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Cantonment Towns

Context: The plan is to merge certain Cantonment civil areas with neighboring State municipalities to achieve uniformity in municipal laws.

- **Objective:** Bring uniformity in municipal laws for Cantonment and adjoining State Municipal areas.
- **Plan:** Consider excising civil areas of certain Cantonments and merging them with neighboring State municipalities.
- **Process:** Broad modalities for excision of civil areas in 58 Cantonments shared with concerned State Governments for feedback.
- **Consultation:** Active consultation and concurrence of State Governments required for the excision and merger.
- **Timeframe:** Implementation timeline not specified due to the need for consultations.
- **Public Input:** Received representations from the public, elected representatives, and some State Governments supporting the excision.
- **State Government Schemes:** No restriction on implementing State Government schemes in Cantonment areas. Residents already benefit from various schemes.

What are Cantonments?

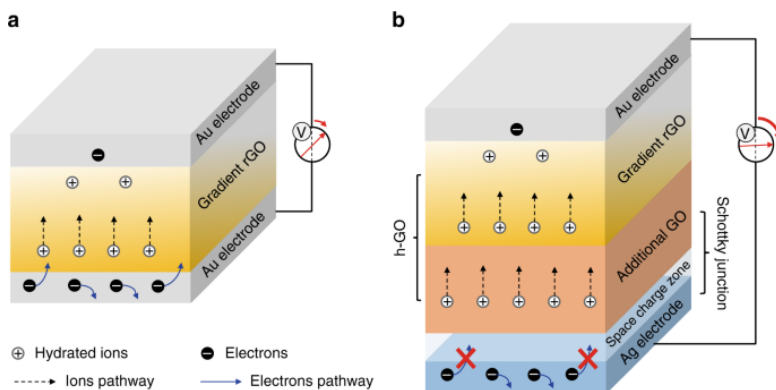
- **Cantonment:** Proclaimed area under the Cantonments Act, 2006, governed by the Indian central government.
- **Categories:** Four categories based on population - Category I (>50,000), Category II (10,000-50,000), Category III (2,500-10,000), and Category IV (<2,500).
- **Authority:** Cantonment Board is under the Ministry of Defence.
 - **Composition:** Consists of 8 members – 1 Station Commander, 3 ex-officio members, 3 nominated military members, and 1 representative of the district magistrate.
 - **Services:** Provides sanitation, primary education, street lighting, water supply, road and bridge maintenance, and public hospitals.
- **Cantonments vs Military Stations:** Cantonments have both civilian and military presence, while military stations are solely for military personnel and their families.

Hygroelectricity

Context: Hygroelectricity, a technology capable of generating electricity from humid air, has been successfully developed by researchers.

What is it?

- Hygroelectricity generates electricity using the humidity in the air.
- This renewable energy source holds promising potential as a significant power contributor in the future.
- Hygroelectricity is harnessed through a small device consisting of two electrodes and a nanopores material layer.
- Nanopores, with a diameter under 100 nanometres, enable water molecules from the air to pass through the device.
- As the water molecules move from the upper chamber to the lower chamber, they create electric charge imbalances at the edges of the nanopores.
- This process effectively turns the device into a miniature battery, generating continuous electricity.



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- Similar to how clouds create electrical charges during storms, this technology converts air humidity into usable electricity.
- Advantages: Unlike solar and wind, air humidity is continuously available, offering a sustainable energy reservoir.
- Challenges: The current device can only produce a small amount of electricity, and scaling up to meet practical energy demands remains a significant obstacle.

What are Electrodes?

- Electrodes are solid conductors that facilitate the flow of electricity to and from an electrolyte, an electrically conductive solution or molten salt.
- They serve various purposes in applications like batteries, electrochemical cells, and electroplating.
- There are two primary types of electrodes: anode and cathode.
- The anode undergoes oxidation, involving the loss of electrons, while the cathode undergoes reduction, which involves gaining electrons.
- In batteries, the anode is the negative terminal, and the cathode is the positive terminal.
- When connected to a circuit, electrons flow from the anode to the cathode, generating an electric current.

What are Nanopores?

- Nanopores are extremely small holes, usually measuring just a few nanometres in diameter.
- They exist in various materials, including biological cells, synthetic membranes, and graphene.

Inter-Services Organisations (Command, Control and Discipline) Bill 2023

Context: The Inter-Services Organisations (Command, Control, and Discipline) Bill 2023 has received support from the Parliamentary Standing Committee on Defence.

- Introduced in March 2023, the Inter-Services Organisations (Command, Control, and Discipline) Bill was referred to the Standing Committee on Defence by the Speaker.
- It seeks to authorize the Union government to create inter-services organizations, including joint services commands.
- The bill grants powers to the heads of these organizations to take disciplinary action against personnel from any of the three services, ensuring effective discharge of duties.

Salient Features of Bill:

- **Inter-Services Organisation (ISO):**
 - The central government can create a Joint Services Command.
 - Existing ISOs (A&N Command, Defence Space Agency, NDA) will be considered formed under the Bill.
- **Superintendence and Command/Control of ISOs:**
 - The central government will have superintendence over an ISO.
 - The Commander-in-Chief or Officer-in-Command of an ISO will have command and control over the personnel serving in or attached to the ISO.
- **Eligibility for Commander-in-Chief or Officer-in-Command:**
 - General Officer of the regular Army (above the rank of Brigadier).
 - Flag Officer of the Navy (rank of Admiral of the Fleet, Admiral, Vice-Admiral, or Rear-Admiral).
 - Air Officer of the Air Force (above the rank of group captain).
- **Commanding Officer:**
 - In command of a unit, ship, or establishment and performs duties assigned by the Commander-in-Chief or Officer-in-Command of the ISO.
 - Empowered to initiate all disciplinary or administrative actions over the personnel appointed, deputed, posted, or attached to that ISO.

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Problems in current System

- **Current system:** Personnel in an ISO are governed by separate laws of the Army, Air Force, and Navy.
- **Limitations:** Existing legal framework restricts officials from one service to take disciplinary/administrative actions against members of other services in tri-services matters.
- **Example:** A three-star general leading a joint command cannot act against air force or navy personnel under him.
- **Consequence:** Personnel in ISOs must return to their parent service units for disciplinary/administrative actions, leading to delays and financial implications for their movement.

Recommendations of Panel

- The bill is proposed to be passed without amendments and enacted as a statute, aimed at enhancing tri-services integration and jointmanship in ISOs.
- Once in effect, the law will lead to improved functioning of ISOs with increased independence in their operations.
- By enabling quicker resolution of cases, the bill will positively impact the standard of discipline within the ISOs.

Global Report on Food Crises

Context: Recently, the Global Report on the Food Crises (GRFC) for the year 2023 has been published.

About the report

- GRFC is produced by the Food Security Information Network for the Global Network against Food Crises.
- It assesses acute food insecurity in countries.
- The report highlights the impact of urbanization on food security.

Key findings

- **Global Crisis & SDGs:** The report addresses historic events impacting the assessment, including a pandemic, economic crisis, war (Ukraine), and soaring food prices.
- **Progress on Zero Hunger:** Hunger no longer sharply rising globally, but still far above pre-COVID levels, SDG 2 (Zero Hunger) far off track.
- **Food Insecurity Experience Scale (FIES) Estimate for 2022:** No progress made at the global level, with the prevalence of moderate or severe food insecurity remaining unchanged for two years.
 - 2.4 billion people lacked adequate food in 2022 (391 million more than 2019).
- **Undernourishment:** Relatively unchanged from 2021 to 2022, affecting about 9.2% of the world population in 2022 (compared to 7.9% in 2019).
- **Intake of Healthy Diet:** Around 3.2 billion people couldn't afford a healthy diet in 2020, slight improvement in 2021.
 - Global cost of a healthy diet increased by 6.7% between 2019 and 2021.
 - Projected 600 million people to be chronically undernourished by 2030.
- **Stunting, Wasting & Obesity:** Positive trends in stunting and child wasting:
 - Stunting declined from 204.2 million in 2000 to 148.1 million in 2022.
 - Child wasting declined from 54.1 million in 2000 to 45 million in 2022.
- **Overweight & Obesity:** Non-significant increase in children being overweight or obese:
 - Rose from 5.3% (33 million) in 2000 to 5.6% (37 million) in 2022.

Global Parliamentary Pact

- **New Multilateral Body:** Global parliamentarians establish a multilateral body to tackle poverty, hunger, and malnutrition in the agrifood system.
- **Global Parliamentary Summit:** Held in Chile, parliamentarians from 64 countries participate.
- **Global Parliamentary Pact:** Signed during the summit, committing to advocate for agrifood system reforms to ensure sustainable and accessible food for everyone.
- **Features of Pact:**

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- **Pact Contents:** Includes legislation drafting for food equity and budgetary support.
- **Aim:** Achieving UN's Sustainable Development Goals of zero poverty, hunger, and malnutrition by 2030.
- **Political Support:** Backs agrifood system reform policies and equitable food distribution laws.
- **Progress Reporting:** Parliamentarians commit to reporting progress for accountability.
- **Legislative Impact:** Resulted in 35 approved laws, covering family farming, responsible agriculture investment, gender equality, and food loss and waste.

NEWS IN BETWEEN THE LINES

PM-DevINE Scheme



Recently, the Prime Minister's Development Initiative for North Eastern Region (PM-DevINE) was introduced as a new Central Sector scheme with 100% Central funding.

What is PM-DevINE Scheme?

PM-DevINE Scheme, short for "Prime Minister's Development Initiative for North Eastern Region," is a Central Sector scheme with 100% Central funding, introduced in the Union Budget 2022-23. The scheme aims to promote development in the North Eastern Region (NER) of India.

Approval: The Cabinet approved the PM-DevINE scheme on 12th October 2022.

Duration: The scheme has an outlay of Rs. 6,600 crore for the 4-year period from 2022-23 to 2025-26.

Objectives: PM-DevINE aims to fund infrastructure, support social development projects, enable livelihood activities and fill development gaps in the North Eastern Region (NER).

Projects: Eleven projects have been selected for sanction in FY 2022-23, with an initial allocation of Rs. 1500 crore.

PSLV-C56 Mission



Recently, ISRO is set to launch the PSLV-C56 mission carrying Singapore's DSSAR satellite on July 30 from Sriharikota.

What is PSLV-C56?

PSLV-C56 stands for Polar Satellite Launch Vehicle-C56. It is a space mission conducted by the Indian Space Research Organisation (ISRO).

Configuration: PSLV-C56 is in its core-alone mode, similar to PSLV-C55, and will launch DS-SAR into a Near-equatorial Orbit (NEO) at 5 degrees inclination and 535 km altitude.

DS-SAR Satellite: DS-SAR, developed with DSTA and ST Engineering, provides satellite imagery support for Singapore's government agencies and geospatial services for commercial customers.

Synthetic Aperture Radar (SAR): DS-SAR carries a SAR payload developed by Israel Aerospace Industries (IAI) that enables all-weather day and night coverage with imaging at 1m resolution at full polarimetry.

Co-passengers: PSLV-C56 carries DS-SAR and six co-passengers: VELOX-AM, ARCADE, SCOOB-II, Galassia-2, ORB-12 STRIDER and NuLloN for IoT connectivity.

Payloads: PSLV-C56 carried seven satellites, including the 351.9 kg earth observation satellite DS-SAR from Singapore and three nanosatellites.

Meri Maati, Mera Desh



Recently, the Union government launched the "Meri Maati, Mera Desh" campaign as a part of the Azadi Ka Amrit Mahotsav celebration

What is Meri Maati, Mera Desh ?

"Meri Maati, Mera Desh" is a government initiative under Azadi Ka Amrit Mahotsav to foster national pride and environmental consciousness.

Garden Development: Soil collected from different parts of the country in August will be used to develop a garden along the Kartavya Path in Delhi.

Program Levels: Events and programs are planned at various levels - panchayat, village, block, urban local body and state and national levels.

Timeframe: The panchayat-level programs will be organized between August 9 and 15.

Five-Point Agenda: The campaign's agenda includes:

- Memorial plaque for supreme sacrifice.
- Honoring veers: Freedom fighters, defense personnel, CAPF and state police.

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Fluorine



On July 20, 2023, Oxford scientists achieved a major breakthrough in obtaining fluorine atoms for essential chemical compound production.

What is Fluorine?

Fluorine is a chemical element with the symbol (F) and atomic number 9. It is the lightest halogen element and the most reactive of all chemical elements.

Potential Transformation: The new method for obtaining fluorine-based compounds is a significant scientific achievement.

Industrial Uses: Fluorine is vital for manufacturing fluorochemicals used in plastics, agrochemicals, batteries, and pharmaceuticals.

Toxicity & Health Concerns: Exposure to fluorine gas and hydrogen fluoride can be hazardous to lungs, skin and eyes. Fluorides can cause bone decay, osteoporosis, arthritis and brain damage.

Natural Occurrence: Fluorine is found in chemical compounds in minerals like fluorospar, cryolite, and fluorapatite.

Environmental Impact: Fluorine-containing compounds like CFCs have been controlled for ozone layer protection, with HFCs replacing them in industrial applications.

Employees' Provident Fund Organisation



Recently, the Centre accepted the recommendation of the Central Board of Trustees (CBT) of the Employees' Provident Fund Organisation (EPFO) to increase the interest rate on deposits in the Provident Fund (PF) to 8.15%.

Employees' Provident Fund Organisation:

EPFO is a statutory body operating under the Employees' Provident Funds and Miscellaneous Act, 1952.

Administrative Control: It operates under the Union Ministry of Labor and Employment.

Central Board of Trustees: EPFO is governed by the Central Board of Trustees, comprising representatives from the Government (Central and State), employers and employees.

Schemes: EPFO manages three schemes: Employees' Provident Funds Scheme (EPF), Employees' Pension Scheme (EPS) and Employees' Deposit Linked Insurance Scheme (EDLI).

Pension Scheme (EPS): It provides a pension to organized sector employees after their retirement at 58, given they have served for at least 10 years.

Contribution: Both employer and employee contribute 12% each of the employee's pay towards EPF, with a portion of the employer's contribution allocated to EPS.

Recently, Russian forces conducted a strike on port infrastructure located on the Danube River in southern Ukraine using exploding drones.

Danube River:

- One of Europe's major rivers, flowing through multiple countries, including Ukraine.
- Forms part of the border between Ukraine and Romania in southern Ukraine.
- Second-longest river in Europe, approximately 2,850 kilometers in length.
- Drains into the Black Sea.
- Crosses ten countries, including Germany, Austria, Hungary, Serbia, Bulgaria and Romania.
- Major cities on its banks include Vienna, Budapest, Belgrade and Bratislava.
- Danube Delta in Romania and Ukraine is a UNESCO World Heritage Site known for its biodiversity.



Importance: One of Europe's major waterways, supporting transportation, trade and tourism.

Ports on the Danube River:

- Port of Vienna, Austria: Major international port in Vienna.
- Port of Bratislava, Slovakia: Key port in Bratislava for trade.
- Port of Budapest, Hungary: Connects Hungary to Europe.
- Port of Belgrade, Serbia: Strategic port for trade and passengers.
- Port of Novi Sad, Serbia: Important port for cargo handling.
- Port of Ruse, Bulgaria: Significant port for international trade.
- Port of Constanta, Romania: Largest port at the Danube's mouth, connecting to the Black Sea.

Place in News

Danube River

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