



News Analysis (26 Aug, 2021)

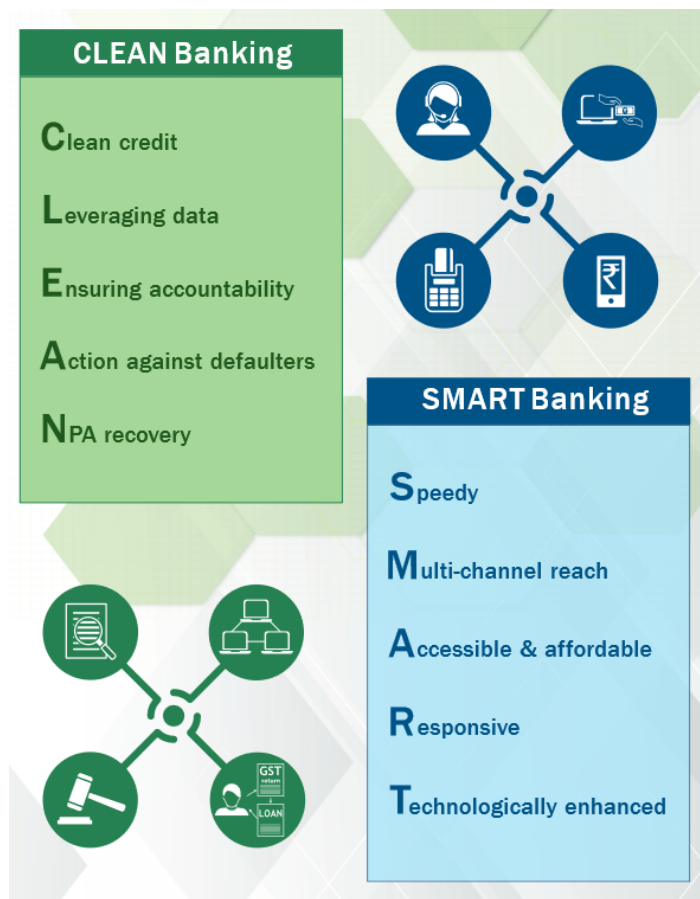
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EASE 4.0

Why in News

Recently, the Union Finance Minister undertook the **annual performance review of the public sector banks (PSBs)** and launched the **EASE 4.0 or Enhanced Access and Service Excellence Reform Agenda**.

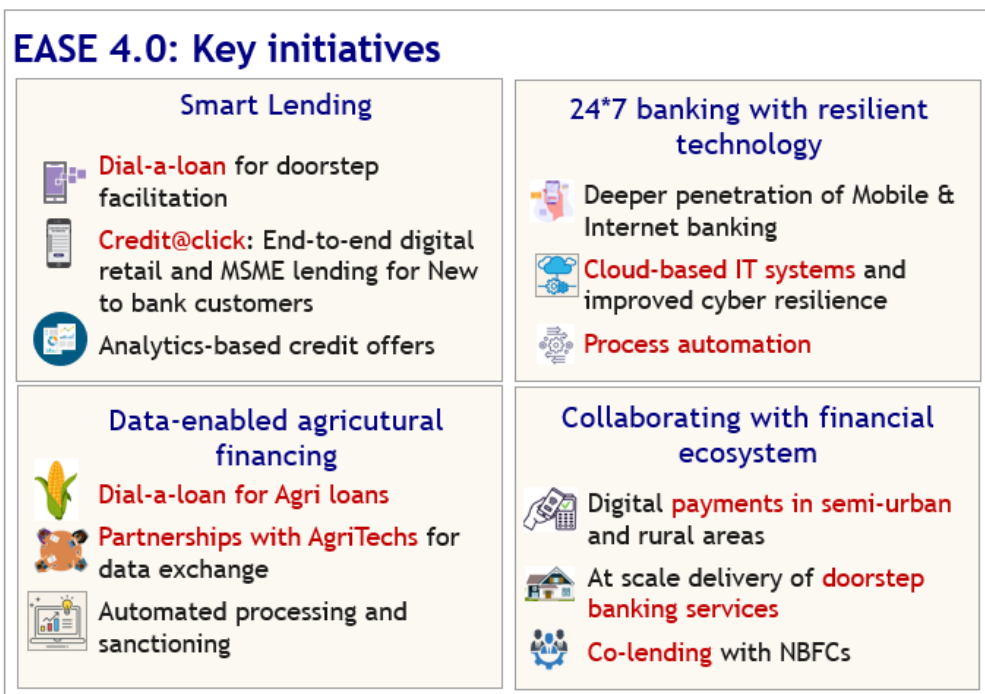
EASE 4.0 is a common reform agenda for PSBs aimed at institutionalising **clean and smart banking**.



Key Points

About Ease 4.0:

- EASE 4.0 commits PSBs to **tech-enabled, simplified and collaborative banking** to further the agenda of **customer-centric digital transformation**.
- Following major themes were proposed under this:
 - **24x7 Banking:** Under EASE 4.0, the theme of new-age 24x7 banking with resilient technology has been introduced to ensure uninterrupted availability of banking services.
 - **Focus on North-East:** Banks have also been asked to come up with specific schemes for the North-East.
 - **Bad Bank:** The proposed **bad bank** is very close to getting a licence.
A bad bank is a bank set up to buy the bad loans and other illiquid holdings of another financial institution.
 - **Raising Funds Outside the Banking Sector:** With changed times, now industries have the option of raising funds even from outside the banking sector.
 - Banks themselves are raising funds through various avenues.
 - These new aspects need to be studied to target credit where it is needed.
 - **Leveraging Fintech Sector: Fintech (Financial Technology),** one such sector that can provide technological help to banks as well as can benefit from help from the banking sector.
 - **Export Promotion:** Banks will be urged to work with state governments to push the 'one district, one export' agenda.



- **About EASE Agenda:**

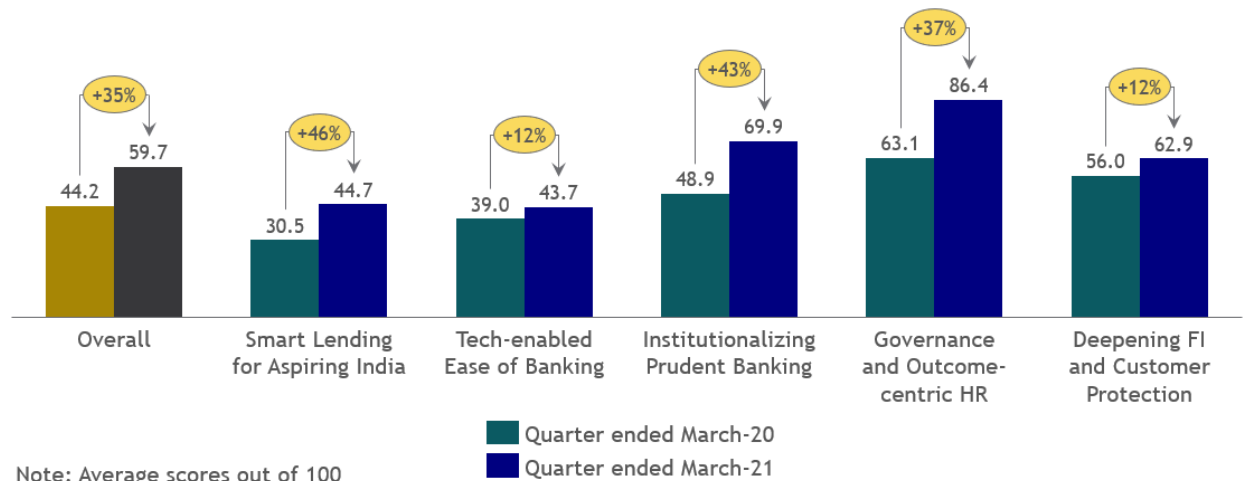
- It was launched in **January 2018 jointly by the government and PSBs.**
- It was commissioned through **Indian Banks' Association** and authored by **Boston Consulting Group.**
- **Various Stages under EASE Reforms Agenda:**
 - **EASE 1.0:** The EASE 1.0 report showed significant improvement in PSB performance in resolution of **Non Performing Assets** (NPAs) transparently.
 - **EASE 2.0:** EASE 2.0 was built on the foundation of EASE 1.0 and introduced new reform Action Points across six themes to make reforms journey irreversible, strengthen processes and systems, and drive outcomes. The six themes of EASE 2.0 are:
 - Responsible Banking;
 - Customer Responsiveness;
 - Credit Off-take,
 - PSBs as UdyamiMitra (SIDBI portal for credit management of MSMEs);
 - Financial Inclusion & Digitalisation;
 - Governance and Human Resource (HR).
 - **Ease 3.0:** It seeks to enhance ease of banking in all customer experiences, using technology viz.
 - Dial-a-loan and PSBloansin59 minutes.com.
 - Partnerships with FinTechs and E-commerce companies,
 - ,
 - Tech-enabled agriculture lending,
 - EASE Banking Outlets etc.

- **Performance Under EASE Reforms Agenda:**

- **EASE Reforms Index:** The Index measures performance of each PSB on 120+ objective metrics. The goal is to continue driving change by encouraging healthy competition among PSBs.
- PSBs have done well and come out of **Prompt Corrective Action (PCA)** despite service extended during the pandemic.

PCA is a framework under which banks with weak financial metrics are put under watch by the RBI.
- PSBs have recorded phenomenal growth over four quarters since the launch of EASE 3.0 Reforms Agenda in February 2020.

Breakthrough achievement by PSBs across themes



Source: IE

Price Determination of Sugarcane

Why in News

Recently, the **Cabinet Committee on Economic Affairs** has approved the **hike in the Fair and Remunerative Price (FRP)** of **sugarcane** for sugar season 2021-22.

Sugarcane

- **Temperature:** Between 21-27°C with hot and humid climate.
- **Rainfall:** Around 75-100 cm.
- **Soil Type:** Deep rich loamy soil.
- **Top Sugarcane Producing States:** Uttar Pradesh > Maharashtra > Karnataka > Tamil Nadu > Bihar.
- India is the **second largest producer of sugarcane** after Brazil.
- It can be grown on all varieties of soils ranging from sandy loam to clay loam given these soils should be well drained.
- It needs manual labour from sowing to harvesting.
It is the main source of **sugar**, gur (jaggery), khandsari and molasses.
- **Scheme for Extending Financial Assistance to Sugar Undertakings (SEFASU)** and **National Policy on Biofuels** are two of the government initiatives to support sugarcane production and the sugar industry.

Key Points

- **Sugarcane Pricing:** Sugarcane prices are determined by:
 - **Central Government: Fair and Remunerative Price (FRP)**
 - The Central Government announces **Fair and Remunerative Prices** which are determined on the recommendation of the **Commission for Agricultural Costs and Prices (CACP)** and announced by the **Cabinet Committee on Economic Affairs (CCEA)**.
CCEA is chaired by the Prime Minister of India.
 - The FRP is based on the Rangarajan Committee report on reorganizing the **sugarcane industry**.
 - **State Government: State Advised Prices (SAP)**
 - The SAP are announced by the Governments of key sugarcane producing states.
 - SAP is generally higher than FRP.
- **Comparison Between FRP and MSP:**

| | <u>Fair and Remunerative Price (FRP)</u> | <u>Minimum Support Price (MSP)</u> |
|-----------------------|---------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Definition | FRP is the minimum price at which sugarcane is to be purchased by sugar mills from farmers. | MSP is a “minimum price” for any crop that the government considers as remunerative for farmers and hence deserving of “support”. It is also the price that government agencies pay whenever they procure the particular crop. |
| Recommendation | Recommended by the Commission for Agricultural Costs and Prices (CACP) | Recommended by the Commission for Agricultural Costs and Prices (CACP) |

Mandated Crops

The mandated crop is sugarcane

The mandated crops include 14 crops of the kharif season, 6 rabi crops and other commercial crops.

- Cereals (7): Paddy, wheat, barley, jowar, bajra, maize and ragi.
- Pulses (5): Gram, arhar/tur, moong, urad and lentil.
- Oilseeds (8): Groundnut, rapeseed/mustard, toria, soyabean, sunflower seed, sesamum, safflower seed and niger seed.
- Raw cotton, Raw jute, Copra, De-husked coconut.

Factors Considered

- Cost of production of sugarcane;
 - Return to the growers from alternative crops and the general trend of prices of agricultural commodities;
 - Availability of sugar to consumers at a fair price;
 - Price at which sugar produced from sugarcane is sold by sugar producers;
 - Recovery of sugar from sugarcane;
 - The realization made from the sale of by-products viz. molasses, bagasse and press mud or their imputed value;
 - Reasonable margins for the growers of sugarcane on account of risk and profits
- The supply and demand situation for the commodity.
 - Market price trends (domestic and global) and parity vis-à-vis other crops.
 - Implications for consumers (inflation).
 - Environment (soil and water use).
 - Terms of trade between agriculture and non-agriculture sectors.

Legal Backing

The pricing of sugarcane is governed by the statutory provisions of the **Sugarcane (Control) Order, 1966** issued under the Essential Commodities Act (ECA), 1955.

MSP is an obligatory, not a statutory exercise.

Currently, there is **no statutory backing** for MSP or any law mandating their implementation.

Note: The **Commission for Agricultural Costs and Prices (CACP)** is an attached office of the **Ministry of Agriculture and Farmers Welfare**. It is an advisory body whose recommendations are not binding on the Government.

Source: PIB

Key Indicators for Asia and the Pacific 2021: ADB

Why in News

Recently, **Asian Development Bank (ADB)** released a report titled as the **Key Indicators for Asia and the Pacific 2021**.

- The report **demonstrated that the region made substantial progress** in the last two decades with respect to several development targets.
- It presents **comprehensive economic, financial, social and environmental statistics** for ADB's 49 regional members.

Asian Development Bank

- **About:**
 - It is a **regional development bank established in 1966**. It has **68 members**. India is a founding member.
49 are from within Asia and the Pacific and 19 outside.
 - As of 31st December 2019, ADB's **five largest shareholders are Japan** and the **United States** (each with 15.6% of total shares), the People's Republic of **China** (6.4%), **India** (6.3%), and **Australia** (5.8%).
- **Aim:**

To promote **social and economic development in Asia and the Pacific**.
- **Headquarters:**

Manila, Philippines.

Key Points

- **Poverty:**

- The **pandemic** pushed **75-80 million people** in the developing Asia-Pacific into **extreme poverty in 2020**.
- About 203 million people — **5.2% of developing Asia's population** — lived in **extreme poverty as of 2017**.

Without **Covid-19**, that number would have declined to an estimated 2.6% in 2020.

- **Contribution to Global GDP:**

- Asia and the Pacific's **economy has grown at a robust pace** in recent years and contributed as much as 35% to global **Gross Domestic Product (GDP)** in current US dollars in 2019.
- But **Covid-19** took a toll just when **weaker domestic investment and slowing global trade and economic activity** started to challenge this momentum.

- **Household Income:**

A significant number of **households engaged in business were severely affected** by the pandemic.

Among households engaged in agriculture or relying on wages and salary, **more than half reported an increase in income**, no change or a decrease of less than 26%.

- **Unemployment:**

- As unemployment rates increased by at least 20% in 2020 due to the pandemic across the globe, the **Asia-Pacific region lost an estimated 8% of working hours**.
- As businesses were disrupted, many workers lost their jobs, **leading to higher unemployment and underemployment rates**.

- **Labour Force Participation:**

- From 2019 to 2020, **labour force participation rates among women, on average, declined by 1.4%**, while labour force participation rates **among men declined by 0.8%**.
- **71%** of Asia-Pacific's workforce is now in **non-agricultural employment**. From 2000-2019, the **region's non-agricultural employment rate grew to 71% from 52%**, one of the fastest growth rates worldwide.

- **Sustainable Development:**

The pandemic is threatening Asia-Pacific's progress toward critical targets under the **United Nations**-mandated **Sustainable Development Goals (SDG)**.

- **Children Related Data:**

- The **prevalence of undernourishment decreased** from more than 521 million people in 2001 to 316 million in 2019.
- Almost all learners in the region were affected by closure of schools during the Covid-19 pandemic.
- Despite efforts to continue school activities through remote learning, **poorer students suffered greater disruption** to their education during the pandemic.

Way Forward

- Asia and the Pacific has made impressive strides, but **Covid-19 has revealed social and economic fault lines** that may weaken the region's sustainable and inclusive development.
- To achieve the SDG of the **United Nations' 2030 Agenda for Sustainable Development**, **decision makers need to harness high-quality and timely data** as a guide for actions to ensure that the recovery leaves no one behind – especially the poor and vulnerable.

Source: DTE

Forum for Decarbonisation of Transport Sector

Why in News

Recently, **Forum for Decarbonizing Transport** was jointly launched by **NITI Aayog and World Resources Institute (WRI)**, India.

- **WRI India** is an **independent charity legally** registered as the **India Resources Trust** which provides objective information and practical proposals to foster environmentally sound and socially equitable development.
- **NITI Aayog** serves as an advisory think tank for the government and is chaired by the Prime Minister. It replaced the **Planning Commission**.

Key Points

- **About:**
 - The forum is a part of the **Nationally Determined Contributions (NDC)-Transport Initiative for Asia (NDC-TIA) project**, which focuses on developing a coherent strategy of effective policies and the formation of a multi-stakeholder platform for decarbonising transport in the region.
 - NDC-TIA is a joint programme of **seven organisations that will engage China, India, and Vietnam** in promoting a **comprehensive approach to decarbonising transport in their respective countries**. The project is part of the **International Climate Initiative (IKI)**.
 - The IKI is a **key element of Germany's climate financing and the funding commitments** in the framework of the **Convention on Biological Diversity**.
 - It will act as the conduit for bringing diverse voices and needs to adopt an **integrated approach for greening the transport sector in India**.

- **Aim:**
 - To Bring down the peak level of GreenHouse Gas emissions (transport sector) in Asia** (in line with a well below 2-degree pathway), resulting in problems like **congestion and air pollution**.
- **Expected Benefits:**
 - It will help in the **development of innovative business models** for targeted results and the holistic growth of the electric mobility space in India.
 - It will **also provide a platform to initiate dialogues for the development of uniform policies and help achieve specific results** in reducing emissions from the transport sector.
- **Need:**
 - India has a **massive and diverse transport sector**, which is also the **third most CO₂ emitting sector**.
 - Data from **International Energy Agency (IEA), 2020** and **Ministry of Environment Forest and Climate Change, 2018** suggests that within the **transport sector, road transport contributes to more than 90% of the total CO₂ emissions**.
 - With increasing **urbanisation**, the fleet size i.e. the **number of sales of vehicles is increasing rapidly**. It is projected that the **total number of vehicles will be doubled by 2030**.
 - Therefore, the **transition to a decarbonisation path** for the transport sector in India is essential to achieving the goals of the **Paris Climate Agreement for 2050**.
- **Related Initiatives:**
 - **FAME Scheme:**
 - It is a part of the **National Electric Mobility Mission Plan**. Its main thrust is to encourage electric vehicles by providing subsidies.
 - **Incentives under PLI Scheme:**
 - Last year the scheme was rolled out for **various industries** including an **outlay of over Rs. 5700 crore for the automobile and auto-component industry** over a period of five years.
 - Around Rs.18,000 crore was approved for development of advanced cell chemistry battery storage manufacturing.
 - These incentives further aim to **encourage indigenous development of Electric Vehicles (EVs) so as to bring down their upfront cost**.
 - **Renewable Automotive Industry:**
 - India is currently engaged in building a domestic renewable automotive industry with the aim to become the **world's largest electric vehicle manufacturing and supplying hub**.
 - Battery electric vehicle and fuel-cell vehicle technologies** are all set to overtake **fossil-run vehicles in the country by 2050**.

Way Forward

-
- India has a **great opportunity to decarbonize its urban transport sector**. **Promotion of walking, cycling and public transport** coupled with **electrification of motor vehicles** should be the right strategy for the country.
 - To **leverage and streamline EVs across the country**, there is a need to **create a favourable ecosystem** for different stakeholders.
 - A **coordinated effort between these stakeholders** will help enable investment, encourage adoption, and ensure fair operation in the industry.

Source: PIB

Security Threats Emanating from Afghanistan

Why in News

Recently, India engaged with the heads of the **government of Russia and Germany**, after the **restoration of Taliban rule in Afghanistan**. Stability in Afghanistan is linked to the peace and security of the region and India is no exception.

Russia showed interest in working with India bilaterally, multilaterally at the **UNSC**, and at other fora like **SCO** and **BRICS**, despite the differences between India and China on the Afghanistan issue, and on the role of Pakistan in facilitating the Taliban.



Key Points

- **Coming Back of Taliban Rule in Afghanistan:**
 - In 2020, the **US signed a deal** (at Qatar's capital-Doha) with the Taliban that envisaged a full withdrawal of foreign soldiers from Afghanistan.
 - However, the major flaw in that agreement was that it **excluded the Afghan government**.
 - Further, Taliban do not see the democratic government as legitimate ruler and they don't believe in the Constitution, rule of law, or democracy.
 - Hence, immediately after the US troops withdrawal, Taliban seized major cities including capital Kabul in Afghanistan.
 - This has raised various **concerns regarding cross-border terrorism, humanitarian crisis, and new geopolitical order**.

- **Threats for India Emanating from Afghanistan:**

- **Cross-Border Terrorism:** India is worried over the issue of cross-border terrorism, which can now rise after coming back of Taliban rule.

Groups such as the **Lashkar-e-Taiba and Jaish-e-Mohammed** which have close affinity with Taliban and enjoy Pakistan's support, threaten regional peace and security.

- **Religious Fundamentalism:** Like all radical groups, the Taliban will have trouble balancing its religious ideology with the imperatives of state interests.

Here, India faces a challenge to deradicalise the region for long lasting peace and stability.

- **New Regional Geopolitical Developments:** There can be formation of new regional geopolitical axis between China-Pakistan-Taliban, which may go against the interests of India.

- **Economic Losses:** Coming back of Taliban will jeopardise **India's investment in Afghanistan**. It will also hamper connectivity projects to Central Asia via Afghanistan.

For example, **Chabahar Port, International North South Transport Corridor (INSTC), TAPI Pipeline**.

- **India's Diplomatic Engagement Regarding Afghanistan:**

- Recently, India's **National Security Advisor** chaired a meeting of the NSAs of the **BRICS countries (Brazil-Russia-India-China-South Africa)**.

- The meeting also adopted and recommended the BRICS Counter Terrorism Action Plan for consideration by the BRICS Summit.
- The Action Plan aims to further strengthen existing mechanisms of cooperation in areas such as:
 - Financing and combating terrorism,
 - Misuse of the Internet by terrorists,
 - Curbing travel of terrorists,
 - Border controls,
 - Capacity building,
 - Regional and international cooperation.

- At the 31st special session of the **UN Human Rights Council**, India raised various concerns over the serious human rights concerns and situation in Afghanistan.

Way Forward

- **Engaging with the Taliban:** Talking to Taliban would allow India to seek security guarantees from the insurgents in return for continued development assistance.

India can also persuade the Taliban to explore the possibility of its autonomy from Pakistan.

- **Fighting Global Terrorism:** There is a need for the global community to fight against the global concern of terrorism.

In this context, it high time to adopt the **Comprehensive Convention on International Terrorism** (proposed by India at UN in 1996).

- **Regional Cooperation:** With the resurgence of Taliban, there is a convergence of interests between India and three key regional players — China, Russia and Iran — in seeing a political settlement in Afghanistan.

Thus, there is a need for cooperation from like minded countries on this front.

Source: IE

India-Netherlands Relations

Why in News

Recently, India and Netherlands reviewed bilateral cooperation in Science and Technology and Innovation.



Key Points

Highlights of the Meeting:

- India **emphasized that the trinity of Health, Agriculture and Water** are bedrock of close mutual collaboration between the two nations.
- Netherlands proposed to work together in the area of **Green Hydrogen** and **ocean sciences**.
- Both countries agreed to support joint research and development regarding **Smart Energy Grids, Big Data** and **Internet of Things**.
- India invited Netherlands for exchanges in the Space sector particularly in the wake of path-breaking reforms initiated by India in the recent past **allowing the private sector to have a level playing field** in satellite launches and space based activities.
- Both countries also flagged future collaboration in **Solar Energy, Gas-based installations, Cyber Security, Data Science, Urban Water System and emerging areas**, which will create jobs for people in India.
- **Climate Change** as a key area of concern for the entire World was also highlighted.

Note

- The Government of India, on the occasion of Independence day, announced the **National Hydrogen Mission** to make **India a Global Hub for Green Hydrogen Production and Export**.
- Also, the **Ministry of Earth Sciences** has recently launched the **Deep Ocean Mission**, with a view to explore the deep ocean for resources and develop deep-sea technologies for sustainable use of ocean resources.

India-Netherlands Relations:

- **Economic and Trade:** The Netherlands is the **sixth largest contributor of foreign investment into** India in FY 2021.
The Netherlands is **India's 5th largest trading partner** in the **European Union**. It is also one of the leading investor nations in India.
- **Historical Relations:** Indo-Dutch relations **can be traced back to more than 400 years** when the **first Dutch EIC (East India Company)** was established in India (in around 17th century AD).
 - The official relations between the two nations were established in the year 1947 which, since then, have been cordial and friendly.
 - The two countries also share **common ideals of democracy, pluralism and the rule of law.**
- **Cultural Relations:** The Netherlands currently is **home to the largest Indian community on the European mainland.**
An **Indian Council for Cultural Relations (ICCR) Cultural Centre "The Gandhi Centre"** was established in The Hague in October 2011.
- **Cooperation in Science & Technology:** The Netherlands Organization for Scientific Research (NWO) collaborates with the various departments in the Indian Government.
 - For instance, there is an ongoing project titled **"Local Treatment of Urban Sewage Streams for Healthy Reuse (LOTUS-HR)"**.
 - The LOTUS-HR project is an India-Netherlands joint collaboration of universities and companies funded by the India's Department of Biotechnology and the Dutch NWO-TTW.
- **Collaboration in Water Management:**
A platform called **Dutch Indo Water Alliance Leadership Initiative (DIWALI)** has been developed in which India and Netherlands could participate in designing solutions for water challenges.
- **Collaboration in Agriculture:** Agriculture is one of the core sectors identified by the Netherlands for enhancing bilateral cooperation with India.
 - The **5th Joint Agriculture Working Group (JAWG)** meeting on Agriculture took place in New Delhi in 2018.
 - Under the JAWG, an Action Plan was signed which envisages cooperation in establishing **Centres of Excellence (CoE)** in horticulture, animal husbandry & dairy, fisheries and food processing.
 - This is also accompanied by **skill development & capacity building** in the fields of cold chain, supply chain management etc.
- **Healthcare Cooperation:**
An MoU for Cooperation in the Field of Healthcare and Public Health was signed in January 2014 to promote greater research collaboration in emerging health challenges associated with **communicable diseases** and **antimicrobial resistance.**

Pneumococcal Conjugate Vaccine

Why in News

Recently, the **Chief Minister of Andhra Pradesh** has launched **Pneumococcal Conjugate Vaccine (PCV) immunisation** drive for infants.

Earlier in December 2020, **India's first fully indigenously developed pneumococcal conjugate vaccine "Pneumosil"** was launched.

Key Points

- **About:**
 - It prevents **pneumococcal disease**. It can **protect both children and adults from pneumococcal disease**.
 - The vaccine is a **mix of several bacteria of the pneumococci family**, which are known to **cause pneumonia**—hence '**conjugate**' is included in the name of **the vaccine**.
 - Conjugate vaccines are made using a combination of two different components.

- **Pneumococcal disease:**
 - **About:**
 - Pneumococcal disease is a name for any infection caused by bacteria called ***Streptococcus pneumoniae or pneumococcus***. Most people carry pneumococcus in their nose and throat, where the bacteria do not cause any symptoms.
 - However, **sometimes the bacteria grow and spread to other parts of the body** and that's when people become sick.
 - **Effects:**
 - These bacteria can cause many types of illnesses, including **pneumonia**, which is an **infection of the lungs**. Pneumococcal bacteria are one of the **most common causes of pneumonia**.
 - Besides pneumonia, **pneumococcal bacteria can also cause:**
 - **Ear** infections.
 - **Sinus** infections.
 - **Meningitis** (infection of the tissue covering the brain and spinal cord).
 - **Bacteremia** (infection of the blood).
 - Doctors consider some of these infections “invasive”. Invasive disease means that **germs invade parts of the body that are normally free from germ**.
 - **Vulnerable Population:**

Anyone can get **pneumococcal disease**, but **children under 2 years of age**, people with certain medical conditions, **adults 65 years or older**, and **cigarette smokers are at the highest risk**.
- **Need:**
 - Pneumonia had been a major cause of **infant and child mortality**. According to the **World Health Organisation (WHO)**, pneumonia accounts for 15% of all deaths of children under 5 years.
 - It was estimated that the **disease affected around 16 lakh children and caused the death of nearly 68,700 children** across the country in the year 2015.
 - The government of India is ensuring **equitable access to those to the underprivileged and underserved** by making it available under the **Universal Immunization Program (UIP)**.
 - **Sustainable Development Goal 3** calls for an end to **preventable deaths of newborns and children under 5 years of age**. It also specifies that **all countries should aim to reduce neonatal mortality** to at least as low as 12 deaths per 1,000 live births and under-five mortality to at least as low as 25 deaths per 1,000 live births by 2030.
 - **Neonatal mortality** is defined as death within the **first 28 days of life**.

Universal Immunization Programme

- It was launched in 1985 to **prevent mortality and morbidity in children and pregnant women** against 12 vaccine-preventable diseases.
- Under UIP, **free of cost vaccination is provided against twelve vaccine-preventable diseases** i.e. **Tuberculosis**, **Diphtheria**, Pertussis, Tetanus, **Polio**, **Hepatitis B**, Pneumonia and Meningitis due to Haemophilus Influenzae type b (Hib), **Measles**, Rubella, **Japanese Encephalitis (JE)** and **Rotavirus diarrhoea**.
- The programme is one of the **largest health programmes in the world**. Despite being operational for many years, UIP has been able to **fully immunize only 65% of children under 1 year of age**.

Source: TH

Nano-Robots

Why in News

Recently, a group of scientists has found a way to **tackle issues pertaining to root canal treatments (dental procedures)** using nanosized robots.

Root canal treatment is **designed to eliminate bacteria from the infected root canal**, prevent reinfection of the tooth and save the natural tooth.

Key Points

- **About the Research:**
 - A **significant percentage of root canal treatments fail**, because the **procedure leaves out some bacteria** that are located deep within the dentinal tubules.
 - In the research the scientist has found a way to **tackle this using nanosized robots** that will travel through the tubules and target the bacteria.
 - Under this method, **spiral silica nanobots** with a bit of iron embedded in them are injected in the central canal of the tooth. Then a **rotating magnetic field** is applied. This causes the **nanorobot to move - like screws move into a wall**.
 - Once the bacterial colony is reached, the **nanorobot can deploy various antibacterial strategies** one of which is localised heating.

- **Nanorobots:**
 - Nanorobotics describes the **technology of producing machines or robots at the nanoscale.**
 - **'Nanobot'** is an informal term to refer to engineered nano machines.
 - Nanobots are robots that carry out a very specific function and are **~50–100 nm wide.**
 - They can be used **very effectively for drug delivery.**
 - Normally, drugs work through the entire body before they reach the disease-affected area.
 - Using nanotechnology, the drug can be **targeted to a precise location** which would make the **drug much more effective and reduce the chances of possible side effects.**
- **Uses of Nanotechnology in Health Care:**
 - **Nanotech detectors** for heart attack.
 - **Nanocarriers** for eye surgery, chemotherapy etc.
 - **Diabetic pads** for regulating blood sugar levels.
 - **Nanosponges** are polymer nanoparticles coated with a red blood cell membrane, and can be used for absorbing toxins and removing them from the bloodstream.
 - **NanoFlares** are used for detection of cancer cells in the bloodstream.
 - **Nanopores** are used in making DNA sequencing more efficient.
- **Governmental Initiatives to Promote Nanotechnology:**
 - **Nano Science and Technology Mission (NSTM):**
 - **NSTM**, launched in 2007, is an umbrella programme that aims to promote research and development in nanotechnology.
 - The objectives include the promotion of research, infrastructure development to support the research, development of nanotechnology, human resources, and international collaborations.
 - **Nano Science and Technology Initiative (NSTI):**
 - It was set up by the Department of Science and Technology (DST) in 2001.
 - It aims to focus on issues related to infrastructure development, research and application programmes related to nanomaterials including drugs, drug delivery, gene targeting and DNA chips.

Source: TH

37th Pragati Meeting

Why in News

Recently, the Prime Minister (PM) chaired the 37th edition of **Pro-Active Governance And Timely Implementation (PRAGATI)** - the Information and Communication Technology (ICT) based multimodal platform, involving Central and State governments.

- The PM reviewed various **projects worth Rs 1,26,000 crores** along with the '**One Nation – One Ration Card**' (**ONORC**) **scheme**'.
- The ONORC scheme **aims at providing subsidised food grains to migrant workers and their family members at any fair price shop anywhere in the country** under the **National Food Security Act, 2013**.

Key Points

- **About:**
 - Launched in 2015.
 - It has been designed by the Prime Minister's Office (PMO) team with the help of the **National Informatics Center (NIC)**.
 - It enables the PM to discuss the issues with the concerned central and state officials with full information and latest visuals of the ground-level situation.
The PRAGATI platform uniquely bundles three latest technologies: **Digital data management, video-conferencing and geo-spatial technology**.
 - It is a **three-tier system** (PMO, Union Government Secretaries, and Chief Secretaries of the States).
- **Objective:**
 - Grievance Redressal.
 - Programme Implementation.
 - Project Monitoring.
- **Significance:**
 - It promotes **Cooperative Federalism** as it brings together the Secretaries of Government of India and the Chief Secretaries of the States.
 - It is a robust system for bringing e-transparency and e-accountability with real-time presence and exchange among the key stakeholders.
 - It is an innovative project in **e-Governance** and **Good Governance**.
- **Concerns:**
 - The direct interaction of the PM with the state secretaries without involving the political executives of the states is undermining the state political executive.
 - It is also said that this is leading to a concentration of power in the extra-constitutional office of PMO.

Source: IE

Delta Variant Sub-lineage AY.12

Why in News

According to a report by the **Indian SARS-CoV-2 Genomics Consortium (INSACOG)**, a new **sub-lineage AY.12 of the Delta variant of Covid-19** that was recently classified in Israel is now being **reported in many parts of India**.

INSACOG is a **multi-laboratory, multi-agency, Pan-India network** to monitor genomic variations in the SARS-CoV-2 by a sentinel sequencing effort.

Key Points

- **About:**
 - INSACOG has pointed out that **several cases in India classified as Delta** are now being **reclassified as AY.12** and these numbers are under close watch.
The **reclassification is primarily to assist micro-epidemiology** and is **not based on acquisition of significant mutations**. Thus, it is not currently known whether AY.12 is clinically different from Delta.
 - While **no worrying factors have been found** linked to the **AY.12**, it has come on INSACOG's radar as it is said to be driving the **surge in Israel despite 60% vaccination in the country**.
- **Delta Variant:**
 - B.1.617.2—also termed the **Delta variant**—is believed to **spread faster than other variants**. The Delta variant is **highly contagious, more than twice as contagious as previous variants**.
 - It has birthed several sub-lineages called **'Delta plus'** variants that **bear most of its characteristic mutations** but are **different in other ways**.
- **Reason behind Delta Variant being more Infectious:**
 - A key **amino acid mutation** may be behind the high infectivity of the Delta variant.
 - A team of researchers has zeroed in on a key mutation that alters a single amino acid in the SARS-CoV-2 spike protein.
 - The change is called P681R and transforms a proline residue into an arginine.
 - Arginine is a **chemical building block called an amino acid**.
 - Proline disrupts **protein secondary structure** by inhibiting the backbone to conform to an alpha-helix or beta-sheet conformation

Virus Variant

- **Variants of a virus** have one or more **mutations** that differentiate it from the **other variants that are in circulation**. While most mutations are deleterious for the virus, some make it easier for the virus to survive.
- The **SARS-CoV-2 (Corona) virus** is **evolving fast because of the scale at which it has infected people around the world**. High levels of circulation mean it is easier for the virus to change as it is able to replicate faster.

Source: TH

