

UPSC CURRENT AFFAIRS NOTES

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India announces definition of Green Hydrogen

Green Hydrogen Standard for India specifies emission threshold of 2 kg CO₂ equivalent / kg H₂ as 12-month average

In a significant move for the progress of the National Green Hydrogen Mission, the government has notified the Green Hydrogen Standard for India. The standard issued by the Ministry of New and Renewable Energy (MNRE), Government of India outlines the emission thresholds that must be met in order for hydrogen produced to be classified as 'Green', i.e., from renewable sources. The scope of the definition encompasses both electrolysis-based and biomass-based hydrogen production methods.



After discussions with multiple stakeholders, the Ministry of New & Renewable Energy has decided to define Green Hydrogen as having a well-to-gate emission (i.e., including water treatment, electrolysis, gas purification, drying and compression of hydrogen) of not more than 2 kg CO₂ equivalent / kg H₂.

The notification specifies that a detailed methodology for measurement, reporting, monitoring, on-site verification, and certification of green hydrogen and its derivatives shall be specified by the Ministry of New & Renewable Energy.

The notification also specifies that the Bureau of Energy Efficiency (BEE), Ministry of Power shall be the Nodal Authority for accreditation of agencies for the monitoring, verification and certification for Green Hydrogen production projects.

The notification of the Green Hydrogen Standard brings a lot of clarity to the Green Hydrogen community in India and was widely awaited. With this notification, India becomes one of the first few countries in the world to announce a definition of Green Hydrogen.

President of India Pays Homage to Dr Shanker Dayal Sharma on his Birth Anniversary

The President of India, Smt Droupadi Murmu paid homage to Dr Shanker Dayal Sharma, former President of India, on his birth anniversary at Rashtrapati Bhavan today (August 19, 2023).

Dr Shanker Dayal Sharma on his Birth Anniversary

Shankar Dayal Sharma (19 August 1918 – 26 December 1999) was an Indian lawyer and politician from the state of Madhya Pradesh who served as the ninth president of India, from 1992 to 1997.



Born in Bhopal, Sharma studied at Agra, Allahabad and Lucknow and received a doctorate in constitutional law from the University of Cambridge and was a bar-at-law from Lincoln's Inn and a Brandeis Fellow at Harvard University. During 1948–49, Sharma was one of the leaders of the movement for the merger of Bhopal State with India, a cause for which he served eight months' imprisonment.

A member of the Indian National Congress party, Sharma was chief minister (1952–56) of Bhopal State and served as a cabinet minister (1956–1971) in the government of Madhya Pradesh holding several portfolios. Sharma was president of the Bhopal State Congress Committee (1950–52), Madhya Pradesh Congress Committee (1966–68) and of the All India Congress Committee (1972–74). He served as Union Minister for Communications (1974–77) under Prime Minister Indira Gandhi. Twice elected to the Lok Sabha, Sharma served as governor of Andhra Pradesh (1984–85), Punjab (1985–86) and Maharashtra (1986–87) before being elected unopposed as the eighth vice president of India in 1987.

Sharma was elected president of India in 1992 and served till 1997 during which period he dealt with four prime ministers, three of whom he appointed in the last year of his presidency.

Indian women win team title at U-20 Wrestling Worlds

India's under-20 wrestlers won medals in seven out of 10 weight classes, including three gold, one silver and three bronze, to finish ahead of women's wrestling powerhouse Japan and the USA in the overall tally.



Antim Panghal, the first Indian to win two Under-20 World Championship titles wasn't even sure she'd compete in the Under-20 World Championships. She travelled to Amman only because the dates for the trials for next month's Sr. World C'hip were not formalised.

PM addresses G20 Digital Economy Ministers Meet

The Prime Minister, Shri Narendra Modi addressed the G20 Digital Economy Ministers' Meet held in Bengaluru via video message today.





- “There is no better place than Bengaluru to discuss the digital economy”
- “India’s digital transformation is powered by its unshakeable belief in innovation and its commitment to speedy implementation”
- “Nation is leveraging technology to transform governance and make it more efficient, inclusive, faster and transparent”
- “India's Digital Public Infrastructure offers scalable, secure and inclusive solutions for global challenges”
- “With such diversity, India is an ideal lab for solutions. Solution which succeeds in India can be easily applied anywhere in the world”
- “Important to build consensus on the G20 High-Level Principles for a Secure, Trusted, and Resilient Digital Economy”
- “Entire ecosystem of technology-based solutions can be built to address the challenges faced by humanity. All it needs from us are the four C's - Conviction, Commitment, Coordination, and Collaboration”

The Prime Minister credited the launch of the Digital India initiative in 2015 for the unprecedented digital transformation that has taken place in India over the last 9 years.

He underlined that India’s digital transformation is powered by its unshakeable belief in innovation and its commitment to speedy implementation while also being motivated by the spirit of inclusion where no one is left behind.

Highlighting the scale, speed and scope of this transformation, the Prime Minister mentioned India’s 850 million internet users who enjoy some of the cheapest data costs in the world.

Shri Modi touched upon leveraging technology to transform governance and make it more efficient, inclusive, faster and transparent and gave the example of Aadhaar - India’s unique digital identity platform covering more than 1.3 billion people. He mentioned the JAM trinity- Jan Dhan bank accounts, Aadhaar, and Mobile that have revolutionized financial inclusion and the UPI payment system where nearly 10 billion transactions take place every month, and 45% of the global real-time payments happen in India.

The Prime Minister also threw light on the Direct Benefits Transfer plugging leakages in the system and saving over 33 billion dollars. Referring to the CoWIN portal that supported India's Covid vaccination drive, the Prime Minister informed that it helped in the delivery of over 2 billion vaccine doses along with digitally verifiable certificates. Shri Modi also touched upon the Gati-Shakti platform that uses technology and spatial planning to map infrastructure and logistics, thereby assisting in planning, reducing costs, and increasing the speed of delivery.

The Prime Minister further highlighted the Government e-Marketplace, an online public procurement platform that has brought transparency and probity into the process, and the Open Network for Digital Commerce which is democratizing e-Commerce. “Fully digitized taxation systems are promoting transparency and e-governance”, he added. The Prime Minister also mentioned the development of Bhashini, an AI-powered language translation platform that will support digital inclusion in all the diverse languages of India.

“India's Digital Public Infrastructure offers scalable, secure and inclusive solutions for global challenges”, the Prime Minister remarked. Noting the incredible diversity of the country, the Prime Minister emphasized that India has dozens of languages and hundreds of dialects. He further added that it is home to every religion and innumerable cultural practices from around the world. “From ancient traditions to the latest technologies, India has something for



everyone”, the Prime Minister asserted. With such diversity, he continued, India is an ideal testing lab for solutions. He underlined that a solution which succeeds in India can be easily applied anywhere in the world.

The Prime Minister made evident that India is ready to share its experiences with the world and gave the example of the CoWIN platform being offered for global good during the Covid pandemic. He underlined that India has created an online Global Public Digital Goods Repository - the India Stack to ensure that no one is left behind, especially those from the Global South.

The Prime Minister expressed satisfaction that the working group is creating a G20 virtual Global Digital Public Infrastructure Repository and underlined that progress on Common Framework for Digital Public Infrastructure will help create a transparent, accountable, and fair digital ecosystem for all. He also welcomed the efforts to develop a roadmap to facilitate Cross Country Comparison of Digital Skills and setting up a Virtual Centre of Excellence on Digital Skilling. He said that these are important efforts to meet the needs of a future-ready workforce. Noting that the digital economy will face security threats and challenges as it spreads globally, the Prime Minister pointed out that it is important to build consensus on the G20 High-Level Principles for a Secure, Trusted, and Resilient Digital Economy.

“Technology has connected us like never before. It holds the promise of inclusive and sustainable development for all”, the Prime Minister remarked as he emphasized that G20 nations have a unique opportunity to lay the foundations for an inclusive, prosperous, and secure global digital future. He noted that financial inclusion and productivity can be advanced through Digital Public Infrastructure. He suggested promoting the use of digital technology by farmers and small businesses, establishing the framework to build a global digital health ecosystem, and developing a framework for the safe and responsible use of Artificial Intelligence. Shri Modi emphasized that an entire ecosystem of technology-based solutions can be built to address the challenges faced by humanity. “All it needs from us are the four C's - Conviction, Commitment, Coordination, and Collaboration”, the Prime Minister concluded as he expressed confidence that the working group will take us forward in that direction.

Gujarat International Finance Tech-City (GIFT City)

Gujarat International Finance Tech-City (GIFT City) is a business district currently being constructed in the state of Gujarat. GIFT City is India’s first operational smart city with the development of world-class infrastructure and sustainable master planning, which will make GIFT at par or above par with renowned centres like London, Shanghai, New York, Hong Kong, Singapore, Dubai, etc.

Promoted by the state government of Gujarat as a greenfield project, it will include commercial and residential complexes.



GIFT City IFSC Latest News

In April 2023, the Reserve Bank of India (RBI) removed a major hurdle for investments in the International Financial Services Centre (IFSC) at GIFT City, Gujarat, through the Liberalised Remittance Scheme (LRS) route.

More on the news

- Making remittances to IFSCs under the LRS ecosystem has been allowed.
- Can open a foreign currency account (FCA) in IFSC.
- Until now, unused funds in FCA for up to 15 days needed to be sent to the domestic rupee account.
- Now unutilised funds can be repatriated and surrendered within 180 days.
- Banks can now offer interest-bearing accounts to residents.
- The move will help banks raise low-cost funds and get more sticky deposits.

Challenges

- The end-use restrictions of making permissible investments in IFSC still remain.
- The funds can be remitted to IFSC for investment in securities only, and not for other purposes such as educational or medical requirements.
- The combined limit for investment still stands at \$250,000.
- Residents cannot settle domestic transactions with other residents using IFSC foreign currency accounts.

Gujarat International Finance Tech-City

- GIFT City is an integrated development on 886 acres of land with 62 mn sq. ft. of built-up area which includes office space, residential, schools, hospitals, hotels, clubs, retail and various recreation facilities.
- GIFT is a vertical city that will optimise the land area consumption for the development.
- GIFT is located on the banks of Sabarmati river, connecting business capital (Ahmedabad) and political capital (Gandhinagar) of Gujarat state – **The Growth Engine of India.**
- The GIFT City is located 12 km from Ahmedabad International Airport.
- GIFT City has a dedicated multi-services Special Economic Zone (SEZ) for International operations for various services sector players.
- Also, GIFT multi-services SEZ has the status of India's first International Financial Services Centre (IFSC) approved by the Government of India.
- The establishment of IFSC in India is expected to increase employment opportunities, thereby, enhancing economic activity and revenue generation.

Aim of the GIFT City project



As per official statements, the Gujarat International Finance Tech City will be a major boost to India's Smart-City missions by playing a key role in the burgeoning finance and technology sectors.

The concept of GIFT City was ideated in 2007 and its planning was awarded to East China Architectural Design & Research Institute (ECADI), which is credited with the planning of much of modern-day Shanghai.

Overview of Gujarat International Finance Tech-City

The GIFT City's plan is for the 359 hectares (886 acres) of land area to have approximately 110 buildings with 62,000,000 sq ft of built-up area, of which around 67% is commercial, 22% is for residential and 11% is social facilities. Currently, 2,000,000 sq ft of commercial space is operational, and another 3,000,000 sq ft is under development.

The proposed utilities for the city are as follows:

1. **Electricity:** A 400 MV electrical supply line is proposed to be laid which will reduce the chances of power outages. The cables will be laid in a utility tunnel consisting of thick concrete walls in redundant paths.
2. **Telecommunication Services:** GIFT City will have state-of-the-art telecommunications systems which will be based on the concept of FTTX (Fiber to home/office). The communications lines will be laid in fault-tolerant rich architecture to ensure maximum uptime of services
3. **Piped gas:** Natural gas is distributed to every house and building via pipes, which is cheaper and safer than cylinders. Gas supply to the city is done from the existing gas network of the state-owned company for gas transmission pipelines. Piped natural gas is already in distribution in the nearby cities of Ahmedabad and Gandhinagar.
4. **Solid waste management:** All waste in the city are collected and taken to the processing plant by vacuum chutes installed at every floor of all buildings. The waste is automatically sucked through underground chutes at a high speed of 90 km/h and is being treated through various methods including plasma gasification.
5. **Transportation:** Transportation in GIFT City will consist of the following:
 - Metro, Light Rail and Bus Rapid Transportation System
 - Use of electric personal rapid transit systems within the city.

Central Board of Direct Taxes (CBDT)

The Central Board of Direct Taxes (CBDT) has notified a reduction in the valuation of rent-free accommodation to staff provided by employers.



It is a statutory authority functioning under the Central Board of Revenue Act, 1963.

The CBDT is a part of the Department of Revenue in the Ministry of Finance.

Functions:

- Its functions include formulation of policies, dealing with matters relating to levy and collection of direct taxes, and supervision of the functioning of the entire Income Tax Department.
- CBDT also proposes legislative changes in direct tax enactments and changes in rates and structure of taxation in tune with the policies of the Government.

Historical Background:

- The Central Board of Revenue, as the Department's apex body charged with the administration of taxes, came into existence as a result of the Central Board of Revenue Act, 1924.
- Initially, the Board was in charge of both direct and indirect taxes.
- However, when the administration of taxes became too unwieldy for one Board to handle, the Board was split up into two, namely the Central Board of Direct Taxes and Central Board of Excise and Customs, with effect from 1.1.1964
- This bifurcation was brought about by the constitution of the two Boards u/s 3 of the Central Boards of Revenue Act, 1963.

Structure:

The CBDT is headed by Chairman and also comprises of six members, all of whom are ex-officio Special Secretary to the Government of India.

- Member (Income Tax)
- Member (Legislation and Computerization)
- Member (Revenue)
- Member (Personnel & Vigilance)
- Member (Investigation)
- Member (Audit & Judicial)

The Chairman is the co-ordinating head, and each of the members has been assigned a specialized function.

The Chairman and Members of CBDT are selected from Indian Revenue Service (IRS).

Yellow-Legged Hornet

The first live specimen of a yellow-legged hornet, which “poses a threat to honeybees and other pollinators,” was recently detected in the wild in the United States.



- The Asian hornet, also known as the yellow-legged hornet or Asian predatory wasp, is a species of hornet indigenous to Southeast Asia.
- Scientific Name: *Vespa velutina*
- It is a predatory insect that commonly feeds on other social bees and wasps, including honey bees.
- This species has become invasive in several parts of the world, where it poses a threat to local ecosystems and bee populations.
- It is distinct from the infamous Asian Giant Hornet (*Vespa mandarinia*), often referred to as the "murder hornet," which is a different and larger species found in parts of Asia, including Japan. While both species are predators of bees, the Yellow-Legged Hornet has become a particular concern in parts of Europe due to its invasive nature and impact on local ecosystems.

Psoriasis Awareness Month: How to manage psoriasis in children

Psoriasis is a chronic autoimmune skin condition that can affect people of all ages, including children. (Source: Getty Images/ Thinkstock)

Every year, August is marked as Psoriasis Awareness Month. Psoriasis is a chronic autoimmune skin condition that can affect people of all ages, including children.

According to Dr Swapna Priya, Consultant Dermatologist, CARE Hospitals Hitech City Hyderabad, the exact cause of psoriasis is not fully understood, but genetics and immune system dysfunction play significant roles.

“Some children might be more susceptible due to a family history of psoriasis or other autoimmune disorders,” she said, noting that environmental factors, stress, infections, and certain medications can trigger or exacerbate psoriasis in children.



Symptoms of psoriasis in children

According to Dr. Priya, red, raised, and thickened patches of skin with silvery scales, itchy and painful skin, dry and cracked skin that can bleed are some common symptoms of psoriasis.

Less common symptoms that might be missed include nail changes, such as pitting, discolouration, and separation from the nail bed, joint pain and swelling (psoriatic arthritis), which can affect a subset of children with psoriasis' scalp involvement, leading to flaking and scaling (scalp psoriasis).

Megalithic site

A large number of megalithic hat stones were found from a single site during a recent archaeological salvage excavation conducted by the Kerala State Archaeology Department at Nagaparamba in Kuttippuram village, near Tirunavaya.



Key findings:

- Hat stones, popularly called Thoppikkallu in Malayalam, are hemispherical laterite stones used as lid on burial urns during the megalithic period are found here.

- The findings may throw light on the life and culture of people who lived in those parts more than 2,000 years ago.
- These were constructed either as burial sites or commemorative(non-sepulchral) memorials
- The former are sites with actual burial remains, such as dolmenoid cists(box-shaped stone burial chambers), cairn circles (stone circles with defined peripheries) and capstones (distinctive mushroom-shaped burial chambers found mainly in Kerala).
- Non-sepulchral megaliths include memorial sites such as menhirs.
- In India, archaeologists trace the majority of the megaliths to the Iron Age(1500 BC to 500 BC).
- In India, these are concentrated in the states of Maharashtra(mainly in Vidarbha), Karnataka, Tamil Nadu, Kerala, Andhra Pradesh and Telangana.

Tirunavaya

It is the land of ancient Mamankam.

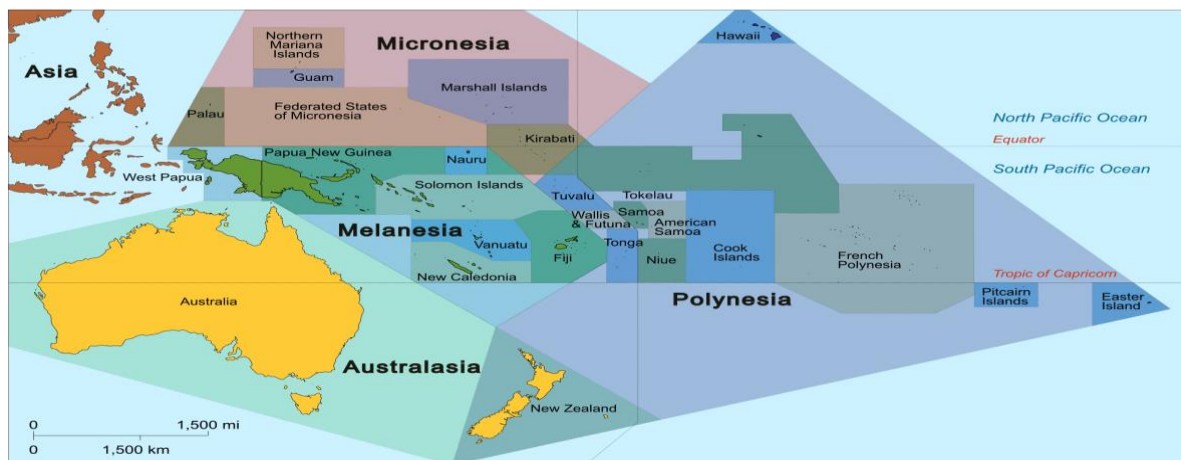
It is situated on the banks of Bharathapuzha river; it is a place of historical importance.

In olden days, Mamankam a grand assembly of rulers was held once in 12 years here.

Pacific islands face risk of drowning as sea levels rising faster than expected

The WMO report also highlighted the occurrence of marine heatwaves in a large area northeast of Australia and south of Papua New Guinea over a period of more than six months.

- This accelerated rise threatens low-lying islands.
- The report also highlighted the occurrence of marine heatwaves.
- These heatwaves have had a significant impact on marine life.





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The World Meteorological Organization (WMO) has issued a stark warning, stating that sea levels around Pacific Islands are rising at a rate of about 4 mm per year, slightly above the global average.

The warning came in its State of the Climate in the South-West Pacific 2022 report.

This accelerated rise threatens low-lying islands such as Tuvalu and the Solomon Islands, which could face devastating floods over time, leading to the destruction of agricultural lands and habitable areas.