

WHAT IS THE PARIVAR PEHCHAN PATRA (PPP) SCHEME?

The Haryana government's Parivar Pehchan Patra (PPP) and IT-based welfare schemes will be displayed at the first Anti-Corruption Working Group meeting under the G20 Summit in Gurugram.



About Parivar Pehchan Patra (PPP) Scheme:

- It was launched by the Haryana Government in 2015.
- The primary objective of PPP is to create authentic, verified, and reliable data of all families in Haryana.
- PPP identifies each and every family in Haryana and keeps the basic data of the family, provided with the consent of the family, in a digital format.
- Under the scheme, a unique identity card — called Parivar Pehchan Patra (PPP) is launched — through which the state government aims to monitor all the families living across the state.
- Under PPP, each family is considered a single unit.
- Each family will be provided an eight-digit Family Id.
- The Family ID will be linked to the Birth, Death, and Marriage records to ensure automatic updating of the family data as and when such life events happen.
- A family has to register itself on the PPP portal to avail the benefits of social-security schemes of the state government.
- **Benefits:**
 - PPP scheme makes citizens able to take benefits of government schemes and services by sitting at home through online medium.
 - It also brings transparency to the system and eliminates middlemen so as to stop ineligible people from taking advantage of any scheme.

NATIONAL TIGER CONSERVATION AUTHORITY (NTCA)

According to National Tiger Conservation Authority (NTCA), India has recorded 30 tiger deaths within 2 months into 2023.



About National Tiger Conservation Authority (NTCA):

- It is a statutory body under the Ministry of Environment, Forest, and Climate Change (MoEFCC).
- It was established in 2006 under Wildlife (Protection) Act 1972.
- Objectives:
 - Providing statutory authority to Project Tiger so that compliance of its directives become legal.
 - Fostering accountability of Center-State in management of Tiger Reserves by providing a basis for MoU with States within the federal structure.
 - Providing for an oversight by Parliament.
 - Addressing livelihood interests of local people in areas surrounding Tiger Reserves.
- NTCA Members:
 - Minister in charge of MoEFCC (as Chairperson),
 - Minister of State in MoEFCC (as Vice-Chairperson),
 - three members of Parliament, the Secretary (MoEFCC), and other members.

What is 'Project Tiger'?

- It is a Centrally Sponsored Scheme (CSS) of the MoEFCC.
- It was launched on 1st April 1973.
- It provides funding support to tiger range States for the in-situ conservation of tigers in designated tiger reserves.
- Project Tiger has been the largest species conservation initiative of its kind in the world.
- National Tiger Conservation Authority (NTCA) is the immediate supervising agency.

WHAT IS THE PINK BOLLWORM?

The Genetic Engineering Appraisal Committee (GEAC) recently approved confined field trials for Pink Bollworm-resistant GM cotton in Hisar, Haryana



About Pink Bollworm:

- It is one of the most destructive pests of cotton.
- **Scientific name: Pectinophora gossypiella**
- **Distribution:** Originally native to India, it is now recorded in nearly all the cotton-growing countries of the world.
- **Description:**
 - The adults are small moths about 3/8 inch long and are dark brown with markings on the fore wing.
 - The larval stage is the destructive and identifiable stage.
 - The larvae have distinctive pink bands and can reach a length of 1/2 inches right before they pupate.
- **Ecological Threat:**
 - Pink bollworms are major pests of cotton.
 - Adults only last for 2 weeks, but females will lay 200 or more eggs.
 - Adults lay eggs on cotton bolls; once hatched, the larvae eat the seeds and damage the fibers of the cotton, reducing the yield and quality
 - When the larvae mature, they cut out the boll and drop to the ground and cocoon near the soil surface.
 - It has also been observed to attack hibiscus, okra, and hollyhock plants.

THE \$5 BILLION DEFENCE EXPORTS TARGET

Why in news?

- The defence ministry has set a target to raise India's annual defence exports to \$5 billion by 2024-25, from the \$1.5 billion currently.

- This was also reiterated by PM Modi at the recently concluded Aero India 2023 in Bengaluru earlier this month.

What are the current defence export figures?

- As per government data, India's defence export value till December 2022 had reached Rs 6,058 crore.
- India's defence exports have grown by 334 per cent in the past five years. They touched nearly Rs 13,000 crore in 2021-22.

Which defence equipment does India export?

- The major defence items being exported are Personal Protective items, Offshore Patrol Vessels, ALH Helicopter, SU Avionics, Bharati Radio, Coastal Surveillance Systems etc.
- In December 2022, the government told Parliament that major items exported by India in the last three years include:
 - lightweight torpedoes, weapon locating radar, fast patrol vessels, 120 mm mortar armoured protection vehicle, 0.338 Lapua magnum sniper rifle, and simulators.

What are the major defence platforms India is looking to export?

- India is in talks with Argentina and Egypt, among other countries, to export its **indigenous LCA Tejas**.
- According to the government officials, the LCA Mk 2 has seen interest from nearly 16 countries and efforts are on to identify private production agencies to ramp up manufacturing of the jet.
- India is looking to export the indigenous Advanced Light Helicopter to several countries.
 - India has signed a contract with Mauritius for the export of one Advanced Light Helicopter (ALH Mk III) for Mauritius Police Force.
 - Mauritius already operates the ALH and Do-228 aircraft, which is a multi-purpose light transport aircraft.
- India is also in talks with Guyana to export the Dornier 228 and fast patrol vessels.
- Last year, India signed a \$375 million contract with the Philippines to export the **BrahMos supersonic cruise missile**.

- India is looking to export the weapon system and its lighter next generation version (BrahMos NG) to over 10 countries, including South Africa, Egypt, UAE, and Saudi Arabia.
- In 2022, Armenia inked a government-to-government deal to buy the DRDO-developed **Pinaka multi-barrel rocket launchers**, rockets and ammunition.

Major export destinations

- India's private companies and Defence PSUs currently export defence equipment to over 75 countries.
- **Major countries:**
 - Italy, Maldives, Sri Lanka, Russia, France, Nepal, Mauritius, Israel, Egypt, UAE, Bhutan, Ethiopia, Saudi Arabia, Philippines, Poland, Spain and Chile are some of the major export destinations.
- **Top customers for India's defence export**
 - A report released by India Exim Bank stated that Mauritius, Mozambique, and Seychelles have been among the top customers for India's defence exports between 2017 and 2021.
- **India is among the top 25 exporters of major arms**
 - According to a Stockholm International Peace Research Institute (SIPRI) report released last year, India is among the top 25 exporters of major arms.
 - Myanmar has been the biggest importer of **Indian arms** at 50 per cent during the 2017-2021 period, followed by Sri Lanka at 25 per cent and Armenia at 11 per cent.

What are the steps taken by the government to achieve self-reliance in defence?

- **Change in Defence Procurement Policy**
 - IDDM - Indigenously Designed, Developed and Manufactured.
- **Negative import list/positive indigenisation list**
- **Defence industrial corridors**
- **Defence research**
- **Space created for private players**

ATACAMA LARGE MILLIMETRE/SUBMILLIMETRE ARRAY (ALMA) TELESCOPE

The Atacama Large Millimetre/submillimetre Array (ALMA), a radio telescope comprising 66 antennas is set to get software and hardware upgrades.



About Atacama Large Millimetre/submillimetre Array (ALMA)

Telescope:

- It is a state-of-the-art telescope that **studies celestial objects** at millimetre and submillimetre wavelengths.
- They can penetrate through dust clouds and help astronomers examine dim and distant galaxies and stars out there.
- It also has extraordinary sensitivity, which allows it to detect even **extremely faint radio signals**.
- The telescope consists of 66 high-precision antennas, spread over a distance of up to 16 km.
- It is operated under a **partnership** between the United States, and 16 countries in Europe, Canada, Japan, South Korea, Taiwan, and Chile.
- The radio telescope was designed, planned and constructed by the US's National Radio Astronomy Observatory (NRAO), the National Astronomical Observatory of Japan (NAOJ) and the European Southern Observatory (ESO).

What are some of the notable discoveries made by ALMA?

- It had observed the detailed images of the protoplanetary disc surrounding **HL Tauri** which is a very young T Tauri star in the **constellation Taurus**, approximately 450 light years from Earth.
- It helped scientists observe a phenomenon known as **the Einstein ring**, which occurs when light from a galaxy or star passes by a massive object en route to the Earth, in extraordinary detail.

ATMANIRBHAR CLEAN PLANT PROGRAM: GOVT PLANS 10 'CLEAN PLANT CENTRES' TO BOOST FRUIT CROP PRODUCTION

Why in News?

- In order to increase domestic production, the Center plans to establish 10 "Clean Plant Centers" as the demand for fruits like apple, avocado and blueberry has increased over time.
- These centers will be set up under the 'Atmanirbhar Clean Plant Program', which was announced by the Finance Minister in the **Union Budget 2023-24**.

What is the Atmanirbhar Clean Plant Program?

- The Program will be launched with an outlay of 2,200 crores (in the next 7 years till 2030) to boost availability of disease-free, quality planting material for high value horticultural crops.
- The Program will aim to -
 - Enhance the yield of horticulture crops,
 - Disseminate and adopt climate resilient varieties,
 - Protect the ecosystem through proactive virus and disease control measures.
- The programme will be anchored by **the National Horticulture Board (NHB)** which in turn will set up **Clean Plant Centers** across the country and ensure the **global competitiveness** of the Indian horticulture sector.
- The centers will **work with the stakeholders** so that they adopt clean plant seeds and nurseries.

HOW DIRECT BENEFIT TRANSFER SCHEME HAS TRANSFORMED SOCIAL WELFARE IN INDIA

Why in News?

- Transfer of subsidies to the beneficiaries through the Direct Benefit Transfer (DBT) has reached about **Rs 5.5 trillion** so far in the current financial year i.e., 2022-23.

About Direct Benefit Transfer (DBT):

- Government of India launched the Direct Benefit Transfer (DBT) Program on **1st Jan 2013**.
- With DBT program, GoI aims to **make payments directly into the Aadhaar-linked bank accounts of the end beneficiaries**, removing any malpractices from the existing system such as diversions and duplicate payments.

- The primary objective of the DBT program is to **bring transparency and terminate pilferage from distribution of funds sponsored by Central Government.**

DBT Process:

- The following are the steps or sub-sections, which are the major checkpoints in the Direct Benefit Transfer process –
 - Public Financial Management System (PFMS) registration.
 - Examination of eligibility of the beneficiary.
 - Verification of the beneficiaries' bank account/ Aadhar Enabled bank account.
 - Initiation of the payment
 - **PFMS** (Public Financial Management System) is a Central Plan Monitoring System of the Ministry of Finance, Government of India.
 - It is used as a common platform to carry out both Aadhar and non-Aadhar e-payments for the DBT program.
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HEAT WAVES

Why in news?

- In the week of February 21, the India Meteorological Department (IMD) warned that the maximum temperatures over northwest, west, and central India would be 3-5° C higher than the long-term average.
- On February 21 itself, the national capital recorded its third hottest February day (33.6° C) in more than five decades.

What is heat wave?

- A Heat Wave is a period of abnormally high temperatures, more than the normal maximum temperature.
- **Qualitatively**, heat wave is a condition of air temperature which becomes fatal to human body when exposed.

- **Quantitatively**, it is defined based on the temperature thresholds over a region in terms of actual temperature or its departure from normal.

What is criterion for declaring heat wave?

- As per IMD, heat wave is considered if maximum temperature of a station reaches at least 40°C or more for Plains and at least 30°C or more for Hilly regions.
- IMD uses following criterion to declare the occurrence of heat wave in the region:
 - **Based on Departure from Normal Heat Wave:**
 - **Heat Wave** - Departure from normal is 4.50°C to 6.40°C;
 - **Severe Heat Wave:** Departure from normal is >6.40degree C
 - **Based on Actual Maximum Temperature Heat Wave:**
 - **Heat Wave** - When actual maximum temperature $\geq 45^{\circ}\text{C}$;
 - **Severe Heat Wave:** When actual maximum temperature ≥ 47
 - If above criteria met at least in 2 stations in a Meteorological sub-division for at least two consecutive days, heat wave occurrence is declared on the second day.
- **Heat Wave in coastal region**
 - When maximum temperature departure is 4.50°C or more from normal, Heat Wave may be described provided actual maximum temperature is 37°C or more

Why do heat waves occur in the first place?

- Heat waves are formed for one of two reasons: because **warmer air is flowing in from elsewhere** or **because something is producing it locally**.
 - Air is warmed locally when the air is warmed by higher land surface temperature; or
 - because the air sinking down from above is compressed along the way, producing hot air near the surface.