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Current affairs summary for prelims

10 February, 2024

Supplementary Demands for Grants

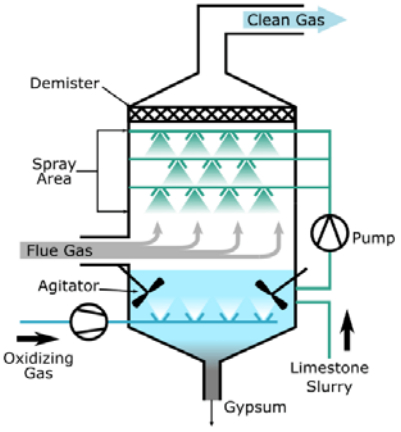
Context: *Finance Minister Nirmala Sitharaman presented the second installment of supplementary demands for grants for the fiscal year 2023-24 in the Lok Sabha.*

- The government has requested the Lok Sabha's consent for a net increase in expenditure totaling ₹78,673 crore for the ongoing fiscal period.
- The supplementary demands for grants comprise a gross additional spending exceeding ₹2 lakh crore.
- This additional expenditure will be offset by savings totaling over ₹1.21 lakh crore.
- As per the document presented in the Lok Sabha, the proposal entails a net cash outflow totaling ₹78,672.92 crore.
- **Supplementary Demand for Grants:**
  - **Definition**: When the allocated amount for a service in the current financial year is insufficient, Parliament approves a Supplementary Demand for Grants to cover the shortfall.
  - **Timing**: These demands are presented and passed by Parliament before the conclusion of the financial year to ensure adequate funding for necessary expenditures.
- **Other Types of Grants:**
  - **Additional Grant:**
    - **Purpose:** It addresses funding requirements for new services not originally budgeted for in the current fiscal year.
  - **Excess Grant:**
    - **Purpose:** It covers situations where actual expenditure exceeds the allocated budget for a specific service during the financial year.
    - **Approval Process:** Before being voted on by the Lok Sabha, excess grants must first be scrutinized and approved by the Public Accounts Committee of Parliament.
  - **Vote of Credit:**
    - **Purpose:** It caters to unforeseen demands on India's resources, offering a flexible funding mechanism for urgent needs.
    - **Nature:** Essentially, it acts as a blank check given by the Lok Sabha to the Executive to meet unpredictable expenses.
  - **Exceptional Grant:**
    - **Purpose:** This grant is allocated for special purposes unrelated to the regular services of the fiscal year, often addressing unique or extraordinary circumstances.
  - **Token Grant:**
    - **Purpose:** It facilitates the funding of new services through the reappropriation of existing funds.**Amount and Process:** Typically, a nominal sum (e.g., Re 1) is allocated, and its approval by the Lok Sabha enables the availability of funds for the intended service.
- **Constitutional Provisions:**
  - **Article 115**: This article outlines the provisions related to supplementary, additional, or excess grants, ensuring parliamentary oversight of financial allocations.
  - **Article 116**: Concerns the parliamentary process for votes on account, votes of credit, and exceptional grants, ensuring accountability and transparency in fiscal matters.
  - **Regulation**: These grants and credit mechanisms are governed by procedures similar to those applied to regular budgetary processes, ensuring consistency and adherence to constitutional principles.

Flue Gas De-sulphurisation (FGD)

Context: *The Minister of Power and New & Renewable Energy announced the installation of FGD equipment in thermal power plants.*

- Thermal Power Plants across India must adhere to emission norms set by the Ministry of Environment, Forest and Climate Change (MoEF&CC) and directives from the Central Pollution Control Board (CPCB).
- Plants in the eastern region, including Bihar, West Bengal, Odisha, Assam, and Jharkhand, are upgrading and installing emission control equipment as per MoEF&CC's September 5, 2022 notification.
- To meet Sulphur dioxide (SO_2) emission norms, Thermal Power Plants are installing Flue Gas De-sulphurisation (FGD) equipment.
- **Compliance timelines for FGD installation:**
  - **Category A:** Plants within 10 km radius of National Capital Region (NCR) or cities with a population over a million by December 31, 2024.
  - **Category B:** Plants within 10 km radius of Critically Polluted Areas or Non-attainment cities by December 31, 2025.
  - **Category C:** Other plants by December 31, 2026.
- **What is FGD?**
  - FGD methods are crucial for meeting environmental regulations by reducing sulfur dioxide emissions from power plants and industrial processes.
  - Choice of FGD method depends on factors like fuel type, plant size, and environmental constraints.
  - Ongoing research aims to enhance FGD efficiency and cost-effectiveness for sustainable sulfur dioxide emission control.



- **Flue Gas Desulfurization (FGD) Methods:**
  - **Wet scrubbing:** Uses alkaline sorbents in slurry to react with sulfur dioxide (SO_2) in flue gases, removing it effectively and at a relatively low cost.
  - **Spray-dry scrubbing:** Atomizes sorbent slurry into fine droplets, facilitating SO_2 removal in the gas phase; suitable for space-limited or water-constrained environments.
  - **Wet sulfuric acid process:** Recovers sulfur from flue gases as commercial quality sulfuric acid, providing an efficient method for sulfur removal.
  - **SNOX Flue gas desulfurization:** Integrates selective catalytic reduction (SCR) for NO_x removal with wet scrubbing for SO_2 removal, offering comprehensive pollution control.
  - **Dry sorbent injection systems:** Introduces powdered sorbent materials directly into exhaust ducts to eliminate SO2 and SO3 from emissions, often used for cost-effective retrofitting.

Scheme Guidelines for implementation of Pilot projects for use of Green Hydrogen in Steel Sector

***Context**: On February 2, 2024, the Ministry of New and Renewable Energy released guidelines for pilot green hydrogen projects in the steel sector under the National Green Hydrogen Mission.*

➢ Government Initiative and Budget Allocation:

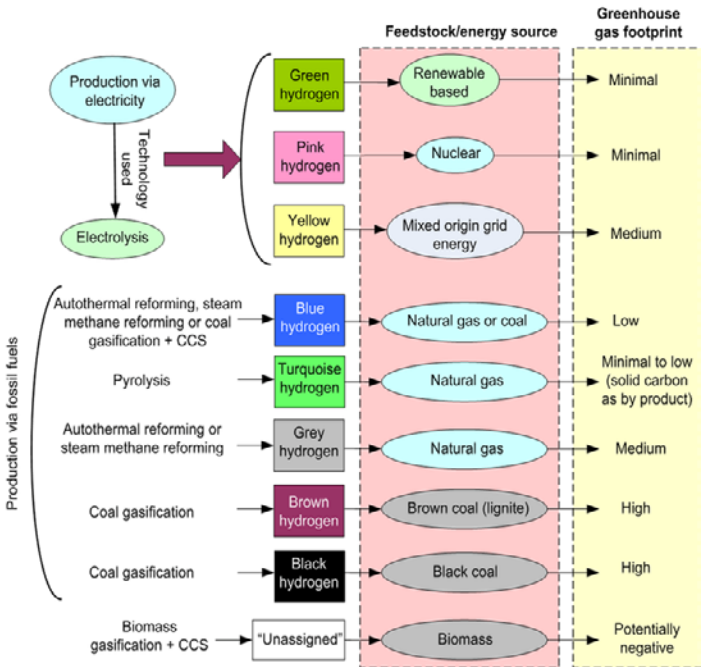
- The government allocated Rs 455 crore until FY 2029-30 to promote green hydrogen usage in the steel sector.
- The initiative aims to support steel plants in blending green hydrogen into their processes, starting with a small percentage.

➢ Scope and Objectives of the Scheme:

- Initially, the scheme supports blending a small percentage of green hydrogen in steel processes, with potential for increased blending as technology and cost efficiencies improve.
- The scheme aims to develop, select, and validate commercially viable technologies for hydrogen use in the steel sector.
- Specific objectives include using 100% hydrogen in direct reduced iron (DRI) processes, employing hydrogen in blast furnaces within set limits, gradually substituting fossil fuels with hydrogen in DRI processes, and exploring innovative ways to reduce carbon emissions in iron and steel production.

➢ National Green Hydrogen Mission (NGHM):

- NGHM, launched on January 4, 2023, with an outlay of Rs 19,744 crore, aims to position India as a global hub for green hydrogen production, usage, and export.
- The mission targets a capacity of 5 million tonnes of green hydrogen per annum in India by 2030.
- Initially, the focus was on sectors like fertilizers and petrochemicals, but initiatives are now expanding to include steel and cement, major industrial greenhouse gas emitters in India.



➢ Global and Domestic Initiatives:

- Globally, companies like SSAB, Vattenfall, LKAB, and H2-Green Steel are pioneering hydrogen-based steel production.
- India announced a partnership with Sweden under the LEAD-IT initiative, focusing on industrial decarbonization, particularly in the steel sector.
- Domestically, companies like Tata Steel and ArcelorMittal Nippon Steel India are exploring hydrogen usage in steel production, with projects underway in Jamshedpur and Maharashtra.

➢ Policy Advocacy and Recommendations:

- The Centre for Science and Environment advocated for cleaner fuels like natural gas and hydrogen in the steel sector, highlighting their emission reduction potential.
- Recommendations include supporting technological innovation and fuel switching, especially for small-scale coal-based DRI-electric arc furnace (EAF) units.

NEWS IN BETWEEN THE LINES

Bharat Ratna Award

Recently, the Central Government has announced India's highest civilian award Bharat Ratna to Former Prime Ministers P.V Narasimha Rao, Chaudhary Charan Singh and Father of Green Revolution, Dr. M.S Swaminathan.

About Bharat Ratna Award:

- The Bharat Ratna is **India's highest civilian award**.
- The award is given to individuals who have made significant contributions to the nation in fields such as **science**, **arts** and **literature**.
- The recipients receive a **Sanad (certificate) signed by the President** and a **peepal leaf-shaped medallion with no monetary grant** associated with the award.
- It was established in **1954** and is given to people without regard to **race, occupation, position or sex**.
- The first recipients of the award in **1954** were **Sarvapalli Radhakrishnan, Sir C.V. Raman and Chakravarti Rajagopalachari.**
- According to **Article 18(1) of the Constitution**, awards cannot be used as a prefix or suffix to a recipient's name.
- In **2024**, **five people** will receive the Bharat Ratna including former prime ministers P. **V. Narasimha Rao** and **Chaudhary Charan Singh**, green revolution pioneer **M. S Swaminathan**, **Karpoori Thakur** and **L. K. Advani.**

Kilkari Programme

Recently, the Union Ministers of State for Health and Family Welfare virtually launched the Kilkari programme for beneficiaries in local content in Gujarat and Maharashtra.

About Kilkari Programme:

- The Kilkari program is a **mobile health (m-health)** initiative that provides free, weekly audio messages to new and expectant mothers.
- The messages provide information about **pregnancy**, **childbirth** and **childcare**.
- Initially, the program was **launched 15th January, 2016** as a part of its Digital India initiative for new and expectant mothers.
- This programme is available in **six languages including Hindi, Bhojpuri, Oriya, Assamese, Bengali and Telugu.**
- It is **currently operational in 18 states and Union Territories** and another nine states are in the process of joining.
- The program also provides a f**ree audio training course for Accredited Social Health Activists (ASHAs).**

Pseudo Satellite

Recently, the National Aerospace Laboratories (NAL) in Bengaluru has successfully completed the first test of a solar-powered "Pseudo Satellite".

About Pseudo Satellite:

- Pseudo Satellite or HAPS (High Altitude Platform Station) is a **new age unmanned aerial vehicle (UAV)** that can significantly increase India's **surveillance and monitoring capabilities in the border areas.**
- It can **fly at altitudes of 18-20 km from the ground**, almost double the heights attained by commercial airplanes.
- It is a **battery-powered** and can remain in air for a limited period of time and can scan relatively smaller areas.
- Although, **NASA has been using solar-powered engines for its Pathfinder** series of aircraft for a long time.
- "HAPS can be very useful in **disaster situations** as well.
- It can even be **used to provide mobile communications networks in remote areas**, if the normal networks get damaged due to any calamity.

Place in News

Sudan

Recently, the United Nations children's agency (UNICEF) has warned that least 700,000 children in Sudan are likely to suffer from the worst form of malnutrition this year, and tens of thousands could die.

Sudan (Capital: Khartoum)

Location: Sudan, **Africa's third largest country** after Algeria and Democratic Republic of the Congo by area is **located in Northeast Africa.**

Boundaries: Sudan shares its border with **Eritrea** (East), **the Red Sea** (Northeast), **Chad** (West), **Egypt** (North), **Libya** (Northwest), **South Sudan** (South), **Ethiopia** (Southeast) and **the Central African Republic** (Southwest).

Physical Features:

- **The Marrah Mountain** is the highest point in Sudan.
- **The Nile** is the longest river in the world and flows through Sudan from south to north.
- **The White Nile, the Blue Nile and the Atbarah** rivers are the tributaries of the Nile river.
- Some rich mineral resources are also found in Sudan including **asbestos, chromite, cobalt, copper, gold, granite, gypsum, iron, kaolin, lead, manganese, mica, natural gas, nickel, petroleum, silver, tin, uranium and zinc.**
- Sudan has a **tropical climate**.
- **Darfur region** is infamous for civil war.

POINTS TO PONDER

- Who approved recently the corridor area between Tadoba-Andhari Tiger Reserve and Kawal Tiger Reserve as a conservation reserve? **- Telangana's State Board for Wildlife (SBWL)**
- Which missile did Russian forces recently launch in an attempt to hit a target in Kyiv? **- 3M22 Zircon or SS-N-33**
- From which tiger reserve did a tiger recently stray into a village in Haryana? **- Sariska Tiger Reserve**
- Where was the successful diversion of the Chenab River achieved recently? **- Jammu & Kashmir**
- Where was the Indian grey wolf recently sighted, marking its first confirmed sighting in the region in about two decades? **- National Chambal Sanctuary (NCS)**