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+918988886060
www.vajiraoinstitute.com
info@vajiraoinstitute.com

TODAY'S ANALYSIS

(06 April 2024)

TOPICS TO BE COVERED

- REPO RATE UNCHANGED
- GREEN HYDROGEN

+918988885050
+918988886060
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info@vajiraoinstitute.com

REPO RATE UNCHANGED

The **Monetary Policy Committee (MPC)** of the **Reserve Bank of India (RBI)**, decided to keep the **repo rate – the main policy rate** – **unchanged at 6.5 percent** and maintain the policy stance of **'withdrawal of accommodation'** in the monetary policy.

Both the decisions were taken in a majority **5:1 voting** by the six-member MPC, headed by RBI Governor Shaktikanta Das.

WHY RBI KEPT THE POLICY RATES UNCHANGED?

- The **overall economic outlook remains upbeat** despite some challenges in specific sectors.
- While **there has been broad-based moderation in inflation**, **higher food inflation keeps headline numbers elevated**.
- However, **benign core inflation** will comfort RBI as strong growth has mainly remained non-inflationary.

Two years ago, around this time, **when CPI inflation had peaked at 7.8 per cent** in **April 2022**, the **elephant in the room** was inflation. The elephant has now gone out for a walk and

appears to be returning to the forest. We would like the elephant to return to the forest and remain there on a durable basis.

WHAT ARE INFLATION RATES IN INDIA?

Headline inflation has **eased significantly from 5.7%** in **December** to **5.1% in January and February.** The fall in overall inflationary pressures over the past couple of months has been broad-based, with core inflation consistently trending downward, remaining below the 4% threshold for three consecutive months.

However, **the food and beverages inflation remain elevated**, with a **7.8% increase in February**, led by **price pressures in vegetables (30.3%)**, **pulses (18.9%)**, and **spices (13.5%)**, according to CareEdge Ratings.

PREDICTIONS FOR THE FUTURE

- The RBI has indicated that **headline inflation will moderate in the coming months,** aided by a favourable base effect lasting **until July 2024.**
- The arrival of rabi harvests in the market along with **expectations of a normal monsoon next year** will also alleviate pressure on food prices.

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- The RBI will thus be **inclined to adopt a cautious approach**, preferring to assess the evolving risks associated with food inflation before making any changes in its decisions in the coming policies.
- As guided by the March monetary policy bulletin, monetary policy will remain in **"risk-minimisation mode"** to align inflation towards the target while supporting growth.
- Given that the RBI Governor has been highlighting the aim of getting inflation to 4% on a durable basis, the policy rates are likely to be kept on hold for some more months – probably till October 2024.

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GREEN HYDROGEN

The **Ministry of New and Renewable Energy (MNRE)** has announced a **Rs-496-crore (until 2025-26) scheme** to support pilot projects that either test the **viability of green hydrogen** as **a vehicle fuel** or **develop secure supporting infrastructure** such as refuelling stations.

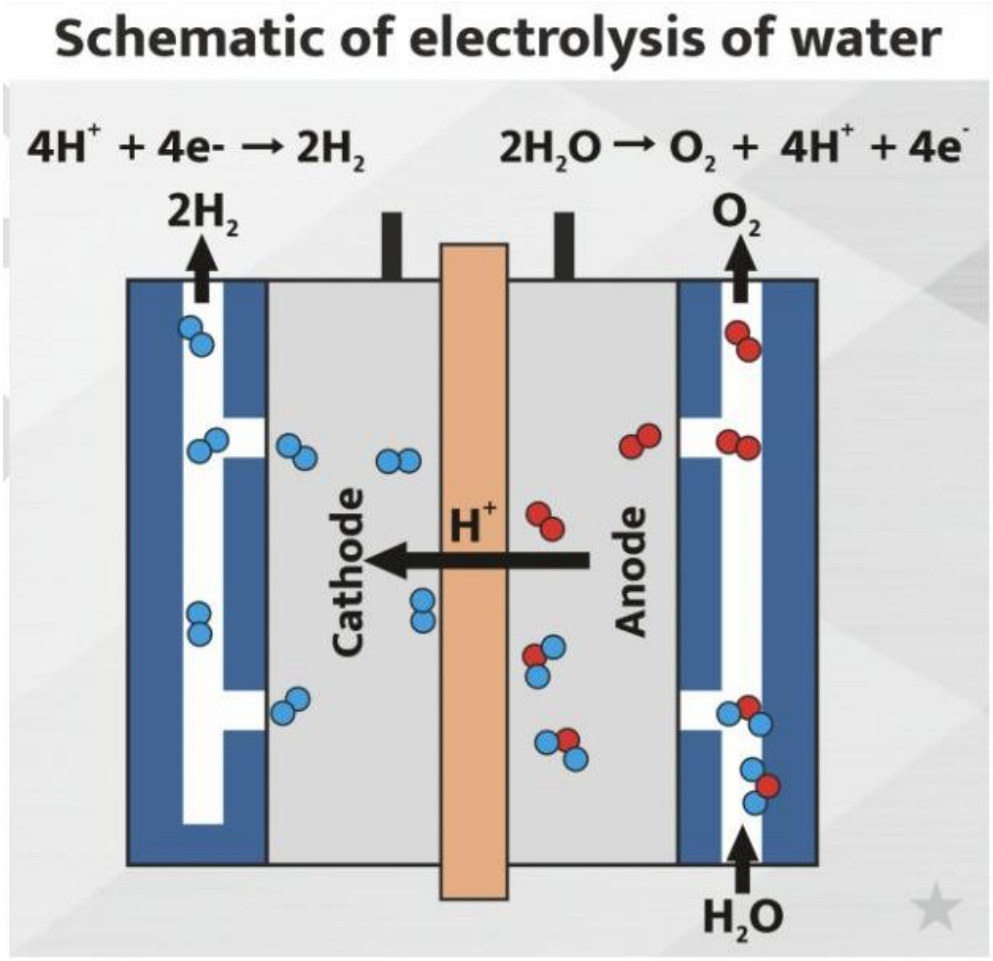
Big Indian commercial vehicle manufacturers such as **Tata Motors, Volvo Eicher, and Ashok Leyland** are doubling down on efforts to develop hydrogen-powered trucks and buses by ramping up research and development, and building manufacturing capacities.

Indian energy companies too are trying to **scale up production of green hydrogen** and bring down costs to make it affordable enough to compete with other fuels.

WHAT IS GREEN HYDROGEN & HOW IS IT PRODUCED?

- Green hydrogen is **produced by renewable energy** through electrolysis of water. Electrolyser technology is central to the green hydrogen production process.
- Alkaline, polymer electrolyte membrane (PEM) and Solid Oxide Electrolysers are commercially available technologies for green hydrogen production.

- **Alkaline Electrolyzers:** Alkaline electrolyzers operate via transport of hydroxide ions (OH-) through the electrolyte from the cathode to the anode with hydrogen being generated on the cathode side.



BENEFITS OF GREEN HYDROGEN

- Green hydrogen promises **significant reductions of emissions** to help slow global warming and climate change.

- **Curbing pollution** and meeting its climate goals.
- A **business opportunity** to become a **global hub for the production and export** of green hydrogen.

NATIONAL GREEN HYDROGEN MISSION

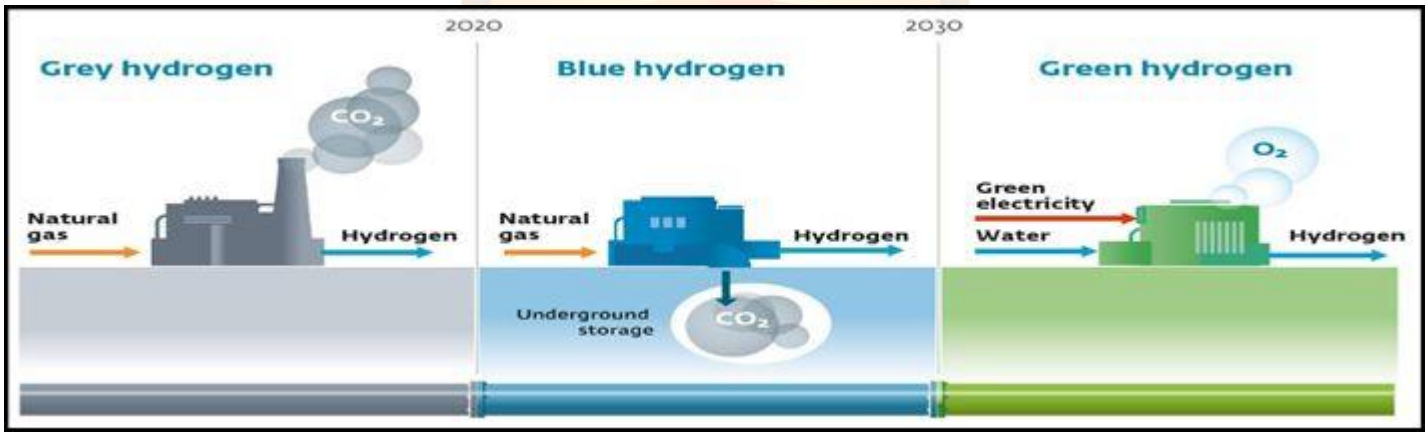
TYPES OF HYDROGEN

THE COLOURS OF HYDROGEN

GREY hydrogen constitutes the bulk of India's production currently. It is extracted from hydrocarbons (fossil fuels and natural gas), and carbon dioxide is the byproduct of consumption.

BLUE hydrogen is also sourced from fossil fuels, but byproducts such as carbon monoxide and carbon dioxide are captured and stored, so it is better than grey hydrogen.

GREEN HYDROGEN is an 'end-to-end' green fuel. Electricity generated from renewable sources such as wind or solar is used to electrolyse water. Byproducts are water or water vapour.



CONCERNS

- **Transportation and Storage:** Storage and transportation of hydrogen have traditionally been difficult due to the unique characteristics of the gas flammability, low density, ease of dispersion, and embrittlement.

- **High cost:** The cost of green hydrogen production is much higher than what is produced from fossil fuels, due to high prices of renewables and rare earth material used as electrodes.
- **High energy consumption:** The production of green hydrogen particular requires more energy than other fuels. Also, availability of renewable energy is not at par demand.
- **Safety issues:** Hydrogen is a highly volatile and flammable element and extensive safety measures are therefore required to prevent leakage and explosions.

OBJECTIVES OF THE SCHEME

(i) Validation of technical feasibility and performance of green hydrogen as a transportation fuel,

(ii) Evaluation of the economic viability of green hydrogen-powered vehicles, and

(iii) Demonstration of safe operation of hydrogen-powered vehicles and refuelling stations.

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HOW WILL IT BE IMPLEMENTED?

The **Ministry of Road Transport & Highways** will appoint a **scheme implementation agency** that will invite proposals for pilot projects. The selected company or consortium will be the project's executing agency.

Based on the recommendation of a **Project Appraisal Committee**, the MNRE will **approve viability gap funding (VGF)** for the project.

The VGF amount will be finalised after considering **"specific needs, merits, and feasibility of each project"**.

The executing agency will be required to complete the pilot project within two years.

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MCQs

1. Consider the following statements and mark the correct one:

   1. The Monetary Policy regulates the money supply in the economy.

   2. The Monetary Policy Committee is a six member body.

   (A) Only 1

   (B) Only 2

   (C) Both 1 & 2

   (D) Neither 1 nor 2

   Ans. (C)

2. Which of the following correctly defines Core Inflation?

   (A) The food & fuel inflation.

   (B) The overall inflation.

   (C) The Non food Non Fuel inflation.

   (D) None of the above

   Ans. (C)

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3. Which of the following process is involved in manufacturing Green Hydrogen?

(A) Electro Pyrolysis

(B) Electroplating

(C) Electromagnetism

(D) Electrolysis

Ans. (D)

4. Consider the following statements and mark the correct one:

Assertion (A): Green Hydrogen is produced by electrolysis.

Reasoning (R): Electrolysis can be done by using Non Renewable Energy.

(A) Both A & R are correct & R is the correct explanation of A.

(B) Both A & R are correct & R is not the correct explanation of A.

(C) A is true & R is false.

(D) A is false & R is true.

Ans. (B)

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5. Which of the following are likely outcomes of the National Green Hydrogen Mission?

1. Reducing Fuel import.

2. Increasing production capacity of Renewable Energy by 125 GW.

3. Reducing 50 MMT of GHG.

(A) Only 1

(B) Only 1 & 2

(C) Only 1 & 3

(D) All of the above

Ans. (D)