

WHAT IS NATO PLUS?

A US Congressional Committee recently recommended strengthening NATO Plus by including India in the five-member grouping.



About NATO Plus:

- It is a grouping of the North Atlantic Treaty Organization (NATO) and five countries, including Australia, New Zealand, Japan, Israel, and South Korea.
- The group works toward boosting global defence cooperation.
- **Advantages for India by becoming a member of NATO Plus:**
 - India would gain access to seamless intelligence sharing between these countries.
 - India would get access to the latest military technology without much of a time lag.
 - It would further strengthen India's defence partnership with the United States.

What is North Atlantic Treaty Organization (NATO)?

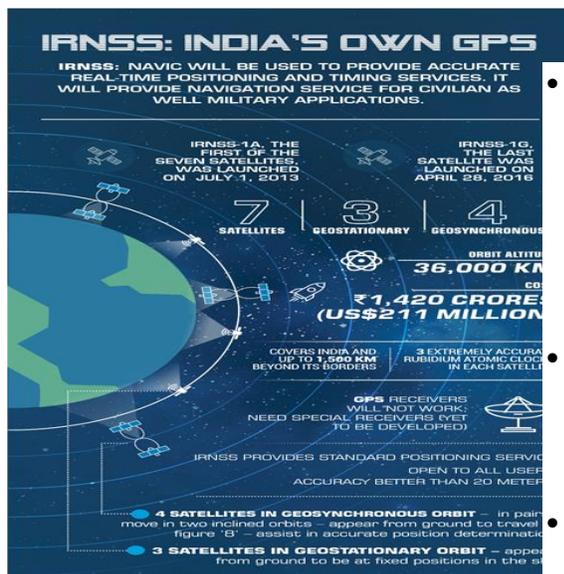
- It is a transatlantic alliance of 31 like-minded North American and European countries.
 - It was established by the North Atlantic Treaty (also called the Washington Treaty) on April 4, 1949.
 - **Aim:** To protect peace and to guarantee the territorial integrity, political independence and security of the member states.
 - **Article Five of the treaty:** If an armed attack occurs against one of the member states, it should be considered an attack against all members, and other members shall assist the attacked member, with armed forces if necessary.
 - **Headquarters:** Brussels, Belgium.
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NAVIC: WHY DOES A REGIONAL NAVIGATION SYSTEM MATTER TO INDIA?

Why in News?

- The Indian Space Research Organisation (ISRO) will launch the first of the 2nd-generation satellites for its navigation constellation - NavIC (Navigation with Indian Constellation).
- The 2,232 kg satellite, the heaviest in the constellation, will be launched by a Geosynchronous Satellite Launch Vehicle (GSLV) rocket.

About NavIC (Navigation with Indian Constellation):



- NavIC, also known as the Indian Regional Navigation Satellite System (IRNSS), is an independent stand-alone indigenous navigation satellite system developed by the **Indian Space Research Organisation (ISRO)**.
- NAVIC was approved in 2006 (at a cost of \$174 million) and was expected to be completed by 2011, but only become operational in **2018**.
- NavIC, which consists of **7 satellites**, covering the whole of India's landmass and up to 1,500 km

from its boundaries, is conceived with the aim of removing dependence on foreign satellite systems for navigation, particularly for "strategic sectors."

- Currently, NavIC's **application** in India is limited in -
 - **Public vehicle tracking**, for providing emergency warning alerts to fishermen venturing into the deep sea where there is no terrestrial network connectivity and
 - For tracking and providing information related to natural disasters.
- The next step India is pushing for is to include it in smartphones.
- According to **India's draft satellite navigation policy 2021**, the government will work toward "expanding the coverage from regional to global" to ensure the availability of NavIC signals in any part of the world.

What is the Advantage of having a Regional Navigation System?

- India is the **only country** that has a regional satellite-based navigation system.
- **There are four global** satellite-based navigation systems - the American GPS, the Russian GLONASS, the European Galileo, and the Chinese Beidou.
- **Japan** has a four-satellite system that can augment GPS signals over the country, **similar to India's GAGAN** (GPS Aided GEO Augmented Navigation).
- **With fully operational NavIC** (with ground stations outside India [Japan, France, and Russia] for better triangulation of signals) open signals will be accurate up to 5 metres and restricted signals will be more accurate (GPS ~20 metres).
- Unlike GPS, **NavIC uses satellites in high geo-stationery orbit** - the satellites move at a constant speed relative to Earth, so they are always looking over the same region on Earth.
- NavIC signals **come to India at a 90-degree angle**, making it easier for them to reach devices located even in congested areas, dense forests, or mountains.

Old Satellites of NavIC:

- Each of the 7 satellites currently in the IRNSS constellation weighed much less (around 1,425 kg at lift off) and rode the lighter **Polar Satellite Launch Vehicle (PSLV)** - ISRO's workhorse launch rocket.
- The last IRNSS satellite, **IRNSS-II** was launched in 2018 to replace an older, partially defunct satellite in the constellation.
- **IRNSS-II** was **ISRO's 9th** satellite for the NavIC constellation, but is **considered to be the 8th** because the IRNSS-1H launched in 2017 was lost after the heat shield of the payload failed to open on time.

What's New in the 2nd-Generation NavIC Satellite?

- The 2nd-generation satellite named as **NVS-01**, the first of ISRO's NVS series of payloads is **heavier**.
- The satellite will have a **Rubidium atomic clock onboard**, a significant technology (which only a handful of countries possess) developed indigenously by **Space Application Centre-Ahmedabad**.

- The 2nd-generation satellites **will also have a longer mission life** of more than 12 years (existing satellites - 10 years).
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RS 75 COIN RELEASED ON NEW PARLIAMENT INAUGURATION DAY

Why in news?

- To mark the inauguration of the new Parliament building, Prime Minister Narendra Modi released a commemorative coin of Rs. 75 denomination.
- India has been issuing commemorative coins for several reasons such as paying homage to notable personalities, spreading awareness about government schemes, or remembering key historic events.
- The country released its first commemorative coin in 1964 in honour of Jawaharlal Nehru, who had passed away that year.

Minting of coins

- The government has the power to design and mint coins in various denominations. It has been given this right under the **Coinage Act, 2011**.
- The government decides on the quantity of coins to be minted on the basis of indents received from the RBI on a yearly basis.
 - The role of the RBI is limited to the distribution of coins that are supplied by the central government.
- Coins are minted in four mints owned by the Government of India in Mumbai, Hyderabad, Kolkata and Noida.

Printing of currency

- Two of India's currency note printing presses are in Nasik and Dewas. These are owned by the Government of India.
- Two other printing presses are in Mysore and Salboni. These are owned by the RBI through its wholly owned subsidiary, Bharatiya Reserve Bank Note Mudran Ltd (BRBNML).

Commemorative coin

- **About**

- A commemorative coin is a special coin issued to honor and celebrate a particular event, person, or significant milestone.
- These Coins are distinct from regular circulation coins in that they are not intended for everyday transactions but rather serve as collectible items or gifts. These coins are primarily meant for numismatic purposes.
- **Minting**
 - The Government, through the Ministry of Finance, authorizes the issuance of commemorative coins to mark various occasions of national importance.
 - These coins are minted by the **Security Printing and Minting Corporation of India Limited (SPMCIL)**, which operates mints across the country.
 - The RBI **also** issues special commemorative coins in limited quantities, primarily in precious metals, to honor eminent personalities, national achievements, or historical events.

RICE FORTIFICATION

India's pilot studies on rice fortification showed that nutritional anaemia could be reduced, with a significant drop in the prevalence of anaemia among schoolchildren, according to a United Nations report.



About Rice fortification:

- Fortification is the process of adding Fortified Rice Kernels (FRK), containing FSSAI prescribed micronutrients (**Iron, Folic Acid, Vitamin B12**) to normal Rice in the ratio of **1:100** (Mixing 1 Kg of FRK with 100 Kg custom milled rice).
- Fortified rice is nearly **identical to traditional rice in aroma, taste, and texture**. This process is done **in the rice mills at the time of milling of rice**.
- Fortification of rice is found to be a **cost-effective and complementary strategy to increase vitamin and mineral content** in diets with low turnaround time (TAT) and a step towards nutritional security.

Background:

- On 15 August 2021, when Prime Minister on India announced that over 80 crore people will be fed rice fortified with iron and vitamins to combat rising cases of anaemia and other micronutrient deficiency diseases.

About Anaemia:

- Anaemia is a problem of **not having enough healthy red blood cells** or haemoglobin to carry oxygen to the body's tissues.
- **Symptoms:** Possible symptoms of anaemia include **Tiredness, Weakness, Shortness of breath, Irregular heartbeat, Chest pain, Cold hands and feet** etc.
- **Causes of anaemia:** Different types of anemia have different causes. They include:
 - **Iron deficiency anaemia, Vitamin deficiency anaemia, Anaemia of inflammation, Sickle cell anaemia, Hemolytic anaemia's, Aplastic anaemia.**
- **Prevention:**
 - Many types of anaemia can't be prevented. But eating a healthy diet might prevent iron deficiency anaemia and vitamin deficiency anaemia's. A healthy diet includes: **Iron, Vitamin B-12, Vitamin C, Folate** etc.

ONE DISTRICT ONE PRODUCT (ODOP) INITIATIVE?

The Ministry of Youth Affairs and Sports is presenting Khelo India University Games (KIUG) winners with 'One District One Product' gifts.



About One District One Product (ODOP) Initiative:

- It was launched by the Ministry of Food Processing Industries in 2018.
- **Objective:** To help districts reach their full potential, foster economic and socio-cultural growth, and create employment opportunities, especially, in rural areas.
- The initiative aims to select, brand, and promote at least One Product from each District of the country for enabling holistic socioeconomic growth across all regions.
- ODOP Initiative aims to turn every district in India, into an export hub through promotion of the product in which the district specialises.

- The initiative plans to accomplish this by **scaling manufacturing, supporting local businesses, finding potential foreign customers** and so on, thus helping to achieve the ‘Atmanirbhar Bharat’ vision.
- The ODOP Initiative has **identified a total of 1102 products from 761 districts across the country.**
- This initiative is **carried out with the ‘Districts as Exports Hub’ initiative by the Directorate General of Foreign Trade (DGFT), Department of Commerce.**
- **Process:**
 - Under the ODOP initiative, **all products have been selected by States/UTs** by taking into consideration the existing ecosystem on the ground, products identified under Districts as Export Hubs (DEH), and GI-tagged products.
 - The finalized list is communicated to **the Department for Promotion of Industry and Internal Trade (DPIIT)** by the relevant Department of States/UTs.
 - **All activities including exhibitions, capacity building, etc.** are undertaken at the State/UT and district level, **in consultation and coordination with the States/UTs.**

NUTRITION IN A WARMER WORLD

Context

- As the agriculture sector is **highly dependent on climate**, the emerging trend in climate change will have **serious implications on agriculture and allied sectors.**
- As India has the **largest workforce (45.6 percent in 2021-22) engaged in agriculture** amongst G20 countries, the impact of climate change may be disproportionate for India.

G7 Hiroshima Summit’s Agenda on Climate Change

- At the Hiroshima Summit 2023, the G7 nations stressed that the **peak for global Green House Gas (GHG) emissions should be reached by 2025** and committed to an “Acceleration Agenda” for G7 countries to reach net-zero emissions by around 2040.
- The summit urged emerging economies to do so by around 2050. However, **China has committed to net zero by 2060 and India by 2070.**

Climate Change Reports

- **WMO Report**
 - World Meteorological Organisation (WMO) has forecast that global near-surface temperatures are **likely to increase by 1.1°C to 1.8°C annually from 2023 to 2027.**
 - It also anticipates that **temperatures will exceed 1.5°C above pre-industrial levels** for at least one year within this period.
- **IMD Report:** According to the Indian Meteorological Department (IMD), **India experienced its fifth hottest year on record in 2022.**

Impact of Emerging Trend in Climate Change

- **Glacial retreat in the Himalayas:** Rising temperature and rain can cause glacial lake outburst floods. It is evident from the February 2021 incidence of glacial burst from Uttarakhand.
- **Flooding, Landslides and Cyclones**
 - Compounding effects of sea-level rise and intense tropical cyclones lead to flooding in India's various regions. e.g., Mumbai and Konkan region (2021 flood) is prone to sea-level rise and flooding.
 - Increasing cyclones (in Gujarat, Maharashtra, Odisha, and West Bengal) in the last 3-4 years are the cause of concern.
- **Draughts:** Droughts are expected to be more frequent in some areas, especially north-western India, Jharkhand, Orissa, and Chhattisgarh.
- **Erratic monsoon**
 - Monsoon rain will be dominated by aerosols and internal variability, but in the long term, it will increase.
 - Erratic monsoon rain caused a devastating loss in the 2021 floods in Maharashtra, Uttarakhand, and Kerala.
- **Intense heat stress:** Heat extremes are increasing, and marine heatwaves will continue to increase. These are likely to impact India, for example, Andhra and Telangana region are currently affected.

- **Drop in Agriculture Yield:** Agricultural production will be affected by 2040. According to the World Bank, climate change could push more than 100 million people into extreme poverty by 2030 by disrupting agriculture.

Challenges to Indian Agriculture Sector Due to Climate Change

- **A Large Population to Feed:** India has to feed the largest population (1.42 billion in 2023 and 1.67 billion by 2050), it must do so while contending with the increasing uncertainty of nature.
- **Nutritional Challenges:** While India's grain production (330MT in 2022-23) gives some comfort, the nutritional challenge remains.

What can Indian Policymakers do to address these challenges?

- **Focus on ARDE (Agricultural Research, Development, Education and Extension).**
- Research at ICRIER indicates that investing in Agri R&D yields much greater returns (11.2) compared to every rupee spent on the fertiliser subsidy (0.88), power subsidy (0.79), education (0.97), or roads (1.10).

Conclusion

- Livestock has been growing at more than double the rate of the cereal sector, as is horticulture. But our policies and programmes are stuck with the legacy of basic staples like rice and wheat.
- A periodic review of nutritional status across States along with a process to monitor and evaluate programmes could address systemic challenges on the ground.