News Analysis (10 Sep, 2021)

13th BRICS Summit

Why in News

Recently, the **Prime Minister chaired the annual summit** of the **BRICS** which was held virtually.

> The **theme** for the Summit was ': Intra-BRICS cooperation for continuity, consolidation and consensus'.

Key Points

- **PM's Address:**
  - Highlighted the **achievement of several new initiatives during India's Chairship this year (2021),** i.e. an Agreement on cooperation in the field of remote-sensing satellites; a virtual BRICS vaccine Research & Development Centre; BRICS Alliance on Green Tourism, etc.
  - Highlighting the **leading role that BRICS countries** can play in the **post-Covid global recovery,** Prime Minister **called for enhanced BRICS cooperation** under the motto of 'Build-back Resiliently, Innovatively, Credibly and Sustainably'.
- **Adopted BRICS Counter Terrorism Action Plan:**
  It defines the approach and actions of the BRICS countries towards areas of Counter Terrorism cooperation which includes: Countering Radicalization and Online Terrorist Threats, Border Management, Information/ Intelligence Sharing, etc.

- **Adopted Delhi Declaration:**
  - The declaration **called for reforms of the principal organs** of the **United Nations** including that of the **UN Security Council (UNSC).**
    It is the **first time that BRICS** has taken a **collective position on 'Strengthening and Reforming Multilateral Systems'.**
  - It also called for an **"inclusive intra-Afghan dialogue"** for stability in **Afghanistan**.
    Apart from Afghanistan, the BRICS leaders also took up the **conflicts in Myanmar,** Syria, the and other territorial disputes.
- **On Covid-19:**
  Noted the proposal made by **India and South Africa** at the **World Trade Organisation (WTO)** for the waiver of the **Trade-Related Aspects of Intellectual Property Rights (TRIPS) mechanism** to ensure a rapid expansion of the **Covid-19 vaccine** production around the world.

BRICS

- BRICS is an **acronym** for the grouping of the world's leading emerging economies, namely **Brazil, Russia, India, China, and South Africa.**
  - **In 2001,** the **British Economist Jim O'Neill** coined the term BRIC to describe the four emerging economies of Brazil, Russia, India, and China.
  - The grouping was **formalised** during the first meeting of BRIC Foreign Ministers' **in 2006.**
  - **South Africa was invited to join BRIC in December 2010,** after which the group adopted the acronym BRICS.
- The BRICS brings together five of the largest developing countries of the world, representing 41% of the global population, 24% of the global GDP and 16% of the global trade.
- The **chairmanship of the forum is rotated annually** among the members, in accordance with the acronym B-R-I-C-S.
  India is the chair for 2021.
- During the **Sixth BRICS Summit in Fortaleza (Brazil) in 2014,** the leaders signed the Agreement establishing the **New Development Bank (NDB - Shanghai, China).** They also signed the **BRICS Contingent Reserve Arrangement** to provide short-term liquidity support to the members.

Source: TH

Transforming India's Food Systems

Why in News

Sustainability of **Food Systems** is going to be crucial in the years to come due to **climate change**.

- India also **has to transform its food systems**, which have to be inclusive and sustainable for higher farm incomes and nutrition security.
- Earlier, the **United Nation's report on the Food System**, suggested that today's food systems are heavily afflicted by power imbalances and inequality, and do not work for most women.

Key Points

- **Food Systems:**
  According to the **Food and Agriculture Organisation (FAO)**, food systems encompass the entire range of actors involved in:
    Production, aggregation, processing, distribution, consumption and disposal of food products that originate from agriculture, forestry or fisheries, and parts of the broader economic, societal and natural environments in which they are embedded.
- **Challenges in India's Food Systems:**
  - **Effect of Green Revolution:**
    Although there has been significant progress in the country's agricultural development due to the **Green Revolution**, It has also led to **water-logging**, **soil erosion**, **groundwater depletion** and the **unsustainability of agriculture.**
  - **Current Policies:**
    Current policies are still based on the **deficit mindset of the 1960s**. The procurement, **subsidies and water policies are biased** towards rice and wheat.
      Three crops (rice, wheat and **sugarcane**) corner 75 to 80% of irrigated water.
  - **Malnutrition:**
    - The **NFHS-5** shows that **under-nutrition has not declined** in many states even in 2019-20. Similarly, obesity is also rising.
    - The cost of the EAT-Lancet **dietary recommendations for rural India ranges between USD 3 and USD 5 per person per day.** In contrast, **actual dietary intake** is around **USD 1 per person per day.**
- **Steps Needed to Transform India's Food Systems:**
  - **Crop Diversification:**
    Diversification of cropping patterns towards millets, pulses, oilseeds, horticulture is needed for more equal distribution of water, sustainable and **climate-resilient agriculture.**
  - **Institutional Changes in Agri-Sector:**
    Women's empowerment is important particularly for **raising incomes and nutrition.**
      Women's cooperatives and groups like **Kudumbashree** in Kerala would be helpful.
  - **Sustainable Food Systems:**
    - Estimates show that the food sector emits around 30% of the world's **greenhouse gases**.
    - Sustainability has to be achieved in **production, value chains and consumption.**
  - **Health Infrastructure & Social Protection:**
    - The Covid-19 pandemic has uncovered the weak well being infrastructure in international locations like India, notably in rural areas and a few areas.
    - Inclusive food systems also need strong social protection programmes. India has long experience in these programmes. Strengthening India's **National Rural Employment Guarantee Act**, **Public Distribution System (PDS)**, nutrition programmes like **Integrated Child Development Scheme (ICDS)**, **Mid-Day Meal** programmes, can improve income, livelihoods and nutrition for the poor and vulnerable groups.
  - **Non-Agriculture Sector:**
    - The role of non-agriculture is equally important for sustainable food systems. **Labour-intensive manufacturing and services can reduce pressure on agriculture as income from agriculture** is not sufficient for small holders and informal workers.
    - Therefore strengthening rural **Micro, Small and Medium-sized Enterprises (MSMEs)** and food processing is part of the solution.

Way Forward

- The **UN** Secretary-General will convene the **Food Systems Summit in September 2021**, which aims for a transformation of global food systems in order to achieve the **Sustainable Development Goals (SDGs) by 2030. It is a great opportunity to boost policies** for achieving SDGs.
- Science and technology are important drivers to achieve these goals. **India should also aim for a food systems transformation, which can be inclusive and sustainable**, ensure growing farm incomes and nutrition security.

Source: IE

Quarterly Bulletin of Periodic Labour Force Survey (PLFS)

Why in News

Recently, the **National Statistical Office (NSO)** released the quarterly bulletin of Periodic Labour Force Survey (PLFS) for October-December 2020.

- This dataset **differs from the Annual Report of Periodic Labour Force Survey**, which covers both rural and urban areas. Unemployment data for urban areas is released quarterly.
- **NSO** is the **central statistical agency** of the Government mandated under the Statistical Services Act 1980 under the **Ministry of Statistics and Programme Implementation.**

Key Points

- **Highlights of Quarterly Bulletin:**
  - The **Unemployment rate** for ages 15 and above in urban areas rose to 10.3% in October-December 2020 as compared to 7.9% in the corresponding months a year ago.
  - The **labour force participation rate** for ages 15 and above in urban areas was 47.3% in October-December quarter of 2020, down from 47.8% in the same period a year ago.
  - The **Worker Population Ratio** for ages 15 and above in urban areas was 42.4% in October-December quarter of 2020, down from 44.1% in the same period a year ago.
- **About Periodic Labour Force Survey:**
  - Considering the importance of availability of labour force data at more frequent time intervals, **National Statistical Office (NSO) launched Periodic Labour Force Survey (PLFS) in April 2017.**
  - The **objective** of PLFS is primarily twofold:
    - To estimate the key employment and unemployment indicators (viz. Worker Population Ratio, Labour Force Participation Rate, Unemployment Rate) in the short time interval of three months for the urban areas only in the 'Current Weekly Status' (CWS).
    - To estimate employment and unemployment indicators in both usual Status and CWS in both rural and urban areas annually.
  - **Three Annual Reports of PLFS** corresponding to the periods July 2017 - June 2018, July 2018 - June 2019 and July 2019 - June 2020 have been released.
  - **Nine Quarterly Bulletins** of PLFS corresponding to the quarters covered during the period December 2018 to December 2020 have been released.

Key Terminologies

- **Labour Force Participation Rate (LFPR):** LFPR is defined as the percentage of persons in the labour force (i.e. working or seeking or available for work) in the population.

- **Worker Population Ratio (WPR):** WPR is defined as the percentage of employed persons in the population.
- **Unemployment Rate (UR):** UR is defined as the percentage of persons unemployed among the persons in the labour force.
- **Activity Status:** The activity status of a person is determined on the basis of the activities pursued by the person during a specified reference period.
    - **Usual Status:** The activity status determined on the basis of the reference period of the last 365 days preceding the date of survey, is known as the usual activity status of the person.
    - **Current Weekly Status (CWS):** The activity status determined on the basis of a reference period of the last 7 days preceding the date of survey is known as the Current Weekly Status (CWS) of the person.

Source: PIB

Incentivising Schemes to Boost Export

Why in News

The government has decided to **release pending claims worth Rs. 56,027 crore in FY 2021-22 for merchandise as well as service exports** under various export promotion schemes.

> Merchandise exports for April-August, 2021 was nearly $164 billion, which is an increase of 67% over 2020-21 and 23% over 2019-20.

Key Points

- **About:**
    - It is **expected to benefit more than 45,000 exporters** out of which about 98% belong to the **MSME (Micro, Small and Medium Enterprises)** category.
    - Government has set **a target of achieving $400 billion merchandise exports in FY 2021-22** amid growing demand for Indian goods in developed countries.
    - Exporters will be incentivised under the following schemes:
        Merchandise Exports from India Scheme (MEIS), Service Exports from India Scheme (SEIS), Rebate of State Levies (RoSL), Rebate of State and Central Taxes and Levies (RoSCTL) and **RoDTEP (Remission of Duties and Taxes on Exported Products).**
- **Significance:**
    - **Help Bring in Foreign Exchange:**
        China's success as an exporting nation lies in its manufacturers receiving a wide range of government incentives (including hefty tax rebates) to produce almost exclusively for foreign markets.
    - **Lower Current Account Deficit:**
        - Incentivizing schemes will help lower the **Current Account Deficit**, which is the deficit caused when a country imports more than it exports.
        - India's current account deficit has averaged 2.2% of GDP in the past decade (worth around $15 billion in July-September 2020).
    - **Liquidity:**
        Benefits would help merchandise sectors (Agriculture and Allied sectors, auto and auto components) to maintain cash flows and meet export demand in the international market, which is recovering fast this financial year.

Export Promotion Schemes

- **Merchandise Exports from India Scheme:**
  - MEIS was introduced in the **Foreign Trade Policy (FTP)** 2015-20, under MEIS, the government provides duty benefits **depending on product and country.**
  - Rewards under the scheme are **payable as percentage of realised free-on-board value** (of 2%, 3% and 5%) and MEIS duty credit scrip can be transferred or used for payment of a number of duties including the basic customs duty.
- **Service Exports from India Scheme:**
  - It was introduced in April 2015 for 5 Years under the **Foreign Trade Policy of India 2015-2020.**
    Earlier, this Scheme was named as Served from India Scheme (SFIS Scheme) for Financial Year 2009-2014.
  - Under it, incentives are **given by the Ministry of Commerce and Industry** to Service Exporters based in India to promote the export of services from India.
- **Remission of Duties or Taxes on Export Product (RoDTEP)**
  - It is a fully automated route for **Input Tax Credit (ITC)** in the **GST (Goods and Service Tax)** to help increase exports in India.
    ITC is provided to set off tax paid on the purchase of raw materials, consumables, goods or services that were used in the manufacturing of goods or services. This helps in avoiding double taxation and the cascading effect of taxes.
  - It was started in January 2021 as a replacement for the MEIS, which was not compliant with the rules of the **World Trade Organisation.**
  - The tax refund rates range from 0.5% to 4.3% for various sectors.
  - The rebate will have to be claimed as a percentage of the **Freight On Board value** of exports.
- **Rebate of State and Central Taxes and Levies**
  - Announced in March, 2019, RoSCTL was offered **for** embedded **state and central duties and taxes that are not refunded through Goods and Services Tax (GST).**
  - It was available **only for garments and made ups.** It was **introduced by the Ministry of Textiles.**
  - Previously, it was **Rebate for State Levies (ROSL).**

Source: PIB

NIRF Rankings 2021

Why in News

Recently, the Ministry of Education released the **India Rankings 2021** instituted by the **National Institutional Ranking Framework (NIRF)** (sixth edition).

Key Points

- **About:**
  - **Launch:** The **National Institutional Ranking Framework (NIRF)** was **approved by the Ministry of Education** (Erstwhile Ministry of Human Resource Development) **in September 2015.**
    - It is the first-ever effort by the government **to rank Higher Education Institutions (HEIs)** in the country.
    - Participation in NIRF was made compulsory for all government-run educational institutions in 2018.
  - **Assessment on Five Parameters:**
    - Teaching, Learning and Resources (TLR)
    - Research and Professional Practice (RP)
    - Graduation Outcomes (GO)
    - Outreach and Inclusivity (OI)
    - Peer Perception.
  - **11 Categories:** Best institutions across 11 categories are listed out - overall national ranking, universities, engineering, college, medical, management, pharmacy, law, architecture, dental and research.
  - **Reason for Launch:** The subjectivity in the ranking methodology developed by **QS World University Rankings** and the **Times Higher Education World University Ranking** led India to start its own ranking system for Indian HEIs on the line of Shanghai Rankings.
    - NIRF is in its sixth year, but it **continues to only rank Indian HEIs** whereas Shanghai Rankings were international in character from the first year itself.
    - The long-term plan of NIRF is to make it an international league table.
  - **No. of Participating Institutions in 2021:** More than 6,000 institutes participated in NIRF Rankings.
- **Highlights of India Rankings 2021:**
  - **Overall:** IIT-Madras, IISc-Bangalore, and IIT-Bombay have emerged as the country's top three higher education institutions
  - **University:** IISc, Bengaluru tops the category.
  - **Research Institution:** IISc, Bengaluru was ranked the best research institution, **a category included for the first time in India Rankings 2021.**
  - **Colleges:** Miranda College retains 1st position amongst colleges for the fifth consecutive year, followed by Lady Shri Ram College for Women and Loyola College.
  - **Engineering:** Among engineering institutions, IIT-Madras remained number one.
  - **Management:** Indian Institute of Management Ahmedabad was ranked one.
  - **Medical:** All India Institute of Medical Sciences, New Delhi occupies the top slot in Medical for the fourth consecutive year.
  - **Pharmacy:** Jamia Hamdard tops the list in Pharmacy subject for the third consecutive.
  - **Architecture:** IIT Roorkee takes the top slot for the first time in Architecture subject.
  - **Law:** National Law School of India University, Bangalore retains its first position in Law for the fourth consecutive year.
  - **Dental:** Manipal College of Dental Sciences, Manipal secured 1st position.

Source: PIB

Unviability of New Coal-Based Power Plants

Why in News

According to a recent report prepared by two independent think tanks, EMBER and Climate Risk Horizons, India **does not require additional new coal capacity** to meet expected power demand growth by Financial Year (FY) 2030.

Key Points

- **Highlights of the Report:**
  - India's **peak power demand would reach 301 GW by 2030**, if it grows at an annual growth rate of 5% (which is also in line with projections made by the **Central Electricity Authority**), **India's planned solar capacity can cover much of it.**
  - Therefore, **adding new coal plants will lead to "zombie" units** – ones which will exist, but not be operational.
  - Further, India can **free up nearly Rs 2.5 lakh crore** by not investing in these surplus plants.
  - Once incurred, these wasted investments **will lock DISCOMs** (power distribution companies) and **consumers into expensive contracts** and **jeopardise India's Renewable Energy goals** by adding to the system's overcapacity.
  - Further, it will **lead to the loss of annual savings of Rs 43,219 crore** that India makes by investing in renewables and storage.
  - Thus, the report concludes that more coal capacity beyond what's already under construction isn't needed to meet the aggregate demand growth by FY 2030.
- **Factors Responsible for Solar Energy Over Coal Based Power Plants:**
  - The disruption in the power sector owing to replacement of thermal based generation with Solar energy generation is possible with the **downward trend of cost of solar panels.**

    Moreover, the **newer technology options** like battery energy storage systems will further promote solar energy.
  - The world is **focusing on environmental issues**, especially climate change and therefore the idea of growing sustainably has taken centre stage globally.
    - Towards realizing the objective of carbon free energy, India has set for itself a target of installed capacity of **175 GW from Renewable Energy** Sources (RE) by March 2022.
    - In pursuance of this, India has established the **International Solar Alliance** and proposed **One Sun One World One Grid**.
  - Government Policy of active promotion of Solar energy through schemes like , etc.
- **Importance of Continuing Coal Based Power Plants:**
  - According to **BP Energy Outlook 2019**, coal's share in India's primary energy consumption will decline from 56% in 2017 to **48% in 2040.**

    However, that is s**till nearly half of the total energy mix** and way ahead of any other source of energy. Thus, it is not easy to replace coal very easily.
  - **Issues related to land acquisition, funding and policy** continue to come in the way of renewable energy plans.
  - Apart from the power sector, **other critical sectors** like steel and aluminium also depend on coal based power.
  - Further, the capacity value of the coal based power plants is critical to meet **instantaneous peak load**, and to meet load **when renewable energy is unavailable.**
  - Further, India had initially set a 2017 deadline for thermal power plants to install **Flue Gas Desulphurization (FGD) units** that cut emissions of sulphur dioxides. But that was postponed to varying deadlines for different regions, ending in 2022.

Way Forward

- **Optimal Energy Mix in Power Generation:** Power is generated through various sources of energy such as coal, hydro, natural gas, and renewables (solar, wind). An optimal energy mix is one that uses a mix of these generation sources in the most efficient manner. This gains tremendous importance as the future generation capacity mix should be cost effective as well as environmentally friendly.
- **New Technologies for Coal Based Units:** The government has commissioned more efficient supercritical coal based units and old and inefficient coal based capacity is being retired. A range of new technologies (like **Coal gasification**, **Coal beneficiation**, etc.) can be deployed to make coal-fired power plants more environmentally compatible.

Source: IE

Coronal Mass Ejections

Why in News

Indian Scientists, along with international collaborators, have **measured the magnetic field of an eruption from the Sun's atmosphere** (solar corona), offering a rare peek to the interior of the Sun.

> **Coronal Mass Ejection (CME)** is **one of the biggest eruptions from the Sun's surface** that can contain a billion tons of matter accelerated to several million miles per hour into space.

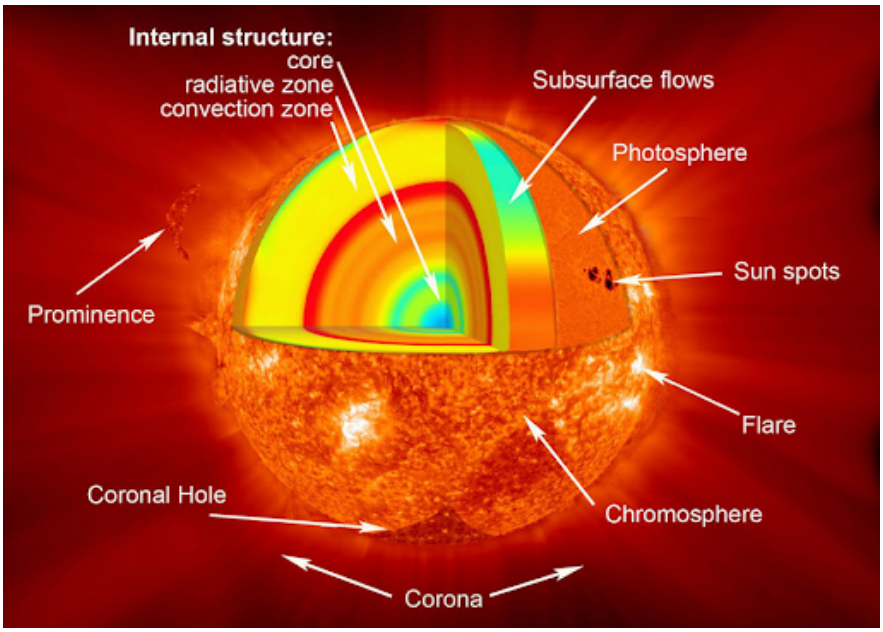
Key Points

- **About the Research:**
  - Scientists from the **Indian Institute of Astrophysics (IIA) studied the weak thermal radio emission associated with the erupted plasma for the first time,** measuring the magnetic field and other physical conditions of the eruption.
    > **IIA** is an autonomous institute of the **Department of Science & Technology** (DST), at Gauribidanur, Karnataka.
  - The team **studied the plasma from the Coronal Mass Ejection (CME)** that happened on 1st May, 2016.
    > Plasma is also known as the **fourth state of matter.** At high temperatures, electrons are ripped from atom’s nuclei and become a plasma or an ionised state of matter.
  - The emissions were detected with the help of radio telescopes of the IIA, along with some space-based telescopes that **observed the Sun in extreme ultraviolet and white light.**
  - They were also **able to measure the polarisation of this emission,** which is indicative of the direction in which the electric and magnetic components of the waves oscillate.

- **About the Coronal Mass Ejections:**
  - The Sun is an extremely active object, **spewing out vast quantities of gas and plasma** in many violent events.
    - A class of such eruptions are **Coronal Mass Ejections (CMEs).**
    - CMEs are the **most powerful explosions happening in the solar system.**
  - The underlying cause of CMEs is not well understood. Astronomers agree, however, that the **sun's magnetic field plays a major role.**
  - Though CMEs can occur anywhere on the Sun, it is primarily those which originate from regions near the centre of the visible solar surface (**called the photosphere**) that are important for study, since they may propagate directly towards the Earth.
    This field of research helps to understand **Space Weather.**
  - When a really strong CME blows past the Earth, it can **damage the electronics in satellites** and **disrupt radio communication** networks on Earth.
  - When the plasma cloud hits our planet, a **geomagnetic storm** follows.
    A geomagnetic storm is a **major disturbance of Earth's magnetosphere** (space controlled by earth's magnetic field) that occurs when there is a very efficient exchange of energy from the solar wind into the space environment surrounding Earth.
  - They can trigger intense light in the sky on Earth, called **auroras.**
    - Some of the energy and small particles travel down the magnetic field lines at the north and south poles into Earth's atmosphere.
    - There, the particles interact with gases in the atmosphere resulting in beautiful displays of light in the sky.
    - The aurora in Earth's northern atmosphere is called an **aurora borealis** or northern lights. It's southern counterpart is called an **aurora australis** or the southern lights.

Anatomy of the Sun

- **The Sun's Core -** Energy is generated via thermonuclear reactions creating extreme temperatures deep within the Sun's core.
- **The Radiative Zone** - Energy moves slowly outward, taking more than 1,70,000 years to radiate through this layer of the Sun.
- **The Convection Zone** - Energy continues to move toward the surface through convection currents of the heated and cooled gas.
- **The Chromosphere** - This relatively thin layer of the Sun is sculpted by magnetic field lines that restrain the electrically charged solar plasma. Occasionally larger plasma features, called prominences, form and extend far into the very tenuous and hot corona, sometimes ejecting material away from the Sun.
- **The Corona -** The ionized elements within the corona (or solar atmosphere) glow in the x-ray and extreme ultraviolet wavelengths. Space Instruments can image the Sun's corona at these higher energies since the photosphere (lowest layer of the solar atmosphere) is quite dim in these wavelengths.
- **Coronal Streamers -** The outward flowing plasma of the corona is shaped by magnetic field lines into tapered forms called coronal streamers, which extend millions of miles into space.
- **Sunspots** are areas that appear dark on the surface of the Sun. They appear dark because they are cooler than other parts of the Sun's surface.



Source: PIB

Atmanirbhar Corner in Indian Missions

Why in News

Tribal Cooperative Marketing Development Federation of India (TRIFED) in collaboration with the **Ministry of External Affairs** will set up an **Atmanirbhar Bharat corner** in 100 Indian Missions/ Embassies across the world.

- The **first Atmanirbhar Bharat corner** was inaugurated at the Indian Embassy in **Bangkok, Thailand,** on **Independence Day.**
- **TRIFED** is a **national-level apex organization** functioning under the administrative control of the **Ministry of Tribal Affairs.** It is **involved in schemes** such as **Van Dhan Programme, MSP for MFP and TRIFOOD.**

Key Points

- **Atmanirbhar Bharat Corner:**
  The corner will be **an exclusive space to promote GI (Geographical Indication) tagged tribal art and craft products** besides natural and organic products.

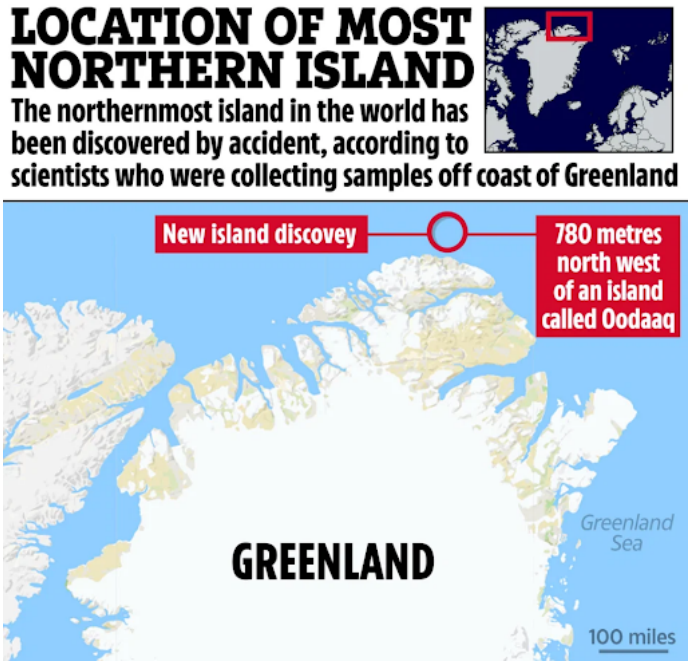
- **Geographical Indication:**
  - The Geographical Indication, which has been recognized by the **World Trade Organization (WTO)**, is used to denote the **geographical territory** from where a product, be it an agricultural produce, natural product or manufactured, and also conveys assurance of qualities or attributes that are unique to that specific geographic region.
  - India became a **signatory to this convention,** when, as a member of the WTO, it enacted the **Geographical Indications (Registration and Protection Act), 1999,** which came into effect from September 2003.
    - This Act is **administered** by the Controller General of Patents, Designs, and Trademarks, who is also the Registrar of Geographical Indications.
    - The Geographical Indications Registry for India is **located in Chennai.**
    - The registration of a geographical indication is **valid for a period of 10 years.** It can be renewed from time to time for a further period of 10 years each.
- **Other Related Initiatives: Aadi Mahotsav**, Go Tribal campaign, TRIBES India, etc.

Source: PIB

World's Northernmost Island

Why in News

A new island has been discovered that is located off the Greenland's coast.



Key Points

- Measuring 60×30 metres and with a peak of three metres above sea level, it has now become the **new northernmost piece of land on Earth. Before this, Oodaaq was marked as the Earth's northernmost terrain.**
- It is **made up of seabed mud and moraine**, i.e. soil, rock and other material left behind by moving glaciers, and has no vegetation.

- The researchers have suggested the **discovery be named 'Qeqertaq Avannarleq'**, which is Greenlandic for "the northernmost island".
- The discovery **comes as a battle is looming among Arctic nations**, the US, Russia, Canada, Denmark and Norway for the control of the North Pole and of the surrounding seabed, fishing rights and shipping routes exposed by melting ice due to climate change.
- **Global warming might have had a severe effect on the ice sheet of Greenland**, but the new island however is not a direct consequence of climate change.

Source: IE
