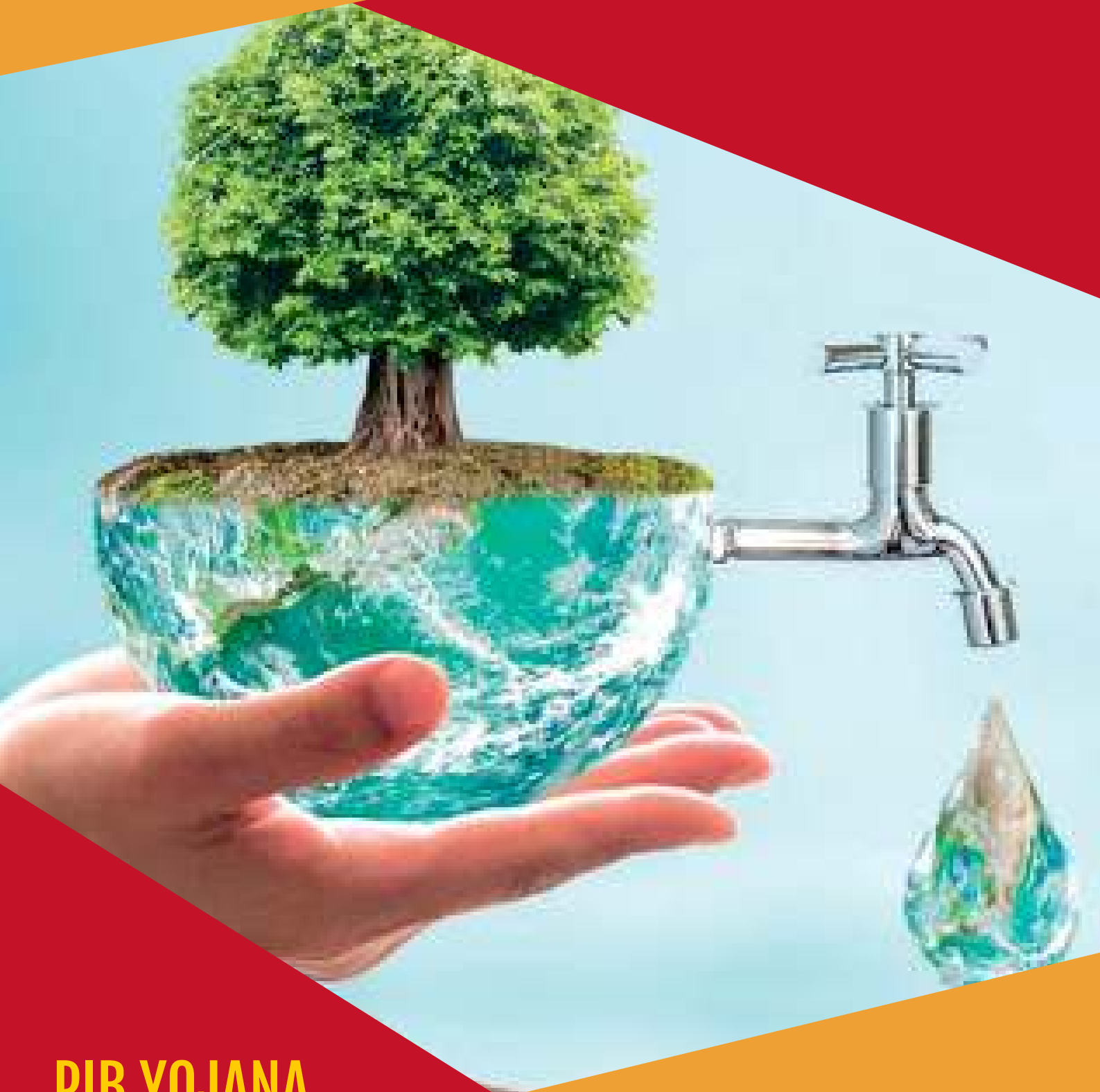




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GENERAL STUDIES PAPER-II

Data Governance Quality Index (DGQI)

- Niti Aayog has recently undertaken DGQI exercise. It is a Self-assessment based review of data preparedness levels across Ministries / Departments to produce a DGQI score-card.
- Subsequently, a survey was initiated assessing data preparedness of Ministries / Departments on a standardized framework to drive healthy competition among them and promote cooperative peer learning from best practices.

About the Survey

- In this survey, an online questionnaire was prepared under six major themes of DGQI
- Weights were assigned to the themes and sub-weightages to each question within every theme to arrive at final DGQI scores ranging between 0 to 5 for every scheme.
- To avoid straight-forward irrelevant comparisons, Ministries / Departments were classified in 6 (six) categories: Administrative, Strategic, Infrastructure, Social, Economic and Scientific.
- Questionnaire was then shared with Ministries / Departments, which are implementing CS / CSS schemes. Inputs have been collected from 65 Ministries / Departments implementing 250 CS / CSS schemes and their scores were accordingly calculated.



Highlights of the Survey

- Department of Fertilizers under the Ministry of Chemicals and Fertilizers has been ranked 2nd amongst the 16 Economic Ministries / Departments and 3rd out of the 65 Ministries / Departments with a score 4.11 on a scale of 5 on Data Governance Quality Index (DGQI).

One Nation One Ration Card System

Why in News

- Ministry of Finance has granted additional borrowing permission to two more States, Uttar Pradesh & Andhra Pradesh for successfully undertaking reforms in the Public Distribution System (PDS) and Ease of Doing Business. This will make an additional amount of Rs. 7,376 crore available to these States.

About the Scheme

- One Nation One Ration Card System ensures availability of ration to beneficiaries under the National Food Security Act (NFSA) and other welfare schemes, especially to the migrant workers and their families, at any Fair Price Shop (FPS) across the country.
- It also enables better targeting of beneficiaries, elimination of bogus/ duplicate/ineligible cardholders.
- Thus, One Nation One Ration Card enhances welfare and reduces leakage.
- To ensure seamless inter-state portability of a ration card, Aadhar seeding of all ration cards as well as biometric authentication of beneficiaries through automation of all Fair Price Shops (FPSs) with the installation of electronic point of sale (e-PoS) devices are essential.
- Department of Food and Public Distribution is the nodal Ministry to assess reform claims of the States and recommend release of additional borrowing limit of 0.25 percent of GSDP.

About Ease of Doing Business

- Ease of Doing Business is an important indicator of an investment-friendly business climate in the country. Improvement in the ease of doing business will enable faster future growth of the state economy. Therefore, to incentivize implementation of district level and licensing reforms for ease of doing business, an additional borrowing facility of 0.25 per cent of GSDP has been allowed to the States on the recommendation of the Department for Promotion of Industry and Internal Trade (DPIIT).

Reforms which are eligible to be counted as Ease of Doing Business

Ease of Doing Business

1. Completion of the first assessment of 'District Level Business Reform Action Plan' as intimated by DPIIT.	Elimination of the requirements of renewal of certificates/ approvals/ licences obtained by businesses for various activities from the authorities at the State level as per list circulated by DPIIT.	Implementation of computerized central random inspection as per DPIIT Guidelines system Allocation of inspectors is done centrally	Collection of reasonable fees with automatic non-discretionary renewal done through 1. Transparent online. 2. Non-discretionary. 3. Automatic manner
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Highlights of One Nation One Ration Card

1. Department of Food and Public Distribution has confirmed that the States of Uttar Pradesh, Andhra Pradesh, Telangana, Goa, Karnataka and Tripura have successfully carried out aforesaid reforms in PDS and implemented One Nation One Ration Card System.
2. Andhra Pradesh has become the 1st State in the country to successfully undertake "Ease of Doing Business" reforms and has thus become eligible to raise an additional amount of Rs. 2,525 crores through Open Market Borrowings. Earlier Andhra Pradesh had also completed PDS reforms to enable One Nation One Ration Card System.

Additional Borrowing Facility

- Given the unprecedented COVID-19 pandemic, the Central Government had in May 2020 allowed additional borrowing limit of up to 2 percent of Gross State Domestic Product (GSDP) to the States for the year 2020-21. One percent of this is subject to the implementation of following four specific State-level reforms, where weightage of each reform is 0.25 percent of GSDP: -

Implementation of One Nation One Ration Card System	Ease of doing business reform	Urban Local body/ utility reforms	1. Power Sector reforms
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Fingerprint Bureau 2020

Why in News

- Union Minister of State for Home, Shri G.Kishan Reddy digitally inaugurated the 21st All India Conference of Directors, Fingerprint Bureau 2020.

About Fingerprint Bureau

- Central Finger Print Bureau (CFPB) came into being in 1955 in Calcutta (now Kolkata) under the administrative control of the Intelligence Bureau.
- In 1973 the administrative control was transferred to CBI.
- In July 1986 the CFPB was placed under the administrative control of the newly formed National Crime Records Bureau.
- The service is free of charge for all Government agencies and Public Sector Undertakings.

Objective

- The main functions of the CFPB have been mainly to maintain a database of fingerprint of criminals, National & International, and to disseminate the information. The basic objectives were:
- **To maintain Finger Print Record Slips**, conduct search of specified categories of Indian and foreign criminals convicted of offences falling under the schedule of the crime of CFPB, and also, to maintain records of international criminals sent by the Interpol Division of CBI and Narcotics Control Bureau, New Delhi.
- **To undertake an examination of questioned finger impressions** referred by Central Govt. departments and Govt. of India undertakings.
- **To impart training in F.P. Science (Theory and Practical) to police and non-police personnel of State Govts.**
- **To Co-ordinate the work of the State Finger Print Bureaux**
- **To conduct All Indian Board Examination (since 1956)** every year for accrediting the Finger Print Experts. The eligibility to appear in the examination is a graduate from a recognized university and who has completed three years of practical experience in fingerprint work.
- To conduct the competition in Finger Print Science at the All India Police Duty Meet (since 1958) annually.
- To publish 'Finger Print in India', an annual publication, which is an in-depth study of the performance and activities of all the Finger Print Bureaux of the country

Automated Fingerprint Identification System

- The Indian Version of Automated Fingerprint Identification System (AFIS) is called FACTS, which was co-developed, by NCRB and CMC Ltd. India, The current version of FACTS is 5.0.
- The system uses the Image Processing and Pattern Recognition technique to capture, encode, store and &match fingerprints, including a comparison of chance prints.
- Apart from the above details, FACTS also stores non-fingerprint information or demographic details like gender, region and conviction details.

Registration of Political Parties

Why in News

- Election Commission of India has given relaxation and has reduced the notice period from 30 days to 7 days for the parties who have published their public notice on or before 07.10.2020.

Existing guidelines

- Registration of political parties is governed by the provisions of section 29A of the Representation of the People Act, 1951.
 - A party seeking registration under the said section with the Commission has to apply to the Commission within 30 days following the date of its formation in prescribed format with certain basic particulars about the party such as name, address, membership details of various units, names of office bearers, etc, as required under subsection (4) of the said section, and such other particulars as the Commission may specify under sub-section (6) of Section 29A of the Representation of the People Act, 1951.
1. The application should be neatly typed in Party's letterhead(if any).
 2. A non-refundable processing fee of Rs. 10000/- is required to be deposited.
 3. No Objection Certificate from the owner of the premises where the Party Office is situated.
 4. The Party must contest an election conducted by ECI, within 5 years from its formation.

Section 29A of the Representation of the People Act, 1951

- **Registration of political parties** is governed by the provisions of Section 29A of the Representation of the People Act, 1951. A party seeking registration under the said Section with the Commission has to apply to the Commission.
- As per existing guidelines, the applicant association is inter-alia asked to publish the proposed name of the party in two national daily newspapers and two local daily newspapers, on two days in same newspapers, for inviting objections, if any.
- The **registered but unrecognised** political parties do not have the privilege of contesting elections on a fixed symbol of their own. They have to choose from a list of '**free symbols**' issued by the poll panel.

- To enable applicants to track the status of the application, the Commission has launched a “**Political Parties Registration Tracking Management System (PPRTMS)**”.

Criteria for a recognized state party

- At General Elections or Legislative Assembly elections, the party has won 3% of seats in the legislative assembly of the State (subject to a minimum of 3 seats).
- At a Lok Sabha General Elections, the party has won 1 Lok Sabha seat for every 25 Lok Sabha seats allotted for the State.
- At a General Election to Lok Sabha or Legislative Assembly, the party has polled a minimum of 6% of votes in a State and also it has won 1 Lok Sabha or 2 Legislative Assembly seats.
- At a General Election to Lok Sabha or Legislative Assembly, the party has polled 8% of votes in a State.

STARS project -World Bank

Why in News

- The Union Cabinet has approved the following:
- Implementation of the **Strengthening Teaching-Learning and Results for States (STARS)** project with a total project cost of Rs 5718 crore with the financial support of World Bank amounting to the US \$ 500 million (approximately Rs. 3700 crores).
- STARS project would be implemented as a new Centrally Sponsored Scheme under the Department of School Education and Literacy, Ministry of Education. (MOE)
- Setting up and support to the National Assessment Centre, PARAKH as an independent and autonomous institution under the Department of School Education and Literacy, MOE.

About STARS Programme

- The project covers 6 States namely Himachal Pradesh, Rajasthan, Maharashtra, Madhya Pradesh, Kerala and Odisha. The identified States will be supported by various interventions for improving the quality of education.
- Besides this project, it is also envisaged to implement a similar ADB funded project in 5 states namely Gujarat, Tamil Nadu, Uttarakhand, Jharkhand and Assam.
- All states will partner with one other state for sharing their experiences and best practices.
- STARS project seeks to support the states in developing, implementing, evaluating and improving interventions with direct linkages to improved education outcomes and school to work transition strategies for improved labour market outcomes.
- The overall focus and components of the STARS project are aligned with the objectives of the National Education Policy (NEP) 2020 of Quality-Based Learning Outcomes.
- The project shifts focus from the provision of inputs and maintaining outputs to actual outcomes by linking the receipt and disbursement of funds to these outcomes.

Components

- At the national level, the project envisages the following interventions which will benefit all states and UTs:
- To strengthen national data systems to capture robust and authentic data on retention, transition and completion rates of students.
- To support MOE in improving states PGI scores by incentivizing states governance reform agenda through SIG (State Incentive Grants).
- To support the strengthening of learning assessment systems.
- To support MOE's efforts to establish a National Assessment Center (PARAKH).

At the State level, the project envisages:

- Strengthening Early Childhood Education and Foundational Learning.
- Improving Learning Assessment Systems.
- Strengthening classroom instruction and remediation through teacher development and school leadership
- Governance and Decentralized Management for Improved Service Delivery.
- Strengthening Vocational education in schools through mainstreaming, career guidance and counselling, internships and coverage of out of school children.
- STARS project includes a **Contingency Emergency Response Component (CERC)** under the National Component which would enable it to be more responsive to any natural, man-made and health disasters.

- It will help the government respond to situations leading to loss of learning such as school closures/ infrastructure damage, inadequate facilities and use technology for facilitating remote learning etc.
- STARS project also aims to focus on initiatives of **PM e-Vidya, Foundational Literacy and Numeracy Mission** and **National Curricular and Pedagogical Framework** for Early Childhood Care and Education as part of the Atmanirbhar Bharat Abhiyan.

Desired Outcomes

- Increase in students achieving minimum proficiency in grade 3 language in selected states.
- Improvement in secondary school completion rate.
- , Improvement in governance index scores.
- Strengthened learning assessment systems.
- Partnerships developed to facilitate cross-learning between states.
- Strengthened school management by training of Head Teachers and Principals for improved education service delivery.

Natural Gas Marketing Reforms

Brief Details

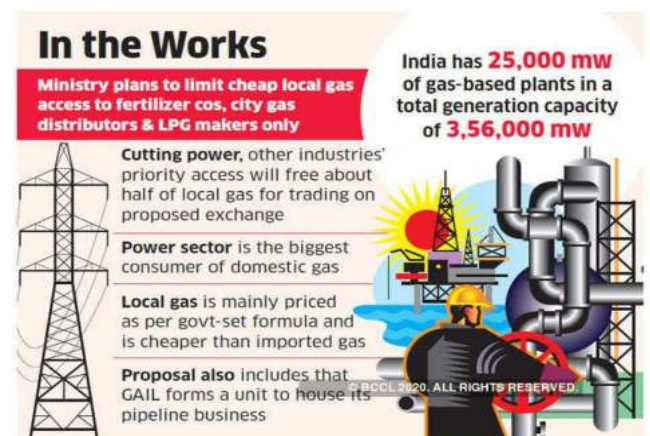
- Cabinet Committee on Economic Affairs has approved 'Natural Gas Marketing Reforms', taking another significant step to move towards a gas-based economy.
- The objective of the policy is to prescribe the standard procedure to discover the market price of gas to be sold in the market by gas producers, through a transparent and competitive process, permit Affiliates to participate in the bidding process for the sale of gas and allow marketing freedom to certain Field Development Plans (FDPs) where Production Sharing Contracts already provide pricing freedom.

Aim and Objective

- The policy aims to provide a standard procedure for the sale of natural gas transparently and competitively to discover market price by issuing guidelines for sale by the contractor through e-bidding.
- This will bring uniformity in the bidding process across the various contractual regimes and policies to avoid ambiguity and contribute towards ease of doing business.
- The policy has permitted Affiliate companies to participate in the bidding process given the open, transparent and electronic bidding. This will facilitate and promote more competition in the marketing of gas. However, rebidding will have to be done in case only affiliates participate, and there are no other bidders.
- The policy will also grant marketing freedom to the **Field Development Plans (FDPs)** of those Blocks in which Production Sharing Contracts already provide pricing freedom.

Probable Outcome

- The whole eco-system of policies relating to production, infrastructure and marketing of natural gas has been made more transparent with a focus on **ease of doing business**.
- These reforms will prove very significant for Atmanirbhar Bharat by encouraging investments in the domestic production of natural gas and reducing import dependence.
- These reforms will prove to be another milestone in moving towards a gas-based economy by encouraging investments.
- The increased gas production-consumption will help in the improvement of the environment.
- These reforms will also help in creating employment opportunities in the gas-consuming sectors including MSMEs.
- The domestic production will further help in increasing investment in the downstream industries such as City Gas Distribution and related industries.



JalJeevan Mission (JJM)

- The JalJeevan Mission of the Ministry of Jal Shakti aims to provide tap water connection to every rural home by 2024. Govt. of Haryana has launched a State of the Art Mobile Water Testing Laboratory Van, fully equipped with a multi-parameter system containing analyzers/ sensor/ probes/ instruments meant for water testing.



Philately Day

- India Post, Mumbai which has commenced the celebration of the National Postal Week from 9th October has come out with unique philately merchandise –a ‘Stamped Mask’. These are the masks, with images of postage stamps imprinted on them.
- A virtual card containing the name, beat number, area of service, contact number and photo of the postman/postwoman, would be circulated to customers, which will help them to know their postmen better and contact them directly in case of any emergency.

13th October is Philately Day.

- Philately is the study of postage stamps and postal history. It also refers to the collection, appreciation and research activities on stamps and other philatelic products.
- Goa Postal Division released a Philatelic Passport on “Festivals of Goa-Series I”.

About Philatelic Passport

- Philatelic Passport a unique collectable item in which the name of different countries/ locations/ cities is provided along with pictures and local information on each separate page.
- An individual can paste a relevant stamp and get it cancelled with the postmark available in that particular area.
- It acts as a tourist guide and also enriches the knowledge of the visitors

Madhya Pradesh Urban Services Improvement Project

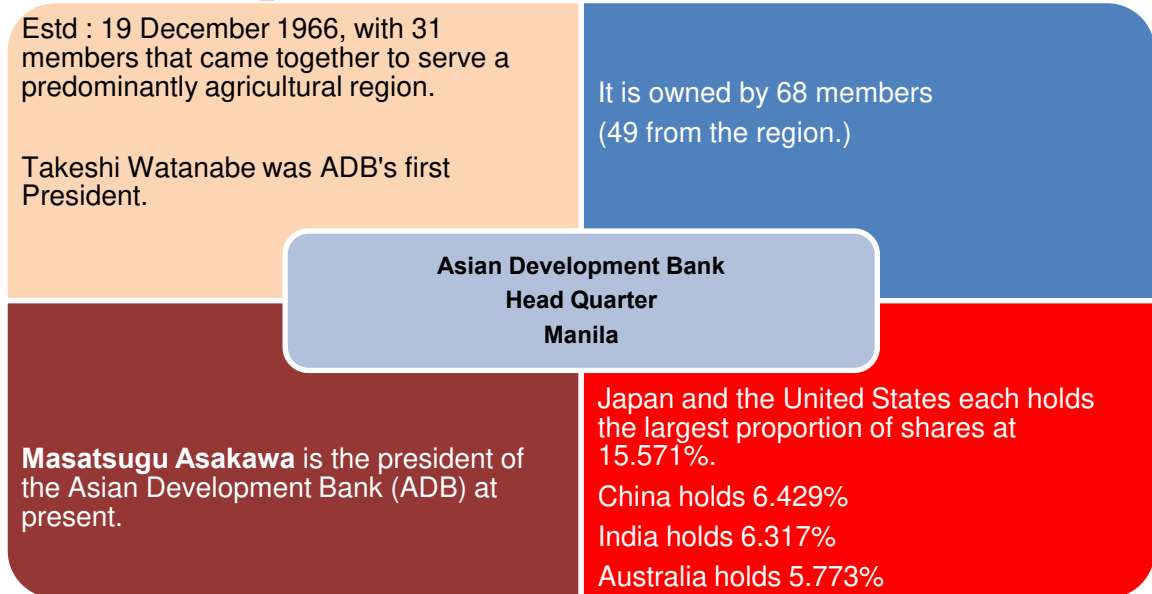
- Asian Development Bank (ADB) and the Government of India has recently signed a \$270 million loan to develop water supply and integrated storm water and sewage management infrastructure and strengthen capacities of urban local bodies (ULBs) for improved service delivery in the state of Madhya Pradesh.
- This is additional financing to scale up the scope of the ongoing Madhya Pradesh Urban Services Improvement Project, which was approved in 2017 with a \$275 million loan.
- The project will receive support from the Bill & Melinda Gates Foundation. The project is aimed at improving livability in selected cities with the provision of universal access to basic water and sanitation services for the residents. This is aligned to the vision of the Government of Madhya Pradesh to improve urban infrastructure services with universal coverage of piped water supply in all urban local bodies by 2025.

Rajasthan Secondary Towns Development Sector Project

- The Government of India and the Asian Development Bank (ADB) has signed a \$300 million loan to finance inclusive and sustainable water supply and sanitation infrastructure and services in 14 secondary towns of the state of Rajasthan.
- The project aims to provide better quality and more sustainable water supply and sanitation (WSS) services in the project towns that will improve quality of life in these towns, including for the poor and vulnerable.
- Through the project, water supply systems in at least eight project towns are expected to improve by 2027, benefiting more than 570,000 people. Citywide sanitation systems will benefit about 720,000 people in at least 14 secondary towns.



About Asian Development Bank



Rashtriya Kamdhenu Aayog (RKA)

- It was constituted for the conservation, protection and development of cows and their progeny and for giving direction to the cattle development programmes.
- It is a high powered permanent body to formulate policy and to provide direction to the implementation of schemes related to cattle to give more emphasis on livelihood generation.
- RKA has been consistently endeavouring to increase the use of various cow- panchgavya products to raise the income of farmers, gaupalaks, youth, women, self-help groups and other stakeholders.

Tech for Tribals

- This is launched by TRIFED under Ministry of Tribal Affairs in collaboration with Chhattisgarh MFP Federation and IIT, Kanpur.
- It aims at the holistic development of tribals with a focus on entrepreneurship development, soft skills, IT, and business development through SHGs operating through Van Dhan Kendras (VDVKs).
- Under this initiative, TRIFED has tied up reputed national institutions such as IIT, Kanpur; Art of Living, Bangalore; TISS, Mumbai; KISS, Bhubaneswar; Vivekananda Kendra, Tamil Nadu and SRIJAN, Rajasthan, for conducting Vandhan-ESDP Training Programs in the States of Chhattisgarh, Kerala, Karnataka, Maharashtra, Odisha, Tamil Nadu and Rajasthan.
- It is a unique program to make tribals of India "Aatmanirbhar", focussing to bridge the gap between tribal entrepreneurs and urban markets.
- This program will mainly entail three aspects of development for sustainable entrepreneurship which can be considered as the three pillars - Engagement, Capacity Building, and Market linkages.
- IIT, Kanpur will run the skill development program of tribal youth across Chhattisgarh and Kerala to help them build their enterprise by commercializing the products using MFPs.



TRIBAL COOPERATIVE
MARKETING DEVELOPMENT
FEDERATION OF
INDIA LIMITED -
TRIFED



STARTUP
INCUBATION AND
INNOVATION
CENTRE
IIT KANPUR

PM SVANidhi Scheme

- Recently Application Programming Interface (API) integration between the PM SVANidhi Portal and the State Bank of India (SBI) portal is being launched. This integration will facilitate seamless flow of data between the two portals i.e. PM SVANidhi Portal and SBI's eMudra Portal in a secure environment and expedite the loan

sanctioning and disbursement process, which will benefit the street vendors seeking a working capital loan under the Scheme.

About the Scheme

- Ministry of Housing & Urban Affairs is implementing PM SVANidhi Scheme since June 01, 2020, for providing affordable working capital loan to street vendors to resume their livelihoods that have been adversely affected due to Covid-19 lockdown.
- This scheme targets to benefit over 50 lakh Street Vendors who had been vending on or before 24 March 2020, in urban areas including those from surrounding peri-urban/ rural areas.
- Under the Scheme, the vendors can avail a working capital loan of up to Rs. 10,000, which is repayable in monthly instalments in the tenure of one year.
- On timely/ early repayment of the loan, an interest subsidy @ 7% per annum will be credited to the bank accounts of beneficiaries through Direct Benefit Transfer quarterly.
- There will be no penalty on early repayment of loan.
- The scheme promotes digital transactions through cash-back incentives up to an amount of Rs. 1,200 per annum.



Initiatives of MoFPI

PM Formalisation of Micro food Enterprises Scheme

This scheme will support 2 lakh micro food processing units with credit linked subsidy and would focus on supporting the SHGs, FPOs and cottage industry.

PM Kisan Sampada Scheme

The objective is to link agricultural production to the market by bringing together the farmers, processors and retailers.

Operation greens scheme from TOP to TOTAL

Under this scheme, Ministry will provide 50% subsidy for transportation of eligible crops from surplus production cluster.

TOP : Tomato, Onion, Potato.

TOTAL : All fruits & vegetables.

GENERAL STUDIES PAPER III

Vaishwik Bhartiya Vaigyanik (VAIBHAV) Summit 2020

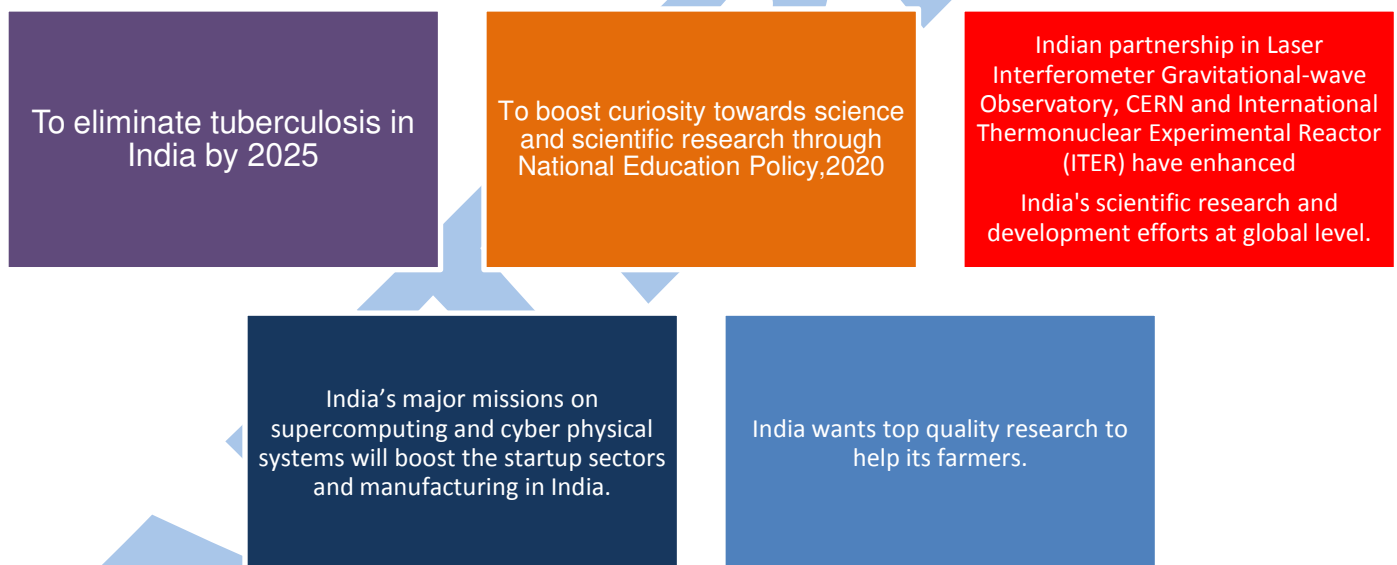
- VaishwikBharatiyaVaigyanik (VAIBHAV) Summit is a collaborative initiative by S&T and Academic Organisations of India to enable deliberations on thought processes, practices, and R&D culture with a problem-solving approach for well-defined objectives.
- This is a joint effort of all S&T and Academic organizations.



Aims and Objectives

- The VAIBHAV initiative aims to bring out the comprehensive roadmap to leverage the expertise and knowledge of global Indian researchers for solving emerging challenges.
- By bringing the Indian Overseas and Resident academicians/scientists together a structure of association will be evolved.
- The summit aims to reflect in-depth on the collaboration and cooperation instruments with academia and scientists in India.
- The goal is to create an ecosystem of Knowledge and Innovation in the country through global outreach.

Highlights of India's objective in R&D



- In the VAIBHAV summit, more than 3000 overseas Indian origin academicians and scientists from 55 countries and about 10,000 from India are taking part and it is being organized by 200 Indian academic institutes and S&T departments, led by Principal Scientific Advisor, Government of India. Around 700 overseas panellists from 40 countries and 629 resident panellists from eminent Indian academia and S&T departments will deliberate on 18 different verticals with 80 sub-topics in 213 sessions.

National Supercomputing Mission

About NSM

- It is first of its kind attempt to boost the country's computing power. It is steered jointly by the Ministry of Electronics and IT (MeitY) and Department of Science and Technology (DST) and implemented by the Centre for Development of Advanced Computing (C-DAC), Pune and the Indian Institute of Science (IISc), Bengaluru.

- The target of the mission was set to establish a network of supercomputers ranging from a few Tera Flops (TF) to Hundreds of Tera Flops (TF) and three systems with greater than or equal to 3 Peta Flops (PF) in academic and research institutions of National importance across the country by 2022.
- This network of Supercomputers envisaging a total of 15-20 PF was approved in 2015 and was later revised to a total of 45 PF (45000 TFs), a jump of 6 times more compute power within the same cost and capable of solving large and complex computational problems.



Implementation

- The first supercomputer assembled indigenously, called ParamShivay, was installed in IIT (BHU) and was inaugurated by the Prime Minister.
- Similar systems Param Shakti and Param Brahma were installed at IIT-Kharagpur and IISER, Pune. They are equipped with applications from domains like Weather and Climate, Computational Fluid Dynamics, Bioinformatics, and Material science.
- Plans are afoot to install three more supercomputers by April 2020, one each at IIT-Kanpur, JN Centre for Advanced Scientific Research, Bengaluru, and IIT-Hyderabad. This will ramp up the supercomputing facility to 6 PF.

Highlights of the Scheme

- a. Thirteen premier research institutes are set to get supercomputers or related training centres under the second phase of India's National Supercomputing Mission (NSM).
 - b. Under the first phase, which primarily dealt with assembly, supercomputers were deployed in IIT (BHU) Varanasi, IIT Kharagpur, and the Indian Institute of Science Education and Research (IISER), Pune.
- While the second phase deals with assembly and manufacturing, the third phase will encompass design and manufacturing.
 - c. The goal is to have a supercomputing grid connecting high-performance computing facilities in 75 research institutions across India.

Conclusion

- Supercomputing is key to solving problems in a wide range of areas – fluid dynamics, climate modelling, materials science, computational biology, molecular dynamics, disaster simulations, and astrophysics, to name a few. Under NSM, India strives to provide its researchers with wide access to supercomputing capacity while itself becoming a leader in the area.

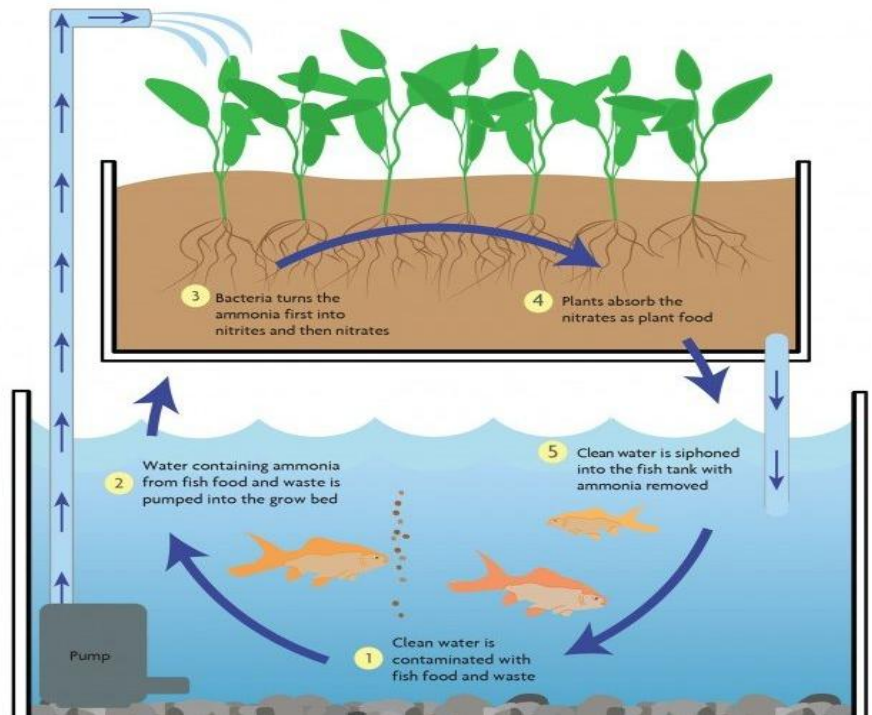
Aquaponics

Why in News

- A pilot 'Aquaponics facility' developed by Centre for Development of Advanced Computing (C-DAC), Mohali at Guru AngadDev Veterinary University (GADVASU), Ludhiana was recently inaugurated.
- Aquaponics and related alternative farming techniques are highly required to improve the status of farmers. This technique will help the farmer in increasing the productivity of his land and also augment his income.

About Aquaponics

- It is a combination of aquaculture, which is growing fish and other aquatic animals, and hydroponics which is growing plants without soil. It uses these two in a symbiotic combination in which plants are fed the aquatic animals' discharge or waste. In return, the vegetables clean the water that goes back to the fish.
- Along with the fish and their waste, microbes play an important role in the nutrition of the plants. These beneficial bacteria gather in the spaces between the roots of the plant and convert the fish waste and the solids into substances the plants can use to grow. The result is a perfect collaboration between aquaculture and gardening.



Benefits

- It is a way to grow our fish and vegetables at the same time. We feed the fish and the fish will feed your plants through their waste output. There is no need to use fertilizers because the fish provide rich nutrients for the plants.
- In aquaponics, less water is used for the crops. Research has shown that aquaponic gardens use 1/10th of the water you would use for soil garden.
- Regular gardening pesticides or other chemicals can't be used because they would harm the fish. This results in healthier and organic vegetables.
- Since there is no soil involved in this agriculture, there is no chance of transmission of any soil-borne diseases in aquaponics.
- Grow plants in very small space, and have a great harvest. Plants grow fast because they get very nutritious substances from fish waste.
- Plants and fish production can be done in a controlled temperature environment. Water is used in a closed system and circulated effectively, reducing the consumption and water bills.

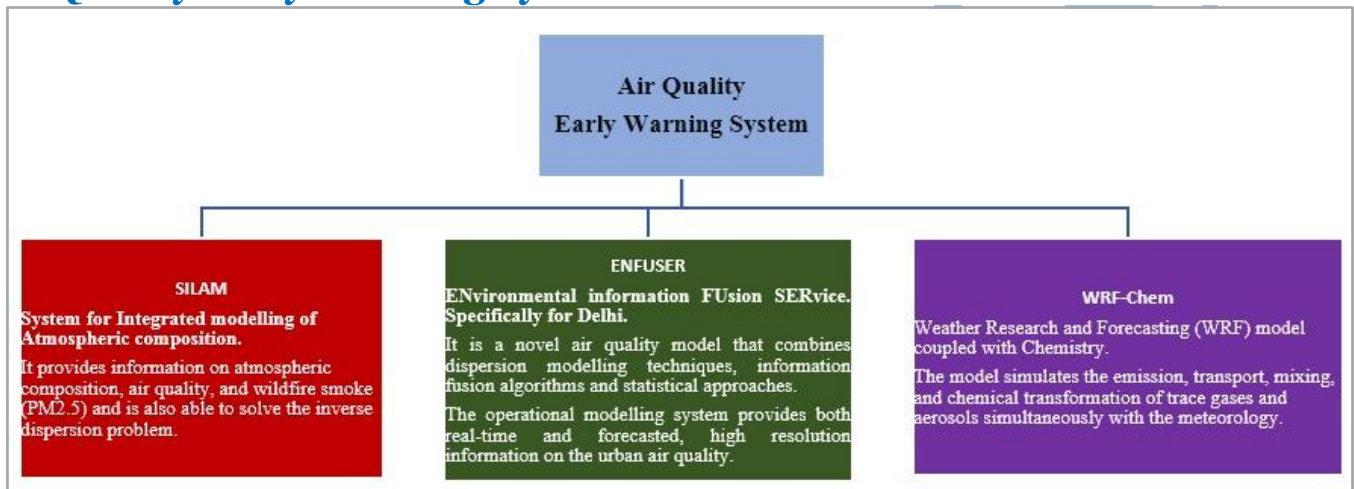
India Energy Modelling Forum (IEMF)

- It is jointly launched by NITI Aayog and United States Agency for International Development (USAID) under the US-India Strategic Energy Partnership. It aims to engage Indian researchers, knowledge partners, think tanks and national and international government agencies and departments for modelling and long-term energy planning.
- It will provide a platform to examine important energy and environmental related issues, and facilitate the exchange of ideas.
- It also aims to improve cooperation between modelling teams, government, and knowledge partners, funders; and facilitate the exchange of ideas, ensure production of high-quality studies.
- Sustainable Growth Pillar** is an important pillar of India-US Strategic Energy Partnership co-chaired by NITI Aayog and USAID.
- The SG pillar entails energy data management, energy modelling and collaboration on low carbon technologies as three key activities.
- The **Energy Modelling Forum (EMF)** in the USA was established in 1976 at Stanford University to connect leading modelling experts and decision-makers from government, industry, universities, and other research organizations. The forum provides an unbiased platform to discuss the contemporary issues revolving around energy and environment.

eSanjeevani

- It is an initiative by the Ministry of Health to promote telemedicine. It is gradually shaping into a parallel stream for the Indian healthcare delivery system. At present 26 States are using eSanjeevani's two variants of telemedicine namely - doctor to doctor (eSanjeevaniAB-HWC) and patient to doctor (eSanjeevaniOPD).
- E-Sanjeevani AB-HWC was launched by Ministry of Health and Family Welfare in November 2019 and it is to be implemented in the Health and Wellness Centres in conjunction with identified Medical College hospitals under Govt. of India's Ayushman Bharat Scheme in 'Hub & Spoke' model by December 2022.
- Union Health Ministry is complementing efforts of State Governments by establishing a robust digital health ecosystem and human and infrastructural resources to boost the adoption of eSanjeevani.
- The Ministry has roped in Centre for Development of Advanced Computing's Mohali branch for providing end-to-end technical services like development, implementation, operations and training of health personnel.
- The top 3 States which have registered highest consultations through eSanjeevani and eSanjeevaniOPD platforms are Tamil Nadu (169977), Uttar Pradesh (134992), Himachal Pradesh (39326).

Air Quality Early Warning System



Ratification of seven Persistent Organic Pollutants

Why in News

- Union Cabinet has approved the Ratification of seven chemicals listed under Stockholm Convention on Persistent Organic Pollutants (POPs).
- The Cabinet further delegated its powers to ratify chemicals under the Stockholm Convention to Union Ministers of External Affairs (MEA) and Environment, Forest and Climate Change (MEFCC) in respect of POPs already regulated under the domestic regulations thereby streamlining the procedure.

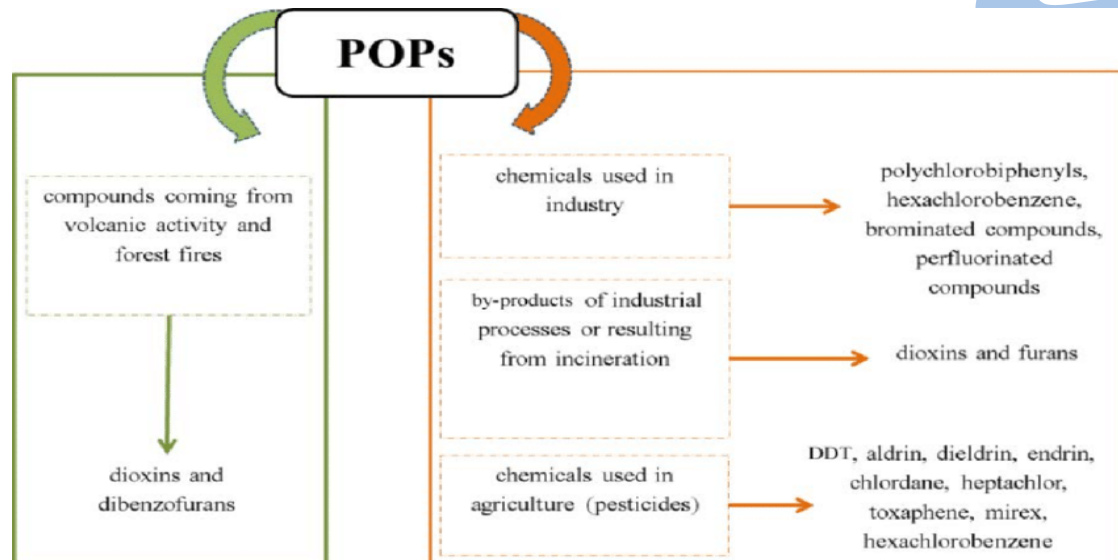
About Stockholm Convention

- Stockholm Convention on Persistent Organic Pollutants** is an international [environmental treaty](#), signed in 2001 and effective from May 2004, that aims to eliminate or restrict the production and use of [persistent organic pollutants](#) (POPs).
- It aims to protect human health and environment from POPs, which are identified chemical substances that persist in the environment, bio-accumulate in living organisms, adversely affect human health/ environment and have the property of long-range environmental transport (LRET).
- India signed the Convention in May 2002 and ratified it in January 2006.



What are POPs

- POPs are organic chemical substances—toxic to both humans and wildlife—which once released into the environment remain intact for years on end, become widely distributed throughout the environment as a result of natural processes involving soil, water and air, and accumulate in the fatty tissues of living organisms including humans.
- Because of human activities, POPs are widely distributed over large regions of the world including areas where they were never used.
- POPs are recognized by the International Agency for Research on Cancer as Group 1 carcinogens or cancer-causing substances.
- Specific effects of POPs can include cancer, allergies and hypersensitivity, damage to the central and peripheral nervous systems, reproductive disorders, and disruption of the immune system.



What has India done so far

- India's ministry of environment, forest and climate change (MoEFCC) notified the Regulation of Persistent Organic Pollutants Rules, 2018 which prohibits “manufacture, trade, use, import and export “of the seven chemicals—Chlordecone, Hexabromobiphenyl, Hexabromodiphenyl ether and heptabromodiphenyl ether, Tetrabromodiphenyl ether and pentabromodiphenyl ether, Pentachlorobenzene, Hexabromocyclododecane and Hexachlorobutadiene.
- It further said that these industrial units or persons, “shall not drain or discharge or dispose of the chemicals directly or indirectly in effluent treatment plant, sewage treatment plant, onto any land, in public sewers, in inland surface water or marine coastal areas”.

Conclusion

- Cabinet's approval for ratification of POPs demonstrates India's commitment to meet its international obligations with regard to protection of environment and human health.
- It also indicates the resolve of the Government to take action on POPs by implementing control measures, develop and implement action plans for unintentionally produced chemicals, develop inventories of the chemicals' stockpiles and review as well as update its National Implementation Plan (NIP).
- The ratification process would enable India to access Global Environment Facility (GEF) financial resources in updating the NIP.

List of 7 Banned Chemicals

Chlordecone. Hexabromobiphenyl Pentachlorobenzene Hexachlorobutadiene Hexabromocyclododecane
Hexabromodiphenyl ether and Heptabromodiphenylether (Commercial octa-BDE)
Tetrabromodiphenyl ether and Pentabromodiphenyl ether (Commercial penta-BDE).

2nd World Cotton Day

Why in News

- Union Ministry of Textiles and Women & Child Development launched the 1st ever Brand & Logo for Indian Cotton on 2nd World Cotton Day on 7th October, 2020 through Video Conferencing. Now India's premium Cotton would be known as 'Kasturi Cotton' in the world cotton Trade. The Kasturi Cotton brand will represent Whiteness, Brightness, Softness, Purity, Luster, Uniqueness and Indianness.

Importance of Cotton in Indian Economy

- Cotton is one of the principal commercial crops of India and it provides livelihood to about 6.00 million cotton farmers.
- India is the 2nd largest cotton producer and the largest consumer of cotton in the world.
- India produces about 6.00 million tons of cotton every year which is about 23% of the world cotton.
- India produces about 51% of the total organic cotton production of the world, which demonstrates India's effort towards sustainability.
- Recently, the Ministry of Textiles through APEDA under Ministry of Commerce and Industry has prescribed a certification system for organic Cotton which will be introduced in phases in the entire textile value chain.
- Similarly, prescribing a certification system for non-organic Cotton has also been taken up with APEDA so that usages of cotton can be suitably augmented.
- Cotton Corporation of India (CCI) made ever the highest Minimum Support Price (MSP) operation of cotton and hopeful that during the new cotton season, the procurement under MSP will be increased.
- A mobile app, "Cott-Ally" has been developed by CCI for providing latest news regarding weather condition, Crop situation and best farm practices.

About World Cotton Day

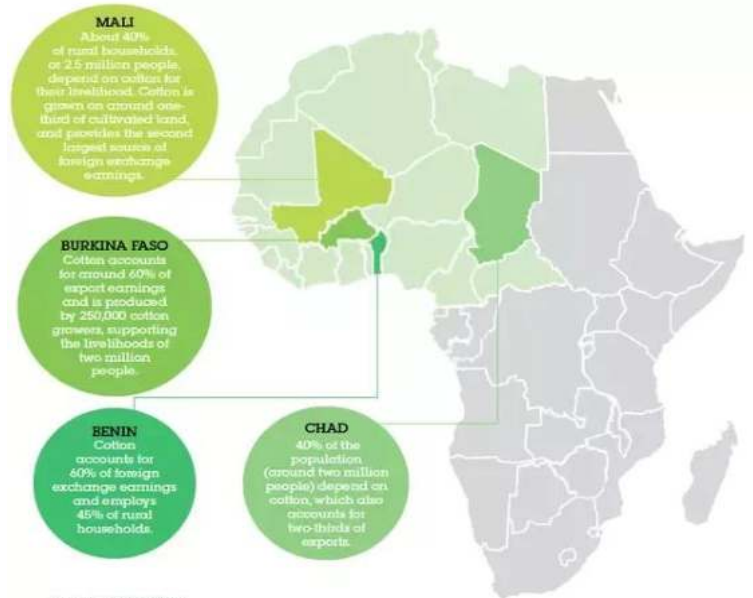
- World Cotton day is celebrated on 7 October as a global celebration of cotton and its stakeholders. At the initiative of the Cotton-4 (Benin, Burkina Faso, Chad and Mali), the World Trade Organisation made the launch of World Cotton Day on 7 October 2019.
- The event is organised in collaboration with the Secretariats of the United Nations Food and Agriculture Organization (FAO), the United Nations Conference on Trade and Development (UNCTAD), the International Trade Centre (ITC) and the International Cotton Advisory Committee (ICAC).

Cotton-4

- Cotton-4 countries** of WTO are West African coalition seeking cuts in **cotton** subsidies and tariffs. They composed of **Benin, Burkina Faso, Chad, Mali**.
- The C-4 countries are instrumental in establishing a 'cotton initiative' within the framework of the WTO during the Cancun Ministerial Conference in 2003.
- They are lobbying against cotton subsidies that are adversely affecting their cotton prospects and international prices of cotton.

Chasing the Cyclone

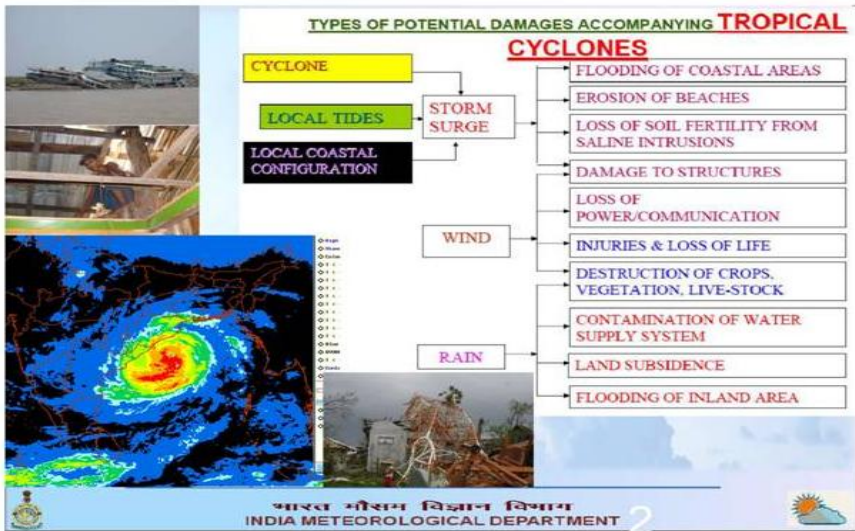
- Director-General of IMD, Dr. Mrutyunjay Mohapatra has said that the India Meteorological Department will soon launch a dynamic, impact-based cyclone warning system, aimed at minimising economic losses and damage to property due to the cyclones that hit Indian coasts every year.
- As part of the new system, location or district-specific tailored warnings, which factor in the local population, infrastructure, settlements, land use and other elements, will be prepared and disseminated. All disaster management agencies will make extensive use of cartographic, geological and hydrological data available for the district concerned.
- NDMA has taken up a project, entitled, National Cyclone Risk Mitigation Project (NCRMP). Under this project, NDMA is developing a Web-based Dynamic Composite Risk Atlas (Web-DCRA) in collaboration with IMD and state Governments of coastal states.



About Cyclones

- Cyclones are multi-hazardous and thus they cause heavy rain, strong winds and storm surge over the affected region simultaneously and in its wake the associated property loss can be huge. This can be in the form of damage to houses and roads, farms and agriculture lands, public infrastructure, and power and telecommunication lines, adding to the overall economic burden for the affected families, local administrations and state governments.

Cyclone as a disaster



World Space Week

- As per UN General Assembly resolution, 6 December 1999, 4 to 10 October each year is designated as World Space Week at the international level to celebrate contributions of space science and technology to the betterment of the human condition.
- More than 8,000 events in 96 countries celebrated “The Moon: Gateway to the Stars” last year.
- This year the theme is “Satellites Improve Life.” In 2021, World Space Week celebrates “Women in Space.”**

Buldhana Pattern of Water Conservation

Why in News

- Maharashtra's 'Buldhana Pattern' of water conservation' has won national recognition and the NITI Aayog is in the process of formulating National Policy on water conservation based on it. Through Agro-Vision - an agriculture convention held in Nagpur every year, Union Minister Shri Nitin Gadkari has appealed to adopt the cost-efficient 'Buldhana pattern' of road-construction nation-wide, especially in the regions which are facing a problem of water scarcity.

About Buldhana Pattern of Water Conservation

- The synchronisation of national highway construction and water conservation was achieved for the first time in Buldhana district, by using soil from the water bodies, nallas and rivers. This consequently leads to the increase in capacity of water storage across the water-bodies in Buldhana district and it came to be known as 'Buldhana Pattern'.



Significance

- With this activity in Maharashtra, 225 lakh cubic metre of soil was used in National Highway construction and the resultant widening/deepening increased 22,500 Thousand Cubic Metre (TMC) of water storage capacity with no cost to state government.
- Adopting water conservation works under 'Buldhana Pattern' will increase agriculture production and bring prosperity in the farmer's economic life in Vidarbha.
- Adoption of this cost-efficient pattern will help to mitigate the water crisis in water-stressed areas.

"Tamswada Pattern" of water conservation

- "Tamswada Pattern" of water conservation project taken up in Nagpur and Wardha district involved rainwater harvesting, conservation and groundwater recharge works to increase the water storage capacity of natural water bodies in Eastern Vidarbha.
- "Tamswada pattern" was being implemented in 60 villages in Nagpur and Wardha districts and the work has already been completed in 40 villages.

Project Snow Leopard (PSL)

Why in News

- Minister of State for Environment Forest and Climate Change has said that the Government of India has been conserving snow leopard and its habitat through the Project Snow Leopard (PSL). Government is committed to landscape restoration for snow leopard habitat conservation and implementing participatory landscape-based management plans involving local stakeholders.

Background

- Snow leopards live in the mountainous regions of central and southern Asia. In India, their geographical range encompasses a large part of the western Himalayas including the states of Jammu and Kashmir, Himachal Pradesh, Uttarakhand and Sikkim and Arunachal Pradesh in the eastern Himalayas.
- The last three states form part of the Eastern Himalayas – a priority global region of WWF and the Living Himalayas Network Initiative.
- In summer, snow leopards usually live above the [tree line](#) on mountainous meadows and in rocky regions. In winter, they come down into the forests.
- The snow leopard is listed as Vulnerable on the IUCN-World Conservation Union's Red List of the Threatened Species.

- Also, the snow leopard, like all big cats, is listed on Appendix I of the Convention on International Trade of Endangered Species (CITES), which makes trading of animal body parts (i.e., fur, bones and meat) illegal in signatory countries. It is also protected by several national laws in its range countries.

Project Snow Leopard

- Project Snow Leopard Committee, instituted by the Ministry of Environment and Forests, Government of India drafted the Framework of Project Snow Leopard in 2006.
- Project Snow Leopard ultimately came into force from 2009.
- The main goal of this project is to safeguard and conserve India's unique natural heritage of high altitude wildlife populations and their habitats by promoting conservation through participatory policies and actions.
- The project also encourages the States and UTs to adopt innovative strategies to resolve issues related to multi-stakeholder landscape management, human-wildlife conflicts, wildlife crime and trade in wildlife parts and products, capacity building, climate-smart energy solutions etc.

New species of plant group

- Two new species of a plant group known for their varied medicinal properties have been discovered in the Western Ghats – one of the thirty-five hot-spots of biological diversity in the world.
- The one reported from Sindhudurg district of Maharashtra was named as *Eriocaulon parvicephalum* (due to its minute inflorescence size), and the other reported from Kumta, Karnataka was named as *Eriocaulon karaavalense* (named after Karaavali = Coastal Karnataka region).



Pipeworts (*Eriocaulon*)

- This group of Plants completes their life cycle within a small period during monsoon. These exhibit great diversity in the Western Ghats, with around 111 species in India.
- One species, *Eriocaulon cinereum*, is well known for its anti-cancerous, analgesic, anti-inflammatory, and astringent properties.
- E. quinquangulare* is used against liver diseases.
- E. madayiparense* is an anti-bacterial from Kerala.



Breath Print

- Compounds in exhaled air produce a unique and stable molecular autograph or "breathprint". This may be used to monitor disease or track response to medication.
- Recent Experiments by Dr Manik Pradhan and his research team at **S. N. Bose National Centre for Basic Sciences, Kolkata**, has shown direct evidence of unique isotope-specific water-metabolism in the human body in response to the individual's water intake habit.
- The team has already developed a patented 'Pyro-Breath' device for diagnosis of various gastric disorders and H. pylori infection, which are under the process of technology transfer.

FOREIGN RELATIONS

Exercise BONGOSAGAR and IN-BN CORPAT

- The second edition of Indian Navy (IN) – Bangladesh Navy (BN) Bilateral Exercise Bongosagar is scheduled to commence in Northern Bay of Bengal on 03 October 2020. Its first edition was held in 2019.
- The exercise is aimed at developing inter-operability and joint operational skills through the conduct of a wide spectrum of maritime exercises and operations.
- In the upcoming edition of Exercise Bongosagar, ships from both navies will participate in surface warfare drills, seamanship evolutions and helicopter operations.
- This edition of Exercise Bongosagar assumes greater significance since it is being conducted during MujibBarsho, the 100th birth anniversary of Bangabandhu Sheikh Mujibur Rahman.



IN-BN CORPAT

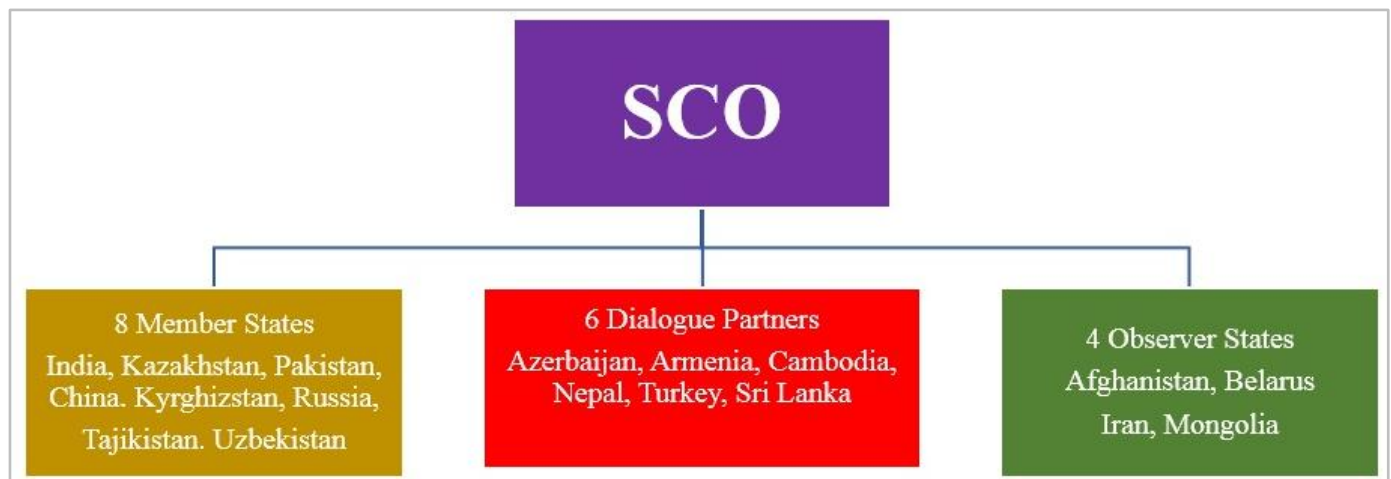
- The 3rd edition of IN - BN Coordinated Patrol (CORPAT) in Northern Bay of Bengal will be held from 4 to 5 October 2020. During this exercise, IN and BN units will undertake joint patrolling along the International Maritime Boundary Line (IMBL).
- Conduct of CORPATs has strengthened understanding between both the navies and instituted measures to stop the conduct of unlawful activities.
- Indian Naval Ship (INS) Kiltan, an indigenously built Anti-Submarine Warfare Corvette and INS Khukri, an indigenously built Guided-Missile Corvette are participating along with Bangladesh Naval Ship (BNS) Abu Bakr, a Guided-Missile Frigate and BNS Prottoy, a Guided-Missile Corvette. In addition to ships, Maritime Patrol Aircraft from both navies and integral helicopter(s) would also be participating in the exercise.
- Exercise Bongosagar and IN - BN CORPAT will be undertaken over three days and reflects the priority that Indian Navy accords to Bangladesh Navy as part of India's vision of SAGAR (Security And Growth for All in the Region).

Shanghai Cooperation Organisation (SCO)

- The Seventh Meeting of Ministers of Justice of the Shanghai Cooperation Organisation (SCO) Member States was recently hosted by Shri Ravi Shankar Prasad, Union Minister of Law & Justice, Communication and Electronics & Information Technology on 16th October 2020.
- It was conducted through Video Conferencing mode.
- The Experts Working Group discussed and shared their experiences, best practices and the novel steps were taken by them for creating a conducive environment for promoting resolution of disputes and other related activities of the Ministries of (Law and) Justice including legal services and forensic activities.

About SCO

- Shanghai Cooperation Organisation (SCO) is a permanent intergovernmental international organisation, the creation of which was announced on 15 June 2001 in Shanghai (China) by the Republic of Kazakhstan, the People's Republic of China, the Kyrgyz Republic, the Russian Federation, the Republic of Tajikistan, and the Republic of Uzbekistan. It was preceded by the Shanghai Five mechanism.
- The organisation has two permanent bodies — the SCO Secretariat based in Beijing and the Executive Committee of the Regional Anti-Terrorist Structure (RATS) based in Tashkent.
- The historical meeting of the Heads of State Council of the Shanghai Cooperation Organisation was held on 8-9 June 2017 in Astana. On the meeting, the status of a full member of the Organization was granted to the Republic of India and the Islamic Republic of Pakistan.



India-Mexico

- Recently, the fifth meeting of the India-Mexico Bilateral High-Level Group on Trade, Investment and Cooperation (BHLG) was held. In the meeting, two business to business MoUs were signed, to foster the cooperation in the respective domains.
 - An MoU between the Electronics & Computer Software Export Promotion Council (ESC) of India and the Mexican Chamber of Electronics, Telecommunications and Information Technologies (CANIETI) was signed.
 - An MoU between the Federation of Indian Chambers of Commerce and Industry (FICCI) and the Mexican Business Council of Foreign Trade, Investment and Technology (COMCE) for promoting the development of business relations between India and Mexico was also signed.

India and Japan

- Union Cabinet has given its approval for signing a Memorandum of Cooperation (MoC) in the field of cyber security between India and Japan. This will enhance cooperation in areas of mutual interest :
 - Capacity building in the area of cyberspace.
 - Protection of critical infrastructure.
 - Co-operation in emerging technologies.
 - Sharing information on cyber security threats/incidents.
 - Malicious cyber activities.
- India and Japan commit to an open, interoperable, free, fair, secure and reliable cyberspace environment and to promote the Internet as an engine of innovation, economic growth, and trade and commerce that would be consistent with their respective domestic laws and international obligations, and with their wide-ranging strategic partnership.

SHORT NOTES

- AYUSH Minister Shri Shripad Yesso Naik** has inaugurated Tribal Unit of the National Institute of Naturopathy (NIN) at Gohe Budruk in Pune.
- Air Marshal Vikram Singh has taken over as Senior Air Staff Officer, Headquarters Western Air Command on 01 Oct 20.
- Indian Air Force** proudly celebrates its 88TH anniversary on 08 Oct 2020.
- Prime Minister has recently released a commemorative coin of Rs. 100 denomination to celebrate the Birth Centenary of Rajmata Vijaya Raje Scindia.
- Gaumaya Ganesha Campaign:** It is a campaign launched by Rashtriya Kamdhenu Aayog (RKA) to encourage the usage of eco-friendly material in the manufacture of idols for the Ganesha Festival.

6. **Exercise SurakshaKavach:** Agnibaaz Division organized a joint exercise named Exercise SurakshaKavach, for both Indian Army and Maharashtra Police at Lullanagar Pune recently. The exercise aimed to harmonize the drills and procedures of both Army and Police for activating anti-terrorist Quick Reaction Teams (QRTs) to counter any terrorist actions in Pune.
7. **Nirbadh initiative:** To further enhance ease of living experience for its members, EPFO has recently launched WhatsApp based helpline-cum-grievance redressal mechanism, under its series of Nirbadh initiatives aimed at ensuring seamless and uninterrupted service delivery to subscribers during COVID-19 pandemic.
8. **International Financial Services Centres Authority (IFSCA)**, intending to widen the investor base for exchange-traded products in the IFSC and to enhance the secondary market liquidity, thereby deepening the market, has issued a Regulatory Framework for market access through Authorised Persons.
 - An Authorised Person is any individual, partnership firm, LLP or body corporate who provides access to the trading platform of a stock exchange as an agent of the stockbroker.
9. In the 3rd Assembly of ISA, India and France were re-elected as the President and Co-President of the International Solar Alliance (ISA) for a term of two years.
10. Mrs Seema Gupta, Director (Operations), Power Grid Corporation of India Limited, a PSU under Ministry of Power, has been named the winner of **GOLD Stevie® Award** in the **LIFETIME ACHIEVEMENT- the BUSINESS** category in the **17th annual Stevie Awards for Women in Business**.
 - The Stevie Awards have been hailed as the world's premier business awards.
11. **MACS 6478:** It is a new Wheat variety developed by Scientists from **Agharkar Research Institute (ARI)**, an autonomous institute of the Department of Science and Technology (DST), Government of India. It has doubled the crop yield for farmers in Karanjkhop, a village in Maharashtra.
12. The Ayurveda Day is being observed every year from 2016, on the day of Dhanwantri Jayanti. This year it falls on 13th November 2020.
13. Union Cabinet was recently apprised of a Memorandum of Understanding (MoU) signed in June 2020 between Zoological Survey of India (ZSI), a subordinate organization under Ministry of Environment, Forest and Climate Change and International Barcode of Life (iBOL), a Canadian not-for-profit corporation.
 - ZSI and iBOL have come together for further efforts in DNA barcoding, a methodology for rapidly and accurately identifying species by sequencing a short segment of standardized gene regions and comparing individual sequences to a reference database.
 - The MoU will enable ZSI to participate at the Global level programmes like Bioscan and Planetary Biodiversity Mission.
14. Continuing with the policy of Ministry of AYUSH of forging partnerships for promoting and developing the AYUSH Systems of Healthcare, the All India Institute of Ayurveda (AIIA), New Delhi under the Ministry has signed a Memorandum of Understanding with the Amity University on 7th October 2020. The MoU focuses on promoting research in Ayurvedic Sciences.
15. Goa has earned itself the unique distinction of becoming first 'HarGharJal' State in the country as it successfully provides 100% Functional Household Tap Connections (FHTCs) in the rural areas covering 2.30 lakh rural households.
16. CSIR-CMERI has come up with a High Flow Rate Water Purification Technology for Fluoride and Iron Removal technology.
 - The contamination of fluoride and iron in drinking water is increasing day by day.
 - Iron is the most abundant trace element in the human body, responsible for accomplishment of vital biological functions such as gastrointestinal processes and the regulation of body temperature. But when iron level in water is beyond 0.3 ppm (as per WHO guideline), it shows several adverse effects including liver disease, irregular heart rhythm and neuronal disorder etc.

- Similarly, restricted dose of fluoride (less than 1.5 ppm, as per WHO guideline) in drinking water is required for proper strengthening of teeth and bones in human body. But intake of excess fluoride can affect human health profusely by causing dental and skeletal fluorosis initially, which leads to a crippling malady in the long run.
17. Films Division is showcasing select animation and documentary films to mark the International Day of the Girl on 11th October, 2020.
- The special package includes Chimukali – Save the girl child (3 Min) an animation film on saving the girl child and stopping female foeticide followed by documentaries Education-Only Her Future (5 Min), Pratibha (20 Min.), Kuldeepak (60 Min.), My Fairy - My Strength (39 Min.) and Roshini (58 Min).
 - Every year on 11th October, the International Day of the Girl, UNICEF launches an annual campaign with girls to amplify their voices and stand up for their rights.
 - This year's theme is "My voice, our equal future", seizing the opportunity to re-imagine a better world inspired by adolescent girls – energized and recognized, counted and invested in.
18. The Sports Ministry has upgraded centres from a total of nine States and Union Territories to the Khelo India State Centre of Excellence (KISCE) under the Khelo India scheme.
- The States and UTs include Andhra Pradesh, Chhattisgarh, Chandigarh, Goa, Haryana, Himachal Pradesh, Puducherry, Tripura and Jammu & Kashmir.
19. Shri Narendra Singh Tomar, Union Minister for Agriculture and Farmers Welfare, Food Processing Industries, Rural Development and Panchayati Raj today virtually inaugurated the **India - International Food & Agri Week** being organised from **16th to 22nd October 2020**.
20. FSSSAI has recently celebrated 'World Food Day' on 16th October 2020. This year's theme is – "*Grow, Nourish, Sustain*". *This day is celebrated* to commemorate the date of the founding of the United Nations Food and Agriculture Organization in 1945.
21. The Central Vigilance Commission observes the Vigilance Awareness Week from 27th October to 2nd November, 2020. This is observed every year during the week in which the birthday of Sardar Vallabhbhai Patel (31st October) falls.
- Theme-Satark Bharat, Samridh Bharat (Vigilant India, Prosperous India)".**
22. India has assumed the Chairmanship of the Governing Body of International Labour Organization, marking a new chapter in the 100 years of a productive relationship between India and ILO.
- Shri Apurva Chandra, Secretary (Labour and Employment) has been elected as the Chairperson of the Governing Body of the International Labour Organisation (ILO) for the period October 2020- June 2021.
 - The Governing Body (GB) is the apex executive body of the ILO which decides policies, programmes, agenda, budget and elects the Director-General.
 - At present, ILO has 187 members.
23. Labour Bureau has released the new series of Consumer Price Index for Industrial Worker (CPI-IW) with the base year 2016.
- The new series of CPI(IW) with base 2016=100 will replace the existing series with base 2001=100.
 - Earlier to this revision, the series was also revised from the year 1944 to 1949; 1949 to 1960; 1960 to 1982 and 1982 to 2001 since the inception of Labour Bureau.

SPECIAL ARTICLE

Food and Agriculture Organization

- World Food Day 2020 and FAO's 75th Anniversary is being marked during a very exceptional time as many countries are dealing with the widespread effects of the COVID-19 pandemic.
- It is high time to **call for global cooperation and solidarity** to make sure the threats COVID-19 is posing to food security and agricultural livelihoods are confronted and the most vulnerable can get back on their feet. It is

also an occasion to **sensitize the public** on how **everybody has a role to play in transforming our food systems** by changing the way we produce, transform, consume and waste our food.

- **#WorldFoodDay** and **#FAO75** are aligned with the spirit of the UN's 75th commemoration, occurring also this year, **by looking into the future we need to build together.**

About FAO

- The Food and Agriculture Organization of the United Nations (FAO). It is a specialized agency of the United Nations that leads international efforts to defeat hunger and improve nutrition and food security.
- Its Latin motto, fiat panis, translates to "let there be bread".
- It was founded in October 1945. It is headquartered in Rome, Italy and maintains regional and field offices around the world, operating in over 130 countries.
- It helps governments and development agencies coordinate their activities to improve and develop agriculture, forestry, fisheries, and land and water resources. It also conducts research, provides technical assistance to projects, operates educational and training programs, and collects data on agricultural output, production, and development.
- Composed of 197 member states, the FAO is governed by a biennial conference representing each member country and the European Union, which elects a 49-member executive council.
- Currently, Qu Dongyu of China is the Director-General of FAO.



Partnership with India

- The Food and Agricultural Organization of the United Nations (FAO) has enjoyed valuable partnership with India since it began operations in 1948. It continues playing a catalytic role in India's progress in the areas of crops, livestock, fisheries, food security, and management of natural resources.
- The priorities set in the NITI Aayog's seven-year National Development Agenda and the medium-term Three Year Action Agenda as well as the Union Budget represent the key overarching framework for the agriculture sector. The main objective of the government is to double farmers' income by solving the twin problems of maximising efficiency and ensuring equity sustainably.
- The five Strategic Objectives through their alignment into Regional Initiatives and Regional Priorities will govern FAO's support, in addition to the GoI's priorities and the priorities and outcomes laid out in the UNSDF.
 1. Sustainable and improved agricultural productivity and increased farm incomes.
 2. Stronger food and nutrition security systems.
 3. Effective natural resource management, community development and assistance in transboundary cooperation to the global public good.
 4. Enhanced social inclusion, improved skills and employment opportunity in the agriculture sector.

World Food Day

- World Food Day in 2020 is celebrated on 16th October. This year, it is also celebrating the 75th year of the founding day of FAO. The theme for the 2020 World Food Day is "Grow, Nourish, Sustain. Together."
- **World Food Day is calling for global solidarity to help all populations, and especially the most vulnerable**, to recover from the Covid-19 crisis, and to make food systems more resilient and robust so they can withstand increasing volatility and climate shocks, deliver affordable and sustainable healthy diets for all, and decent livelihoods for food system workers.

YOJANA

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Geopolitical and Geo-economic Dimensions of Covid-19

Introduction

- Even before the equation of COVID-19 came into existence, there were significant changes in the global power. These changes include:
- A clear shift of economic power to the trans-Pacific from the trans-Atlantic
- The emergence of a more loosely structured multi-polarity
- The upsurge of nationalist and parochial sentiments in countries across the world stalling the trend towards globalization.
- Parallel weakening of multilateral institutions and processes.
- Similarly, after the COVID-19, certain new trends are emerging in world politics and economy. They include,
- Adoption of digital technologies.
- Extensive spread of work-from-home (WFH).
- Rapid adoption of tele-education and tele-medicine and the use of teleconferencing and online meetings in place of physical gatherings.

China's Expansion

Geo-politics

- In this changed scenario, newer technologies such as Artificial Intelligence, the Internet of Things and the use of big data will advance faster than envisaged. The associated challenges will also multiply in particular relating to cyber space and specifically to data privacy.
- New issues relating to high-tech monopolies, the manipulation of social media platforms and the as yet poorly understood social and psychological impacts of these rapid changes, will occupy the attention of individuals, communities, countries and the international community.
- China has steadily narrowed the power gap with the US and is likely to continue to do so in the aftermath of the pandemic. It is the world's second largest economy with the largest trading power and has also accumulated high-technology assets such as in Artificial Intelligence and 5-G telecom networks. A successful control of COVID-19 has just gave China an upper-hand.
- China's assertive and aggressive external behavior is evident in the facts like recent coercive actions in the South China Sea, the passage of a highly restrictive National Security Law in Hong Kong, virtually abandoning the One Country Two System policy granting high degree of autonomy to the key international financial centre in Asia.
- The ambitious Belt and Road Initiative (BRI) is an instrumentality through which China may spread its model using its financial and technological heft. This also enables the adoption of Chinese standards and specifications in a number of important domains like Tele-Communication.
- In military terms, China remains behind the US and is unable to match the global reach of the US-led alliance systems in Asia and Europe.
- It has set up a base in Djibouti at the Horn of Africa and has acquired the use of ports in several parts of the world which could conceivably serve as military facilities in due course.
- The Pakistani port of Gwadar and the Sri Lankan port of Hambantota belong to this category.

Global Economy

- China's GDP is destined to overtake the US and this makes it a great economic power. However, as long as China remains reluctant to make the Chinese currency, the Renminbi (RMB), fully convertible; it is unlikely to replace the dollar as an international currency.
- China is rapidly developing its scientific and technological capabilities and currently spends more on Research and Development than the US. In some areas such as Artificial Intelligence, it may be ahead of the US.

India's Stand

- While the Covid-19 pandemic has led to serious economic disruptions in India and recovery may be slow, this may also prove to be a propitious geopolitical moment for India. The size of the Indian market is an asset as is its political stability and democratic traditions. Economic reforms may be politically difficult but the pandemic is a crisis which could provide an opportunity to drive them.
- With China's position is somewhat in jeopardy worldwide, at least for the time being, there could be a significant flow of capital, technology and advanced knowledge to India if an efficient and congenial economic and regulatory environment could be put in place. A coherent and well-thought-out strategy and a determination to follow

through with effective implementation is the need of the hour.

Conclusion

- The pandemic is shaking the very foundations of our economy and our society. It is loosening the rigidities in governance and weakening the power of vested interests which have so far prevented thorough-going and structural reforms; this is therefore a moment to be seized.
- India is the only country which in terms of its size, its population, its economic potential and proven scientific and technological capabilities and its rich civilizational legacy, can not only match but surpass China. But then we need a strong national will to reach out for this goal.

WTO and India

About GATT

- The General Agreement on Tariffs and Trade (GATT) of 1948 was the first multilateral agreement under UN aimed at boosting economic recovery by reducing barriers to trade. Even though INDIA was one of the 28th founding members of GATT, it was not a serious stockholder in multilateral trade negotiations.
- INDIA and developing countries were primarily concerned about safeguarding their agriculture interests against large scale agriculture subsidies of developed countries.
- They feared possible dumping of agricultural produce in international markets would cause market distortions, to the detriment of farmers in developing countries who were faced with challenges of subsidies living, erratic monsoons, low yielding, fragmented farming etc.
- National Agriculture Market (NAM) proved to be a useful tool to garner awareness and build coalitions in the multilateral trade negotiations against unfair trade policies.

About WTO

- India, along with 76 countries was a founder of the WTO in 1995 which subsumed the Uruguay Round GATT negotiations from 1986-1994.
- It has a dispute settlement Body, which makes trade rules enforceable and effective.

Important events at WTO

- 2001 – DOHA DEVELOPMENT ROUND: WTO has recognized the link between Trade and Development.
- 2013 – Bali Ministerial Conference: India successfully negotiated a 'permanent peace' clause on domestic support for agriculture as a trade-off agreeing to WTO Agreement on Trade Facilitation.
 - It allows India to pursue its agriculture domestic support programmes, without the risk of being challenged in the WTO dispute settlement Body.
- India's accession to the WTO Trade Facilitation Agreement in April 2017 also proved beneficial to it for improving logistics efficiencies and bringing down trade costs for its exports.

Agreement of Agriculture (AOA)

- Under AoA, the domestic support policies, subject to reduction commitments, were calculated by the total Aggregate Measurement of Support (AMS) on the base year of 1986-88.
- Accordingly, input subsidies known as 'Amber Box' have been calculated for exclusion from reduction commitments at less than 5% of the value of production for developed countries and less than 10% for developing countries.
- India and other developing countries have argued that developed countries have taken undue advantage of the huge domestic support provided under other boxes namely 'Green' and 'Blue' that have been tacitly kept outside the reduction commitments.
- India has sought correction in the highly imbalanced trade negotiation under the Agreement of Agriculture (AoA), reasoning that since developing countries were unfamiliar of the long term implications of the negotiated formula on agriculture under AoA during Uruguay Round of negotiations. However, there is no solution yet on this matter.

Tariff and Non-Tariff Barriers

- The rationale for high tariffs is to protect domestic industry from external competition and enhance revenue collection for the state.

- WTO member countries had bound their tariff rates for each line of product; developed countries bound 99% of their tariff lines to below 5% rates and developing countries bound their rates to 98% but with varying peak rates, within which they can maintain flexible applied rates.
- Member countries list their commitments in their schedule and offer them on Most Favoured Nation (MFN) basis as per GATT Article 1 i.e., “preferences to be offered, to all members on an equal basis in a non-discriminatory manner”.
- India brought down its applied rates significantly from average 100 % rates in the 90s to present 15% for industrial products and 25% for agricultural products.
- Several lines kept under Open General Licensing system (OGI), in support of MSMEs, were abolished in 2005.
- While the developed countries have seemingly cut down their tariffs, they have surreptitiously erected non-tariff barriers in the form of standards, testing etc., ostensibly to deny market access to others and protect their domestic industry.
- WTO Agreements on Sanitary and Phyto-sanitary Standards (SPS) and Technical Barriers to Trade (TBT) have defined rules on standards but these are not enforceable.
- As Standards are voluntary in WTO, countries tend to take advantage of the ambiguity in the Article 20 of GATT that allows governments to restrain imports in order to protect human, animal or plant life or health, provided they do not discriminate or use it as disguised protectionism.

Free Trade Agreement

- Free Trade Agreement creates conducive environment for Global Value Chain (GVCs) to operate efficiently. Partner countries take advantage of liberalized investment climate under FTAs to set up production units as part of supply Chain Networks (GVC) to feed into finished products.
 - A successful FTA creates a win-win situation for both partner countries, not only in terms of providing market access but also enabling deeper engagement through investments, technology and services.
- GATT Article 24 of WTO allows member countries to enter into bilateral/regional preferential trade arrangements in order to achieve higher level of trade liberalization, notwithstanding that this provision amounts to derogation of GATT article 1 ‘Most Favored Nation’ (MFN) that stipulates non-discriminatory treatment on trade preferences to all countries.
- In the last two decades there have been proliferation of free trade agreements globally with about 450 FTAs/PTAs concluded and another 180 FTAs/PTAs under either negotiation or review, involving about 2/3rd member countries of WTO.
- India concluded about 16 FTAs/PTAs and another 20 of them are under either negotiation or review.
- India’s most notable bilateral FTAs are with Japan, Korea, Chile, Singapore and regional FTAs are SAFTA, ASEAN, Mercosur, APTA, etc.

Way Forward

- Presently, talk on reform of the WTO has gathered momentum in the wake of unilateral measures and counter-measures imposed by mostly USA and China. Developed countries are seeking to graduate few emerging countries like India, China, Brazil, South Africa etc. from the status of ‘developing countries’ by withdrawing Special and Differential Treatment (S&DT).
- The principles of S&DT, enshrined in GATT and adopted into the WTO system, was based on the promise that developing countries and LDCs, faced with developmental challenges, require certain buffer to cope with external competition.
- Another challenge in WTO for developing countries is effort by plurilateral groups to push for new issues on the WTO Agenda for rulemaking such as e-commerce, investment facilitation, MSME and gender.
- For India and developing countries, Doha Development Round remains unfinished and new issues run the risk of undermining the ‘development’ agenda. India needs to maintain a delicate negotiating balance on reform of WTO without undermining the principle of Special & Differential Treatment and the development-centric agenda of WTO.

India's World Trade

India and World Trade

- A Look at present scenario
- India's major trading partners are USA, EU, China, UAE, Germany, Singapore, UK, etc. In South-Asia, India is the most dominant economy with total trade at about \$25.7 billion in 2019-2020, of which India's export was \$22.8 billion.
- India's export product profile more or less remained constant for several years: petroleum products, Gems & jewellery, machinery, organic chemicals, pharmaceuticals, electronics, leather, etc. have been consistently leading the chart. Diversifying export basket with value added products would help to expand its global market share.
- However, a challenge for India is the ever widening trade deficit with china, with is feared to be dumping its good in India indiscriminately through a deliberate state-sponsored unfair trade practices, while insulting its markets through highly cumbersome non-tariff measures.
- The World Bank Group study of 2018 observed that if only regulatory obstacles to trade are minimized in the region, trade in South-Asia could increase by three times in few years.

Time	India's Share in World Merchandise Export	Year	India's total Trade
1947	2.2 %	2000	US \$ 103 Bn
1983	0.5 %	2010	US \$ 528 Bn
2000	0.7 %	2019-20	US \$ 787 Bn
At Present	1.7 %		

Trade in service sector

- Services constitute more than 55% of India's GDP, which is similar to the economic profiles of most developed countries.
- India's export of services trade in 2019, services exports were \$214 billion and imports \$128 billion.
- India supplies 40% of global demand for IT skilled manpower.
- However, India's share in world services trade is only 2.6%, mostly concentrated in IT and IT-enabled services.
- With a view to diversifying services trade, India identified 12 campaign services sectors with emphasis on realizing their potential for employment generation. Currently, India's total trade including merchandise and services is \$1129 billion, which constitute about 42% of the GDP.
- Deeper external engagements are a necessary condition for boosting trade and, in this regard, Global Value Chains (GVCs) and Free Trade Agreement (FTAs) are important tools.

Global Value Chain and India's opportunity

- Global value chain or supply chain are a reflection of fragmentation of production processes that have assumed a high degree of sophistication and specialization due to changes in technology, skills, capital and investment policies.
- It denotes an underlying principle that companies source raw materials and intermediate products at qualitative and competitive prices from wide ranging sources across the world.
- It marks a shift away from the traditional way of manufacturing where components and finished products are all produced in one country.
- As GVCs reduce input costs, it makes finished products competitive in the global markets, a propitious condition for trade to thrive.
- Open trade and investment policies of a country naturally attract GVCs. Some sectors of India, especially Pharma, Auto and Textiles are well-integrated into GVCs while those of China, Japan, Korea, Singapore etc. are not only extensive but also deeply entrenched in several countries around the world, lending their products competitive edge in the global market.

Conclusion

- India's trade negotiating approach would need to take a broader long-term view of things to come in future. Increasing volume of trade is more important than trade deficit because trade need not be a zero-sum game. A proper balance of quality and price determines the staying power of product in the market. Technology will impact trade in big way in near future and staying in niche technologies such as machine learning, 3D printing, robotic engineering, internet-based production, e-commerce etc. will all impact global trade in a big way. India should consciously develop a wide angle approach to these evolving global trade dynamics.

International Trade and India

Introduction

- In the past 70 years, International Trade has grown from US\$64 billion in 1950 to about US\$25 trillion. On average, trade has increased by 1.5 times more than the global economy each year.

Important Facts Regarding World Trade

1. Present Value of World Merchandise Trade: US\$18.9 trillion.
2. Present Value of Commercial Services : US\$6.0 trillion
3. At Present, World exports account for 27.3% of world GDP @ US\$91 trillion.
4. The 5 largest exporting countries for Goods are China, USA, Germany, Japan, and South Korea.
5. The 5 largest importing countries for Goods are the USA, China, Germany, Japan, and England.
6. India rank 19th with US\$313 billion exports.
7. India ranks 10th with US\$473 billion of imports.
8. China is ahead of both the USA and India in Global Production and exports of many product groups.

Why is there a surge in Global-trade?

Two main factors have contributed to massive trade growth in post-world war trade scenario

- a. Developments in communications and technology.
- b. Establishment of globally accepted trade rules through the GATT WTO system.

These factors have created a ripple factor and facilitated the following:

1. Outsourcing of manufacturing operations.
2. Establishment of international production networks and Global Value Chains (GVCs).
3. Give rise to multinational corporations (MNCs). Today about 40% of global trade in intra MNCs trade.

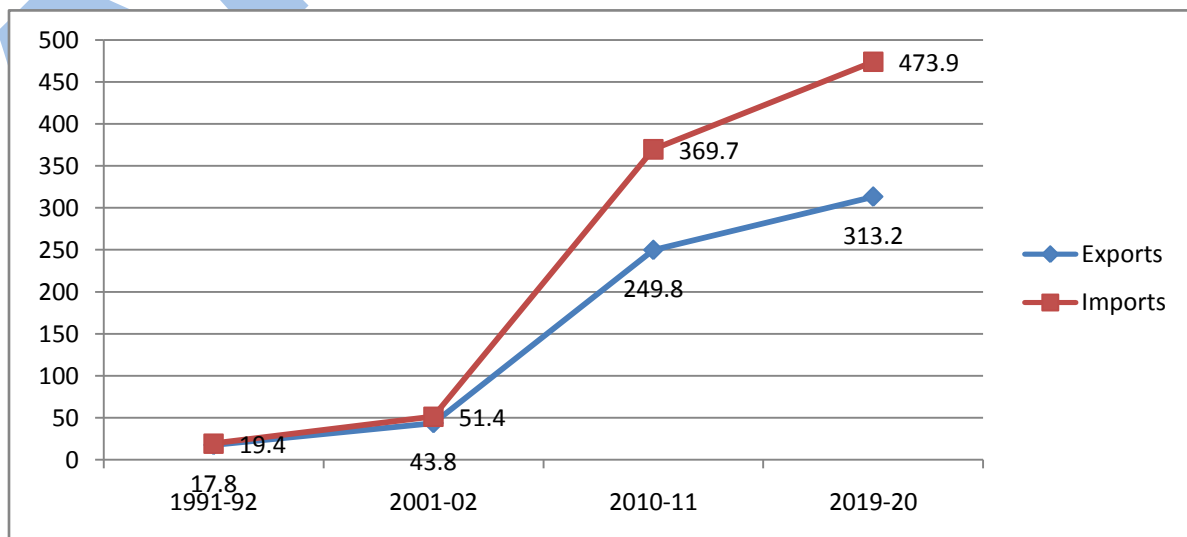
Free Trade Agreement (FTA)

- Slow decision-making at the WTO has led countries to negotiate trade liberalization bilaterally or within small groups through the FTAs that have become the central part of many countries' trade strategy. An FTA is an arrangement between two or more countries under which they agree to end tariffs and non-tariff barriers on a significant value of imports from partner countries.
- The FTAs can ensure market access to only the right quality products made at competitive prices.

Impact of Covid-19

- In April 2020, WTO has warned that the world merchandise trade in 2020 is set of plummet by between 13 and 32% in 2020 due to the covid-19 pandemic. Nearly all countries will suffer declines in trade volumes in 2020, with exports from North America and Asia hit hardest. Services trade may be most directly affected by Covid-19 through transport and travel restriction.

India's Trade in a Snapshot



India's export and imports over the years (All figures are in US\$ billion)

Important initiatives taken by Government

1. Infrastructure

- The **Sagarmala initiative** aims to reduce logistics cost for domestic and export-import cargo.
- **Bharatmala Pariyojana** focuses on freight and passenger movement across the country for the highways sector.

2. Institutions

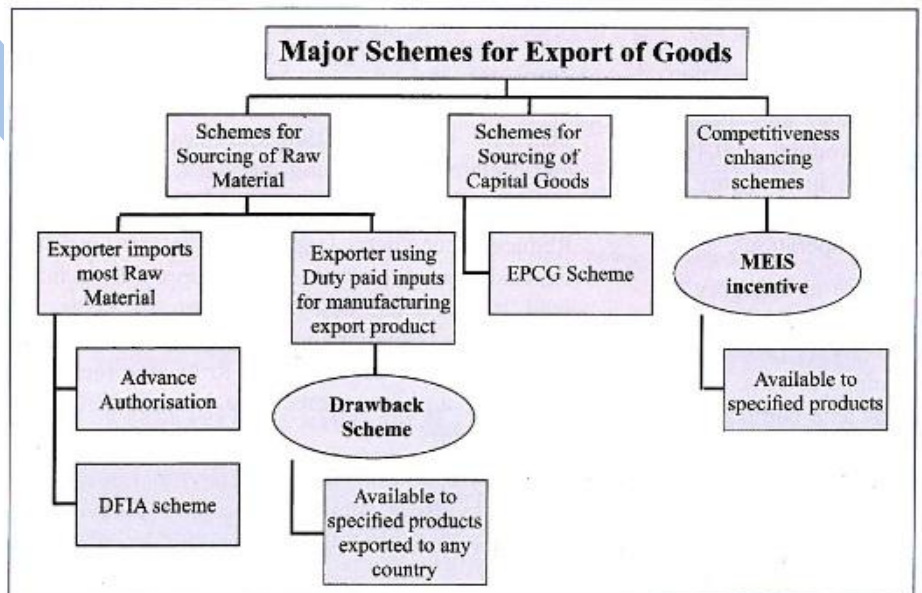
- Sector-specific Export promotion councils, Federation of Indian Export Organization, and several Trade associations engage with exporters to resolve day-to-day and development issues.
- **Export Cum Guarantee Corporation** provided insurance facility while EXIM Bank extends long-duration loans to long-duration projects located in specific countries.
- **India Brand Equity** programme actively promotes Indian brands and traditional goods like tea, spices, ayurvedic products, and Services like yoga, wellness, and health care.
- **Council for trade Development and promotion** has been created for making states active partners in housing India's exports.
- **Board of Trade (BOT)** engages with leaders of industry in promoting India's trade interests.

3. Ease of Doing Business and IT Initiatives

- Several measures have been taken to reduce export, import clearance time, and cost. Thus, the number of mandatory documents required has been reduced to 3 each for export and import. Earlier, seven documents were needed for exports and 10 for imports.
- Major ports, custom-houses, Special economic Zones, DGFT, etc. are Electronic data interchange (EDI) connected.
- Customs have introduced Single Window interface for Facilitating Trade (SWIFT), integrating the approved process of partner Government Agencies on a single platform.
- On the incentive side, DGFT exchanges data with customs, Banks, and EPCs through the secured EDI message exchange system, reducing exporters' physical interface with DGFT.
- **Nirayat Bandhu:** Under this programme, skilling of new entrepreneurs for exports is given priority.

Schemes for Export promotion

- Challenges to India's export Sector
- Weak firm-level Structure: Though India has more than a lakh of active exporters, less than 2000 account for over 60% of Indian exports. Thus, few large firms and thousands of small informal firms dominate India's export. There is little presence of mid-size entrepreneurial firms.
- Indian does not have many large firms except in petroleum refining, steel, pharmaceuticals and automobiles.
- Export to turnover ratio is less than 10% for the top 50 public limited companies in the food, beverages, mining, paper products, chemicals, textiles, and electrical machinery sectors.
- The presence of large firms supports the growth of SMEs. They depend on SMEs for the supply of specialized components, parts, or machinery. In turn, SMEs gain through the flow of people, skills, technology, and best practices from large firms.
- Indian SMEs account for 75% of manufacturing jobs but produce just 10% of the manufacturing output. So the presence of globally oriented large firms will support the growth of SMEs as well.
- **Weak Export Product Profile:** In export Sector Products can be categorized in two. Category A products



include electronics, computers, telecom, factory machinery and high-end engineering products. India's global share in such products is 0.4%. Category B products include labor intensive, low technology products.

- India's share in Category A products is smaller compared to Category B. As a result, India's growth potential is hindered and it faces competition from other low-cost countries.

Way Forward

- Seven Strategies for Increasing India's Exports
 - a. **Expansion of manufacturing and trade of the products.** A calibrated import duty structure and quick and hassle-free shipments at the ports are almost a precondition for significant Global Value Chain participation. This will need reforms in duty structure, building efficient ports, and online systems.
 - b. **Developing Self Sufficiency:** We need to develop self-sufficiency in Bulk drugs/APIs, power equipment, everyday use goods, and defense-related products, etc. in order to avoid critical dependence on any country.
 - c. **Define "Made in India" standards** and make it a quality label. This will require setting up Design studios, Innovation labs, and strengthening of standards and Quality infrastructure.
 - d. **Open large product exhibition centers cum markets.** This will help small firms to showcase their products and get orders without traveling abroad.
 - e. **Provide actionable trade intelligence** based on proper data. Simple information like which country is buying what product at what price helps.
 - f. **Promote trade-in services-** India's services exports are characterized by over-dependence on software services, which accounts for about 40% of India's services exports. To diversify India's services exports, Government has identified 12 sectors for focused development. These include IT, Tourism and Hospitality Services, Medical Value Travel, Transport, and Logistics Services, Accounting and Finance Services, Audio Visual Services, Legal services, Communication Services, Construction, and Related Engineering Services, Environmental Services, Financial Services, and Education Services.
 - g. **Reduce input costs-**High duties on raw materials, expensive credit, erratic power supply, limit taking land transactions, delay in refund of taxes, and less production labor increase the input cost-deep reforms in these areas needed to lay the foundation stone for a more competitive manufacturing and export sectors.
- Focused action on the strategies mentioned above would help in strengthening of core competitiveness at the product and market level and result in increase of exports/trade.

India –US H1B Visa

Introduction

- Economic liberalization and structural reforms since 1991 have enabled India to shift to a higher growth trajectory and to integrate with the world market, Services have played an important role in this process. In particular, India has acquired global recognition for its competitiveness in segments such as information technology (IT), business process outsourcing (BPO) and professional services, which currently constitute over 50% of India's services exports.
- In the US market, India's services exports have been facing growing protectionism with respect to the movement of its specialty occupation (H-IB visa holders) and intra-corporate transferees (L- visa holders). This has particularly affected Indian IT companies which require on-site deployment and short- term movement of personnel to the US and account for the bulk of such visas granted to Indians. The frictions came to a boil when in March 2016, India filed a complaint with the WTO challenging the US over steep visa fee increases for H-IB and L-1 visas, citing discriminatory treatment of Indian IT companies and workers and inconsistency with the US WTO commitments in mode 4.

India-US Trade

- In 2018, India's IT and IT- enabled services exports amounted to \$126 billion of which 62% was to the US market.
- Within these exports, 57% was contributed by IT services. In 2017, India was third after Canada and Mexico in terms of non-immigrant admissions of temporary workers and their families in the US.
- Indian companies such as Infosys Limited, Cognizant Technology Solutions, Tata Consultancy Services, Wipro Limited and IBM India have been granted the vast majority of H-IB visas while Tata and Cognizant have also been the biggest users of the L-I program in the recent past.
- India accounted for nearly 70% of H-IB visas issued by the US in 2019, up from 46.2% in 2000. Of the top 10 companies with H-1B- approved petitions in 2018, four were Indian firms. However, rejection rates have risen

significantly for Indian IT companies filing for H-1B visas, compared to their US counterparts.

Issues with H-1B Visas

- The most common concern that the program displaces rather than complements American worker, as employers use it to bring in cheap foreign labor without proving in the Department of Labor that they tried to find an American to fill the job.
- The US General Accounting Office has noted that controls on the program lack effectiveness as loopholes and tax enforcement have led to exploitation of both visa holders.
- There have also been instances of investigations against companies such as TCS and Infosys to determine if the program has been misused to lay off domestic workers in the US and hire cheaper foreign workers.

India's Stand

- In 2016, India submitted a request to the WTO Settlement Body for Dispute consultations with the US, concerning non-immigrant measures which raised visa fees for petitions for admissions and extensions by certain applicants under the H-1B and L-1 visa categories.
- India has argued that the additional visa fee for selected Indian IT companies is not original neutral, though it may have been designed as seemingly non-discriminatory across communal entities.

US Stance

- The US has contended that immigration policy is a sovereign issue that is not negotiable in the WTO. In its view, companies that predominantly use H-1B workers are not Silicon Valley technology firms but IT services firms based in India, such as TCS, Infosys, Wipro, which specialize in consulting or outsourcing. Thus, the US position is that this program has hurt income and job prospects of American workers, rather than bringing in the world's "best and brightest talent".

Current Status

- Till date, this dispute remains in consultations. While the matter has been discussed by US and Indian officials at various levels and in various forums, the case has not proceeded to the formal dispute settlement phase in the WTO.
- The US claims that the disputed laws are fully consistent with its WTO obligations. However, it has indicated that it would review the fee increase, though there is no proposal to modify the concerned policies.

Looking Ahead

- More recently, the US has suspended H-1B visas till December 31, 2020 in order to protect US jobs, extending an earlier 60-day ban on these visas, although exceptions have been made for health and essential workers. This suspension will affect the movement of Indian skilled professionals. Given the economic contraction in the US, the H-1B visa program is likely to see continued protectionist challenges in the near future and India must be prepared for the same.
- On its part, India will have to continue emphasizing the importance of transparent, non-discretionary, and predictable policies for non-immigrant visas in the US, through industry associations and government-to-government dialogues.
- Simultaneously, discussions for a total agreement must also be pursued given the large double taxation burden currently incurred by Indian and US professionals working in each other's countries.

Re-Imagining India's Role

- Indian foreign policy vision has been evolving rapidly. This evolution is only natural for a nation that is rising in the global power hierarchy. However, due to lack of purpose in its approach, the balance sheet for India's foreign policy after seven decades presents a mixed picture. India's foreign policy is changing and will continue to evolve not only because the global environment is changing more rapidly than ever but also because India is changing.

The Change in Approach

- A bigger mandate in general elections 2019 followed by the unusual selection of an ex-diplomat in the powerful position of India's external affairs minister rather than any party heavyweight indeed was a big statement of intent. The appointment reflected the concern about the global turbulence through which Indian foreign policy

must navigate and need for an experienced hand.

- Professional approach has replaced Orthodoxy. This became pertinent when the Government took a momentous step in domestic politics with serious foreign policy implications. Article 370 via Clause 3 was suspended that had allowed Jammu and Kashmir to enjoy autonomy.
- On the wider foreign policy front, India has been busy courting major powers and reaching out to various parts of the world. This is ever so evident from Indo-US relationship, especially in the area of Trade Negotiations.
- In June, the Trump administration had terminated India's designation as a beneficiary developing nation under the key Generalized System of Preferences trade program. India responded by imposing retaliatory tariffs on 28 US products including almonds and apples.
- Apart from this, New Delhi has engaged with multiple partners and actors in the international system in an attempt to develop strategic relationships that can enhance India's profile and further its global interests.

Conclusion

- Though sections of the Indian establishment still want to reinvent non-alignment under ever new guises, New Delhi is showing signs of pursuing strategic autonomy separately from non-alignment. India is charting new territory in its foreign policy, predicated on the belief that, rather than proclaiming non-alignment as an end in itself, India needs deeper engagement with its friends and partners if it is to develop leverage in its dealings with its adversaries and competitors.

Indo-Nepal Relation

Introduction

- The India Nepal Treaty for Peace and Friendship, 1950 was signed against the backdrop of communist victory of China's civil war, imminent occupation of Tibet by China and the latter not conceding independence of Nepal. It marked the commencement of close bilateral economic and security cooperation.

Indo-Nepal Diplomacy

- Through India's good offices, an interim coalition Government of Nepali Congress and Rana elite was established in February 1951 commencing a new era of democracy.
- However, Nepal was facing tremendous shortage of trained manpower and lack of educational system and institutions. This discouraged foreign capital from supplementing inadequate Nepali capital. Frequent ministerial changes too intensified existing problems and created new ones. India HAD extended development assistance to Nepal.
- An **India Aid Mission (IAM)** was established in 1954, later renamed **India cooperation Mission in 1966** and subsequently merged with the Embassy as the Economic cooperation Wing in 1980.

Challenges faced by Nepal

Nepal was having multiple challenges like

- a. Non-existent transportation and communication network with motorable roads limited to the Kathmandu valley.
- b. Rampant outbreak of disease.
- c. Short life expectancy
- d. Virtually non-existent educational and health facilities.

India's intervention

Infrastructure

- The first major project under Indian aid was the 189km Tribhuban Highway connecting Kathmandu with Birganj on the Indo-Nepal border that was completed in 1956.
- In 1966, India commenced construction of the 1024km east west highway called Mahendra Rajmarg.
- The first airport in Nepal –the Tribhuvan Airport at Gaucher in Kathmandu–was also built with Indian aid in 1951. Subsequently, in the 1960 five more airports at Simra, Janakpur, Bhairhawa, Pokhara and Biratnagar were constructed.

Education

- Tribhuvan University, the first to be set up in Nepal in 1959 received Indian assistance for infrastructure and faculty up to mid 1970s.
- During the 1952-72 period over 320 schools, and libraries in Nepal received Indian assistance. Over the decades

India's educational scholarship programme has expanded phenomenally. Currently annually to Nepali students.

Healthcare

- Starting from Paropkar Maternity Hospital in Kathmandu to the establishment of BP Koirala Institute of Health Science at Dharan in Eastern Nepal, India contribution to Nepal's health sector has been vital and extensive.

Earthquake Reconstruction Assistance

- In 2003 a small Development Projects Scheme was launched focusing in areas of education, health and community development. Over 500 projects costing over INR 10 billion have been implemented.
- Following a major earthquake in 2015, India has extended US\$1 billion as reconstruction assistance.

Water Resources

- The Kosi and Gandak barrage projects were implemented in the 1950s and 1960s under agreements signed in 1954 and 1959 respectively.
- To aid Nepali Government's primary objective to supply electricity in Kathmandu, India had commissioned 21 MW Trishuli hydroelectric project (HEP) and transmission lines under grant assistance in 1967.
- At Nepal's request, Kosi and Gandak agreements were amended in 1966 and 1964 respectively. Main changes in the Kosi agreement pertained to land for barrage being given on 99 years lease and Nepal's "right to withdraw water" being elaborated to "every right to withdraw".
- Similar changes were made in the Gandak agreement.
- In May, 2018 **SJVN Ltd**, an Indian PSU, received a Generation License from the Government of Nepal to implement 900 MW **Arun III Hydroelectric project**.

Way Forward

- Nepal was the first beneficiary of Indian Aid. Aid programme in Nepal not only started well before aid programme in Bhutan but was more comprehensive in scope in the 1950s to 1970s. In both the countries Indian assistance was premised on shared security interest and economic development was seen as a sine qua non of close friendly relations.

Indo-Bhutan Relation

- In 1947, with China claiming Bhutan as its territory there was concern about developments in the region. The treaty of Perpetual Peace and Friendship between India and Bhutan was concluded on August 08, 1949 during the rule of King Jigme Wangchuck. It was premised on shared security interests.
- The treaty was updated by India-Bhutan Treaty of Friendship signed on February 08, 2007 which committed the two countries to not allow use of their territory for activities harmful to the national security and interests of the other.

India's development Diplomacy

- Following PM Nehru's visit to Bhutan in 1958, India's development assistance to Bhutan commenced in 1961 nearly a decade after the start of Indian assistance to Nepal.

Infrastructure

- One of first major projects to be undertaken was the 179km Western Highway connecting the capital Thimphu to Phuentsholing on the Indo-Bhutan border and was completed in 1968.
- The 180km Eastern Highway from Trashigang to Darranga on Indo-Bhutan border, 595 km East West Highway and the Paro Airport were also completed in 1968.
- The 248km central Highway was completed in 1980.
- By 2018 project Dantak had completed 1600km of black lopped roads, 120km of tracks and 5000 m of bridges.
- Rinpung Dzong-Buddhist monastery and fortress-in Paro, Jigme Dorji Wangchuck National Referral Hospital and Tashicho Dzong (secretariat building) in Thimphu and Chipgen Rigel/total Solutions- an ICT project, are all exemplary projects of India Bhutan cooperation.

Hydropower Cooperation

- The agreement for 27 MW Jaldakha HEP constructed on Indian side of the border was signed in 1961 and provides for electricity to southern areas of Bhutan.
- The 336 MW Chukha HEP was commissioned in 1986-88 and greatly enhanced government revenues through power sale to India.
- The ambitious framework agreement on India-Bhutan hydropower cooperation envisages 10000 MW power-

generation potential.

Way Forward

- Bhutan's leadership believed in enlightened self-interest and its foreign policy sought a genuine dialogue with India to discover the path of mutually beneficial economic development that would strengthen bilateral ties with India. The results are self-evident. Bhutan has the highest per capita income in South-Asia and is focused on Gross National Happiness (GNH).

The China Factor

Introduction

- Opening up of Economy in 1991-92 and adopting a Look East Policy has resulted into a mixed bag of success and failures. While the rise of China is unquestionable, irresponsible actions by China have created an opportunity for evaluating India's strategic, Economic and Military options in the Indo-Pacific are which houses the countries of interest to India's Look East Policy.
- The fact that China apparently hid the outbreak of the virus has not been received well by the countries around the world and notably the most affected including India, US, Europe, Brazil etc. While India was busy combating Covid-19 menace and the economic downturn, China indulged in an unethical intrusion along the LAC despite the agreement that go back to 1993.
- China has also made inroads in the neighbor-hood of India both over land and sea. It has not given up on its claims of Bhutan territory and has also been propping up Nepal against India.
- It has also invested heavily in the China POK Economic Corridor. India has opposed the BRI and has voiced its concerns about the unilateral nature of this adventure which does not benefit the recipient countries.



Galwan Issue

- Despite the efforts by Government of India to engage with China in a mutually beneficial course as part of its "Look East Policy". However, China has acted against India's interests and was using the market access of India to increase its share and also slowly intrude into many niche areas.
- This not only increased the trade deficit to nearly US\$60 billion but also slowly increased the dependence of Indian enterprise on Chinese funds and technology much to the detriment of India's long-term interests.
- It was also rightly observed that the trade deficit is what is being used for many of economic initiatives of China in Pakistan in addition to military modernization at India's cost.

South China Sea Dispute

- China's actions in South China Sea have also angered the maritime neighbours who are not in a position to take on the economic and military might of China which has used economic and military might to subdue the opposition.

Claimants of territories in the South China Sea



Mutual Solution and Global Response

- On the side lines of Shanghai Cooperation Organization (SCO), that on September 10, 2020 the External Affairs Minister of India and his counterpart were able to arrive at a five point formula to defuse the

situation. However, it is obvious that there is an anger against China for the acts of discretion both during Covid-19 also post Covid-19 when it has tried to use the period of distress in indulge in cartographic aggression both over land and in the seas.

Way Forward for India

- On India's part, it has taken many measures to send strong messages military, economically and diplomatically to the northern adversary that it appears to have miscalculated the responses of India. The slew of measures has included a digital strike on various Chinese apps, prevented Chinese Companies from distress takeover of companies, have cancelled many contracts which favored Chinese companies and such like.
- India which was hesitant in moving forward with the quadrilateral has now realized its folly of trying to be sensitive to China while China hardly ever bothered about India's sensitivities.
- India signed an agreement with Australia for mutual use of facilities and expertise along the same lines as the Logistic Exchange Memorandum of agreement with USA which was linked in 2016.
 - With this signing, India has such agreements with France, South Korea, Singapore and Japan.
 - This provides considerable strategic flexibility for India which has its interests beyond the straits of Malacca and Singapore.
 - India is now a part of both India-China-Russia triangular relation and also the India-Japan-USA group.

Conclusion

- The recent developments are indicative of the need to break away from past practices of bilateral relations which have not yielded the desired results. The recent developments clearly bring out that there would be global readjustments whether it is in terms of decoupling or having new alliances to take on China which has not behaved with the maturity expected of a nation aspiring to replace USA.
- This may be viewed as an opportunity for India to redraw the contours of its engagement with other countries and institutions and draw an independent trajectory that would help its growth, prosperity and development.

Indo-Russia Relation

Introduction

- The documented history of India-Russia relations can be traced back to 15th century when Afanasy Nikitin, a Russian merchant from the Tver region visited India. He wrote a book titled "The Journey Beyond Three Seas". However, the contemporary relations of India- Russia can be traced back to the early 20th century, especially with 1905 initial revolt against the Czar in Russia which in many ways shaped the initial resistance to the British rule in India.
- The leader of Bolshevik Revolution V.I Lenin followed the Indian freedom struggle very closely and often commented about it in his writings and speeches. Jawaharlal Nehru's visit to the USSR in 1927 shaped many of his economic ideas which he implemented when he became the PM of India post India's independence.
- Besides this India's large scale industrialisation, e.g. Bhilai and Bokaro steel plants and educational institutions such as IIT Bombay were the results of active support and cooperation by USSR. Soviet planning also helped India plan its mode of development.

India Soviet Relation

- Initially Soviet Union did not see India's independence positively for many reasons, largely because of the post-independent leadership of the Indian National Congress and their relationship with the UK. This period of tight bipolarity, (in which only two superpower existed, namely USSR and USA) camps were formed and India and other third world nations forming non-Alignment was doubted.
- Soviets improved their relations from 1955-56 and came in a big way to help India's economic planning and this help was on straightforward terms creating a concrete for relations between India and the USSR.
- In 1962, the Soviet Union was neutral despite its ideological closeness with China. In 1965 during the India-Pakistan war, Soviet Union did not support India nor did it take sides.
- A landmark treaty was signed between USSR and India known as the India-Soviet Treaty of Peace, Friendship and Cooperation.
 - 1971 and the most critical part of the treaty were Article 5 and 6 which spoke about both the countries coming to each other's aid in case of external aggression.
- Although India was not very convinced to join the Soviet Union's military bloc (Brezhnev doctrine) earlier, yet

India's experience with its neighbours changed its approach to make this treaty possible. In 1968, when USSR intervened in Czechoslovakia, India did not support the Soviet Union.

- The Soviet Union, on the other hand, always supported India on the Kashmir issue in the United Nations Security Council when USA, UK, and other states supported Pakistan. The Soviet Union always voted such resolution that condemned India on the floor of United Nations Security Council.
- When the Soviet Union intervened in Afghanistan in 1979, India did not condemn the Soviet Union publicly. Soviet leadership always gave importance to India as a leading country of the third world and leader of NAM which no Western country gave.
- By 1990, Soviet Union was de-emphasising its relation with third world nations. During this period, a lot of changes happened in the political arena-military coup and above all in 1991 Soviet Union itself disintegrated.

Post Disintegration Era

- With the disintegration of the Soviet Union and change in the nature of International relations, the Indian foreign policy towards Russia also underwent a paradigm shift. India and former USSR were one of the largest trade partners especially in defence supplies.
- Approximately 70% of Indian army hardware, 80% of Indian Navy's hardware and 85% of Indian Air Force hardware were of Soviet origin. The immediate problem that India faced due to disintegration was a defence supplies.
- The entire Military Industrial Complex (MIC) had come to a standstill as many of the defence hardware production units in the former USSR, on which India was dependent for its supplies, were now in Ukraine and Kazakhstan.
- The Indian government had to renegotiate the terms of defence supplies with these countries as well as with Russia.

Currency Problem

- There were also problems related to currency. During the existence of Soviet Union, Indian supplies were mainly done in Indian currency. After the disintegration, the subsequent trade that happened created problems for India due to severe depreciation in Rouble.
- Moreover, most of the defence supplies during Soviet Union were on credit, which came to an end after the disintegration. The prices of defence products were also enhanced and the 'friendship rates' that were being offered earlier for the defence purchases also came to an end.

Sanction on India

- The decade of 90s was also a testing time for India-Russia relationship. Despite the homilies being offered to India-Russia friendship, the Nuclear tests done in 1998 ended the cryogenic deal between India and Russia because of sanctions imposed by the United States. Russia went along with the US and other Western states to impose sanctions against India.

Putin Era

- The relations between India and Russia underwent a qualitative shift when Vladimir Putin became the President of Russia in 2000, but retained the basic thrust of the friendship that India had with the USSR. In 2000, "The Declaration on Strategic Partnership between India and Russia" was signed which became a milestone in institutionalizing relationship between India and Russia.
- Besides the relations at the bilateral level, the two countries have also initiated interactions at multilateral level to increase their economic and political cooperation. The prominent ones being BRICS, Shanghai Cooperation Organization, G-20 and Russia-India-China grouping.

Contemporary Issues

- The relationship between the two states in the last decades has been full of challenges.
- The falling price of petroleum products has reduced the income of Russia which is dependent to a great extent on the revenue earned from the export of petroleum products.
- India has tried to diversify its defence purchase sources riding at the back of Civil Nuclear Deal where India and USA signed a deal which makes a distinction between India's defence nuclear needs and civil nuclear requirements.
- Crimea's reintegration with Russia and alleged Russian intervention in the internal affairs of Ukraine has invited

sanctions from the Western states. The emerging world and regional politics have put Russia on its back foot, resulting in realignment of forces in the region and beyond. Russia and China have come closer.

- Russia has signed a defence deal with Pakistan where it has supplied four military helicopters besides having annual military exercises between Russia and Pakistan, much to the discomfort of India.
- Meanwhile India has also reinforced its relations with Japan, Australia and USA. It also has strengthened its political and economic relations with ASEAN states and West Asia.
- The rise of an assertive and aggressive China also meant that India's foreign policy orientation has also transformed with Russia's open support for 'Belt and Road Initiative' which India has refused to join for its own reasons. This has brought into focus the "Indo-Pacific Region" (called "Asia-Pacific" by Russia and China) and has also mean clash of perceptions between India and Russia over the Indo-Pacific region.

Conclusion

- There is ample scope of relationship between India and Russia relations go deeper than what they presently are. Apart from the avenue of cooperation that exist at multilateral levels of SCO, BRICS, RIC and G-20, there is a need for more bilateral engagements and cooperation.
- India and Russia must look for active bilateral synergies for cooperation in the outer space, cyber security, counter-terrorism measures, exploring the Arctic region besides many new areas of mutual interest.
- The two states should also work together creating more interconnectedness through working on the transportation links like INSTC, using of the Chabahar port to transport goods to Afghanistan and Central Asia.
- A long and sustained relationship cannot be sustained merely on the legacy of past and defence deals. Both states are in times where the old order is crumbling, and a new world order that is likely to emerge post Covid-19 pandemic will make them even closer due to emerging geo-political realities.

India and West Asia

Introduction

- India is inextricably bound to West Asia, its closest western neighbour across Arabian Sea as valued trading partners exchanging goods and disseminating ideas, date back many millennia. The intensified engagement, now transform into a 'Link and Act West Policy', has seen defence and security cooperation emerging as a key pillar of the policy.
- It is towards countering terrorism and radicalisation, ensuring maritime and cyber security, investing in defence manufacturing, promoting greater interaction between armed forces, including joint exercises, military training and capacity building, with a strong ballast of economic and infrastructure development.
- For India, Iran is the gateway to Afghanistan and Central Asia and beyond through the strategic **Chabahar port**, the Arab states and Gulf Cooperation Council (GCC) countries are integral to India's energy security and counter-terrorism efforts, as is Israel, while maintain good ties is crucial for the safety and welfare of the huge India diaspora in the region.



Significance of West Asia

- West Asia occupies a pivotal position in international relations, because of many reasons like:
- Geographical location
- Close proximity to South and Central Asia, Europe, and Africa
- Vital position along major sea trading routes

- Enormous energy resources-accounting for 34% of world crude oil production and 48% of proven crude oil reserves.
- It is also where Abrahamic religions; Islam, Christianity and Judaism; originated.
- There has been chronic instability in the region, giving rise to terrorism and conflict, largely due to involvement of external forces and some internal schisms, between followers of Sunni and Shia Islam.

Abraham agreement

- It was signed on August, 2020, between the UAE and Israel, to establish full diplomatic relations and “normalize” their bilateral relations provides India, a close partner of both Israel and UAE, a chance to become an important player in West Asia, possibly even influencing a peaceful resolution of the bitterness that has been Arab-Israeli ties for over seven decades.
- It also is a big step towards Arab de-hyphenation of the Israel-Palestine issue, which has kept the region unstable.

India's Opportunity

- The recently-forged deal provides India with new opportunities to play a much larger role in regional security and stability in the Gulf as it not only enjoys very close ties with Israel, but has burgeoning ties of an increasingly strategic nature with the Gulf monarchies, particularly the UAE and Saudi Arabia.
- Other than leveraging its economy for a bigger opening in this region, which will bolster the Indian economy's own revival efforts, ramping up security ties with the Gulf countries, with armaments sales, defense drills, intelligence sharing and anti-terrorism exercises among others will help further strengthen Indian security.
- Energy security is a major area of cooperation, from fossil fuels to renewables, food security is another, while the size of Indian market and the diversity of products manufactured here is another attractive proposition for the Gulf countries, and Israel.

Link and Act West

- The two Sunni bastions, Saudi Arabia and UAE, along with Kuwait and Qatar, are at the core of “Link and Act West” diplomacy with West Asia. India realizes the role these countries play in its energy security and in the well-being of the over nine million Indians living in the region, annual remittances from whom top US\$60 billion.
- In 2018, the Abu Dhabi National Oil Company and Saudi giant Aramco agreed to take a 50% stake in the \$44 billion refinery India was building in Maharashtra.
- Both are interested in investing in India's natural gas sector and in building the Indian strategic crude oil reserve, with investments of tens of billions of dollars.
- The UAE is also the first partner of India's National Investment and Infrastructure Fund and invested US\$1 billion as the anchor investor.

Indian -Diaspora

- Over 9 million Indians live in the region and in most countries, constitute the largest communities, there. The Indian diaspora has emerged as major contributors in the Well-being and development of their economies and countries where Indians are the preferred workforce.
- India's ‘soft power’ is also clearly visible in the region; with the cultural connect of language, food, music, yoga and Bollywood Movies.
- Medical and health diplomacy has also gained traction in these countries, with many preferring the Indian option over more expensive Western medical facilities.

Other initiatives in this region

- The region supplies over two-third of India's oil and 80 % of its gas requirements and, given that the Gulf countries offer tremendous potential for cooperation in trade, investment, energy, manpower, and infrastructure development. India has a crucial stake in ensuring peace, stability and economic well-being of the region, which is beset with several inter-state rivalries and tensions.
- The international Solar Alliance initiative, launched jointly by India and France, has become another major area of convergence and cooperation between India and West Asia, each looking to ensure energy security and secure renewable energy resources, moving away from fossil fuels which pollute and degrade the environment.

Way Forward

- India has followed a policy of nurturing bilateral ties with all the countries in the region, without getting entangled

in their ideological or sectarian fault lines, best serving and enhancing its national interests. Thus, even the Syrians are looking to India to play an enhanced political role, as honest broker, in the region. India's blooming relations with the Arab countries and with Iran could also be leveraged by New Delhi to offer a way ahead for those countries competing for primacy in the Islamic world, to cooperate and arrive at a workable relationship.

Indian diaspora: Major issues and challenges

- Living one's own country due to any reason gives a multifaceted problem to solve. While it is a life changing experience, it has now become a matter of real discussion on the backdrop of COVID-19. While living overseas gives a lot of opportunities, it does take away some important aspects of life too. Indian diaspora is very diverse in nature. Therefore, their problems are also manifold.

Significance and contribution

- They help the transfer of knowledge, resources, expertise and also bridges the markets for the development of the country of origin and the rest of the world.
- The soft diplomacy a vital role played by the Indian diaspora is critical in the success of the Indo US Nuclear deal.
- The development of Science and technology is mostly due to the role played by the Indian diaspora
- The diaspora is the major source of trade investment in India. The World Bank predicts Indian diaspora to be the largest contributor and earner of inflows of remittances which is helping the balance of the current accounts.

Issues faced by the Indian diaspora abroad

West Asia

- Low oil price, Shell gas boom and slower Global growth is resulting in job cuts for Indians.
- Shia Sunni conflict and the radical Islamism.
- Fierce competition from the skilled labor from the Philippines and cheap labor from Nepal
- Policies like employer seizing the travel documents upon arrival as kabalalabor system exploitative.

US/CANADA & UK

- Discriminatory practices.
- Stricter H-1B visa norms in the US Congress.
- President-elect Donald Trump's call to channel more jobs to Americans
- Revision of the VISA norms in UK Post-Bruit might hit the Indian diaspora hard especially the IT professionals.
- The disparity in jobs and abuse due to terrorist branding.
- Cultural integration due to various eating preferences consumerism and nuclear society.
 - **Dual Citizenship:** Majority of Indian diaspora want to retain their Indian citizenship along with the citizenship of the country of their residence.

Major steps taken by the Indian government to handle the issues of the Indian diaspora

1. An online database of emigrants and comprehensive missions recruiting agents for an employer's insurance Agencies to make the whole emigration process faster and transparent which allows online authentication of verification of credentials of all the stakeholders.
2. Indian government has find a more you with six Gulf countries Jordan and Malaysia. The major intent is to enhance bilateral cooperation and employment opportunities in the protection and welfare of workers.
3. Government has also started **MADAD portal** for online lodging of the grievances of the emigrants which are intended to on priority basis.
4. The government recently amended the rules of the PIO card scheme so that the new recipients of PIO cards will receive card that will be valid for the duration of their life.
5. Embassies in Latin America and African country to help the Indian diaspora.
6. Bilateral engagement with us UK to address the concern of the skilled labor.
7. Programs like "Bharat ko janiye" to help the Indians living abroad to learn about India and also the opportunity to visit India.
8. The Indian diaspora is very varied and diverse and this rich diversity can help me to early both the countries and hence a closet I within is needed.

Government initiatives

- **Pravasi Bharatiya Diwas** is an initiative started by the government in 2003 to mark the contribution of the

Indian community Overseas in the development of India

- Ministry of Overseas Indian affairs has been merged with that of the ministry of external affairs and this merger is a huge initiative in the role of the government to encourage the Indians overseas.
- **Visa on Arrival:** Almost Forty Three countries have been permitted to have a Visa on arrival by the Indian government to stop these countries include the United States Australia and Fiji. This process has made travel and spread of the diaspora much easier.
- The economic engagement of Indians with India is facilitated by the **Overseas India Felicitation Centre** which was set up by the government of India with the confederation of Indian industry (CII). This partnership and felicitation have promoted the growth of economic engagement of Indians with India.
- The government has evacuated the Indian Diaspora in YEMEN in 2015 through **Operation Rahat** and also from South Sudan through operation **Sankat Mochan**.
- The **Pravasi Kaushal Vikas Yojana** is another important program taken by the Indian government which promote the growth and engagement of youth who target employment overseas
- the Indian government now is very quick to respond to the challenges and problems faced by the Indian diaspora especially because the government has become more digital and active in the social media does the various problems of the Indian abroad have been solved faster and response time much weaker due to the use of the social media and digitalization.

Indian diaspora during covid-19

- The covid-19 pandemic has played Havoc with the likes of Indian Overseas. Some have lost their jobs while others are in fear of losing them. There is already a significant number of people who are seeking to return to India due to financial instability. There are other problems too which was magnified during COVID-19:
- Due to heavy work pressure, there is an imbalance in life.
- Cultural Differences.
- Less availability of Indian food creates psychological problems.
- Harassment and negative response of the local community
- Vande Bharat was yet another initiative of our government to organise repatriation flights to bring back the migrant Indian diaspora especially from Doha, Kuwait and Riyadh where more Indians have migrated and wanted to come back home due to this crisis.

Way Forward

- The already affected diaspora need to be ensured to feel welcomed back home on arrival and their needs to be an easier process of immigration and Customs clearances. the government need to address the problems of Blue Collar workers working Overseas like
- Creating a standard labour export agreements with the host countries
- Monitoring and supervision of power Overseas workers by our missions
- Compulsory insurance schemes covering the risks faced by our overseas workers.
- There should be a greater focus on promoting tourism among second generation pic pose and frequency of these be used to make frequent visit to their home state and visit relatives and family
- The Welfare of Indian women married to NRIs and PIOs
- Professionals working in senior positions in the manufacturing industry can help promote India as an important destination for outsourcing. The government should also consider setting up special economic zones exclusively for projects to be set up by NRIs and PIOs
- The government should consider issuing special infrastructure bonds for attracting NRI and pio investments on the lines of Israel bonds.

Internationalization of Higher Education

- In the last decade of the 20th century, the rapid globalization and regionalization of economies, endowed with the requirements of the knowledge economy, created a huge push towards internationalization of higher education. Global institutions such as the Organization for Economic Co-operation and Development (OECD), UNESCO, World Bank and many federal governments of various countries placed internationalization as one of their priorities in the reform agenda.
- In due course of time, internationalization of higher education was not only a focus in the developed world but also in developing and emerging economies. Some of the key elements that the last three decades has witnessed are: mobility and exchange of students, scholars and faculty, collaborative/twinning programs, and reputation

building and branding of universities and higher educational institutions (HEIs) through global and regional rankings.

Historical Background

- Historically, in the 12th and 13th century, India was the global leader in attracting global scholars from across the world to its world class universities such as Nalanada, Takshila, Vikramshila etc. In the 20th century, USA and UK led the Internationalization of Higher Education to attract talent pool from across the world that added invaluable diversity of knowledge, content and culture in the universities leading to cutting-edge research and innovation. This in turn helped in the economic development and growth of the country.
- Internationalization of higher education in Canada, Australia, China, Singapore and several other not only bolstered the enrolment of international students, but also helped them in their labor markets. Internationalization of Higher Education, globally, in the last three decades (1990-2020) has witnessed the following key Trends:
 - It is mostly not done in an inclusive way. It only is catering the need of the elites.
 - Economic and political imperatives been the primary force for promoting it.
 - It is prominently and strategically practiced more among developed economies than in emerging and developing economies.

Indian Higher Education System

- The Indian higher education sector is the largest education system in the world in terms of number of institutions. However, it is paradoxical that our top talent goes to the developed countries to study, innovate, carry out research and add intellectual as well as economic value to these countries but we have not seen many overseas students coming in to study in India.
- The reason for large number of Indian students going abroad to study can be attributed to large young population base in the country, supply demand gap of quality higher education, aspirations and career growth prospects and quality of life available in developed countries.
- An estimated 7,00,000 Indian students are studying abroad (of which around 50% study in North America) as opposed to just about 47,427 international students coming to India.
- The maximum share of students come from neighboring countries with Nepal, followed by Afghanistan and Bangladesh. The most popular courses for foreign students are Bachelor of Technology and Bachelor of Business Administration, followed by Bachelor of Arts, Science and Commerce degrees.

Educational Exchanges

- One of the significant aspects in the post economic liberalization was the signing of the General Agreement on Trade in Services (GATS) under the WTO in 1995, which identifies education as a 'service to be liberalized and regulated by trade rules.' Under the provisions of the GATS of which India is a signatory, there are four kinds of supply of services:
 - Cross-border supply of services from territory of one member to another member (distance education, e-learning).
 - Consumption of a service abroad by the citizens of a member country in the territory of another member country (study abroad).
 - Presence of natural persons enabling a form of trade resulting from mobility of people from one-member country to another country (cross-border mobility of teachers).
 - Service Supplier can have their branches in other countries. (Foreign Universities)

Medical Education Scenario

- Despite having the largest number of medical colleges in the world and approximately 9.29 lakhs doctors enrolled on the Indian Medical Register, India is hugely short of healthcare workforce and way behind in achieving the targeted doctor population ratio of 1:1000, as per WHO guidelines.
- The urban-rural divide further accentuates the challenges of reaching the last mile and attaining the much-needed continuum of care.

Recent Initiatives

- Over the years, the policymakers, have taken steps towards internationalization and have framed policies to promote Indian higher education overseas. Some of the Government backed initiatives to promote internationalization includes the

1. **General Cultural Scholarship Scheme:** (GCSC) implemented through Indian Council for Cultural Relations (ICCR) which encourages student mobility by providing scholarships to countries from Latin America, Africa and Asia.
2. **Global Initiative for Academic Networks (GIAN)** which promotes interaction between scientists, entrepreneurs and students internationally and the Connect to India programme by MHRD which encourages student mobility by offering short-term programmes.
3. Several countries have also taken initiatives to promote internationalization through students and faculty exchange programmes, academic and research collaborations in different disciplines. Some of such key initiatives include UK-India Education and Research Initiative (UKIERI), the Generation UK India initiative, the Indo-US 21st Century Knowledge Initiative, the Fulbright-Nehru programme and the Scheme for Promotion of Academic and Research Collaboration (SPARC).
4. The recently released **National Education Policy (NEP) 2020** has clearly emphasised the need to achieve global standards of quality in Indian higher education both in— class and distance learning modules.



SALIENT FEATURES OF NEP 2020:
HIGHER EDUCATION

REIMAGINING VOCATIONAL EDUCATION



Vocational education will be integrated into all school and higher education institutions in a phased manner over the next decade



By 2025, at least 50% of learners through the school and higher education system shall have exposure to vocational education, for which a clear action plan with targets and timelines will be developed



Higher education institutions will offer vocational education either on their own or in partnership with industry and NGOs



The BVoc. degrees introduced in 2013 will continue to exist, but vocational courses will also be available to students enrolled in all other Bachelor's degree programmes, including 'the 4-year multidisciplinary Bachelor's programmes



'Lok Vidya', i.e., important vocational knowledge developed in India, will be made accessible to students through integration into vocational education courses

Way Forward

- Some Indian Higher Education Institutions (HEIs) have embraced internationalization and have readied themselves in terms of building up the infrastructure and adopting multiple dimensions. The "Study in India" program launched by the Government in 2018 needs to be executed strategically on a mission mode by engaging relevant stakeholders.
- The NEP 2020 suggests setting up a legislative framework to promote top 100 foreign universities set up campuses in India and vice versa. It is important that the execution modalities are clearly spelt out in the implementation framework.
- Promote Indian Higher Education regularly in global education fairs like NAFSA: Association of International Educators, European Association of International Education (EAIE), and Asia-Pacific Association for International Education (APAIE), etc. by showcasing the best of universities, programs and innovations in a professional manner.
- Facilitating Cross Mobility in Medical Sector.
- Develop "student cities" that should be safe along with adequate infrastructural and logistical support.
- In the current phase of Covid-19 pandemic, it is important for Indian universities to ensure reliable communications with current and prospective international students, students' sponsors, embassies, recruitment agents and international partners. Since the post-Covid-19 era will compel the world to be more connected, hence the government must ensure a strong ecosystem of internationalization across the length and breadth of the country.

India Post and International Relations

Background

- The institution of Foreign Post is more than 100 years old, All the mail exported or imported from or to India, has to pass through the gateway called Foreign Post. There are four such gateways in India since long. These gateways are located at Mumbai, Kolkata, Delhi and Chennai-India's port cities as mail was coming by ship before the arrival of aero-planes and airmail.

- Mail received from foreign countries is first sent to these gateways and it is checked by a group of customs officers functioning from Foreign Post. This group of Customs officers is known as the 'Postal Appraisal Department'. They check for violations in imports and exports. If any prohibited items are imported or exported, they are seized. If any imported article is required to pay customs duty, the PAD will assess customs duty to be paid by the addressee and will send it to post Office for collection of Customs Duty.
- In accordance with the Government of India policy to promote exports and increase the ease of doing business, an order has been issued on March 31, 2017 by the Department of Revenue (Ministry of Finance) identifying 13 more foreign post offices for the purposes of clearance of imported goods or export of goods.
- This will facilitate the exporters as they can get the consignment examined before booking and answer all kinds of queries raised by Customs Department.
- Besides this, 28 Export Facilitation Centers for promotion of exports of MSMEs have been opened in post offices.

India Post and UPU

- India Post (Department of Posts) is a member of the Universal Postal Union (UPU) since 1876. The UPU was formed in 1874 at Berne in Switzerland to regulate interstate mail movement and make rules that govern the mail movement. Although India then was a part of the British Empire, the colonizers enrolled India as a member of UPU.
- UPU Conventions regulate the Postal Functions among its member bodies. Although these are not bindings, these bring uniformity. One such example is the adoption of 13 digit Barcode System to track consignments.
- Recently, India Post received financial assistance from the QSF for providing vehicles for delivery of international imports and exports by post.
- The Guide to Disaster Risk Management produced by UPU has helped the member countries in developing a Disaster Risk Management plan for their own country. In current year, India is the Co-Chair of the committee that deals with the Integrated Supply Chain with USA as the other Co-Chair.

India Post and APPU

- India is also a member of Asia- Pacific Postal Union (APPU). Its headquarters is at Bangkok. There are 32 member countries from the Asia- Pacific Region.
- It aims to facilitate the postal exchanges in the region and promotes regional co-operation.
- The APPU runs a college or Academy for its members at Laksi, Bangkok.
- It conducts various courses to its member organizations on technology, marketing, quality of service, mail operations etc.

Philately and International Cooperation

- Philately is an important area of international understanding and cooperation. Printing of postage stamps is the monopoly of postal departments all over the world. Countries respect each other cultures and promote them by issue of stamps.
- During the 150th birth anniversary of Mahatma Gandhi (2019-20), 87 countries issued postage stamps on Mahatma Gandhi to show respect to the values of non-violence preached by the Mahatma.
- The Indo-Armenia Joint issue dated August 29, 2018 shows the Manipuri dance of India and HovArck Dance of Armenia.

Express Mail Service

- The service which is known as EMS world over is known as International Speed Post in India. This service was extended to Bosnia and Herzegovina, Brazil, Ecuador, Kazakhstan, Lithuania and North Macedonia from September 12, 2019. Now this service is available to more than 100 countries. Under this service, documents and merchandise can be sent and received.
- Surface to Air (SAL) is another very economic international service available.

International Relations

- International Relations and Global Business Division in the Postal Directorate coordinates matters relating to international business and co-operation. Ministry of External Affairs plays an important role in shaping the policy of international relations with regard to the postal relations. The Department of Customs too plays a crucial role in improving exports and import business.

National Recruitment Agency

- Union Cabinet approved setting up of NRA on August 19, 2020, with the vision of creating a specialist body, bringing the state-of-the-art technology and best practices to the field of Central Government recruitment. Currently, more than 20 Recruitment Agencies, including Staff Selection Commission (SSC), Railway Recruitment Boards (RRBs) and Institute of Banking Service Personnel (IBPS) conduct such recruitment examinations.
- This entails replication of huge financial, infrastructural and other resources. Several lakhs (at times even crores) of candidates apply for the large-scale popular examinations. Every such single exam goes on for months; and centers are not available for other recruiting agencies for those long periods. This delays their exam cycles inordinately, harming both—the candidates as well as the departments where vacancies are not filled up for a long time.

Initiatives Taken

1. **Linguistic Inclusion:** RRBs have started administering tests in 16 Indian languages, facilitating the candidates hailing from different linguistic regions of the country.
2. **Digitalization:** Digitalization of the recruitment processes has already been undertaken by IBPS, RRBs and SSC. RRBs started Computer-Based Tests—CBTs (commonly called as online tests) in 2015 for 18 Lakh candidates. SSC also changed its Optical Mark Reader (OMR) based exams to Computer Based Mode exams since June 2016.
3. **Geographical Outreach :** RRBs took examination to the doorsteps of the candidates in far-off regions of Kashmir Valley, all North- Eastern states and islands of Andaman & Nicobar and Lakshadweep by setting up More than 3000 centers in 311 cities. IBPS also conducts tests in about 200 towns across India.

Features of NRA

- NRA will be a multi-agency body—a Society (under Societies Registration Act, 1860). It will have a 10 member apex Governing Body including a Chairman and a Member Secretary of the rank of Secretary and Joint Secretary in Government of India respectively.
- NRA will have six Regional Offices in the North, East, West, South, Central and North East respectively.

Candidate Centric Features

- a. **Single Platform for Multiple Posts:** Under the NRA, the candidates by appearing in one examination will get an opportunity to compete for many posts. Instead of bothering for submitting multiple applications and fee payments, candidates will fill a single online application on this portal.
- b. A **Common Eligibility Test** would enable these candidates to appear once in the screening test and apply to any or all of these recruitment agencies for the next levels of examination. This would significantly reduce the recruitment cycle and will lead to huge saving of resources.
- c. CET scores shall be valid for three years. A candidate with good score need not appear in CET every year.
- d. **Standard Test:** Currently, candidates appearing for separate tests of SSC, RRBs and IBPS prepare under lot of duress for different curriculum and examination patterns. Under NRA, curriculum, exam pattern and standards of CETs would be uniform.
- e. **Multiple Languages:** CET would be available in 12 Indian languages, including English. This would greatly facilitate people from regional linguistic backgrounds in different parts of the country to take the exam and have an equal opportunity of being selected.

HIGHLIGHTS

- Multi-agency body including SSC, RRBs, IBPS
- For Group 'B', Group 'C' and equivalent Non-Technical posts
- For 3 Qualification Levels: Graduate, Higher Secondary and Matriculates
- Push to Digital India mission
- Common Online Application portal
- Single Common Computer Based Eligibility Test (CET)
- CET in 12 languages
- Every year, two CETs for each level
- No bar on number of attempts
- Opportunity to improve scores
- Scores to be valid for three years
- Best score to be treated as current score
- Subsequent stages of recruitment tests by respective agencies, based on CET scores
- Exam centres in every district
- Special Focus on 117 Aspirational Districts

Gandhiji's Contribution to World Thought

Truth and Trust

- It is true that truth and non-violence are as old as the hills. Not only were the prophets and reformers, but millions of ordinary people are also truthful. As a matter of fact, untruth cannot prosper in the world without the help of a large dose of truth. If all men were untruthful, all communications would cease. Nobody will then trust the word of anybody.
- It is well-known that there is a great deal of deceit in every sphere of life. This is more so in the commercial world. Yet it is a fact that a merchant's word given to another merchant is usually as good as his bond. If this were not so, no transactions would be possible.
- **Transactions worth millions of rupees, pounds and dollars are carried on by mere word of mouth.**
- Nothing can be more deceitful than international diplomacy. It is said that treaties are treated by nations as scraps of paper when they do not serve their interest as conceived by them. Yet treaties and agreements are again and again made among nations every day.

Satyagraha

- It was due to Gandhiji's leadership, Satya was made into Satyagraha, it was made into insistence on truth. It was made into a weapon to fight untruth, injustice and tyranny. It was made dynamic and contagious. Even today millions of people are truthful. But, not all could risk their lives and fight the Untruth. If we are merely truthful, we are Satyawadis (truthful) but not Satyagrahis, prepared to bear any consequences in pursuit of it. We are only followers of truth but not its soldiers.
- To be a follower of truth in Gandhiji's sense one has to become a crusader of truth; one has then no weapon other than truth to fight untruth. This will add truth to truth and not untruth to untruth.

Non-Violence

- Very few people practice violence in the ordinary affairs of the world. They go about peacefully in their lives. They rarely fight with their neighbours and even when they do, it is merely a wordy war. If they were to fight constantly with their neighbours, there would be no neighbours left.
- However, the true meaning of Gandhiji's Non-Violence is a way of non-violent resistance. It was not merely civil, It was civil disobedience. Fighting violence with violence is being done every day but that is not what Gandhiji wanted from the non-violent resisters. We are civil without being civil resisters in the calls of justice.

UN Completes 75 years

About UN

- The United Nations is an international organization founded in 1945. It is currently made up of 193 Member States. The mission and work of the United Nations are guided by the purposes and principles contained in its founding Charter.
- Each of the 193 Member States of the United Nations is a member of the General Assembly.
- States are admitted to membership in the UN by a decision of the General Assembly upon the recommendation of the Security Council.
- The name "United Nations", coined by United States President Franklin D. Roosevelt was first used in the Declaration by United Nations of January 1, 1942, during the Second World War, when representatives of 26 nations pledged their Governments to continue fighting together against the Axis Powers.
- In 1945, representatives of 50 countries met in San Francisco at the United Nations Conference on International Organization to draw up the United Nations Charter Those delegates deliberated on the basis of proposals worked out by the representatives of China, the Soviet Union, the United Kingdom and the United States at Dambarton Oaks, United States in August-October 1944.
- The main organs of UN are the General Assembly, the Security Council, the Economic and Social Council, the Trusteeship Council, the International Court of Justice, and the UN Secretariat. All were established in 1945 when the UN was founded.

WTO: The Road Ahead

Contemporary Issues at WTO

- Under the two-stage dispute resolution mechanism, the Appellate Body hears appeals on issues of law and legal interpretation arising from the findings of WTO panels constituted to resolve trade disputes among its members.
 - Without a functional Appellate Body at present, no effective legal mechanism is available for WTO members to enforce their rights and obligations.
- WTO members had launched the Doha Round of multilateral trade negotiations in 2001. When it was launched, the needs and interests of the developing countries were at the heart of the negotiations. However, almost two decades down the road, the outcome of the negotiation is extremely thin.
 - At the Nairobi Ministerial Conference of the WTO held in 2015, the developed countries walked off the Doha Round negotiating table. This has prevented the multilaterally decided negotiations to move ahead.
- The legal pressure and moral force to comply with past commitments at the WTO appears to have considerably weakened. This has considerably eroded the multilateral trading system. Encouraged by this, some other prominent members of the WTO have not hesitated in taking dubious measures aimed at restricting imports.
- Aggressive push by the developed countries, particularly the US, to deprive India and many other developing countries from benefitting from Special and Differential Treatment (S&DT) provisions in future negotiations.
- An additional source of friction that has emerged over the past three years is the attempt by about eighty countries to negotiate rules in different areas, including electronic commerce and investment facilitation.
 - These negotiations are being undertaken without any mandate from the WTO membership. Popularly referred to as Joint Statement Initiatives (JSI), these negotiations are an attempt by the developed countries to negotiate rules in areas of their economic and commercial strengths.

DG of WTO

Selection Process

- The chairperson of the General Council of the WTO, which is an important decision-making body, will lead the selection process.

How is the DG of the WTO selected?

- New Zealand's ambassador to the WTO is the current chair of the General Council. In the selection process, he will be assisted by ambassadors of two other countries, both of whom are chair-persons of other important bodies of the WTO.
- The selection will be undertaken through a confidential mechanism that would provide opportunities to WTO member countries to indicate their preferences at different stages of the process.
- Based on the preferences indicated by the countries, three out of the eight candidates in the fray will be asked to withdraw at the end of first round. This confidential process will be repeated and three candidates will drop out after the second round.

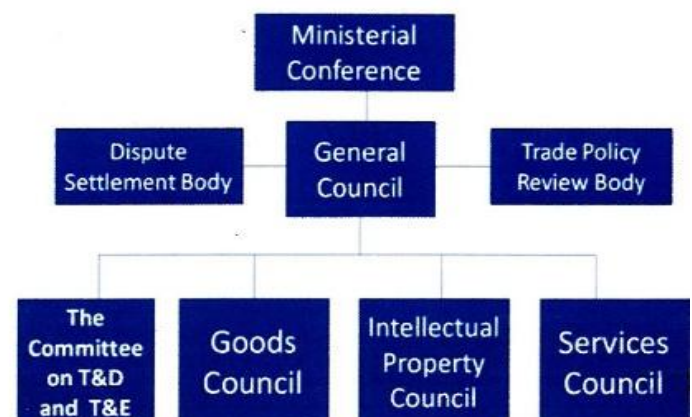
Two finalists will be left to battle it out in the third and final round.

- The successful candidate will have a five year tenure as the DG.
- The DG heads the secretariat of the WTO. In the discharge of their duties, the DG and the staff of the secretariat shall not seek or accept instructions from any government or any other authority external to the WTO. The DG and the secretariat are required to be non-partisan and neutral in all matters.

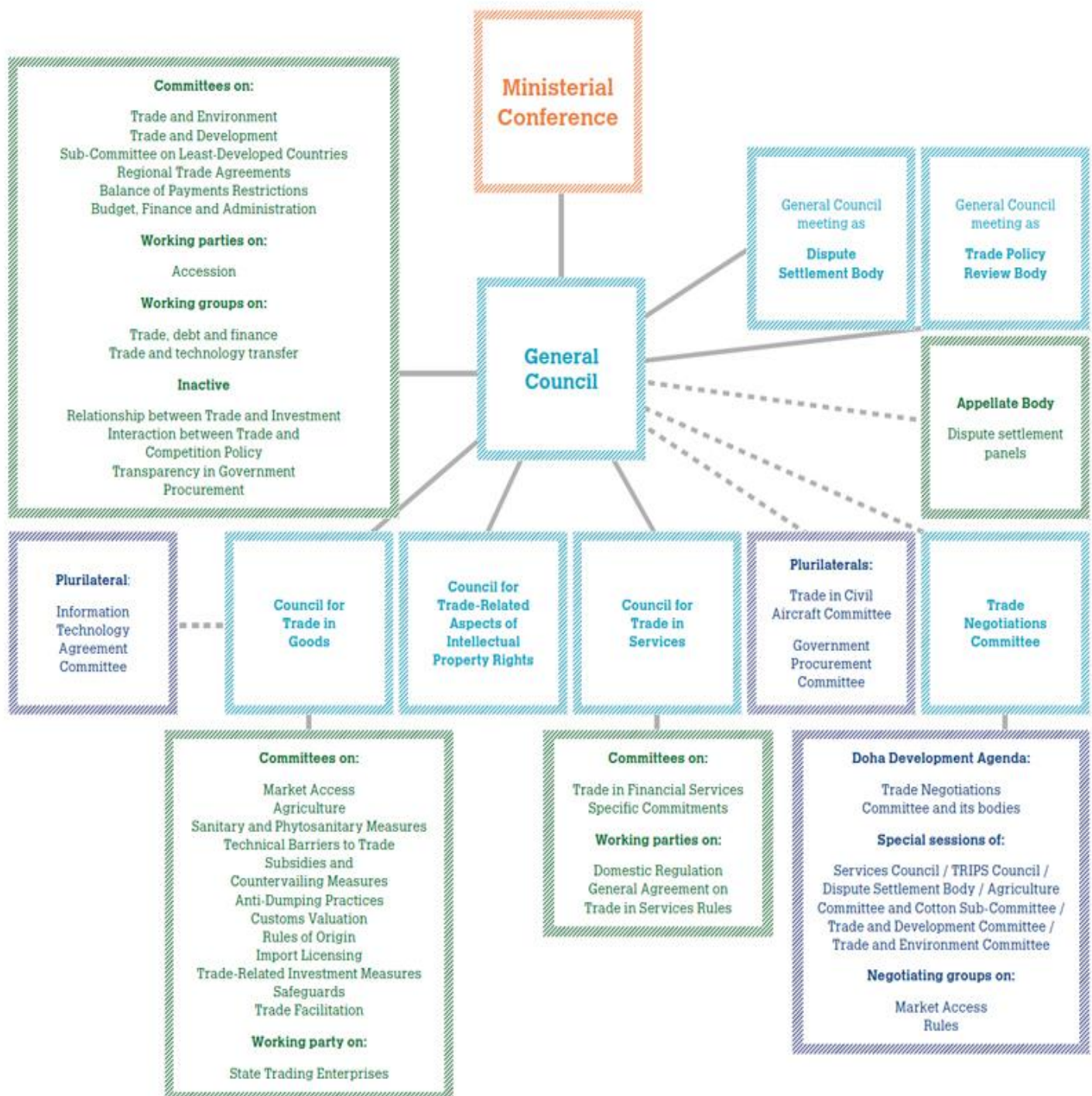
Functions of WTO

- It facilitates the implementation, administration and operation of the Multilateral Trade Agreements,
- The WTO provides the forum for negotiations among its Members concerning their multilateral trade relations in matters already within the ambit of its rules.
- It provides a mechanism for settling trade-related disputes among its members,

STRUCTURE OF WTO



- The WTO administers the Trade Policy Review Mechanism, whereby trade policies of its members are periodically reviewed.
- With a view to achieving greater coherence in global economic policy-making, the WTO cooperates with the International Monetary Fund and with the International Bank for Reconstruction and Development.



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KURUKSHETRA

Water Conservations: Initiatives and Future Strategies

- The country is generating 140 BCM of wastewater annually.

Impact of Mismanagement of waste water

- Contamination of groundwater,
- Poor liquid waste management,
- poor sanitation conditions
- poor hygiene habits

Constitutional Provisions

- As per the Indian Constitution, Water and Sanitation are state-subjects under List II of the Seventh Schedule.
- The responsibility of planning, funding and implementation of water resources and sanitation projects, primarily lies with the state governments.

Government Initiatives

Jal Jeevan Mission

- On 15th August 2019, Prime Minister Shri Narendra Modi launched the Jal Jeevan Mission (JJM) worth Rs 3.6 lakh crore to supply piped water to every rural household.
- The vision of the JJM is "Every rural household has drinking water supply in adequate quantity of prescribed quality on a regular and long-term basis at affordable service delivery charges leading to improvement in living standards of rural communities".
- The programme also implements source sustainability measures as mandatory elements, such as recharge and reuse through grey water management, water conservation and rainwater harvesting.
- The Jal Jeevan Mission is based on a community approach to water.

Jal Shakti Abhiyan

- The mass movement to bring all the stakeholders under one ambit of a water conservation drive.
- Under this Abhiyan, more than six and a half crore people became a part, comprising of State Governments, Central Governments, Civil Society Organisations, Panchayati Raj Institutions and Communities.
- More than 75 lakh traditional and other water bodies and tanks were renovated and around one crore water conservation and rainwater harvesting structures were created.
- It is now focusing more on irrigation and water conservation works with the caution that all works are undertaken with strict implementation of social distancing, use of face covers/ masks and other necessary precautions.

Atal Bhujal Yojana

- ABHY envisages sustainable groundwater management, mainly through convergence among various on-going schemes.
- It endeavours to facilitate efficient implementation and convergence of various ongoing Central and State schemes in the participating States.
- ABHY will also play a key role in drought proofing, thereby improving climate resilience in select water-stressed areas.
- create better job opportunities through improved skill development

Impact of Groundwater Extraction

- The decline of the water tables,
- Reduced availability of water in the wells
- Degradation of the resource manifested through contamination with heavy metals (iron, arsenic, chromium etc.) and fluoride.

Composite Water Management Index (CWMI)

- NITI Aayog has developed CWMI to compare the efforts of various states in water conservation.
- It is also in pursuit of competitive & cooperative federalism and keeping in view the criticality of water for life.
- CWMI comprises of 9 broad sectors with 28 different key performance indicators covering various aspects of

groundwater, restoration of water bodies, irrigation, farm practices, drinking water, policy and governance.

- The data for the 28 key performance indicators are uploaded by the States on the online web portal.
- The index has been quite successful in sensitizing the states about the impending water scarcity in the Nation.
- Since the launch of round, I of the Index, 80 percent of the states have shown improvement with the average change in scores being +5.2 points.

States Specific Measures

- Jalyukt Shivar in Maharashtra, Mukhya Mantri Jal Swavalamban Abhiyan in Rajasthan, Neeru Chettu in Andhra Pradesh, Mission Kakanya in Telangana, Sujalam Sufalam in Gujarat, Integrated Water Resource Management and Artificial Recharge Structures Scheme in Karnataka.
- Punjab Preservation of Subsoil Water Act, 2009 which bans early sowing of paddy nursery and transplantation of saplings and the voluntary scheme of "Pani Bachao, Paisa Kamao (PBPK)" by Government of Punjab to encourage farmers to save electricity and reduce the use of groundwater is another laudable initiative.
- The 'Maharashtra Groundwater Development and Management Act, 2009' prohibits drilling of deep wells within the notified and non-notified areas, for agriculture or industrial usage.

Use of Technology:

- Water Resources Department of Government of Andhra Pradesh along with the private partner Vassar Labs has developed Andhra Pradesh Water Resources Information and Management System (APWRIMS).
- APWRIMS is a Smart Water Solution platform target in overarching objective of sustainable water
- The platform has data related to 100+ reservoirs, 40000+ Minor Irrigation tanks, 15 lakh agriculture bore wells and more than 10 lakh water conservation structures.
- APWRIMS has benefitted more than 60 percent of the population of the state.
- Groundwater levels improved by 2 meters across the State, despite receiving 14 percent deficit Rainfall and the Crop planning activities have resulted in an increase of about 1.85 L ha of Horticulture crops.

Use of Regulations

- Government of Maharashtra has also taken an innovative step by launching the Drak Maharashtra Water Resources Regulatory Authority Water Entitlement Transfer (WET) and Wastewater Reuse Certificates (WRC) Platform Regulations, 2019.
- The main aim of the regulations is to encourage wastewater to recycle and reuse in large water-consuming industrial and urban centres that go beyond the stipulated water reuse targets.
- It creates a transparent water accounting process with the use of IoT metering at the water consumption, reuse and environmental discharge points with a repository of water consumption maintained under a regulated process.
- The regulations also envisage the creation of an immutable distributed ledger-based repository of wastewater reuse certificates which can be easily marketable.

Way Forward

- While talking about the growth we cannot ignore the existence of dreadful phrases like water scarcity and climate change.
- In order to achieve sustainable development in the country, we have to look for solutions which may result in overhauling of the present mode of operations in the water sector.

Key Points

Making Water as Part of Economic Development

- Improved water supply and sanitation and improved water resources management boost countries' economic growth and contribute greatly to poverty eradication.
- The economic benefits of improved water supply and sanitation far outweigh the investment costs.
- Under base case assumptions the cost-benefit ratio is at least US\$ 5 in economic benefit per US\$1 invested, and even under pessimistic data assumptions, the benefits per dollar invested remained above the threshold of US \$1.

Introduction of Water Markets at Large Scale

- There is a need to introduce water markets to make more productive use of water and contribute to sustainable water management.

- Case Study: The most successful water markets are found in Murray Darling Basin of Australia where Water trading has become a vital business tool and source of additional income for many irrigators. Here water is traded on markets — within catchments, between catchments (where possible) or along with river systems.

Pollution Tax as the Remedy to Decrease Pollution in Water Bodies

- Introduction of predetermined water pollution charges for surface and groundwater use or charges for wastewater discharge.
- The pollution tax should be regarded as a part of Extended Producer Responsibility (EPR).
- Pollution taxes can lead to significant investment in pollution abatement and technological innovation, thereby lowering the overall cost to society of meeting environmental targets.

New strategies to support Public-Private Partnership in the Water Sector

- In the United States, state revolving funds provide examples of a sustainable infrastructure financing model.
- Set up with 'seed money' from US Congress, the state revolving funds capitalize a state-administered financial assistance programme to build and upgrade waste water treatment plants and drinking water infrastructure, as well as invest in other projects to improve water quality.
- It supports a longer transition and ample flexibility to set up long-term financing to promote state and local self-sufficiency.

Impact and Progress of Namami Gange Programme

Importance of River Ganga

- cultural and spiritual mainstay
- provides economic sustenance, water and food security to more than 43 percent of country's population.
- A part of the collective consciousness of India
- Representation of India's identity and culture

About Namami Gange Programme

- Implemented by National Mission for Clean Ganga (NMCG)
- integrated mission for conservation of Ganga and its tributaries.
- Focus on ensuring Aviral and Nirmal Dhara, and maintaining its geo-hydrological and ecological integrity.
- Integrated River Basin Management (IRBM) approach is followed with multi-sectoral and multi-agency interventions such as
 - Pollution abatement (Nirmal Ganga),
 - improving ecology and flow (Aviral Ganga),
 - strengthen people river connect (Jan Ganga) and
 - facilitate diversified research, scientific mapping, studies and evidence-based policy formulation (Gyan Ganga).

Implementation of the Programme

- A total of 315 projects have been sanctioned under Namami Gange programme at a cost of Rs. 28,854 crores.
- 130 projects have been completed and the remaining are in progress.

Pollution Abatement (Nirmal Ganga)

- Pollution abatement measures comprehensively tackle all sources of pollution such as municipal sewage, industrial effluents, municipal solid waste, rural sanitation, non-point sources of pollution such as agricultural runoff, open defecation, un-burnt dead bodies etc.

Sewerage Infrastructure

- Under Namami Gange, a total of 151 sewerage infrastructure projects have been sanctioned to create/ rehabilitate 4874 MLD treatment capacity in the Ganga basin.
- Rehabilitation and up-gradation of old infrastructure
- For the main stem of Ganga, treatment capacity of 2100 MLD is now available against sewage generation of 2950 MLD from 97 Ganga towns.
- More than 80 major drains falling into Ganga have been intercepted and diverted to STPs — new and old.
- Stopping discharge of 140 MLD sewage from 120-year-old Sisamau Nala at Kanpur, Kasawan Nala in Haridwar

and Chandreshwarnagarnala at Rishikesh are notable examples.

Method of Construction

- Mission has introduced a PPP approach in Hybrid Annuity Mode (HAM) to the sewerage infrastructure sector.
- Under this, 40 percent of capex is paid during construction and balance 60 percent paid in 15-year annuity along with interest with separate payment for O&M.
- Further, the approach of 'One City-One Operator' has been adapted by integrating the construction of new STPs.

Focus on Re-use of treated Waste Water

- NMCG is actively pursuing the development of a model policy framework for re-use of treated wastewater.
- In Mathura, 20 MLD treated wastewater has been tied up for use in Mathura refinery.
- Specific arrangements for discharge lines for agriculture use are being made in all new projects like Ramana at Varanasi or Jagjeetpur in Haridwar.
- The circular economy principles can help to turn sanitation a sustainable option.

Faecal Sludge Management

- Faecal sludge and Septage treatment is a good option in developing a mix of solutions with centralized and decentralized STPs.
- capacity building of States and ULBs is being done.
- NMCG has adopted co-treatment in its all under construction STP Which is undergoing in important towns such as Haridwar, Kanpur, Prayagraj, Lucknow etc.

Industrial Pollution

- All the Grossly Polluting Industries (GPIs) were identified and annual inspection undertaken by independent expert institutions.
- A Common Effluent Treatment Plant (CETP) is under construction for Jajmau Tannery Cluster, Kanpur.
- Industry-specific charters were developed to promote greener technology, reduce effluent generation and reuse/recycle which led to an improvement in several industries.

Solid Waste Management

- The mission has directed its focus on solid waste on ghats and in the vicinity of the river with regular cleaning of river banks, installing screens/filter to trap solid waste, ban on single-use plastics and periodical third-party inspections.
- Projects for ghat cleaning have been taken up at Haridwar, Kanpur-Bithoor, Mathura-Vrindavan, Prayagraj and Varanasi.

Rural Sanitation

- NMCG facilitated the construction of around 11 lakh household toilets in 4465 identified Ganga bank villages.

Water Quality

- Central Pollution Control Board monitors the water quality of River Ganga through 97 manual stations.
- For the first time in India, Real-Time Water Quality Monitoring has been introduced with 36 stations set up along Ganga with 40 more in the pipeline.
- The important parameter of Dissolved Oxygen (DO) to be more than 5mg/litre is now met throughout the river length.
- The Kumbh at Prayagraj in 2019 was witness to improved water quality and cleanliness.

Ecology and Flow (Aviral Ganga)

- NMCG is working on improving flow and overall ecology through a mix of supply as well as demand-side management of water.

Ecological Flow

- For the first time, the ecological flow was notified for River Ganga in October 2018.
- It established the right of the river over its own water with far-reaching implications for river health.

Wetland Conservation

- The mission is working for their protection and conservation and integrating to basin level.
- 226 wetlands within 10 km from Ganga in 27 districts in UP have been taken up for the development of an integrated management plan.

Afforestation

- For the first time, the mission got a scientific plan for afforestation along the entire length of Ganga.
- Taking it as a model approach, MoEF & CC is extending a similar approach for 13 more rivers in the country.

Biodiversity Conservation

- A comprehensive project is under implementation with Wildlife Institute of India (WII) to map biodiversity hotspot for the entire length of Ganga and scientific improvement of habitat, species.
- A comprehensive scientific program for fisheries resource and their conservation has been taken up in association with Central Inland Fisheries Research Institute (CIFRI).

Sustainable Agriculture

- NMCG promotes this through organic farming, eco-agriculture and medicinal plantation.
- Promotion of cultivation of medicinal plants has been taken up in 10 districts of UP.
- Ministry of Ayush and National Medicinal Plantation Board is supporting the development of herbal corridor along Ganga.
- Improving water use efficiency in agriculture is aimed through an awareness campaign, promoting micro-irrigation, policy intervention for cropping pattern etc.

Small River Rejuvenation

- A GIS-based district wise inventory of small rivers is being created along with district-level interventions with convergence with MGNREGA.

People River Connect (Jan Ganga)

- River Rejuvenation is a continuous process which needs the involvement of the people.

Ghat and Crematoria

- 138 Ghats and 38 Crematoria have already been constructed with River Front development at Patna and Haridwar, making them important public space.

Jan Bhagidari

- Community and stakeholder groups have been developed such as Ganga Vichar Manch, Ganga Praharis, NYK Ganga Doots, Ganga Mitras, Ganga Task Force with ex-serviceman, NCC, NSS etc. They undertake several activities continuously to connect people.

Ganga Quest

- Ganga Utsavs, Ganga Bal Mela, Cultural programmes and other activities are organised suitably connecting a different group of people.
- Clean Ganga Fund is another innovative step to create an avenue for people and corporate to donate and take up specific projects for this national cause.

Research, Policy and Knowledge Management (Gyan Ganga)

- Mission has given priority to evidence-based policy decisions and to get authentic data and information backed by scientific research.

LIDAR Mapping

- A landmark project with Survey of India is progressing for Generation of high-resolution DEM and GIS-ready database for 10 km on both sides of Ganga using LiDAR.
- It will for the first time provide data on drainage, flood plains etc. This will enable better project formulation, monitoring, regulation and conservation.

Microbial Diversity Mapping

- Namami Gange in partnership with CSIR- to understand the Special Property of Ganga River and also impact of human intervention on microbial diversity.

Climate Scenario Mapping

- Partnering with IIT, Delhi to map out high-resolution long term climate scenarios to improve understanding and scientifically estimate the impact of climate change on water resources in the Indo- Gangetic Plain.

Spring Rejuvenation

- Namami Gange is leading spring rejuvenation projects with IIT, Roorkee and Survey of India to assess the impact of land use land cover change.
- A project in collaboration with CGWB and National Geophysical Research Institute (NGRI) for aquifer mapping.

New Paradigm of Planning for River Cities

- Project to mainstream river health in urban planning and develop a framework for Integrated Urban Water Management (IUWM) has been initiated with the National Institute of Urban affairs.
- Innovative urban river management plan (URMP) framework is being developed with a template for Kanpur.

Arth Ganga

- Namami Gange is now leading to the development of Arth Ganga model linking economic development of Ganga Basin with ecological improvement and Ganga Rejuvenation.

Conclusion

- Ganga Rejuvenation is critical for the implementation of the 2030 agenda of Sustainable Development Goals (SDGs).
- Namami Gange has developed a framework for river rejuvenation which is now being followed for several rivers beyond Ganga basin.

Sustaining ODF India

Introduction

- SBM(G) phase II has been launched with the objective of 'leaving-no-one-behind' without access to toilet.
- It supports Gram Panchayats (GPs) in implementing solid and liquid waste management (SLWM) initiatives including bio-organic waste, grey water, faecal sludge and plastic waste.
- Another important objective of the SBM(G) phase II is to sustain the ODF status of the villages.
- The Government of India intends to mobilise and empower almost 260,000 Gram Panchayats (GPs) across the country to make them emerge as the drivers of achieving universal access to safely managed sanitation and sustaining ODF India. However,

Challenges of SBM(G) II

- SBM(G) II needs different types of contextual technical solutions for retrofitting, as well as for solid and liquid waste management.
- Solid waste management (SWM) involves a series of processes commonly categorized as segregation, collection, transportation, treatment, recycle or reuse (SWM chain).

SBM(G) Phase I (2014-2019): Success Factors

- Political Leadership: Close monitoring from the top level on a regular basis gave impetus to the planning and implementation of SBM(G) at the district and village levels.
- Public Finance: A consistent and massive scale, behaviour change communication and an incentive of Rs 12,000 per poor household for toilet construction were the critical aspects of the SBM(G) strategy.
- Partnerships: Strategic partnerships amongst but not limited to the government ministries, development partners, media and influencers at all level were very effective.
- Peoples Participation and Community Mobilisation: Design of SBM(G) was informed by the lessons of previous sanitation programmes that changing a socially accepted practice.
- Strong Capacity Development Support from Partners: Development partners such as UNICEF, World Bank, Tata

Trusts and others supported the capacity development of SBM(G) team, immensely contributing towards the desired focus on behaviour change communication.

- Critical Role of Media: Media supported the programme by amplifying success stories, motivating sanitation champion girls and women, and connecting to the influencers for consistent and sustained messaging on the importance of constructing and using toilets.

Case Study:

- Role of Nigrani Samiti: Sixty-year-old Mangra Devi, along with eleven other women of village Ramchandrapur are the proud members of the village's Nigrani Samiti whose efforts have ensured an Open Defecation Free (ODF) status for the village. They mobilised community members as motivators, nigrani samitis (vigilante/village committees), local champions, rani mistris (queen masons) etc. making SBM(G) a true peoples movement rather than a government programme.

SBM (G)-II scope and focus:

- The objective of sustaining the ODF communities and ensuring that sanitation practice in India becomes at par with the growing economy.
- A budget of Rs 140,881 crores has been approved for the five years {2019/20—2024/25} programme period. Two key components of the programme are highlighted below.

a) Sustaining the ODF

To sustain the ODF gains, SBM(G)II intends to ensure that all remaining households get access to toilets, existing toilets are retrofitted to meet safety/technical standards, community sanitary complexes are built for easy access to toilets for everyone.

b) Sustainable Solid and Liquid Waste Management Focus on:

- bio-organic waste management,
- plastic waste management,
- liquid waste management,
- faecal sludge management(FSM).

Role of Panchayati Raj Institutions (PRIs)

- This constitutional provision empowers PRIs as critical institutions in the planning and implementation of SBM(G)II
- Grants provided by 15th finance commission to fund SBM(G)-II initiatives through convergence at the local level, further strengthen the mandate of the PRIs.
- SBM(G)-II recommends the establishment of a District SBM Committee, under the Chair of the District Panchayat (Zila Parishad) with the Co-chair of District Collector/Magistrate.
- It will further provide an accountability framework for the elected representatives, to be held accountable to their electorates.
- Ensure access to safe WASH services by the local bodies.

IEC and Role of Media

- SBM2(G)-II recognises the critical role of information, education and communication (IEC);
- It focuses on the use of innovative communication strategies including interpersonal communication, mass-media, creatives, use of social media, regular felicitation of champions, leveraging of celebrities and mobilisation of influencers such as faith leaders, local leaders, schools, Anganwadi centres, community self-help groups
- Demand generation and local community ownership are critical to achieving sustained behaviour change towards safe sanitation practices.

Framework for Empowering the PRIs

Making sanitation a part of the GPDP framework

- Gram Panchayats (GPs) are required to prepare inclusive Gram Panchayat Development Plans (GPDPs) in a participatory way.
- Different states are at different levels in terms of the capacity of GPs to plan and implement inclusive GPDPs.
- Their institutional capacity especially in the areas of data/ evidence-based planning, ensuring meaningful participation of women, girls and marginalised groups, monitoring of GPDP implementation, and knowledge management need to be strengthened.

- Aligning to the democratic principles enshrined in the constitution, elected representatives at the Block level could also be made the chairpersons of the Block level sanitation committee.

The accountability framework for PRLs

- Accountability of democratic institutions is about their effective participation in planning and monitoring of the development work so that they can be held accountable to their constituencies. It is recommended that the following consideration be at the centre of the PRLs role and accountability framework.
- District Panchayats: Lead the district level planning process, have mandate of endorsing the plan, quarterly monitoring of progress, and mobilization of Block and GP level teams.
- Block Panchayats (PS): Support GPs in implementation of their GPDP linked sanitation plan and ensure robust monitoring of the outcomes at the Block level.
- GPs: Ensure preparation of inclusive GPDPs and implement the SBM(G)II programme as part of the GPDPs.

Engagement of Media As a Tool for Downward Accountability

It could be threefold:

- sharing information on various aspects of SBM(G) II and entitlements of communities,
- supporting PRLs by sharing emerging best practices from across the country for replication with or without adaptations,
- identification of gaps and delays in programme implementation and sharing the same with the wider public so that the PRLs are held accountable to their citizens.

Conclusions and Way Forward

The accountability framework for PRLs

- The SBM(G)II provides a critical role to the PRLs “in planning and implementation of SBM(G), aligning to the democratic principles enshrined in the 73rd Amendment to the constitution of India.
- As the duty bearers, PRLs need a clearly defined institutional platform to be able to deliver on their mandates.
- The SBM(G) II guidelines could further elaborate on the role of PRLs at all three levels so that they can be held accountable for robust planning and delivery of safe sanitation services.

Critical role of Media

- Media can be the agency of the marginalized communities and can promote transparency by communicating on the citizen's entitlements, avenues and good practices.
- Media can further strengthen democratic processes concerning planning and delivery of safe sanitation, as aimed under the SBM(G)II.

Partnerships and Capacity Building of PRLs and Communities

- Capacity building in both technical aspect as well as the institutional, social, environmental, financial and behavioural aspect of SBM(G)II, needs to be at the centre of the planning and implementation of the programme.
- Development partners, civil society, private sector and academic institutions need to be considered and engaged at all levels.

Har Ghar Jal

Introduction

- According to the NITI Aayog report, India is facing the “worst water crisis in its history” which is threatening “millions of Lives and livelihoods”.
- It says that the crisis is only going to get worse and by 2030 the country's water demand is projected to be twice the available supply.
- This may further create severe water scarcity for crores of people and may lead to an approximate loss of 6 percent in its GDP point then.

Water Availability

- India has more than 18 percent of the world's population but it only has four percent of the world's renewable water resources.
- farmers consume almost 90 percent of the available groundwater.

- The National Sample Survey Office's (NSSO) 76th round, July-December 2018, informs that one in every five (21.4 percent) households in India have piped drinking water connections.
- According to the Jal Shakti Ministry's data, by 2030 Indian industries will be using four times more water than they use today, hence it is pertinent that the country takes its water management issue seriously.

Importance of Water

- Mentioned as one of the five elements in Vedic literature, water is 'alpha' in Sanskrit.
- There are hymns praising water.
- Human civilizations came up at river banks.
- All the other great religions of the world including Judaism, Buddhism, Christianity, Islam and Sikhism stress on the importance of water.
- According to Islam, water belongs equally to all and falls down as God's mercy as rain leading to giving new life to a dead land.
- Sikhism stresses on water being a community resource and directs to respect water, earth and wood for God is found in these elements.

Water and Government Initiatives

- The government sees the management of water in a holistic manner.
- The government has created a new ministry—the Ministry of Jal Shakti in 2019 to integrate various departments and ministries dealing with water resources and water supply under one roof.
- The key goal of the newly created ministry is to assure the "availability of potable water for all."

Jal Jeevan Mission-Har Ghar Jal

- The scheme promises piped water in every rural household by 2024
- It aims to provide 55 litres per capita per day drinking water, as prescribed, regularly, to every household through a functional household tap.
- The mission will be implemented in partnership with Central and the State Governments
- The government made an outlay of 3.60 Lakh Crore rupees for this mission with Central share of 2.08 Lakh Crore rupees and the states will bear 1.52 Lakh Crore rupees of the total budget announcement for the scheme.
- A comprehensive survey has found that as on 1st April 2019 of 18.93 Crore rural households in the country, 3.23 Crore households have tap connections and the rest 15.70 Crore households will be provided with tap connections.

Salient or Key Features of the Mission

- Emphasis is on 'service delivery' rather creating infrastructure;
- Gram Panchayat and/or its subcommittee, i.e. Village Water & Sanitation Committee (VWSC) / Paani Samiti or a user group to plan, implement, manage, operate and maintain their own water supply system.
- SHGs/community-based organizations/NGOs will enhance the community's capacity to implement the mission making JJM, truly a 'people's movement'.
- Safe water to be ensured in water quality affected areas on priority.
- Other priority areas are water-scarce areas, aspirational districts, SC/ ST majority villages/habitations, villages under Sansad Adarsh Gram Yojana (SAGY) and PVTG habitations.
- Villagers to be skilled as masons, plumbers, electricians, etc. so as to ensure long-term maintenance of water supply systems.
- Communities will contribute five percent of the capital cost in cash/kind /Labour in villages of hilly and forested areas/NE and the Himalayan States and villages having more than fifty per cent SC and/or ST population; for other areas, the community contribution is ten percent of the capital cost to install a sense of ownership.
- Ten percent of the 'in-village infrastructure' cost as a performance incentive.
- Strengthening and setting-up of water quality testing laboratories at State, district and block levels.
- Five persons, preferably women, in every village to be trained to check the quality of water supply using simple ready-to-use test kits.
- Public Financial Management System is mandatory to be used for all financial transactions to ensure transparency as well as tracking of funds.
- Ministry of Jal Shakti has set up Integrated Management Information System (IMIS) for monitoring of physical and financial progress and the same is linked with dashboard.
- Rashtriya Jai Jeevan Kosh (RJKK) has been set up to mobilise and accept contributions/ donations from various

sources towards achieving the goal of JJM.

Progress of the mission

- According to it, in 2019-20, Rs. 10,000.66 Crore was provided and during 2020-21, provision of Rs. 23,500 Crore has been made.
- It was in 2019-20 that 84.84 Lakh households were provided with tap connections.
- Daily one lakh families are being given tap connections.
- Provided safe drinking water in 71 lakh people in Arsenic contaminated areas and 5.3 lakh people in Fluoride contaminated areas.
- As a futuristic approach states are to pilot 'Sensor-based IoT solution' to monitor the regularity of water supply, quantity and quality of water.

Mission under Lockdown

- In the first quarter of 2020-21, 19 lakh tap connections have been provided in villages across the country.
- According to the ministry, during the lockdown months, the central government is constantly interacting with States/UTs through Video Conferencing to finalise the roadmap as well as to review the progress of implementation.
- The focus was on approval of the annual action plans of the states with monthly physical and expenditure plan.
- The states are laying emphasis on retrofitting and augmentation of existing water supply schemes to provide household tap connections to the remaining households of the villages belonging to poor and marginalized people.

Conclusion

- The government aims to involve the local village community/Gram Panchayats or sub-committee i.e. Village Water and Sanitation Committee/Paani Samiti/user groups, etc.
- This involvement having ten to fifteen members have fifty percent, women, to be involved in planning, implementation, management, operation and maintenance of water supply systems to ensure long-term sustainability to achieve drinking water security.

Swachh Bharat Mission

Introduction

- In 1954, the rural sanitation programme in India was introduced as a part of the First Five Year Plan but didn't yield many results.
- The 1981 Census revealed rural sanitation coverage was only around 1 percent.
- The lack of sanitation had been a leading cause of diarrhea among children (under five year) resulting in stunting among children and also resulted in several preventable child deaths.
- Sanitation is also a critical aspect of ensuring safety and dignity for women.

Evolution of Sanitation Program

- In 1986 a programme - Central Rural Sanitation Programme (CRSP) which solely focused on sanitation was introduced but didn't yield effective results.
- In 1999, the Total Sanitation Campaign (TSC) with a vision to eradicate open defecation by 2017 was launched.
- This was followed by the launch of Nirmal Gram Puraskar, Sampoorna Swachata Andolana Scheme and other initiatives to strengthen the TSC. In 2006, TSC was merged with Indira Awas Yojana (IAY)
- The convergence allowed the use of funds for the construction of sanitary toilets in IAY houses. Toilets were constructed in large numbers, but the quality of construction remained a concern and there was no focus on changing behaviour at the ground level in the promotion of usage of toilets.
- In 2012, the centre launched Nirmal Bharat Abhiyan (NBA), with an aim to provide 100 percent access to toilets in rural households by 2022.
- NBA was launched in convergence with Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA).
- NBA was an update of TSC with renewed strategies and modified guidelines and objectives to accelerate sanitation coverage in the rural areas.

Swachh Bharat Abhiyan

- Launched in 2014
- To make India ODF, the target was Mission (SBM) and introduced two sub-missions
 - Set to construct 67 lakh individual household toilets under Swachh Bharat Mission (*Gramin*)
 - 5 lakh community toilets in urban areas.
- Under SBM, the subsidy provided by the government for the construction of Individual Household Latrine (IHHL) was increased from Rs.10,000 to Rs. 12,000.
- The goal was to exhort people to fulfill Mahatma Gandhi's dream achieve clean and Open Defecation Free (ODF) India of a clean and hygienic India.

Mahatma Gandhi: Sanitation and Swaraj

- For Gandhi, the drive for cleanliness in society was an integral part of the process in bringing about a caste less and free society. "Everyone is his own scavenger,".
- It was key to removing untouchability.
- His priority for sanitation drive in South Africa was to remove the assertion made by white settlers that Indians lacked hygiene and therefore needed to be kept segregated.
- Connecting the issues of cleanliness and untouchability, Gandhi emphasized the fact that it is extremely unjust to look upon those who do scavenging to be of the lowest social status.
- He observed that's in ce scavengers were considered to be of low status, people had begun neglecting sanitation as 'unclean' work.
- During the national movement, Gandhi's call for sanitation was firmly embedded in two separate movements- the struggle for independence and the need for removing untouchability.
- Gandhi asked Indians to learn from the West the art of municipal sanitation and modify it to suit our own specific needs.
- He maintained that open defecation should only be done in a secluded spot in a hole dug in the ground and commodes should be used in the latrines.
- "Swaraj can only be had by clean, brave people," wrote Gandhi in an article titled 'Our insanitation' in 1925.
- Gandhi had stated that sanitation is more important than independence.
- Mahatma Gandhi said, "I will not let anyone walk through my mind with their dirty feet".

The main objectives of SBM (G) are

- Bring about an improvement in the general quality of life in the rural areas, by promoting cleanliness, hygiene and eliminating open defecation.
- Accelerate sanitation coverage in rural areas
- Motivate communities and Panchayat Raj institutions to adopt sustainable sanitation practices and facilities through awareness creation and health education
- Encourage cost-efficient technologies for ecologically safe and sustainable sanitation
- Develop community managed sanitation systems focusing on scientific solid and liquid waste management systems for overall cleanliness in the rural areas
- Create a significant positive impact on gender and promote social inclusion by improving sanitation especially in marginalised communities.

Method of Implementation

- A district was taken up as the base unit of intervention, with the goal of creating ODF Gram Panchayats.
- The District Collectors, Magistrates, CEOs of Zilla Panchayats were designated to lead the Mission, so as to facilitate district-wide planning of SBM for ensuring optimum utilization of resources.
- The preparation of District Swachhta Plan (DSP) was the key aspect of SBM
- Swachh Bharat Abhiyan Gramin was implemented with the aim of making rural areas in India open defecation free.

Interventions under Swachh Bharat Mission

Namami Gange

- The focus of the programme was to make villages near Ganga open defecation free and the handling of solid and liquid waste management implemented across 4000 villages located on the bank of Ganges in Uttrakhand, Jharkhand, UttarPradesh and West Bengal.

Swachh Swasth Sarvatra

- A joint initiative by Ministry of Drinking Water and Sanitation (MDWS) and the Ministry of Health and Family Welfare, to strengthen community health centres in 708 open defecation-free blocks around the country and to empower them to maintain higher levels of cleanliness and hygiene.

Rashtriya Swachhata Kendra

- The objective was to monitor the progress of the Prime Minister's Swachh Bharat Abhiyan programme.

Swachhata at Petrol Pumps

- An initiative of the Ministry of Petroleum and Natural Gas, to create facilities for a clean basic toilet at all the petrol pumps.

Swachh Bharat App and Web Portal

- Monitor coordination between 76 departments or ministries by MDWS, Committee of Secretaries, Cabinet Secretary and the Prime Minister's Office.

Progress of the Mission

- Rural sanitation coverage has increased significantly, from 39 percent in October 2014 to 100 percent in September 2019.
- Over 10 million household toilets were constructed under the SBM.
- Thirty-five States & Union Territories, 699 districts, and 599,963 villages have declared themselves as free from open defecation.
- By alleviating 60 percent of the world's share of people defecating in the open, India has significantly contributed to the global achievement of Sustainable Development Goals (SDG) 6.

Impact Assessment of SBM

- The UNICEF studied the Financial and Economic Impact of the Swachh Bharat Mission in India in November 2018.

Finding of the study

- On average, households in ODF villages accrued cumulative benefits of Rs.50,000 per year.
- On average, total benefits exceed costs by 4.7 times for households. Financial savings from paying less for medical costs based on reductions in illness episodes (average Rs 8,024 per household per year).
- Reduced time lost from sickness and seeking a place for open defecation (average Rs 24,646 per household per year).
- The economic value of saved lives due to lower mortality rates (average Rs 17,622 per household per year).
- Rs 18,991 per household was estimated as the average increase in property value from having a latrine, made by the household occupants.
- The study has shown that the Swachh Bharat Gramin was highly cost-beneficial from both a financial and an economic perspective. It has led to reduced suffering and improved quality of life to the population.

Key Findings of the study conducted by Melinda-Gates foundation

- 40 percent of the households also constructed toilets to ensure proper sanitation and hygiene and more than half of the households constructed it to prevent the spread of diseases.
- A major improvement in the safety of women: with 93 percent of women reporting that they were no longer afraid of being hurt by someone or harmed by animals while defecating.
- 91 percent of the women reported that they have been able to save up to an hour.
- 93 percent of the women reported no longer having to stop having food or water to control the urge to defecate or urinate.
- More than half of the women surveyed were afraid of being judged by others in their community when they did not have a private toilet.
- Almost half the women surveyed used to avoid their relatives or neighbours out of embarrassment over not having a private toilet.
- Majority of the women, especially unmarried young women, said they were proud to own a toilet.
- An overwhelming majority (88%) of men also reported a sense of pride in owning a toilet.

ODF Plus

- the government has launched Swachh Bharat Mission (Gramin) SBMG phase II also referred to as ODF-plus to maintain open defecation free behaviours and bringing the solid and liquid management facilities
- The programme would be implemented in a mission mode till 2024-25, with a total outlay of Rs. 1,40,881 crores.
- Under the program, provision for the incentive of Rs.12,000/- for construction of Individual Household Toilet to the newly emerging eligible households as per the existing norms will continue.
- Funding norms for Solid and Liquid Waste Management (SLWM) have been rationalised and changed to per capita basis in place of no. of households.
- The financial assistance to the Gram Panchayats (GPs) for construction of Community Managed Sanitary Complex (CMSC) at the village level has been increased from Rs. 2 lakh to Rs. 3 lakh per CMSC.
- The SBM-G Phase II is aimed at generating employment and providing impetus to the rural economy through construction of household toilets and community toilets, as well as infrastructure for SLWM such as compost pits, soak pits, waste stabilisation ponds, material recovery facilities etc.
- So that by the end of 2024-25, India would reach a significant milestone by providing sustainable sanitary facilities to millions of people.

Clean Water, Sanitation and Health

- The World Bank estimates that 21 percent of communicable ailments are water-borne.
- Diarrhoea is among the biggest killers of children under the age of 5, in addition to neonatal complications, pneumonia and sepsis.
- Neglected tropical diseases, polio and malaria also have a strong association with of water, sanitation and hygiene.
- detrimental for mothers and newborns as it leads to the spread of infectious diseases.

Expanding Sanitation Coverage

- Under Swachh Bharat Mission (SBM), sanitation coverage in rural India increased from 39 percent in October 2014 to 100 percent as of October 2019.
- Additionally, there is also a perceptible difference in the condition of public toilets in the country.
- Technology has been leveraged to enhance the accessibility of toilets, For instance, over 57,000 public toilet blocks have been mapped across 2,300 cities on Google Maps.
- Significant progress has also been made in the area of solid waste management with 66 percent of solid waste being processed and 96 percent of wards practicing door-to-door collection.
- In fact, the rural sanitation coverage even in aspiration Districts is almost at par with the national sanitation coverage.

Case Study

- In Vizianagaram was, initially rated as one of the most backward districts in the country, no block in the district had more than 50 percent toilet coverage till February 2017. One of the most Significant initiative in the district that triggered the Large- scale construction of individual household toilets and made sanitation a mass movement was the famed 100 Hours Programme. As part of this programme, 10,000 individual Household Latrines were constructed in a mere 100 Hours to declare 71 Gram Panchayats Open Defecation Free. The Andhra Pradesh Government's Flagship Programme Stree Nidhi Credit cooperation provided timely, affordable and interest-free loans of Rs. 12,000 to each beneficiary for the construction of toilets. As a consequence, individual household toilet coverage in Vizianagaram grew from 11.42 percent to 73.37 percent between 2014 and 2018.

Impact on Health Outcomes

- UNICEF has estimated that each family in an ODF village in India saves Rs. 50,000 per year on account of avoided medical costs, less sick days and the value of lives saved.
- Similarly, a study conducted by the Bill and Melinda Gates Foundation highlighted that cases of diarrhoea were 46 percent lower among children in villages that had been declared ODF, as compared to villages that had not achieved that status.

Reason for the Transformation

- Political will by the Prime Minister Himself
- encouraged other senior political leaders to spread the message of swachhata in their respective spheres of influence.

- Strong Emphasis on Behavioural Change:
 - SBM has focused on outputs and outcomes from the outset, which distinguishes it from other programmes that were focused primarily on the construction of toilets.
 - SBM is the first sanitation programme in India that has followed a demand-driven approach as opposed to being supply-driven along with measuring success in terms Of "Open defecation Free"(ODF) villages and districts.
- Decentralised Monitoring:
 - Villages declared ODF are verified within 3 months of the declaration by block and district officials.
 - All components of the Mission - construction, payment of incentives, ODF declaration, verification, and even active personnel in every village -are reported on a real-time basis by states, districts, Gram Panchayats and villages.
 - Every toilet constructed under the Mission was mandatorily geo-tagged so as to ensure that the process is completely transparent.
- Recently, the Government has launched an MIS portal in an effort to integrate the numerous digital initiatives under SBM on a single platform in order to enable a hassle-free experience for states and cities.
- In 2015, the Government launched, Swachh Survekshan an annual survey of cleanliness, hygiene and sanitation across India's towns and cities.
- Good practices like segregation of waste at source, scientific waste processing, penalties for littering and dumpsite remediation are being institutionalized through innovative frameworks such as the Star Rating Protocol for Garbage Free Cities.

Improving Access to Good Quality Water

- NITI Aayog has come out with a Composite Water Management Index as a useful tool to assess and improve the performance in the efficient management of water resources.
- Although water supply is a state subject, the Central Government plays an important role in developing standards and guidelines as well as financing, including using incentive-based mechanisms to catalyse a shift in focus from outputs to outcomes.
- In 2017, the Union Cabinet restructured the National Rural Drinking Water Programme (NRDWP) to make it more outcome-based, ensure a greater focus on the functionality of services
- As part of the restructured programme, 2 percent of the funds were earmarked for Japanese Encephalitis in affected areas.
- The National Water Quality Sub-Mission initiated by the Ministry of Drinking Water and Sanitation in February 2017 was included as a sub-programme under NRDWP to provide clean drinking water in 28,000 habitations affected by arsenic and fluoride.
- Release of a certain proportion of funds from the centre to states was made contingent on the functionality of the piped water supply infrastructure as verified by a third party.
- A new Jal Shakti ministry was created by the Government to integrate two ministries that were managing water-related issues.
- In 2019, the Government launched an upgraded version of NRDWP, 'Har Ghar Nal Se Jai', a flagship programme under the Jal Jeevan Mission, to provide piped water supply to all rural households by 2024.
- Under the programme, annual targets have been defined for states and districts.
- In addition to ensuring access to piped water across the country, the Jal Jeevan
- Mission will also focus on rainwater harvesting, groundwater recharge and water recycling.

The Way forward

- in order to produce a sustained change, behaviour –change campaigns need to be implemented on a regular basis.
- incentives and benefits need to be designed for promoting the use of infrastructure. For example, a teacher or student who champions the cause of sanitation in school or plays a vital role in maintaining facilities should be recognised or rewarded appropriately.
- Messages pertaining to health and hygiene must therefore become an integral part of the school curriculum.
- Targeted behaviour change communication campaigns can also be designed specifically for panchayats and cities where reversals in ODF status are observed.
- Disposal of kitchen and home waste should be promoted at the local level through resident welfare associations.
- Involving panchayats and local communities by training them on water quality contamination and management is also critical.

- Basic hygiene practices such as hand washing with soap need to be adopted widely. It is estimated that hand washing with soap can lower the incidence of diarrhoea and acute respiratory infections by 40 percent and 20 percent respectively.
- Additionally, menstrual hygiene management practices must also be prioritised.
- Technologies that have been successfully piloted in different parts of India or in other countries need to be scaled-up, following the necessary adaptations. For instance, greater emphasis could be laid on high- efficiency toilets which use 4-6 litres of water per flush instead of the 10-15 litres used by traditional toilets.
- The focus must shift towards ensuring safe containment, transportation and disposal of faecal sludge and septage from toilets, as well as the grey and black water from households and establishments.

Conclusion

- The quality, pace and scale of progress made under SBM is undeniable and reflected in the ground realities as well. SBM has provided a solid foundation. Much like SBM, the Jal Jeevan Mission too needs to become a mass movement, with the involvement of people from all walks of life.

Health and Hygiene Concerns for Rural Women

Introduction

- As per the World Bank Report (2015), in India, life expectancy at birth for males is 67.46 years while that for females is 69.83 years. Yet girls/women suffer from rather high mortality rates, particularly during their childhood as well as the reproductive years of their life (15-45 years).
- Indian women's health and well-being are inherently linked to their status in society.
 - Continuous overlooking of their contribution to the family
 - Preference for the son
 - gender discrimination among children coupled with escalating dowry expense for the daughters sometimes leads to maltreatment of the girl-child.
 - Low level of education
 - Poor vocational training
 - Lack of autonomy: living under the control of firstly their fathers/brothers, thereafter their husbands and finally their sons
- All these factors pose a negative impact on their health status.

About Health

- According to article 47:
 - Raise the level of nutrition and the standard of living of its people
 - improvement of public health
 - bring about prohibition of the consumption except for medicinal purposes of intoxicating drinks and of drugs which are injurious to health.
- As defined by WHO 'Health is a state of complete physical, mental and social well-being and not merely the absence of any disease or infirmity'.
- As defined by WHO 'Health is a state of complete physical, mental and social well-being and not merely the absence of any disease or infirmity'.
- According to the World Health Organization (WHO), Hygiene refers to conditions and practices that help to maintain health and prevent the spread of diseases.
- The aim of Sustainable Development Goal-3 (SDG-3) is to ensure healthy lives and promote wellbeing for all at all ages.

Impact of Poor health of Women

- The problem of ill health and malnutrition is complex, multi-dimensional and very often inter-generational in nature.
- Bear low- birth weight (LBW)/small-for-gestational age (SFGA)/ pre-term babies.
- In case, the new-born is a girl child, she not only comes to the world with a disadvantage (low- birth weight and poor nutrient stores) but she doesn't even receive enough nourishment from her weak and poorly nourished mother affecting her physical and mental growth.
- Her continuous journey of malnutrition gives birth to second-generation low-birth-weight baby/ babies.

- This is further heightened in the case of teenage pregnancies where the adolescent girls have to bear the dual-burden of their own growth/ development as well as that of the developing foetus leading to a still poorer pregnancy outcome.
- Health is a multi-dimensional aspect; for ensuring good health, it is important to maintain a continuous interaction among its dimensions such as physical, mental, social, emotional, spiritual, vocational and political.
- Women's health refers to the branch of medicine that focuses on the treatment/diagnosis of diseases or conditions that affect a woman's physical and emotional well-being.
- Nutritional status of the mother's particularly during pregnancy and lactation is vital.
- Water for Sustainable Development' to further improve cooperation, partnership and capacity development in response to the ambitious 2030 Agenda.

Role of Clean drinking Water

- its absence can adversely impact the health, food security and livelihoods of families all over the world.
- The global community is cooperating capacity building on water and sanitation-related activities/programmes as well as to support the local communities in improving water and sanitation management.
- For attaining Goal-6, all the nations have resolved to achieve universal access to safe drinking water and adequate hygiene/sanitation for all by the year 2030.
- The overall proportion of Indian households with access to improved water sources increased from 68 percent (1992-93) to 89.9 percent (2015-16).

National Health Policy:

- It aims to inform, clarify, strengthen and prioritise the Government's role in shaping the health systems holistically covering all its dimensions:
 - health-related investments,
 - the organisation of the healthcare services,
 - disease prevention and promotion of good health through appropriate inter-sectoral coordination,
 - use of updated technologies,
 - human resource development,
 - strengthening health-care systems and health assurance.
- Identified priority areas under NHP:
 - Swachh Bharat Abhiyan
 - A balanced, healthy diet and regular exercise
 - Addressing tobacco, alcohol and substance abuse
 - Nirbhaya Nari -action against gender violence
 - Reduced stress and improved safety in the work place
 - Reducing indoor and outdoor air pollution

Programme for strengthening Health Systems

- Ayushman Bharat Yojana;
- Pradhan Mantri Swasthya Suraksha Yojana (PMSSY);
- LaQshya' programme (Labour Room Quality Improvement Initiative);
- National Health Mission.

Ayushman Bharat Yojana

- Launched under the aegis of National Health Policy (2017), to achieve the vision of Universal Health Coverage {UHC}.
- The scheme aims to undertake path-breaking interventions to holistically address the healthcare system (covering prevention, promotion and ambulatory care) at the primary, secondary and tertiary level.
- Ayushman Bharat adopts a continuum of care approach, comprising of two inter-related components
 - Pradhan Mantri Jan Arogya Yojana (PM-JAY)
 - Health and Wellness Centres (HWCs)

Swachh Bharat Mission

- Under this mission, over 100 million toilets have been constructed in rural India;
- All villages, Gram Panchayats, Districts, States and Union Territories declared themselves 'open-defecation free'

(ODF) by 2nd October 2019.

- Phase II of Swachh Bharat Mission-Grameen (SBMG/ ODF Plus) focus on ODF behaviours and interventions for the safe management of solid and liquid waste in rural areas.
- To ensure proper waste disposal, dustbins are being placed at every convenient and easily accessible spot, as per the requirement of the community.

Jal Jeevan Mission:

- Jal Jeevan Mission (JJM) is envisioned to provide safe and adequate drinking water through individual household level tap connections by the year 2024 to every household in rural India.

Importance to:

- water conservation,
- rainwater harvesting,
- recharging of the groundwater
- efficient water management through its reuse/recycling.
- This Mission-based on a community approach to water envisages laying extensive stress on Information, Education and Communication.

Menstrual Hygiene Issues related to adolescent girls and women

- In many rural/remote parts of our country, girls are neither aware nor they are prepared to face menstruation.
- They suffer several difficulties/challenges at home, school and workplace.
- A report by Dasra Philanthropy Forum (2019) suggests that nearly 23 million girls drop out of school annually due to lack of proper menstrual hygiene management facilities.

Importance and Steps were taken

- The objective of the Sustainable Development Goals, particularly SDG 6.2 which aims to achieve access to adequate and equitable sanitation and hygiene for all.
- Awareness regarding the use of biodegradable sanitary products made from materials like banana fibre, bamboo fibre, sea sponges and water hyacinth needs to be generated.

Menstrual Hygiene Scheme(MHS)

- Introduced by the Ministry of Health and Family Welfare for
- Promotion of menstrual hygiene among adolescent girls (aged between 10-19 years) in rural areas
- Aim to increase their awareness regarding menstrual hygiene;
- Improve access and increase the use of high-quality sanitary napkins;
- Ensure their safety as well as environment-friendly disposal.
- Since 2014, under National Health Mission - the States/UTs are provided funds for decentralized procurement of sanitary napkins to be provided to rural adolescent girls at subsidized rates (Rs 6/pack containing 6 napkins).
- The ASHA workers are given the responsibility of distribution at a small incentive (Re 1/pack sold + 1 free pack/month for personal use).
- They are required to convene monthly meetings (at Anganwadi centre) for adolescent girls to address the issue of menstrual hygiene as well as for discussing other relevant sexual and reproductive health issues.
- A range of IEC materials(audio, video & print material) have been developed for creating awareness
- Self-help groups have been trained in the making of sanitary napkins.
- For girl students, Swachh Bharat Swachh Vidyalaya campaign ensures proper sanitation/ disposal facilities (place for changing, soap & water availability and appropriate disposal) in every school
- SABLA program also stresses on awareness regarding health and hygiene among women.

National Health Mission

- The key components of the National Health Mission (NHM) include:
 - Anaemia Mukht Bharat;
 - the organization of Village Health camp;
 - Nutrition Days as well as Sanitation & Nutrition days (for providing maternal/regarding maternal & child care);
 - Iron and Folic Acid (IFA) supplementation;
 - calcium supplementation and the promotion of iodized salt consumption.

- Under the National Iron Plus Initiative (NIPI) programme iron and folic acid supplements are being given.
- Intensified National Iron Plus Initiative (1-NIPI) is aimed at reducing the prevalence of anaemia by 3 percentage point per annum.
- Weekly Iron Folic Acid Supplementation (WIFS) programme's main objective is to reduce the prevalence and severity of nutritional anaemia in the adolescent population (10-19 years).
- Suraksha Yojana (JSY) is being implemented for reducing maternal and neonatal mortality by promoting institutional delivery among pregnant women belonging to underprivileged families.
- Mother and Child Tracking System (MCTS) helps in tracking the health status of pregnant women, nursing mothers and the child.
- Programmes relating to Reproductive, Maternal, Neonatal, Child and Adolescent health include Janani Shishu Suraksha Karyakaram (JSSK); Rashtriya Kishor Swasthya Karyakram (RKSK); Rashtriya Bal Swasthya Karyakram (RBSK); Mission Indra Dhanush; Janani Suraksha Yojana (JSY); Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA) and Navjaat Shishu Suraksha Karyakram (NSSK).
- Programmes relating to Communicable diseases include Integrated Disease Surveillance Programme (IDSP); Revised National Tuberculosis Control Programme (RNTCP); National Leprosy Eradication Programme (NLEP).
- Programmes related to Non-communicable Diseases include National Tobacco Control Programme (NTCP); National Programme for Prevention and Control of Cancer Diabetes, Cardiovascular Diseases & Stroke (NPCDCS); National Programme for Control Treatment of Occupational Diseases; National Programme for Prevention and Control of Deafness (NPPCD); National Mental Health Programme; National Programme for Control of Blindness & Visual impairment; Pradhan Mantri National Dialysis Programme; National Programme for the Health Care for the Elderly (NPHCE); National Programme for Prevention & Management of Burn Injuries (NPPMBI).

National Health Policy - Targets

Life Expectancy and healthy life

- Increase Life Expectancy at birth from 67.5 to 70 by 2025.
- Establish regular tracking of Disability Adjusted Life Years (DALYs) Index as a measure of disease burden and its trends by major categories by 2022.
- Reduction of Total Fertility Rate (TFR) to 2.1 at national and sub-national level by 2025.

Mortality by Age and/or cause

- Reduce Maternal Mortality Rate from current levels to 100 by 2020.
- Reduce infant mortality rate to 28 by 2019.
- Reduce neonatal mortality to 16 and stillbirth rate to a single digit by 2025.

Reduction of disease prevalence/incidence

- Achieve by 2020 the global target of 90:90:90 for HIV/aids (90% of all people living with HIV know their HIV status; 90% of all people diagnosed with HIV infection receive sustained antiretroviral therapy; and 90% of all people receiving antiretroviral therapy to attain viral suppression).
- To reduce premature mortality from cardiovascular diseases, cancer, diabetes or chronic respiratory diseases by 25% by 2025.
- To achieve and maintain >85% cure rate for new sputum positive patients of TB and reduce the incidence of new cases to attain elimination status by 2025.
- Targeted to achieve and maintain elimination status of Leprosy by 2018, Kala-Azar by 2017 and Lymphatic Filariasis in endemic pockets by 2017

Health Systems Performance/Coverage under Health Services

- Increase utilisation of public health facilities by 50% from current levels by 2025.
- Sustained antenatal-care coverage above 90%; and skilled attendance at birth above 90% by 2025.
- Meeting the needs for family planning above 90% at national/sub-national level by 2025.
- 80% of known hypertensive and diabetics under home care maintain 'controlled disease status' by 2025.

Conclusion

- Women being the ushers of next-generation, their health status and appropriate hygiene should be given due importance so that the intergenerational cycle of malnutrition and poor health does not set in and Mahatma Gandhi's dream of "Swachh Bharat—Swasth Bharat" is realized.

Status of Safe Drinking Water and Sanitation

Introduction

- The adequate provision of safe water, sanitation and hygiene (WASH) is crucial to achieving sustainable development
- It can contribute greatly to the eradication of poverty, hunger and disease in a country like India where more than one found rural population still lives below the poverty line.
- The present worldwide outbreak of COVID-19 pandemic has strongly demonstrated the critical role of sanitation, hygiene and access to clean water in protecting human health by preventing and containing diseases.

Providing Safe Drinking Water and Sanitation Facilities

- The primary responsibility of providing safe drinking water and sanitation facilities in India rests with the State Governments.
- They take necessary steps for augmentation, conservation and efficient management of water resources.
- The efforts of State Governments are supported and supplemented by the Union Government by providing technical and financial assistance through various schemes and programmes.

Government Steps

- Ministry of Drinking Water and Sanitation was created as a separate ministry on 13th July 2011 which was merged with Ministry of Jal Shakti in May 2019.
- Thus, at the central level, the Department of Drinking Water and Sanitation under the Ministry of Jal Shakti is the nodal agency responsible for policy planning, funding and coordination of programs for safe drinking water and sanitation in rural areas.
- Role of department:
 - Implement Swachh Bharat Mission-Gramin (SBM-G) aims at improving the sanitation facilities in rural areas.
 - Implement the Jal Jeevan Mission (JJM) aims at providing adequate and safe drinking water to rural households.

Status of Safe Drinking Water

- As per the latest population census, 82.7 percent population living in rural areas has access to safe drinking water (tap/handpump/tubewell) as against 91.4 percent in urban area and 85.5 percent in the country as a whole.

Status of Rural Sanitation

- With the launch of the Central Rural Sanitation Programme in the year 1986 and introduction of the Nirmal Bharat Abhiyan in 1999, the rural population using sanitation facilities improved remarkably from 9 percent in 1991 to 22 percent in 2001 and 32.7 percent in 2011.
- Due to special focus on sanitation and cleanliness in rural areas, the country made rapid and remarkable strides in reaching out the targets of cleanliness by putting an end to the practice of open defecation.
- All the villages (603,177) spread over 36 states and Union Territories were declared 'open defecation free' on 2nd October 2019.
- Thus, over 55 crore rural people gained access to sanitation in a record time period of 5 years.

Government Expenditure on Rural Drinking

- The total expenditure of government on rural drinking water and sanitation which was to the tune of Rs. 10,565 crore in 2010-11, went up to Rs 21,494 crore in 2020-21, reflecting a compound annual growth rate of 6.67 per cent.
- Expenditure on rural sanitation which was Rs. 1,580 crores in 2010-11, shot up to Rs. 9,994 crore in 2020-21 reflecting a whopping CAGR of 18.26 percent.
- Government accorded more priority to the rural water supply as compared to sanitation up to the year 2014-15. Launch of Swachh Bharat Mission- G increased the share of rural sanitation to 72% in 2018-19.
- But after attaining the objective of 100 percent ODF in the country in 2019, the focus again shifted towards rural water supply.

Economic and Health Effects

- The quality of water, sanitation and hygiene (WASH) has a significant impact on improving the health Outcomes

and ameliorating the economic conditions of rural masses.

- Consumption of unsafe water, improper disposal of human excreta, lack of hygiene and improper disposal of solid & liquid waste have been the major causes of many diseases in India.
- It is responsible for the stunting of 48 percent children and deaths of over one lakh children in India annually, as per UNICEF report.
- Due to the lack of proper sanitation in the country, more than 30 million people suffer from waterborne diseases leading to a huge loss of around 73 million working days every year.
- The resulting economic cost is estimated over 6 percent of GDP each year, as per World Bank estimates.
- UNICEF in the report on, Financial and Economic Impacts of Swachh Bharat Mission in India, brings into light that a household in an ODF village in rural India saves around Rs. 50,292 every year due to the averted medical cost, time saved and value of saved lives.

Government Initiatives

- Firstly, the National Drinking Water Mission was started to focus on rural drinking water supply, which was subsequently renamed as Rajiv Gandhi National Drinking Water Mission in 1991.
- Secondly, the Central Rural Sanitation Programme (CRSP) was launched in 1986, for the sanitation scenario in rural India. The programme was the first of its kind to provide 80 percent financial assistance to BPL families for constructing individual household toilets.
- The Program failed mainly due to the absence of community participation, high-cost designs of toilets and lack of awareness for sanitation among rural people.
- Total Sanitation Campaign (TSC) was launched in April 1999 which emphasized on information, education and communication (IEC) to increase awareness among the rural masses resulting in the generation of demand for sanitary facilities.
- It also gave emphasis on imparting sanitation education at the school level for bringing about attitudinal and behavioural changes towards sanitation & hygiene from a younger age.
- Subsequently, Nirmal Bharat Abhiyan (NBA), the successor programme of the TSC, focused on to increase the rural sanitation coverage through renewed strategy and saturation approach.
- Swachh Bharat Mission launched on 2nd October 2014 aimed at achieving the ambitious goal of providing access to sanitation for all rural households by eliminating the practice of open defecation within a period of five years.
- Swachh Bharat Mission (Gramin) achieved a historic milestone when all the villages and Gram Panchayats of the country, after constructing over 100 million toilets in rural India, declared themselves open-defecation free on 2nd October 2019.
- The Central Government allocation to SBM-G for the five year period from 2014-15 to 2018-19 has been estimated to be Rs 1, 00,447 crores.
- Swachh Bharat Mission (Gramin)-Phase II is focusing on to sustain the open defecation free behaviour and on ensuring waste management facilities in all villages.
- The Jal Jeevan Mission- Har Ghar Jal on 15th August 2019 (JJM) aims to provide adequate and safe drinking water to every rural household through a functional tap connection by the year 2024.
- For the implementation of this pan India movement on water, there is a provision of an outlay of Rs 3.60 lakh crore in partnership with States.

Challenges and Future Initiatives

- Declining availability of water with expected availability to 1486 cubic meter by 2021 will have serious implications for the sustainability of agriculture, food security, livelihoods, rural sanitation and sustainable growth.
- From the demand side, population pressures, changing cropping pattern, high rate of urbanization, rapid industrialization and issues relating to climate change are need to be urgently addressed.
- On the supply side, proper conservation, storage and distribution of water are needed to be prioritized.
- Increased public investment for the creation of potable water infrastructure is also required.

Issue of Groundwater

- India is the largest user of groundwater in the world which fulfils more than 85 percent demand for potable water in rural areas.
- Depleting at a faster rate than recharge
- presence of arsenic and fluoride

Method to augment groundwater recharge

- Necessary technology intervention for the treatment and removal of contaminants and promote the re-use of water.
- Rainwater harvesting and artificial recharge of groundwater by utilizing surplus rainfall runoff.
- Proper water resource management, revival of aquifers and traditional rainwater harvesting structures with the active participation of local communities and NGOs also need to be promoted.
- More provision of funds to develop infrastructure for solid and liquid waste management, plastic waste management and grey-water management is needed to ensure sanitation facilities in a sustainable manner in rural areas.
- Public awareness regarding the rational use of water and change in the attitude of people towards sanitation need to be promoted through information, education and communication.

Conclusion

- India not only witnessed remarkable progress in the supply of safe potable water to rural households but also registered a credible improvement in providing sanitation facilities during the recent past.

Decentralized Governance: Concept and Implications in Planning and Development

Introduction

- The foundation of democracy of the modern time was laid by 'The Magna Carta' of England in 1215.
- From raising awareness in the 1960s, democratic decentralization has evolved as a process of engagement with government in decision-making related to development programmes as well as management, production and allocation of public goods and services.
- Since the last few decades, new modes of governance like 'democratic decentralization', 'participatory development' and 'civil society' have gained immense importance in the development paradigm.
- Currently, more than half (57 percent) of the world's population lives in some form of democracy, compared to 36 percent in 1975 (International Institute for Democracy and Electoral Assistance, 2019).
- The primary aim of democratic governance is to give people an empowered and meaningful role to participate in the decision-making process.
- Rather than following traditional approaches like bureaucratic decision-making or decision-making by the political representatives, people's participation in the decision-making process is being seen by the policymakers as an essential pre-requisite for improving the performance of public service delivery system.

Decentralized Governance

- Decentralization or decentralizing governance, as referred by UNDP (United Nation Development Programme, 1997) is the **restructuring or reorganization of authority so that there are a system of co-responsibility between institutions of governance at the central, regional and local levels according to the principle of subsidiarity.**
- This increases the overall quality and effectiveness of the system of governance while increasing the authority and capacities of sub-national levels.
- It is expected to contribute:
 - Increasing people's opportunities for participation in economic, social and political decisions;
 - Assisting in developing people's capacities;
 - Enhancing government responsiveness, transparency and accountability.
- The decentralized governance viewed the process of development not as the sole responsibilities of the state, or the community, rather it involves collective responsibilities.
- In this form of governance people's participation is recognized as a means of empowerment.
- The idealized aim is 'to enable people to present, share, analyses and augment their knowledge as the start of a process. The ultimate outcomes are, however, enhanced knowledge and competence, and the ability to make demands and to sustain action.

Types of Decentralization

- There are three major forms of decentralization:

- 'Deconcentration',
- 'Delegation'
- 'Devolution'.
- Deconcentration is the weak form of decentralization and refers to the mere shifting of responsibilities from central government officials in the capital city to those working in regions, provinces or districts and grass-root levels.
- Delegation refers to transferring responsibility for decision-making and administration of public functions to semi-autonomous organizations not wholly controlled by the central government, but ultimately accountable to it.
- Devolution is the strongest form decentralization, where the central government transfer functions, authority for decision-making, finance, and management to quasi-autonomous units of local government with corporate status.

Decentralized Governance in India: A Historical Perspective

- The need for Panchayat Raj system of participatory governance is traced as far back as to the recommendations of the Balwantrai Mehta committee in 1957.
- The committee recommended a three-tier Panchayat system at district, block and village levels.
- The second plan document acknowledged the necessity of development of democratic institutions and emphasized upon 'comprehensive village planning' for efficient distribution of state benefit to weaker sections of society.
- Dantwala Committee on Block Planning in 1978 prescribed integration of block plan with district plans,
- Ashok Mehta Committee in 1978 recommended considering district as the first point of decentralization.
- L.M Singhvi Committee recommended the involvement of Panchayati Raj institutions in basic planning and implementation of development projects and consider Panchayati Raj Institutions as Institute of Self Governance to facilitate the participation Of the people in the process of planning and development.
- The 73rd Constitutional Amendment, in 1992, has formalized such an institution by giving PRI the constitutional provision to constitute a three-tier panchayat system in each state as well as emerge as an institute of self-governance.
- This Constitutional Amendment mandated setting up three-tier Panchayati Raj Institution(PRI)system in rural areas, holding of election in regular interval and institutionalized participation of the citizen in the planning process.

Panchayati Raj Institution in India

- Panchayati Raj Institution (PRI) is a three-flared structure in India.
- PRLs include Gram Panchayats (village level), Mandal Parishad or Block Samiti or Panchayat Samiti (Block level), and Zila Parishad (district level).
- Gram Panchayat is divided into a minimum of Five constituencies (again depending on the number of voters the Gram is having).
- From each of these constituencies, one member is elected.
- Body of these elected members is called the Gram Panchayat. Size of the GPs varies widely from state to state.
- PRLs, under the law, are required to prepare plans for economic development and social justice for their areas, and also implement them.
- After the 73rd Constitutional Amendments, these bodies have been granted greater powers and additional financial resources to promote local economic and social development.
- The Article 243ZD(1) recommended for the constitution of District Planning Committee at the district level to integrate plans prepared by panchayats and municipalities and to prepare a draft development plan for the district.

PRI and implementation of Mahatma Gandhi National Rural Employment Guarantee Act:

- Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), 2005 ensures a minimum of 100 days of wage employment for rural unskilled workers.
- The decentralized governance structure has a significant role to play in implantation of MGNREGA. The role of Gram Panchayat is quite a pivotal one.
- The Act mandates that the selection and prioritization of works to be taken up in a financial year has to be done by Gram Sabha.
- People are expected to participate in gram sabha for selection and prioritization of works to be implemented by the PRI, to address the development needs of each village.
- The Act also prescribes that works be allotted in a way that at least 50 percent of the total works (in terms of costs)

be undertaken by the Gram Panchayats.

- The Act directs the District Programme Coordinator at the district level to prepare a Labour Budget every year in the month of December for the next financial year
- Decentralized planning of works related to natural resource management, agriculture and allied activities, providing sustainable livelihood opportunity had been emphasized.
- Along with this, MGNREGA has been integrated with Pradhan Mantri Krishi Sinchayee Yojana (PMKSY), Integrated Watershed Management Programme, Command Area and Water Management schemes for better outcomes in water conservation and water harvesting work.

Livelihood Promotion Scheme and PRI

Swarnajayanti Gram Swarozgar Yojana (SGSY)

- It was designed to pursue sustainable livelihood opportunities through Micro-Finance and Micro-Enterprises for population Below Poverty Line (BPL) in the country and to provide a sustained level of income over a period of time.
- This objective was planned to achieve through the creation of Self Help Groups (SHGs) by the process of social mobilization, providing training and capacity building and provision of creating income-generating assets.
- SGSY was converted to the National Rural Livelihood Mission (NRLM) or Aajeevika launched by the Ministry of Rural Development (MoRD), Government of India in June 2011.

National Rural Livelihood Mission (NRLM)

- NRLM believes in harnessing the innate capabilities of the poor and complements them with capacities (information, knowledge, skills, tools, finance and collectivization) to participate in the growing economy of the country.
- NRLM follows a demand-driven strategy, the States have the flexibility to develop their livelihoods-based perspective plans and annual action plans for poverty reduction.
- In NRLM, the role of PRIs could be:
 - to facilitate/ support in social mobilization,
 - institution building,
 - Participatory Identification of Poor (PIP) and its endorsement in Gram Sabha,
 - allocating resources to the priority demands of the SHGs and their federations in the annual plans/activities of the PRIs
 - coordinating with different departments and agencies on behalf of the SHG network.
 - SHGs and their Federations could encourage their members to attend the Gram Sabha for placing their demands and needs.
 - SHG federations expected to participate actively in the functional committees of GP (if they are members/invitees), in planning processes and in community monitoring of the implementation of projects by/through GPs
 - Have a clear integrated poverty reduction plan with a component addressing vulnerabilities of poor and marginalized people and their livelihood opportunities.

Current Development Challenge and PRI

- Country's 69 percent youth population aged between 18-34 years living in rural areas.
- Hence, recent rural development schemes like NRLM, PMKVY, DDU-GKY, Aatma Nirbhar Bharat Abhiyan are programmed to provide skill, to create self-employment opportunities and to remove poverty through participatory approaches.
- National Skill Development Corporation (NSDC) adopted a Public-Private Partnership (PPP) model to promote skill development in the country through the creation of large, quality and for-profit vocational institutions.

Pradhan Mantri Kaushal Vikas Yojana (PMKVY)

- Pradhan Mantri Kaushal Vikas Yojana (PMKVY) is the flagship scheme of the Ministry of Skill Development & Entrepreneurship (MSDE) implemented by NSDC, with the objective of enabling Indian youth to take up industry-relevant skill training that will help them in securing a better livelihood through Skill Certification Scheme.
- The strategy of PMKVY includes:
 - short term training at PMKVY Training Centres for benefits of school/college dropouts or unemployed;
 - recognition of prior learning;

- assessing and certifying as Recognition of Prior Learner.
- The Scheme contributed in terms of providing skill training to nearly 3 million and, currently, there are more than 22000 training centres in all over India.

Deen Dayal Gramin Kaushal Yojana (DDU- GKY)

- Launched in the year 2014.
- An initiative of the Ministry of Rural Development
- Focuses on placement-led skill training.
- The scheme aims at transforming poor rural Indian youth ages of 15 and 35 years from poor families into skilled productive employees to empower industry with the right manpower for success and growth.
- DDU-KGY as a part of the Skill India campaign also works in Public-Private Partnership mode.
- At DDU-GKY, a three-tier implementation structure is followed:
 - Top Tier: National Unit (NU) at the Ministry of Rural Development acts as the investor, policymaker and technical support provider.
 - Middle Tier: State Skill Missions manage and monitor the implementation
 - 3rd Tier: Training Partners implement projects in specialist trades in compliance with norms and standards set by DDU-GKY.
- A wide range of industries and sectors such as Agriculture, Automotive, Beauty & Wellness, Construction, Electronics, Gems and Jewellery, Healthcare, Logistics, Retail and Tourism & Hospitality amongst many others are included under DDU-GKY.
- Till date, more than 10 lakh youth are trained and 5.59 lakhs got their placement.
- Huge job opportunities were also created in the CO VID-19 situation in terms of making a mask, sanitizer, face shield, protective clothing and a community kitchen.

Challenges

- It is often criticized for an over emphasis on the process of planning.
- Participatory development is also questioned from the standpoint of unequal empowerment. It at times reproduces social inequalities within communities. The evidence says that some stakeholders have lesser voice and influence than others and this is particularly true with women, who continue to remain marginalized.
- There is a difference between 'formal' power and 'effective' power. While there is no doubt that women have been given formal power to get elected and there is prescribed mandate to get them involved in decision-making, they continue to face a masculine model of politics.
- Women face a dual burden of domestic chores and professional obligations, and lack of confidence and self-esteem.
- In India, there are instances of women holding formal rather than effective power due to reasons like opposition from the families, interference by husbands, discrimination in meetings, lack of community support, lack of education and dependence on men.

Way Ahead

- Participation, as a political concept as well as a process, has opened up space for a new relationship between governments and citizens.
- Increase in literacy level, access to technology and process of digitalization is helping public participation in government policy planning.