (SARA):** SARA acts as a nodal body within the State to promote and monitor adoption and non-institutional care in coordination with CARA.
3. **Specialised Adoption Agency (SAA):** SAA is recognised by the State government under sub-Section 4 of Section 41 of the Act for the purpose of placing children in adoption.
4. **Authorised Foreign Adoption Agency (AFAA):** AFAA is recognised as a foreign social or child welfare agency that is authorised by CARA on the recommendation of the concerned Central Authority or Government Department of that country for coordinating all matters relating to adoption of an Indian child by a citizen of that country.
5. **District Child Protection Unit (DCPU):** DCPU is a unit set up by the State government at district level under Section 61A of the Act.
It identifies orphan, abandoned, and surrendered children in the district and gets them declared legally-free for adoption by the Child Welfare Committee.

Legal framework in India

- India has a fairly comprehensive policy and legal framework addressing rights and protection for children, providing opportunities to ensure that all children have equal access to quality protection services.
- The core child protection legislation for children is enshrined in four main laws:
- The Juvenile Justice (Care and Protection) Act (2000, amended in 2015)
- The Prohibition of Child Marriage Act (2006)
- The Protection of Children from Sexual Offences Act (2012)
- The Child Labour (Prohibition and Regulation) Act (1986, amended in 2016)

Government Policy

- To achieve welfare, development and protection of children, the Union Cabinet has recently approved 3 important Umbrella Schemes to be implemented in mission mode. i.e., **Mission Vatsalya, Mission Poshan 2.0, and Mission Shakti.**



Empowered Women - Prosperous Nation

New Initiatives for Making Women 'Aatmanirbhar'

- Mission POSHAN 2.0
- Mission Shakti
- Mission Vatsalya
- 50% YoY growth in Budget allocation under Mission Shakti
- 2 Lakh Anganwadis to be upgraded to Saksham Anganwadis

1. **Mission Vatsalya:** In this Mission, Children have been recognised by policy makers as one of the supreme national assets.

1.1 Objective

- To secure a healthy and happy childhood for every child in India
- Supportive and synchronised ecosystem for development of children
- Assist States/UTs in delivering the mandate of the JJ Act 2015

Achieving the SDG goals.

The prime objective is to address gaps in State action for women and children and to promote intermenstrual and inter-sectoral convergence to create gender equitable and child-centred legislation, policies, and programmes.

2. **Mission POSHAN 2.0:** It is an **Integrated Nutrition Support Programme** which seeks to address the challenges of malnutrition in children, adolescent girls, pregnant women, and lactating mothers through a strategic shift in nutrition content and delivery.

- It seeks to optimise the quality and delivery of food under the Supplementary Nutrition Programme.
- POSHAN 2.0 will bring three important programmes/schemes under its ambit, viz.. Anganwadi Services, Scheme for Adolescent Girls and Poshan Abhiyaan.

3. Mission Shakti: The mission provides lifecycle support for women through integrated care, safety, protection, rehabilitation, and empowerment to unshackle women as they progress through various stages of their life.

- Mission Shakti has two sub schemes '**Sambal**' and '**Samarthya**'.
- The Sambal sub-scheme consists of the existing scheme of One Stop Centre (OSC), 181 Women Helplines (WHL), and Beti Bachao Beti Padhao (BBBP).
- Besides, a new component of Nari Adalats has been added as women's collectives to promote and facilitate alternative dispute resolution and gender justice in society and within families.
- The "Samarthya" sub scheme is for empowerment of Women, consisting of existing schemes of Ujjwala, Swadhar Greh, and Working Women Hostel.

4. PM CARES for Children Scheme: It was launched in May 2021 to support children who have lost both the parents or legal guardian to Covid-19 during the period starting from 11 March 2020.

- The objective of the Scheme is to **ensure comprehensive care and protection of children** in a sustained manner, and enable their well-being through health insurance, empower them through education, and equip them for self-sufficient existence with financial support.
- **Ayushman Bharat Pradhan Mantri-Jan Yojana (PM-JAY):** PM-JAY provides a cover of Rs 5 lakhs per family per year for secondary and tertiary care hospitalisation, across public and private empanelled hospitals in India.
- The Government strives to ensure well-nourished and happy children and self-reliant women by providing them with an environment which is **accessible, affordable, reliable and free from all forms of discrimination and violence.**

04

BRIDGING ACCESSIBILITY GAP

GS Syllabus Covered

GS - II: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

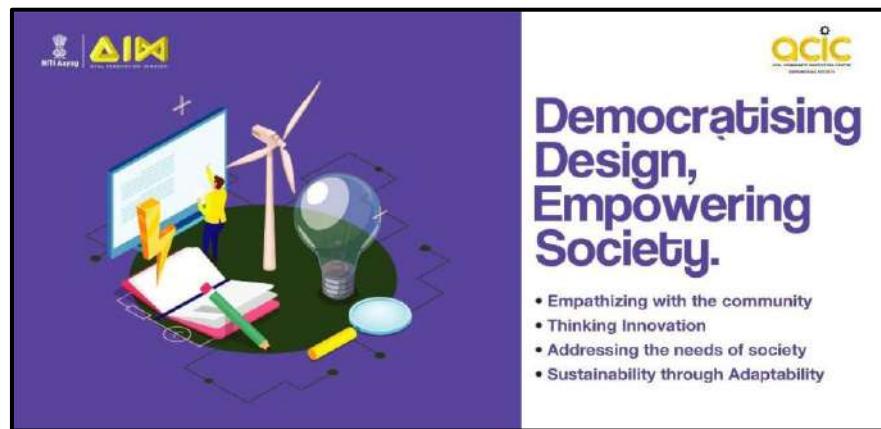
GS - III: Inclusive growth and issues arising from it.

Introduction

- In step to foster innovation in India, the **Atal Innovation Mission (AIM)**, flagship initiative of NITI Aayog, has launched the Atal Community Innovation Centre (ACIC) program.
- The programme aims at spurring community Innovation in underserved and unserved areas of the country.
- Atal Innovation Mission (AIM), aims to **promote a culture of innovation and entrepreneurship in the country** by developing new programmes and policies for fostering innovation in different sectors of the economy, providing platform, and collaboration opportunities for different stakeholders.
- ACIC aims to serve as the **bridge between the knowledge base existing in communities** and the advanced technical ecosystem prevalent in the market base, addressing the needs of society.

Atal Community Innovation Centre

- Atal Innovation Mission's initiative, namely, Atal Community Innovation Centre (ACIC) aims to encourage the spirit of innovation through solution-driven design thinking in serving the society.
- ACIC enables citizens to create cutting edge innovation by offering supportive infrastructure and opportunity areas spread across the country, with a focus on Tier 2, Tier 3 and underserved/unserved regions of Tier 1 cities, North-East, J&K,



Democratising Design, Empowering Society.

- Empathizing with the community
- Thinking Innovation
- Addressing the needs of society
- Sustainability through Adaptability

Aspirational Districts, Smart Cities, Rural and Tribal Areas.

- This will boost **development of societal innovations and provide support to technology-driven areas** especially by reducing the lab to land distance and creating a space for pre-incubation of ideas/solutions.

ACIC and UNDP's priorities

- ACIC works in tandem to **support UNDP's priorities** which remain anchored in its mission to continue helping the government in eradicating poverty and achieving sustainable development in order to tangibly improve the lives of the people.
- UNDP is supporting greater access to national programmes like AIM/ACIC for vulnerable and marginalised populations, to improve livelihoods, and augment skill-building for women.

Aim and focus

- UNDP focuses on strengthening capabilities and opportunities to **reduce poverty and marginalisation** in ways that are sustainable from economic, social, and environmental standpoints.
- UNDP and AIM signed a statement of intent in 2019 with the aim to create an enabling ecosystem to promote **youth leadership, innovation, and social entrepreneurship**.
- Both collaborate to spread awareness about different issues pertaining to youth, future of work, and the Sustainable Development Goals (SDGs).
- The partnership between ACIC and UNDP envisage to create a fellowship framework for building and supporting aspiring and inspiring community innovators, as part of building a pre-incubation ecosystem in the country.

Objectives of ACIC

1. Social innovations

- Social innovations are new social practices that include the social processes of innovation with the aim of extending and strengthening society.
- Societal innovation refers to a systemic change in the interaction between the state and society by considering the state to be an equal partner in achieving sustainable changes to society's structures or ways of working, and it is approved by the majority of societal stakeholders.



ACIC is committed towards social innovation by:

- Offering communities structured modules in design, thinking on how to apply the principles of design in **problem solving, planning, and making prototypes**.
- Enabling every individual to ideate, deploy, and transform the nation by tackling the problems faced by the community as a whole
- Providing necessary skill sets and toolkits to aspiring community innovators by spreading awareness about SDGs and supporting **innovators in driving SDGs at the community level through innovation**.
- Creating an atmosphere where different communities can learn from each other and complement each other's indigenous knowledge by removing barriers to exchange and encouraging improvisation as a result of interaction among these communities.

2. Empowerment

- Nurturing commercial ideas through startups by providing relevant business offerings, access to **technology support, mentoring, creating networks** of relevant stakeholders, scientific and information repositories, and a generally conducive and supportive environment.
- Promoting and running an active programme for identification, creation, acceleration, and translation of suitable technological ideas for new venture creation and community development.

- Running active training programmes in building resources networks, competencies and special expertise in select areas at the interfaces of **technology and innovation, business and entrepreneurship, government and policy**.

3. Cooperation

- Building a pre-incubation model and feeder ecosystem at the grassroots level for Atal Incubation Centres (AICs) and Established Incubator Centres (EICs).
- **Mentor India is a strategic nation building initiative** to engage leaders who can guide and mentor students and startups across India under the programmes of AIM.
- Enabling innovation by taking a cluster-based approach to economic development and introducing interventions designed to improve intra-cluster efficiencies.

4. Inclusiveness

- Offering an opportunity for everyone to innovate, ideate and design impactful solutions, irrespective of their **age, gender, and social hierarchy**.
- Creating localised support systems for supporting entrepreneurship and in turn, creating self-employment opportunities.
- Creating an ecosystem to make finance accessible to people of **Aspirational Districts and underserved locations** of the country which have neither information nor easy access to finance.
- Providing a community-oriented approach to innovation by enabling solutions through advanced tinkering.

5. Sustainability

- Capacity building of communities in evolving technologies and taking their solutions from ideation to prototype and profitable enterprises.
- Providing a framework to engage local industries to facilitate the offering of **innovative solutions in their products, services, and processes**.
- **Mobilising resources** for running various programmes under ACIC umbrella in Public-Private Partnership mode to ensure financial sustainability and participation of central agencies, PSUs, etc.
- **Channelising CSR funds** by partnering with private players to ensure long-term financial sustainability of the ecosystem.
- Aiming for decentralised facilitation with local industrial partners to ensure long-term gains for all stakeholders.
- Providing a quantum leap towards establishing India for further scaling up the **ranking in Global Innovation Index (GI)** by tactically spurring improvements in all indicators of GII.

05

SUSTAINABLE ECONOMIC GROWTH

GS Syllabus Covered

GS - II: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

GS - III: Conservation, environmental pollution and degradation, environmental impact assessment.

Introduction

- Sustainable economic growth means a rate of growth which can be maintained without creating other **significant economic problems, especially for future generations**.
- There is clearly a trade-off between rapid economic growth today, and growth in the future.
- Climate change is one of the major challenges on the developmental aspect, which negatively impacts every process of growth.
- Since the countries of **South Asia are rapidly growing and particularly vulnerable** to changes in climate, any situation has a significant impact on them.

Intergovernmental Panel on Climate Change report

- According to a new assessment from the **Intergovernmental Panel on Climate Change (IPCC)**, rising temperatures will lead to catastrophic weather extremes also resulting in rising sea levels in the coming years.
- The report states that human activity is “unambiguously” to blame for more severe climate events such as heatwaves, floods, and droughts.

- The report emphasises on attaining **net-zero greenhouse gas emissions by 2050**.
- As outlined in the **Paris Agreement**, it was required to keep the global temperature change to **1.5°C**.

Southeast Asian countries

- Southeast Asian countries are expected to be among the most hit by **climate change**.
- The majority of the region's governments lack carbon reduction policies that will effectively decrease the severity of climate hazards.
- According to a new study, rising seas are expected to cost Asia's largest cities billions of dollars of damage this decade, with the impact magnified by tectonic shifts and the consequences of groundwater removal.
- The megacities of **Delhi, Dhaka, Kolkata, and Mumbai** will be the most affected.
- According to the **Climate Vulnerability Index (CVI)**, Assam, Andhra Pradesh, Maharashtra, Karnataka, and Bihar are highly vulnerable to extreme climate events such as floods, droughts, and cyclones.

Intervention required

- India must collaborate with other countries to establish a **Global Resilience Reserve Fund**, which could function as a form of climate insurance.
- Sustainable economic growth requires a more **robust energy sector**.
- India should work in collaboration with industry associations, domestic banks, specialised energy efficiency agencies, and service companies, to upgrade transmission and distribution systems, and promote clean technology and renewable energy development.
- India requires its own fair amount of carbon space.
- India needs to comprehensively address climate change issues including **equitable distribution of carbon space, support for mitigation, and adaptation**.
- The **Sustainable Transport Initiative** encourages governments to invest in low-carbon, safe, and economical public transportation networks.

Significance of Climate Fintech

- Fintechs are the digital financial technology catalysing decarbonisation throughout the world, which provides their consumers with innovative ideas, green financial solutions, and services to help them minimise their carbon footprints.
- The merging of three areas which include **climate, finance, and technology** known as sustainable Fintech.

HOW IS INDIA TACKLING CLIMATE CHANGE?

Here's a compendium of GOVERNMENT'S KEY INITIATIVES

1		JAWAHARLAL NEHRU NATIONAL SOLAR MISSION Achieve 100 GW solar power generation by 2022
2		NATIONAL MISSION FOR ENHANCED ENERGY EFFICIENCY 98.55 MT annual reduction in CO ₂ emissions
3		NATIONAL MISSION ON SUSTAINABLE HABITAT Promote recycling and urban waste management
4		NATIONAL WATER MISSION 20% increase in water use efficiency
5		NATIONAL MISSION FOR SUSTAINABLE AGRICULTURE Enhance soil health and efficiency of water use in farms
6		NATIONAL MISSION FOR SUSTAINING THE HIMALAYAN ECOSYSTEM Develop state-of-the-art National Centre for Himalayan Glaciology
7		NATIONAL MISSION FOR A GREEN INDIA Increase forest/tree cover on 5 million ha of forest /non-forest lands
8		NATIONAL MISSION ON STRATEGIC KNOWLEDGE FOR CLIMATE CHANGE Enhance research capability in climate science
9		NATIONAL CLEAN ENERGY FUND Finance and promote clean environment initiatives and research
10		NATIONAL ADAPTATION FUND Address adaptation needs in agriculture, water & forestry, among others



To know more visit www.justclimateaction.org
 Follow @India4Climate on Twitter and join the conversation using #IndiaAtCOP21

- Climate Fintech solutions are digital innovations, applications, and platforms that assist organisations and individuals in saving, spending, and investing in environmental-friendly ways.
- To promote both **sustainable finance** and **Green Fintech**, a rising number of initiatives and concrete action plans are being established.
- The ultimate purpose of Climate Fintech is to redirect financial flows toward decarbonisation.

Way forward

- India is in dire need of policy advocacy and technical guidance to address climate change and vulnerability issues in agriculture, water, and other sensitive sectors.
- The action plan of India should involve more investments, to raise the share of renewable energy in power generation, electrification of fossil-fuel-dependent businesses, commercial production of green hydrogen, and promotion of electric vehicles in order to fulfil its objectives.
- The need of the hour is to ensure renewable energy goals.
- India requires more carbon sinks," or carbon-storing ecosystems such as forests, oceans, and wetlands.

INDIA'S 5-POINT ROADMAP UNVEILED

1 TAKE NON-FOSIL
energy capacity to 500 GW by 2030

2 NET ZERO BY 2070: India rejected calls to announce a target so this is a give. Net zero means all man-made GHG emissions must be removed from atmosphere through absorption in processes like photosynthesis or physical removal

3 MEET 50% OF ENERGY
requirements from renewables by 2030

4 REDUCE TOTAL
projected carbon emissions by 1 bn tonnes from now to 2030

5 REDUCE ECONOMY'S
carbon intensity to less than 45% by 2030

06

SAFETY NET FOR FARMERS

GS Syllabus Covered

GS - II: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

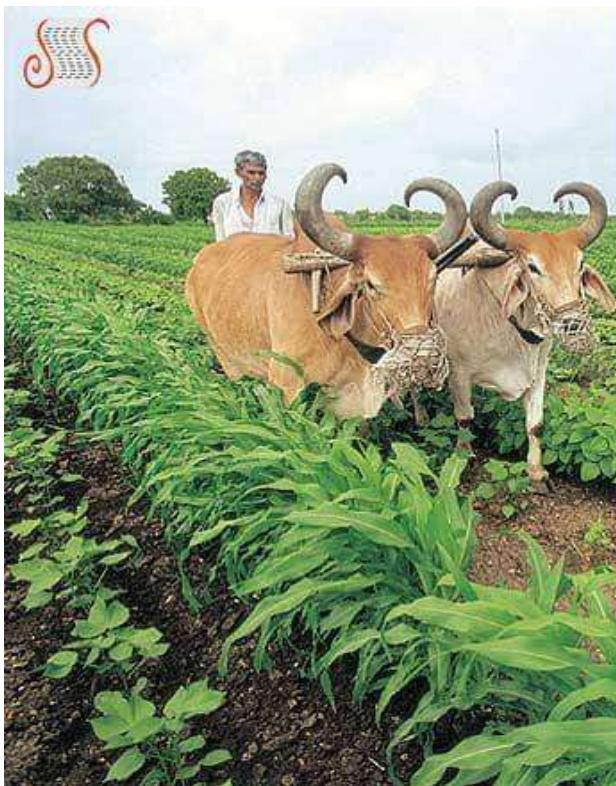
GS - III: Major crops-cropping patterns in various parts of the country, - different types of irrigation and irrigation systems storage, transport and marketing of agricultural produce and issues and related constraints; technology in the aid of farmers.

Introduction

- Agriculture, with its allied sectors is the **largest source of livelihoods in India**.
- Almost 70 percent of India's rural households still depend primarily on agriculture for their livelihood.
- Farming in India is dominated by marginal and small farmers which account for nearly 86 percent of all the farmers in the country.
- The share of agriculture and allied sectors in total GVA (Gross Value Added) of the economy has a long-term trend of 18 per cent which improved to **20.2 per cent (2020-21)** and **18.8 percent recently**.

Finding of National Sample Survey

- According to the **National Sample Survey** (77th Round, 2019), 50.2 percent of agri-households in India are in debt and an average household has debt equivalent to 60 percent of its annual income.
- The annual income of a farm household was Rs 1.23 lakh, and the average debt was Rs 71,100 from July 2018 -June 2019.
- The survey also showed increasing fragmentation of holdings vis-a-vis an increasing number of small farmers.
- The average size of household ownership holding has declined from 0.725 hectare in 2003 to 0.592 hectare in 2013, and further to 0.512 hectare in 2019.



visit: www.SearchSchemes.com

Top 10 Central Government Agriculture Schemes

- Scheme on Artificial Recharge to Ground Water through Dugwells
- River Bank/ Flood Water Conservation Scheme
- Organic Farming
- National Project on Organic Farming
- National Biogas Programme
- National Biogas and Manure Management Programme
- Mushroom Farming
- Minimum Support Price (MSP) Operations
- Management of Foodgrains-Save Grain Campaign
- Rashtriya Krishi Vikas Yojana

Government schemes for farm welfare

- Since independence, the government has envisioned welfare and social security for labourers and workers engaged in all sectors.
- The vision included **farmers, farm labourers, and agricultural workers across the agriculture and allied sectors.**
- **International Labour Organisation (ILO)** defines social security as the protection that a society (Government) provides to under-privileged/disadvantaged groups to ensure access to healthcare and to guarantee income security.

MGNREGA

- The National Rural Employment Guarantee Act 2005 (later renamed as Mahatma Gandhi NREGA) was passed by the Parliament as a legal social security measure that guaranteed the 'right to work'.
- It is an employment programme that **guarantees at least 100 days of wage employment** in every financial year to every household whose adult members volunteer to do unskilled manual work. In case of non-offering of work, the beneficiary is eligible for unemployment allowances to be paid by the State as per the provision of MGNREGA. In addition to this, there is a provision for an **additional 50 days of unskilled wage employment in a financial year** in drought' natural calamity-notified rural areas.
- Over the years, MGNREGA has emerged as a flagship programme which addresses poverty in a holistic manner by overcoming social inequalities and creating a base for sustainable development through asset creation in rural areas.

Deendayal Antyodaya Yojana

- DAY-National Rural Livelihoods Mission (DAYNRLM) is a unique **social security scheme** that aims to reduce poverty by enabling poor households to access gainful self-employment and skilled wage employment opportunities.
- The Mission seeks to **alleviate rural poverty by mobilising rural poor women** into Self Help Groups (SHGs).
- Under a sub-component of DAY-NRLM (Mahila Kisan Sashaktikaran Pariyojana or MESP), women farmers are being empowered by making systematic investments.
- The DAY-National Rural Livelihoods Mission aims to mobilise 8-10 crore rural poor households into SHGs in a phased manner and provide them long-term support such that they diversify their livelihoods, and improve their incomes and quality of life.

National Social Assistance Programme

- The Ministry of Rural Development operates a wide-angle social security scheme to provide financial assistance to the elderly, widows, and persons with disabilities in the form of social pensions.
- It covers urban as well as **rural citizens that include a large number of farmers, rural artisans, landless labourers, and their families.**
- The programme is being implemented through defined and structured pension and welfare schemes for target groups.

Pradhan Mantri Kisan Samman Nidhi (PM-KISAN)

- The PM-KISAN scheme aims to supplement the financial needs of farmers in procuring various inputs to ensure proper crop health and appropriate yields, commensurate with the anticipated farm income at the end of each crop cycle.
- Under the Scheme, **financial assistance of Rs 6,000 per annum** is provided to all landholding farmer families across the country, subject to certain exclusion criteria related to higher-income strata.
- The amount is transferred in three monthly instalments of Rs 2,000 each, directly into the bank accounts of the beneficiary farmers identified by the State/Union Territory Governments.



Pradhan Mantri Kisan Maandhan Yojana

- The PMKMY scheme aims to provide a social security net for the small and marginal farmers by way of pension.
- A minimum **fixed pension of Rs 3,000 per month** is provided to the eligible small and marginal farmers on attaining the age of 60 years.
- The Scheme is voluntary and contributory in nature with an entry age of 18 to 40 years.
- The beneficiary is required to contribute Rs 100 per month at the median entry age of 29 years, whereas the Central Government also contributes an equal amount to the Pension Fund.

Pradhan Mantri Fasal Bima Yojana

- The PMFBY is a uniquely designed social security scheme under which financial assistance is provided to farmers in distress due to loss/damage to crops arising out of natural calamities. The Scheme has been able to provide financial assistance to the most vulnerable farmers, as around 85 per cent of the farmers enrolled under it are small and marginal farmers.

Efforts by various State Governments

- In addition to centrally sponsored schemes, various State Governments are also operating social security schemes for farmers to address their specific needs.

1. Maharashtra

- The Government of Maharashtra has been running the '**Gopinath Munde Farmers Accident Insurance Scheme**' since 2015.
- The Scheme covers victims (farmers) of accidental death and those who have been left handicapped by an accident.
- Under the Scheme, animal attacks, Naxal attacks, murder, electric shocks, etc., are also treated as accidents, and victims are compensated accordingly.

2. Gujarat

- The Government of Gujarat has been implementing the '**Farmer's Accidental Insurance Scheme**' since 1996.
- The Scheme provides insurance coverage to the registered farmers in case of accidental death or permanent disability.
- The insurance premium (100%) is paid by the State Government: farmers only need to get themselves registered under the unique social security scheme for the agricultural workers.

3. Uttar Pradesh and other states

- The Uttar Pradesh government and other States are also running such **accident insurance schemes for farmers**.
- Besides specific schemes, farmers and agricultural workers need a comprehensive social security programme that must cover all the exigencies as enumerated by ILO.
- These include **death, disability, sickness, health, injury, unemployment and various types of accidents**.
- Such programmes need to be implemented with an effective and widespread infrastructure at the grassroots level so that last mile connectivity is ensured.
- Details and benefits of such schemes must be disseminated through various media to maximise their impact on the social well-being of farmers.

Conclusion

- The centre and the state government in its proactive approach has shifted from production centric to income centric platform in the agriculture sector and the above schemes are being implemented for making farming viable, profitable, sustainable and promoting quality standard of living.

07

DIGITAL SERVICE DELIVERY

GS Syllabus Covered

GS - II: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

GS - III: Inclusive growth and issues arising from it.

Introduction

- The vision of Digital India aims to transform India into a **digitally empowered society and knowledge economy**.
- Digital India is transformational in nature and would ensure that Government services are available to citizens electronically.
- It would also bring in public accountability through mandated delivery of government's services electronically, a **Unique ID and e-Pramaan based on authentic and standard based interoperable and integrated government applications and data basis**.

Government's initiatives

- The Government's initiatives such as **Digital India, Direct Benefit Transfer (DBT), and Government e-Marketplace (GeM)** aim to actively transform India into both a knowledge-based economy and a digitally-empowered society.

Financial inclusion

- The Pradhan Mantri Jan-Dhan Yojana (PMJDY) resulted in a massive increase in **financial inclusion**.
- Fintech is expanding on the achievement of financial inclusion by providing a variety of payment and transaction possibilities.
- According to the National Payments Corporation of India, till March 2022, UPI had processed 5.04 billion transactions, amounting to Rs 8.88 trillion.
- This is incredible in terms of both **volume and value**.

Digital literacy programme

- The Centre approved **Pradhan Mantri Gramin Digital Saksharta Abhiyan** (PMGDISHA) in 2017 to promote digital literacy in rural India by covering 6 crore rural households.
- This is the world's largest digital literacy programme, under which so far, around 5.78 crore individuals have been enrolled.

Direct Benefit Transfer

- During the pandemic, cash benefits announced under Pradhan Mantri Garib Kalyan Package (PMGKP) have also been transferred using DBT, mostly to the poorest households.
- The **JAM trinity** (Jan Dhan accounts, the Aadhaar ID system, and mobile technology) when combined with abundant data on customer behaviours and preferences can enable the creation of entirely new business models that offer highly efficient, scalable, and intelligent processes for customer acquisition, servicing, cross-selling, and up-selling.

Digital healthcare

- Under the Digital India initiative, centre has launched the **Ayushman Bharat Digital Mission** in September 2021 to create a digital health repository for all Indians.
- To further the use of technology in medicine, there has been an unprecedented expansion of telemedicine during the pandemic.
- Around 125 crore remote consultations have been completed under the eSanjeevani portal.
- A '**National Tele Mental Health Programme**' has been developed to improve access to high-quality mental health counselling and treatment services.

Digital Lite Certificate

- The **Jeevan Pramaan or Digital Lite Certificate**, biometric enabled digital service, pensioners Central Government, State Government, EPFO, or any other government organisations can take benefit at their doorstep or at any post offices.

UMANG mobile app

- The UMANG mobile app (Unified Mobile Application for New-age Governance) is an all-in-one single, unified, secure, multi-channel, multi-lingual, and multi-service mobile app that provides access to high-impact services of various GoI Departments and State governments.
- The app has now grown to provide 2039 services and the count is galloping ahead on a real-time basis.
- Over 3 years, UMANG has reached a level of more than 3.75 crore downloads and 2.5 crore registered users.

The UMANG application has already started providing the following functionalities:

- Mera Ration:** helps users identify and navigate to the nearest Fair Price Shops.
- eNam:** Through the 'Mandi Near Me' service on UMANG, users can identify and navigate to the nearby mandis pointed on the map.
- Damini Lightning Alerts:** It gives users a visual of nearby places where lightning has struck in the recent few minutes to offer lightning alerts.



Digi Locker

- The Digi Locker initiative aims to give citizens access to all their lifelong documents in a single digital wallet and all such government-issued citizen-centric proof documents are equally valid under Indian laws.
- Digi Locker already issues digital copies of **Ration Cards and Marriage Certificates** for a majority of Indian States.
- Additionally, Digi Locker is in discussion with Passport Seva for the issuance of Passport to further enhance coverage of citizen services digitally.

Kisan drones

- Agriculture is another domain where technology finds much relevance, particularly in the Indian context.
- The deployment of 'Kisan drones' and the push for **technology driven agriculture** would be beneficial in ensuring quality produce with procedures in place for regular checks.
- Agriculture is a key source of income for around 58 per cent of India's population, making agricultural reforms critical to the country's development.
- The use of the state-of-the-art drones for the purpose of spraying fertilisers, and monitoring yield and produce would aid the farmers in producing high-quality yield with reduced levels of labour.

DESH STACK

- An e-portal for a digital ecosystem for **skilling and livelihood** known as DESH STACK was recently announced in the union budget 2022-23.
- It will aid in skilling, up-skilling, and reskilling, thus, playing a huge role in digitally empowering citizens.
- Besides this, the portal will also provide an API-based trusted skill credential, payment, and discovery layers which will be crucial in aiding potential job seekers to find relevant jobs and entrepreneurial opportunities.

Challenges

- The biggest challenge of digital inclusion was **to boost the supply of financial services** to meet increasing levels of demand.
- The lack of proper infrastructure and high operational costs constrained the government's efforts to reach the last mile, leaving a considerable number of rural families behind.

Conclusion

- It is evident that technology is and will be a catalyst in **driving socio-economic progress**.
- Technology Is increasingly demonstrating its ability to solve problems in critical socio-economic areas such as financial inclusion and healthcare.
- Data analytics, artificial intelligence, machine learning, and India's growing digital footprint** have resulted in a plethora of products and services for ordinary citizens.
- It is critical for policymakers to facilitate and accelerate this technology adoption to the grassroots.



Digital Locker

DigiLocker ties into Digital India's vision areas of providing citizens a shareable private space on a public cloud and making all documents/certificates available on this cloud.





Benefits:

-  Citizens can access their digital documents anytime, anywhere and share it online. This is convenient and time saving.
-  It reduces the administrative overhead of Government departments by minimizing the use of paper.
-  Digital Locker makes it easier to validate the authenticity of documents as they are issued directly by the registered issuers.
-  Self-uploaded documents can be digitally signed using the eSign facility (which is similar to the process of self-attestation)

KURUKSHETRA

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- Socio-economic Impacts of National Highways
- Digital Technologies for Development
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APTI PLUS

* The table of content is segregated as per its relevance with Mains Syllabus of CSE Examination.

* The article mention under GS paper in table of content might be important for many other topics in GS Papers as well.

* The details relevance of each article/Topics with respect to GS syllabus has been mention at the starting of each article.



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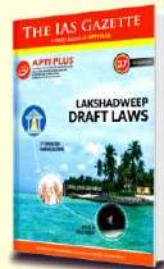
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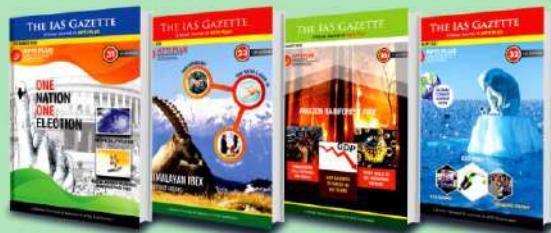
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01

PMGSY- CHANGING NATURE OF INDIA'S RURAL ROADS

GS Syllabus Covered

GS - II: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

GS - III: Indian Economy and issues relating to planning, mobilization, of resources, growth and development.

Introduction

- India has one of the **largest and densest road networks** in the world, with a total of 3.3 million km.
- India's 69 percent of population is rural area with prime occupations of the rural population are **cultivation, agricultural labour, rural artisanry, retail business/small services**, etc.
- The large size and share of the rural population, essentially required an **all-round improvement in the rural infrastructure**.
- In late 2000, the Government of India launched its **National Rural Roads Program** (Pradhan Mantri Gram Sadak Yojana or PMGSY) to **improve rural connectivity** in a systematic manner.
- Rural Roads' is a **state subject**.

Need of Rural Connectivity

- The modern-day rural transformation is largely driven by the improvements in the rural-urban transportation and connectivity to markets.
- The occupations of rural areas will become viable, profitable and acceptable only when there is an **all-weather rural connectivity**.
- Improved transportation networks help in connecting markets for smooth and timely transactions of commodities and services.
- A good road infrastructure connects the rural areas with the nearby urban or semi-urban areas and ensures a quick flow of services and goods to meet emerging demands.
- It ensures a competitive advantage and helps in **improving the inventory, storage, supply chain, and operations management**.

Rural Road Growth

- The Rural Roads Project has brought a paradigm shift in the way rural roads are mapped, designed, monitored, and built.
- The country has the **second-largest road network in the world**.
- The road network has not only helped to place and transport goods and services to the right destination at the right time, but it has also supported sustaining their livelihood.
- Roads have helped in promoting access to economic and social services, thereby generating increased agricultural productivity, non-agriculture employment as well as non-agricultural productivity.

Road network in India

- The total road length in the country has increased impressively from **3.99 lakh km in 1951 to 63.71 lakh km in 2019** at a compound annual growth rate of **4.2 percent**.
- The percentage of surface road length to the total road was 64.65 in 2019.
- The share of the **rural roads was the highest at 71.27 percent**, followed by district roads (9.94 percent), urban roads (8.5 percent), State highways (2.82 percent) and National Highways (2.08 percent) of the total road network in the country.

Figure 1: Need for Rural Connectivity



PMGSY and All-Weather Rural Connectivity

- The Pradhan Mantri Gram Sadak Yojana (PMGSY), as a part of the **poverty reduction strategy by the government was implemented in 2000**.
- This was conceived as a one-time special intervention to provide road connectivity by way of a **single all-weather road to the eligible unconnected habitations** as per core-network with a population size of 500+ in plain areas.
- Special category States viz. Arunachal Pradesh, Assam, Himachal Pradesh, Jammu and Kashmir, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura, and Uttarakhand and identified areas under the **Desert Development Programme, Schedule V tribal areas and selected tribal and backward districts** as identified by the Ministry of Home Affairs, the aim is to connect eligible unconnected habitations with a population of 250 persons and above.
- The scheme allows for the upgradation of the existing roads in those districts where all the eligible habitations of the designated population size have been provided with all-weather road connectivity.
- So far, 1,57,376 habitations have been covered under PMGSY and the remaining are proposed for completion by September 2022.

Use of Green Technology

- PMGSY promotes the **use of new and green technology** in the process of rural road construction.
- Locally available materials** are used in road construction activities to promote **cost effective and fast construction**.
- Under PMGSY III, the States and Union Territories (UTs) are to mandatorily construct roads by using **waste plastic** within the minimum 15 percent of road length prescribed for new technologies.

The basic aim of the use of modern technology in rural road construction is to:

- Ensure a safe environment**
- Reduce overall expenditure without compromising on quality**
- Prolonging the lifespan of roads**
- Ensure road safety, among others.**

Some of the techniques and technologies used under PMGSY are as follows:

- Use of cell filled concrete to ensure flexible concrete and crack-free surface.
- Use of panelled cement concrete to guarantee durability.
- Use of roller compacted concrete pavement to enable simple, fast and economical construction with longer service life.
- Use of cement stabilisation to improve soil strength, stability and to reduce maintenance cost.
- Use of 'Green Technologies' and nonconventional materials like waste plastic, cold mix, geo-textiles, fly-ash, iron copper slag, etc. in rural roads to ensure reuse of wastes.

Issues and Challenges

- There had been skewed and less than potential development of the rural road network in the country.
- The problems of inadequate funds for **maintenance, upgradation and rehabilitation** of existing rural roads still exist.
- A network approach and provision of sustainable accessibility with assured maintenance were virtually absent.

Some of the major constraints and bottlenecks faced in providing rural connectivity are:

- Insufficient funds with States for rural roads
- Unpredictability of funds for rural roads
- Inadequate maintenance of rural roads by many States due to limited funds
- Inadequate maintenance of Major District Roads (MDRs) resulting in pressure on rural roads
- Quality and specifications not strictly adhered to the standards
- Layers of informal sub-contracting at the cost of quality

Conclusion

- Infrastructure provides the basic outline for economic and social progress of a country.
- Rural roads are recognised as catalysts to rural development and a significant element of poverty alleviation initiatives.

- To ensure quality in the construction of rural roads, vigorous quality control measures are followed, backed by independent quality checks and measurements.
- The future prosperity of rural India depends largely on how the road infrastructure is designed, facilitated, maintained, and made environmentally acceptable.
- Improved infrastructure is the key to achieve the objectives of an equitable and inclusive growth with social justice.

02

CONNECTING RURAL HEALTH SERVICES

GS Syllabus Covered

GS - II: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

GS - II: Issues relating to development and management of Health.

Introduction

- Rural Health care services is one of the **biggest challenges** faced by the Ministry of Health in India.
- With more than **70 percent of the population** living in rural areas and low levels of health facilities, mortality rates due to diseases are on a high.
- Over the last several years, the Government of India through the **National Health Mission, National Health Policy and Ayushman Bharat**, among other initiatives, has improved the health of its population, narrowing the rural-urban and rich-poor divide.

Rural Healthcare System

- The rural healthcare system is structured in three tiers.
- The **National Rural Health Mission (NRHM)** was launched in 2005 to provide healthcare services to the rural population initially with a focus on 18 states which had weak public health indicators and/or weak infrastructure.
- The mission envisaged architectural correction of the health system by building accountability to the community, management of human resources, convergence of efforts across departments, schemes and programmes, targeted innovations and interventions, flexible financing, as well as rigorous monitoring and evaluation for improvement of health indicators.

The core strategies of NRHM are as follows:

- Capacity enhancement of **Panchayati Raj Institutions (PRIs)** to own, control and manage public health services
- Developing a health plan for each village through the Village Health Committee of the Panchayat
- Developing and implementing an intersectoral District Health Plan, including drinking water, sanitation and hygiene, and nutrition through the **District Health Mission**
- Strengthening effective curative care at rural hospitals and ensuring measurability and accountability through Indian Public Health Standards (IPHS)
- Capacity development for promoting healthy lifestyles and adoption of preventive healthcare.

Gaps in Rural Health Services

- The Health Statistics Report highlights vast resource gaps which hinder the rural population from accessing quality healthcare.
- The findings showcase infrastructural improvement with PHCs housed in government buildings increasing from 69 percent in 2005 to 89 percent in 2020.
- The Report also notes a shortfall of approximately **70 percent of health assistants** (male and female).

Strengthening Rural Health Services

- Experiences and evidence from different states in India and across the world can be leveraged to guide improvements in healthcare in rural India.

(a) Connecting Communities through Technologies

- According to the Internet and Mobile Association of India, Internet users comprise 67 percent of the urban population and 30 percent of the rural population.
- This rapid expansion of mobile phones and the internet can be leveraged by taking advantage of technological advancements in delivering e-health services.
- Telehealth can be used to increase access to specialist consultations from an accessible PHC/ CHC.
- The Government of India has piloted several projects to deliver telehealth with the Indian Space Research Organisation (ISRO), Department of Information Technology (DIT), Ministry of External Affairs, Ministry of Health and Family Welfare, and various state governments.

Table 1: The Tier Wise Categorisation, Population Norms, Mandate, and Staffing Norms

Facility	Population Norm		Mandate	Minimum Staffing Norm ³
	Plain areas	Hilly/tribal areas		
Sub-Centre (SC)	5000	3000	Provides a peripheral contact between PHC and Community	1 Female Healthcare Worker (HW) ⁴ /ANM ⁵ and 1HW (Male)
Primary Health Centre (PHC)	30000	20000	Referral unit for 6 SC with 4 to 6 beds	A total staff of 15 including a Medical Officer (MO), Staff Nurse, ANM, Health Assistant (M&F), Lady health Assistant (LHV), Upper Division Clerk, Lower Division Clerk, Lab Technician, Driver, Class IV
Community Health Centre (CHC)	120000	80000	A 30-bed hospital or referral unit	A total staff of 25 including 4 MO (qualified/ trained to work as Surgeon/Obstetrician/Physicians and Paediatrician), 4 Staff Nurse (SN), 4 Ward Boys, 1 Radiographer, 1 Lab technician, 1 Dresser, and 7 support staff

(b) Analysing Data on Key Health Parameters to Undertake a Pulse Check on the Nation's Health

- Information from the National Family Health Survey, Annual Health Survey, and Rural Health Statistics Report enables the Government of India to evaluate and course-correct policies and programmes related to population health and nutrition.
- **Concurrent diagnosis and consolidated efforts** in the monitoring of healthcare-related input, output, and outcome indicators can provide concurrent insights into the bottlenecks and areas for improvement with respect to increasing access to quality healthcare.
- NRHM's Management Information Systems (MIS) are intended to monitor the health indices of the population and the functioning of the healthcare system.

(c) Embedding Comprehensive Healthcare Management in Nursing and Medical

- The objective of primary health care is to provide gatekeeping functions and deliver a range of basic services.
- This would lead to appropriate utilisation of primary health facilities and reduce the burden at the **secondary and tertiary levels of care by reducing unnecessary referrals**.
- **Creating cadres** of health professionals from the rural areas themselves who can be trained to deliver essential and basic health services is of the essence.

(d) Revitalising the Trust of Communities in Primary Healthcare to Minimise the Burden on Secondary and Tertiary Healthcare Facilities

- In an ideal healthcare system, the primary care level serves as the first point of contact for patients and also integrates seamlessly with other levels of the health system.
- However, due to gaps in implementation, many patients first encounter the health system at the secondary or tertiary levels of care.
- Therefore, a focused approach toward community involvement integrated with strong referral mechanisms has the potential to revitalise the trust of communities in the public health infrastructure.

(e) Prioritising Primary Healthcare to Address Rural-Urban Gaps

- The Annual Rural Health Statistics Report highlights gaps in manpower and infrastructure in rural areas which need to be addressed.
- Thus, it is imperative that budgetary allocations and implementation of key initiatives like the **National Health Mission, Pradhan Mantri Jan Arogya Yojana (PM-JAY)** are prioritised.

Conclusion

- The National Rural Health Mission through its Nationwide purview and with its financial and human resource can identify, adopt and scale such innovative solutions to address the equity gaps in rural areas.
- The 15th Finance commission also commended a strong focus on primary healthcare.
- An important step by the Government in this context has been the launch of the Pradhan Mantri Swasthya Suraksha Yojana (PMSSY) which aims to rectify the inequities in the availability of affordable healthcare facilities across the country.

03

TRANSFORMING RURAL CONNECTIVITY

GS Syllabus Covered

GS - II: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

GS - III: Indian Economy and issues relating to planning, mobilization, of resources, growth and development.

Introduction

- Rural connectivity both physical and digital was a development priority for India even before the COVID-19 pandemic but now it is indispensable.
- Rural connectivity provides an enabling environment for **improvement in livelihoods, employment, education and healthcare**.
- Since independence, India has made tremendous progress in improving rural connectivity with huge investment on rural infrastructure and a series of flagship schemes and programmes like **Pradhan Mantri Gram Sadak Yojana (PMGSY)**, **Bharat Net initiative** and so on.

Impact on Livelihoods

- Improved rural connectivity greatly contributes to the creation of an enabling environment for the local community that stimulates entrepreneurship like starting or expanding the existing local businesses.
- It ensures that local communities get more reliable and quicker access to outside products, services, information, and social linkages.
- It also enabled communities to fully **access existing government schemes, programmes and services**.
- Access to good quality rural infrastructure including the internet is a crucial factor for rural youth.
- Better connectivity and its accessibility play a crucial role for small and micro enterprises which operate at the bottom end of the value chain system.

Box 1- Significant Practices Carried out Under Aspirational District Programme

- Promoting local products through e-commerce portal - Goalpara district (Assam)
- Providing skill development and community outreach through the YUVA BPO - Dantewada district (Chhattisgarh)
- Model Anganwadis for holistic child development (including mobile science laboratory, digital literacy workshops) - West Singhbhum district (Jharkhand)
- Engagement of community members to improve financial inclusion - Ranchi district (Jharkhand)
- Utilisation of green technologies for better connectivity, Recycling the waste of single-use plastic to build roads - Goalpara district (Assam)

Aspirational Districts Programme: An Appraisal, UNDP, 2020

Engaging Local Institutions

- Rural connectivity programmes require a robust service enterprise framework with public and private stakeholders at the very core.
- There is a need to create a vibrant 4P model i.e., **Public- Private-Panchayat Partnerships** for inclusive and sustainable rural development through rural connectivity.
- With narrow and lopsided visions of the existing extension services, local institutions, such as Panchayats with support from other stakeholders operating in the rural landscape, can play the dual role:
 - regular and continuous engagement with extension agencies in the context of local planning to promote convergence of development activities at the local level.
 - monitoring of services delivery by these extension agencies.

Gram Panchayat Development Plan

- The Gram Panchayat Development Plan (GPDP) could be an effective tool to mainstream rural connectivity issues including funding internet connectivity in villages.
- Such innovative models may be examined in greater detail and possibility may be explored to replicate so as to expand the internet to penetrate rural areas.
- Availability of adequate funding, training and capacity development are concerns for robust and inclusive rural connectivity programmes.
- These include the necessity of a comprehensive programme of public investment in
 1. rural basic infrastructure, including improved road connection and 100 percent electrification
 2. development of rural human capital, ensuring adequate opportunities for education, healthcare and cultural development
 3. ensuring Internet connection, providing rural populations equal opportunities to make use of the new technologies that depend on digital platforms.

Conclusion

- India has made great progress in building the backbone infrastructure to enable connectivity in rural and remote areas.
- In order to promote connectivity in rural areas, governments can ease regulatory requirements for alternative business models such as community networks, PPP models; create a more enabling environment for investment in underserved areas through incentives such as tax breaks, Corporate Social responsibility (CSR) and crowdfunding, etc.
- Rural connectivity needs to be understood from the perspective of the most vulnerable people in the rural areas.



Nurturing Entrepreneurship

- Promote entrepreneurship** among new generation aspiring youth
- Boost small businesses** at grass root level
- Generate self-employment & create job opportunity** for others



Fulfilling Entrepreneurial Aspirations of Millions

- Provides easy access of credit to small & micro entrepreneurs**
- Simple documentation and quick processing**
- Loans provided to meet both term loan & working capital**
- Affordable collateral-free credit up to ₹10 Lakh**

GS Syllabus Covered

GS - II: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

GS - III

* Indian Economy and issues relating to planning, mobilization, of resources, growth and development.

* Infrastructure: Energy, Ports, Roads, Airports, Railways etc.

Background

- For economic development for any country, the development of its **roads and national highways** is inhabitable.
- Improved road infrastructure not only increases growth of an economy, it ensures the growth to be **inclusive and sustainable**.
- Physical infrastructures like roads have a multiplier effect on **economic development** of the region and **standard of living of people**.
- The **PM Gati Shakti programme** has been launched to expedite the infrastructure and road development in India.

Background

- The importance of having a proper road network in India was realised even before independence.
- In 1941, the **Road Development Plan** classified roads into five categories namely, National Highways (NH), State Highways (SH), Major District Roads (MDR), Other District Roads (ODR) and Village Roads (VR).
- Out of them the ODR and VR are being categorised as Rural Roads.

Theoretical Framework

- The highways are one of the most important means of communication in India.
- Generally, the development of highways create impact on lives of people, especially rural people living in proximity in two ways:
 - Direct impact in the form of enhancement of spatial connectivity, which increase mobility of people and freight
 - Reduction of the cost of provision as well as the cost of use of road infrastructure.

Advantages of highway development

- One of the most important implications of development of highways in rural areas is change in the land use pattern.
- The new land use pattern induced by the development of highways creates more provision for non-farm sector development.
- These new land use patterns may in turn induces greater accessibility to **job markets, health and educational facilities, attract investment for the development of feeder roads, power distribution networks, telecommunication facilities**.
- These developments tend to create changes in the pattern of economic activities, income generation, price evolution, employment conditions in the proximity of rural areas.

Evidence from India

- The change in socio-economic situation of rural population in proximity of a national highway (NH) has been tested by various research studies.
- It has been found that in developing economies like India, a large public investment project on road infrastructure development, plays a crucial role in reducing rural poverty and enhancing socio-economic wellbeing of the people living in proximity of highways (Sengupta, Coondoo, & Rout, 2016).
- The study by the **Asian Institute of Transport Development (2011)** found that the net benefit of developed highways mostly relates to improvement in access to work and educational opportunities.

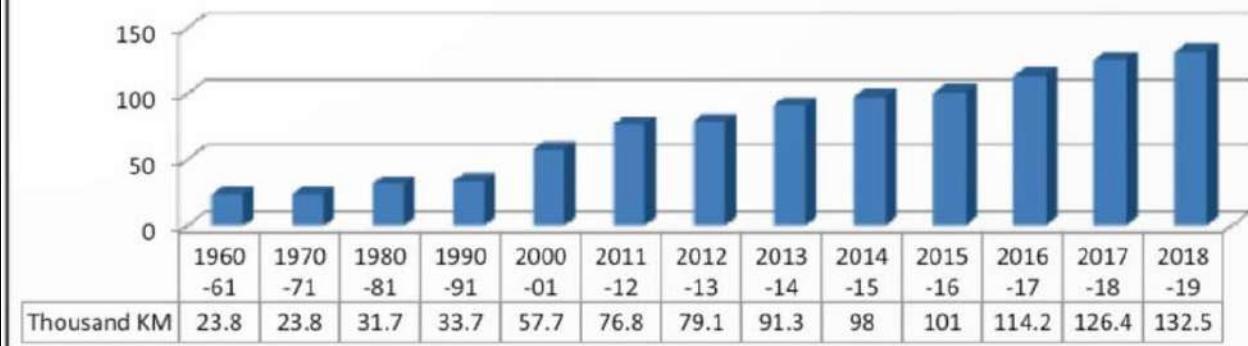
- The study found three-fold increase in the share of income from non-agricultural activities; 85 percent increase in female labour force participation and about 50 percent increase in school enrolment.

Current Status and Policy Paradigm

- In an economy, spending on infrastructure creates a multiplier effect on creation of additional income.
- Capital expenditure** has a direct link with spending on creating new infrastructure.
- In the last 60 years the development of highways has increased many folds in India.
- The current policy paradigm also indicates increasing economic development through development of physical infrastructures like roads and highways.
- The initiation of **PM Gati Shakti to develop physical infrastructure** is a welcome effort by the current government.
- The extent of road construction per day has increased in 2020-21 to 36.5 kms per day from 28 kms per day in 2019-20, a rise by 30.4 percent.
- The total expenditure of the Ministry of Road Transport and Highways for 2021-22 is estimated at Rs. 1,18,101 crores.
- The Union Budget 2022-2023 aims for the formulation of the Master Plan for expressways and completing 25,000 km national highways in 2022-23.

Graph 1: Length of National Highways over the years

Length of National Highways



Source: Economic Survey, 2021-2022, Ministry of Finance, Government of India

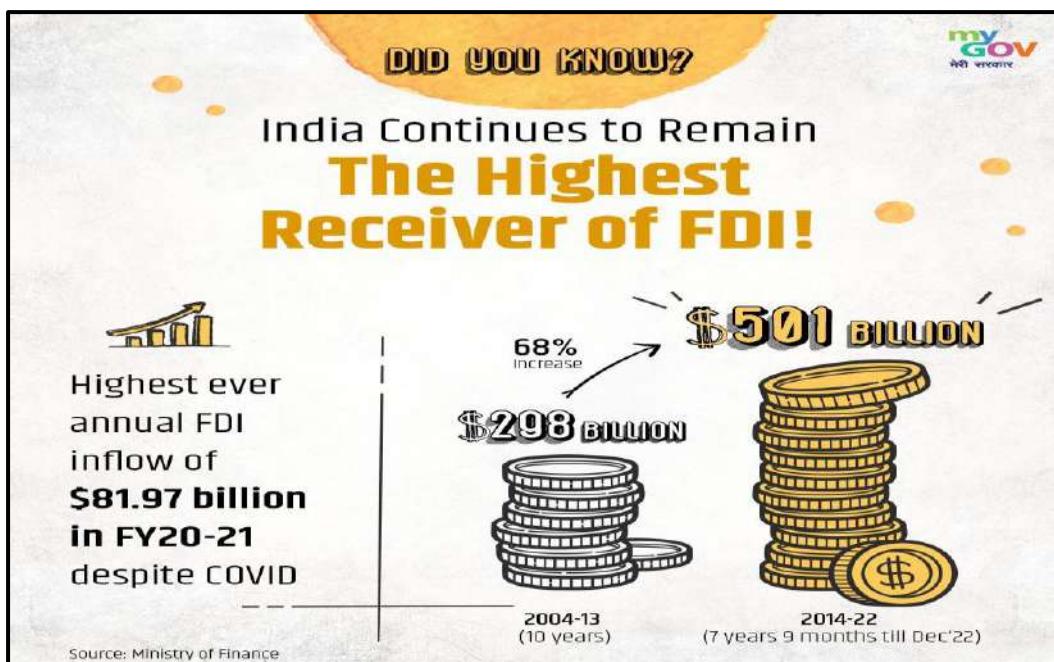
Bharatmala Programme

- The initiative of connecting a large part of grand India through road connectivity has been initiated in 2017 under the **Bharatmala Pariyojana scheme**.
- The Bharatmala Pariyojana is a paradigm shift in the infrastructural development programme in India.
- The programme has been conceptualised as **India's largest infrastructure programme**.
- The programme aims to develop 34,800 km of National Highway corridors, connecting 600+ districts in the nation.
- Bharatmala Pariyojana focuses on development of 24,800 km of dedicated expressways, **access-controlled economic corridors, associated feeder routes, coastal and port connectivity, and border and international connectivity corridors**.

Conclusion

- The development of the highways network is one of the strategies to push the physical infrastructure endowment of a country.
- The highway connectivity in rural areas has impacts upon change in agriculture and crop pattern, enhancing accessibility of education and health as well enhancing value of land in proximity areas.
- Along with this, the improved connectivity through highways also provides an impetus to shift of livelihood practices and paves more opportunities in non-farm sector employment.

- The initiative like PM Gati Shakti and programmes like Bharatmala Pariyojana are examples of creating a strong multiplier effect of public expenditure on income and standard of living of people of rural India.



05

DIGITAL TECHNOLOGIES FOR DEVELOPMENT

GS Syllabus Covered

GS - II: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

GS - III: Inclusive growth and issues arising from it.

Introduction

- Digital technologies have the potential to boost more **inclusive and sustainable growth** by spurring innovation, generating efficiencies and improving services.
- It offers new methods such as **e-learning, educational formats and AI applications** that provide an opportunity to reach important target groups and partners more easily.
- Digital change has a major **impact on political, social and economic processes**.
- Digital technologies are also an important tool in helping countries to confront and recover from the COVID-19 pandemic that has disrupted economies and societies globally.

Digital Technologies and Women Empowerment

- Numerous changes have taken place in the way people communicate, conduct business, and connect because of information and communication technologies (ICTs).
- Using ICTs, men and women, minorities, and disabled individuals have received equal work prospects.
- Digitalisation can advance **gender equality and women empowerment** by providing women with opportunities to find and share information, **access health and educational services**, generate income and collaborate with others while also having the ability to have their voices heard.

1. Educational Empowerment

- Every country is taking advantage of new technologies to assist and increase training for women and girls in education.
- This includes using computers, the Internet and broadcast media such as radio and television.

2. Health Empowerment

- Women's health programmes at the global, regional, and national levels stand to benefit significantly from information and communications technologies. Health promoters in developing nations, such as India, have employed electronic gadgets to broadcast the public's health-related information on sexual and reproductive rights. ICTs offer the ability to deliver locally adapted health information to women through community access points.

3. Political Empowerment:

- Worldwide, people are utilising ICTs in novel ways for networking and political activities.
- The advent of ICTs encouraged the formation of alternative organisations and non-governmental organisations (NGOs) to address topics that are not effectively addressed by traditional media.
- ICTs can assist in strengthening women's networks for social and political activism, expanding women's engagement in the political process.

4. Economic Empowerment:

- ICTs contribute to women's economic empowerment by providing chances for women to own and operate ICT projects.
- Further, ICTs foster an environment conducive to women participating in activities and initiatives to defend their demands and advance their goals.
- ICTs also provide economic opportunities in terms of finance and financial decision-making.

Direct Benefits Transfers (DBT)

- With the Direct Benefit Transfer (DBT) programme, the government is reengineering current delivery processes to ensure better and more timely delivery of benefits through ICT.
- The programme also supports in-kind transfers from the government to individual beneficiaries. Through DBT and other governance reforms, the government has been able to eliminate duplicate/fake beneficiaries and plug leakages, among other things, allowing it to focus on the genuine and deserving beneficiaries instead.
- The DBT has improved the government system's **efficiency, effectiveness, transparency, and accountability and instilled citizens' confidence in governance.**
- To accomplish the objective of Maximum Governance, Minimum Government, current technology and information technology instruments are utilised.

DBT Government Schemes

1. Anganwadi Services - Honorarium to Anganwadi Workers (AWW) and Anganwadi Helper (AWH)

- AWWs at main Anganwadi Centres (AWCs) currently receive an honorarium of Rs. 4,500 per month; AWWs at mini-AWCs receive an honorarium of Rs. 3,500 per month, and AWH receive an honorarium of Rs. 2,250 per month.
- Improved working conditions for Anganwadi workers have been made possible by revised joint guidelines issued by the Ministry of Women and Child Development, the Ministry of Rural Development, and the Panchayati Raj for the construction of 4 lakh AWC buildings across the country as part of the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) in collaboration with Anganwadi Services (ICDS Scheme).

2. Supplementary Nutrition Programme

- The Supplementary Nutrition Programme is being run by the Ministry of Women and Child Development to improve women and children's nutritional status.
- It is part of the Integrated Child Development Services (ICDS) programme, which is meant to help pregnant women, lactating mothers, and out-of-school adolescent girls who are not in school get the food they need (11-14 years).
- The Poshan Tracker is a mobile application launched by the Ministry as a critical governance tool.
- Poshan Tracker's technology identifies stunting, wasting dynamically, and underweight prevalence among youngsters and tracks nutrition programme delivery down to the last mile.

3. Scheme for Adolescent Girls (AGs)

The fundamental objective of the project is to aid, educate, and empower AGs.

Aims of the initiative include the following:

- Students who have dropped out of school are assisted in making a smooth transition back to formal schooling or bridge learning/skill training.
- They are informed and directed to existing public services such as primary health centres and rural hospitals.
- Provide opportunities for self-development and empowerment for the AGs.
- Increase the nutritional and health status of the participants.

4. National Creche Scheme

- It is being implemented as a centrally sponsored scheme through states/UTs by the Ministry of Women and Child Development to provide day-care facilities to children (between the ages of 6 months and six years) of working mothers.
- The scheme is being implemented with the assistance of states/UTs.

5. Integrated Child Protection Scheme (ICPS)

- It is a centrally financed programme that aims to create a protective environment for children from disadvantaged backgrounds and other vulnerable children through collaborations between government and civil society organisations.
- The ICPS would institutionalise essential services and strengthen structures, increase capacities at all levels, develop a database and knowledge base for child protection services, strengthen child protection at the family and community level, and ensure an appropriate intersectoral response at all levels, among other objectives.

6. Swadhar Greh

- Swadhar Grehs have the following objectives:
- To help people rebuild their emotional power, which their experience with unpleasant circumstances has impaired.
- To offer them legal assistance and counselling for them to be able to take measures toward reintegrating into their families and communities.
- To help women regain their financial and mental stability.
- To serve as a support system that is sensitive to and responsive to the needs of women in distress.

7. Ujjawala

- The scheme aims to achieve the following objectives
- Preventing the trafficking of women and children for commercial sexual exploitation through social mobilisation and participation of local communities
- Generating public discourse through workshops/seminars and other similar events, as well as any other innovative activity
- To aid victims with both immediate and long-term rehabilitation services, it is necessary to address their basic needs, including shelter, food, clothing, medical treatment, counselling, legal support and guidance, and vocational training.

Leveraging Digitalisation to Achieve Gender Equality

- There is no single solution to narrowing the digital divide between men and women.
- Gender inequality is caused by various economic, social, political, and cultural barriers.
- The government should ensure that new technologies prioritise, safeguard, and promote women's human rights.
- Women role models and mentors in STEM must be promoted by policymakers who must address exclusionary policies and terminology.
- For women and men to have equal access to well-paying jobs and professions, companies, particularly in the technology sector, must adopt gender mainstreaming policies.
- Labour market rules that maternity/parental leave and childcare must be developed. include paid affordable

Conclusion

- Women Empowerment can be a significant driver of macroeconomic growth and stability in the present and the future.
- This goal cannot be achieved without the progress of information and communication technologies.

- Additionally, the women empowerment initiatives promote ability development, confidence, access to data and assets, and community action, all of which help women develop into confident decision-makers and leaders in their homes and communities.

06

RAILWAY CONNECTIVITY

GS Syllabus Covered

GS - II: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

GS - III: Infrastructure: Energy, Ports, Roads, Airports, Railways etc.

Introduction

- India's railway network is recognised as one of the **largest railway systems in the world** under single management.
- India has the fourth largest railway network with over 22,593 operating trains with a daily passenger count of 24 million passengers and 203.88 million tonnes of freight.
- The railway network is also ideal for long-distance travel and movement of bulk commodities, apart from being an energy efficient and economic mode of conveyance and transport.
- Indian Railways is the **preferred carrier of automobiles in the country**.

Transport infrastructure

- Transport infrastructure has tremendous impact on various economic activities and helps in attainment of regional and balanced development.
- Especially 'Railway Infrastructure' is considered as an important contributing factor for regional, social, economic development of a country like India.
- It helps in multiple ways which include:
 - Creation of employment**
 - Enhances connectivity**
 - Improves accessibility**
 - Increases production**
 - Facilitates trade and commerce and is overall considered as an engine of progress and a great source of national integration.**

Growth and Trends in Indian Railways

- Indian Railways has witnessed a paradigm shift in its focus towards new technologies, customer service enhancement, efficient passenger operations and better freight services.
- Railway provides various services for **goods and passenger transportation**.
- It is projected that by 2050, India will account for 40 percent of the global share of rail activity and hence would need an investment of Rs. 50 lakh crore (by 2030) in railway infrastructure development.
- Government has also opened up for PPP beyond the supporting roles of the private sector.
- For Indian Railways, freight remains the major source of revenue which accounted for around 65 percent of the total revenue generated in FY 20 whereas 35 percent are accounted for from passenger segment.
- In freight traffic, Indian Railways plans to achieve 2024 MT (million tonnes) of loading in 2024 from the current level of 1200- 1300 MT.



Dedicated Freight Corridor

- The dedicated freight corridor (DFC) project is one of the most ambitious projects undertaken by Indian Railways.
- It is being developed along the **Golden Quadrilateral** (GQ) to link the four metropolitan cities of **Delhi, Mumbai, Chennai and Kolkata**, and the two diagonals of the quadrilateral they form (Delhi-Chennai and Mumbai-Kolkata).
- Presently, the GQ accounts for about 16 percent of total route length, carrying over 58 percent of its freight traffic and 52 percent of its passenger traffic.
- The World Bank has funded Rs. 124.53 billion for the eastern DFC, while the Japan International Cooperation Agency provided Rs. 387.22 billion for the western DFC.
- Looking at the enormous opportunities and benefits, additional dedicated freight and high-speed lines are also being planned.
- These routes are freight-intensive and have high iron ore, coal, cement and steel traffic.

PM Gati Shakti and Railways

- PM Gati Shakti is a transformative approach driven by seven engines, namely, **Roads, Railways, Ports, Airports, Waterways, Mass Transport and Logistics Infrastructure** to spur economic growth and sustainable development.
- It will help in developing world-class modern infrastructure and logistics which will bring synergy by providing multi-modal integrated and seamless connectivity for movement of people, goods and services.
- As a part of 'Atma Nirbhar Bharat', 2,000 km of rail network will be brought under 'Kavach', which is an indigenously developed anti-collision system with world-class technology to prevent accidents.
- Kavach will help railways to achieve its goal of zero accidents.

Atma Nirbhar Bharat Initiative

- The Indian Railway has also started manufacturing smart coaches, which provide additional features like announcements, information on trains approaching different stations and air-conditioning and temperature control, etc.
- In 2022-23, Indian Railway plans to manufacture 8,429 train coaches and rakes including 75 Vande Bharat Express trains, 220 Tejas and 70 Vista dome coaches.

Kisan Rail and Rural Upliftment

- The commencement of 'Kisan Rail' is another important initiative to improve the freight business in general and provide a push to farmers in particular.

- Kisan Rail also provides a 50 percent subsidy in the freight segment.
- This will definitely help in maintaining the **supply chain and ensuring the availability of essential items including the agricultural products.**
- The concept of 'One Station, One Product' has been introduced to help the farmers, agri entrepreneurs and local businesses and supply chains.
- Railways will develop new products and efficient logistics services for small farmers and MSMEs, besides taking the lead in integration of Postal and Railways networks to provide seamless solutions for movement of parcels.
- The Government has announced plans to develop one hundred PM Gati Shakti cargo terminals for multimodal logistics facilities in the next three years.

Green Fuel Initiatives

- Indian Railways is aiming to achieve 100 percent electrification of railway lines by December 2023, thus reducing the carbon emission level and improving the functioning and system of transportation.
- This will make Indian Railway, the first major railway in the world to have a fully electrified broad gauge railway network of such a size.
- Indian Railway has adopted an environment friendly technology called **Head-on Generation (HOG) system** for supplying power to passenger coaches, which eliminates the requirement for separate power cars in trains, thus cutting down energy costs significantly.
- Indian Railways aims to generate 20 GW of renewable energy from solar and wind energy projects to meet its annual power requirement of around 21 billion units.

Connecting the North-East and Mining Districts

- Further, a major initiative has been undertaken to boost rail connectivity in the north-eastern region of the country as a part inclusive development.
- Under this initiative, the entire rail network of the north-eastern states is being converted to broad gauge.
- Meanwhile, major cities in Assam, Tripura and Arunachal Pradesh are being connected by rail. In addition, under its 'Mission Hungry for Cargo' initiative, the Railways is targeting a 45 percent modal share in freight transportation from the current 27 percent.
- The Railways plans to even fund these lines on its own so that there are no delays.
- This will make railways not only the cheapest but the most convenient transporter in this sector.

Conclusion

- Indian Railways has undergone tremendous changes in terms of digitisation and innovation. The recent initiatives taken up by Indian Railways not only will reduce the cost of transportation in terms of time and money but also will act as a catalyst for regional and balanced growth.
- According to the National Rail Plan, Vision 2024, the Indian Railways has to accelerate implementation of critical projects.
- The enhanced CAPEX, coupled with the National Infrastructure Pipeline and the PM Gati Shakti National Master Plan will be the cornerstone of India's infrastructure development and will act as a booster for faster economic growth in achieving India's goal of becoming a five trillion-dollar economy by 2025.

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