



IPEF Ministerial Meeting

For Prelims: [Indo-Pacific region](#), [Indo-Pacific Economic Framework for Prosperity \(IPEF\)](#)

For Mains: Groupings & Agreements Involving India and/or Affecting India's Interests, Bilateral Groupings & Agreements, Indo-Pacific and its Significance

Why in News?

Recently, the second [Indo-Pacific Economic Framework for Prosperity \(IPEF\)](#) Ministerial Meeting took place, showcasing the significant strides made in fostering economic engagement among partner countries in the [Indo-Pacific region](#).

- Hosted by the **United States**, this virtual gathering convened high-level officials to delve into discussions regarding the **four pillars of the framework** and the ongoing negotiations associated with each pillar.

What are the Key Highlights of the Meeting?

- The meeting announced the substantial conclusion of the negotiations of a first-of-its-kind international IPEF Supply Chain Agreement under Pillar II of the framework, which aims to increase the **resilience, efficiency, productivity, sustainability, transparency, diversification, security, fairness, and inclusivity of their supply chains**.
- The meeting also reported good progress under the other IPEF Pillars, namely **Fair and Resilient Trade (Pillar I), Infrastructure, Clean Energy, and Decarbonization (Pillar III), and Tax and Anti-Corruption (Pillar IV)**.
- The meeting witnessed the introduction of a **regional hydrogen** initiative by some IPEF partners to encourage widespread **deployment of renewable and low-carbon hydrogen** and its derivatives in the region under Pillar III.

What is IPEF?

- **About:**
 - It is a **US-led initiative** that aims to **strengthen economic partnership among participating countries** to enhance resilience, sustainability, inclusiveness, economic growth, fairness, and competitiveness in the [Indo-Pacific region](#).
 - IPEF was launched jointly by the **USA and other partner countries of the Indo-Pacific region on 23rd May 2022**, at Tokyo.
- **Members:**
 - Australia, Brunei, Fiji, India, Indonesia, Japan, South Korea, Malaysia, New Zealand, Philippines, Singapore, Thailand, United States, and Vietnam.
- **Pillar:**
 - **Trade (Pillar I):**
 - Focuses on **enhancing trade engagement among IPEF partner countries**.
 - Aims to promote **economic growth, peace, and prosperity in the region**.
 - India had joined **Pillars II to IV of IPEF** while it has an **observer status in Pillar-**

- I.
- [Supply-chain resilience \(Pillar II\)](#):
 - Seeks to make supply chains more **resilient, robust, and well-integrated**.
 - Emphasizes crisis response **measures and cooperation to mitigate disruptions**.
 - Focuses on **improving logistics, connectivity, and investments** in critical sectors.
 - Aims to enhance worker roles through upskilling and reskilling initiatives.
 - **Clean Economy (Pillar III)**:
 - Aims to **advance cooperation on [clean energy](#) and climate-friendly technologies**.
 - Focuses on **research, development, commercialization, and deployment of clean energy**.
 - Encourages investment in **climate-related projects** in the Indo-Pacific region.
 - **Fair Economy (Pillar IV)**:
 - Focuses on implementing effective [anti-corruption](#) and **tax measures**.
 - Highlights India's strong steps in improving legislative and administrative frameworks to combat corruption.

Reaffirms commitment to implementing [UNCAC \(United Nations Convention against Corruption\)](#) and [FATF \(Financial Action Task Force\) standards](#).

[Source: PIB](#)

India-Singapore Ties

For Prelims: [India and Singapore](#), [Straits of Malacca](#), Foreign Direct Investment, [Comprehensive Economic Cooperation Agreement \(CECA\)](#), SIMBEX, India's Open Network for Digital Commerce (ONDC)

For Mains: India and Singapore Relations.

Why in News?

The **Union Education Minister of India** recently embarked on a **three-day visit to Singapore** with the aim of **strengthening existing ties and exploring opportunities** for widening bilateral engagement in education and skill development.

//



What are the Key Highlights of the Meeting?

- **The Union Education Minister** met various key Ministers of the Singaporean Government and visited Spectra Secondary School.
 - It includes a constructive meeting with **DPM & Minister for Finance, Singapore, on strengthening cooperation and focusing on skill development.**
 - The meeting emphasized **creating opportunities for lifelong learning, building a future-ready workforce, and making knowledge and skill development a key pillar of strategic partnership.**
- The minister highlighted the [National Education Policy \(NEP\) 2020](#) and its focus on **vocational education, market relevance of training,** and integration of skills qualifications framework with higher education qualification framework.
- The Minister stressed **on learning from the best practices of Singapore, collaborate and customize it to meet Indian needs.**

How are India's Relations with Singapore?

- **Background:**
 - The close ties between [India and Singapore](#) have a history rooted in strong **commercial, cultural and people-to-people links across a millennium.**
 - The more modern relationship is attributed to **Sir Stamford Raffles who, in 1819, established a trading station in Singapore on the route of the [Straits of Malacca](#) which later became a crown colony and governed from Kolkata till 1867.**
 - After independence, **India was one of the first countries to recognize Singapore in 1965.**
- **Trade and Economic Cooperation:**
 - **Singapore is among India's largest trade and investment partners in ASEAN** and accounted for 27.3 % of our overall trade with ASEAN in 2021-22.

- Singapore is also the leading source of **Foreign Direct Investment into India**.
- Over the last 20 years the total investment into India from Singapore is almost 136.653 billion and accounts for nearly **23% of the total FDI inflows**.
- The **Comprehensive Economic Cooperation Agreement (CECA)** between India and Singapore was signed in 2005.
 - India and Singapore have also collaborated on several initiatives to promote trade and investment, such as the India-Singapore Business Forum and the **India-Singapore CEOs Forum**.
- Recently, India's **Unified Payments Interface (UPI)** and Singapore's PayNow have been integrated in **February 2023** to enable faster **Remittances** between the two countries.
- **Defence and Security Cooperation:**
 - Both countries share common concerns about regional stability and maritime security in the **Indo-Pacific region**.
 - In 2015, they elevated their relationship to a **Strategic Partnership on the occasion of the 50th anniversary of the establishment of diplomatic relations**.
 - They have also signed several agreements to enhance their defence ties, such as the **Defence Cooperation Agreement (2003) and the Naval Cooperation Agreement (2017)**.
 - **Military Exercises:**
 - **Navy:** **SIMBEX**
 - **Air Force:** **SINDEX**
 - **Army:** **Bold Kurukshetra**
- **Education, Science and Technology Cooperation:**
 - The **28th edition of the DST-CII India-Singapore Technology Summit** was held in February 2022.
 - It highlighted collaboration of India and Singapore in **AI, IoT, fintech, healthcare, biotech, smart manufacturing, green mobility, logistic and supply chain solutions, smart manufacturing, and sustainable urban development**.
 - **ISRO** also launched Singapore's first indigenously built micro-satellite in 2011.
 - Singapore is looking at collaborating with India in the area of digital public infrastructure on the lines of a **national identity system like Aadhaar**.
 - Another potential opportunity could be the **integration of Singapore's 'Proxtera' (global digital hub of MSME ecosystems) with India's Open Network for Digital Commerce (ONDC)**
- **Cultural and People-to-People Ties:** Both countries share a rich heritage of cultural diversity, linguistic affinity and religious harmony.
 - Ethnic Indians constitute about 9.1% or around 3.5 lakhs of the resident population of 3.9 million in Singapore. They have contributed significantly to Singapore's economic development, social fabric and cultural diversity.
 - **ASEAN-India Pravasi Bharatiya Divas (PBD)** was held in Singapore on 6-7 January 2018 as part of commemoration of 25 years of ASEAN-India Partnership, with the theme, **"Ancient Route, New Journey"**.
- **Cooperation in Infrastructure Development:**
 - Singapore's expertise in infrastructure development, smart cities, and urban planning aligns with **India's goals of sustainable development and building smart cities**.
 - Singaporean companies have been actively involved in infrastructure projects in India, including the development of **industrial parks, airports, and urban infrastructure**.

UPSC Civil Services Examination Previous Year Question (PYQ)

Q. Consider the following pairs: (2009)

Organization Location of Headquarters

1. Asian Development : Tokyo Bank

2. Asia-Pacific : Singapore Economic Cooperation

3. Association of South East Asian Nations: Bangkok

Which of the above pairs is/are correctly matched?

- (a) 1 and 2 only
- (b) 2 only
- (c) 2 and 3 only
- (d) 3 only

Ans: (b)

Q. What is the correct sequence of occurrence of the following cities in South-East Asia as one proceeds from south to north? (2014)

- 1. Bangkok
- 2. Hanoi
- 3. Jakarta
- 4. Singapore

Select the correct answer using the code given below:

- (a) 4 - 2 - 1 - 3
- (b) 3 - 2 - 4 - 1
- (c) 3 - 4 - 1 - 2
- (d) 4 - 3 - 2 - 1

Ans: (c)

[Source: PIB](#)

EU-India Clean Energy and Climate Partnership

For Prelims: European Green Deal, [European Union](#), [Green Hydrogen](#), [Climate Change](#), [ISA](#), Paris Agreement.

For Mains: EU-India Clean Energy and Climate Partnership and its significance.

Why in News?

The Minister of Power and New & Renewable Energy, Government of India has held a meeting with the Executive Vice President of **European Green Deal**, [European Union](#), where both discussed cooperation under the **EU - India Clean Energy and Climate Partnership**.

What is the European Green Deal?

- The European Green Deal seeks to transform the **EU into a modern, resource-efficient and competitive economy**, ensuring:

- No net emissions of greenhouse gases by 2050
- Economic growth decoupled from resource use
- No person and no place left behind
- One third of the €1.8 trillion investments from the Next Generation EU Recovery Plan, and the EU's seven-year budget **will finance the European Green Deal**.

What are the Key Highlights of the Meet?

- **Cooperation under the EU-India Clean Energy and Climate Partnership:**
 - The meeting focused on discussing collaboration in areas such as energy efficiency, [Renewable energy](#), [Green hydrogen](#), Energy storage, and Diversification of the [global supply chain](#) for the energy sector.
- **Renewable Energy Capacity Expansion:**
 - India highlighted its efforts to **ramp up renewable energy capacity**, including the establishment of manufacturing facilities for advanced solar cells and panels.
 - Manufacturing capacity for the most advanced solar cells and panels is increasing; and **by 2030, a total manufacturing capacity of 80 GW** will come up.
- **Energy Storage and Round-the-Clock Renewables:**
 - Recognizing the need for energy storage to **facilitate round-the-clock renewable energy supply**, India plans to introduce bids for more storage capacity and has already initiated a bid for [Production Linked Incentive](#) (PLI) for energy storage.
 - India proposed joint pilots with the EU in areas like [Green Steel](#) and other frontier technologies, highlighting **India's pilot project for round-the-clock renewables** using hydrogen and ammonia as storage.
- **Green Hydrogen and Free Trade:**
 - India emphasized the importance of **free and open trade for the journey towards green hydrogen** and cautioned against [Protectionism](#).
 - Mentioned India's plan to increase electrolyser manufacturing capacity and upcoming Production Linked Incentive bids in that regard.
- **Global Energy Efficiency Targets:**
 - The Executive Vice President of the **European Green Deal** appreciated **India's leadership** in renewable energy and energy efficiency.
 - Both sides discussed the **need to bring the agenda of energy efficiency** to the global stage and set global energy efficiency targets.
- **Grid-Scale Battery Storage Systems and Green Mobility:**
 - Collaboration opportunities were explored in **batteries for grid-scale storage**, particularly for green mobility. India aims to have a significant market share in green mobility, with a majority of two-wheelers, three-wheelers, and a substantial portion of four-wheelers expected to be green by 2030.
- **Detoxifying Agriculture and Energy Access:**
 - The Power Minister expressed India's goal of **transitioning away from chemical fertilizers** in agriculture. The **issue of energy access for the global population**, especially in Africa, was discussed.
 - The role of the [International Solar Alliance \(ISA\)](#) in bringing clean energy to regions without access was highlighted, and a partnership between the EU, ISA, Africa, and India was proposed to address this issue.

What is EU-India Clean Energy and Climate Partnership?

- **About:**
 - The India-EU Clean Energy and Climate Partnership was agreed at the **EU-India Summit in 2016**.
 - It is financed by the Partnership Instrument of the EU and **managed by the Delegation of the European Union to India**.
 - PricewaterhouseCoopers Private Limited (PwC India) is the implementing partner for this project, together with NIRAS A/S, EUROCHAMBRES and the Council on Energy,

Environment and Water (CEEW).

▪ **Objective:**

- It aims to **reinforce cooperation on clean energy** and implementation of the **Paris Agreement** by strengthening joint activities for deployment of climate friendly energy sources, including solar and wind energy.
- The objective is envisaged to be achieved by focusing on **Energy Efficiency (EE), Renewable Energy (RE) and Climate Change (CC)**.

▪ **Focus Areas:**

- **Energy Efficiency:**
 - Energy Conservation Building Code (ECBC)
 - Nearly Zero Energy Building (nZEB)
 - Smart Readiness Indicator (SRI)
- **Renewable Energy:**
 - Large Scale Solar PV
 - Solar PV Rooftop
 - Offshore Wind
 - Energy Storage
 - Green Hydrogen
- **Climate Change:**
 - Adaptation
 - Mitigation
 - Cooling (including Cold-Chain)
 - Knowledge Management
- **Others:**
 - Smart Grid
 - Sustainable Finance

UPSC Civil Services Examination Previous Year Question (PYQ)

Q.1 Consider the following statements: (2023)

Statements-I : Recently, the United States of America (USA) and the European Union (EU) have launched the 'Trade and Technology Council'.

Statement-II : The USA and the EU claim that through this they are trying to bring technological progress and physical productivity under their control.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- (b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- (c) Statement-I is correct but Statement-II is incorrect
- (d) Statement-I is incorrect but Statement-II is correct

Exp: (c)

- Recently, the United States of America (USA) and the European Union (EU) have launched the Trade and Technology Council'.
- The EU-US Trade and Technology Council serves as a forum for the United States and European Union to coordinate approaches to key global trade, economic, and technology issues and to deepen transatlantic trade and economic relations based on these shared values. It was established during the EU-US Summit on 15 June 2021 in Brussels. Hence, statement 1 is correct.
- US and EU discussed TTC work, with a focus on issues such as artificial intelligence, semiconductors and information and communication technology services.
- Through the Council, the EU and the US are working together to:
 - Ensure that trade and technology serve societies and economies, while upholding our common values
 - Strengthen their technological and industrial leadership

- Expand bilateral trade and investment
- **Hence, statement 2 is not correct.**

Q.2 Consider the following statements: (2023)

The 'Stability and Growth Pact' of the European Union is a treaty that

1. limits the levels of the budgetary deficit of the countries of the European Union
2. makes the countries of the European Union to share their infrastructure facilities
3. enables the countries of the European Union to share their technologies

How many of the above statements are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Exp: (a)

- The Stability and Growth Pact is a political agreement that sets limits on the fiscal deficits and public debt of the Member States of the European Monetary Union (EMU). Hence, statement 1 is correct.
- These guidelines are intended to ensure sound management of public finances within the EMU in order to prevent one Member State's irresponsible budgetary policies from spilling over and undermining the economic stability of the entire euro area
- The European Union Stability and Trade Pact does not make any provision related to sharing of infrastructure and technology.
- **Hence, statements 2 and 3 are not correct.**

Source: PIB

CPCB's New Guidelines for India's Stone Crusher Sector

For Prelims: [Central Pollution Control Board \(CPCB\)](#), [Environment Pollution \(Prevention & Control\) Authority \(EPCA\)](#), [Graded Response Action Plan \(GRAP\)](#), [Water \(Prevention and Control of Pollution\) Act, 1974](#).

For Mains: Issue Associated with Stone Crushing Units.

Why in News?

- [Stone crushing units](#) have long been recognized as major **contributors to fugitive dust emissions and severe air pollution**.
 - In response to the growing concern, the [Central Pollution Control Board \(CPCB\)](#) recently published the **Environmental Guidelines for Stone Crushing Units**.
 - The guidelines are in alignment with the **recommendations made by New Delhi-based**

non-profit Centre for Science and Environment (CSE).

What are the Key Guidelines Released By CPCB?

- The CPCB guidelines cover various aspects of stone crushing, such as **source emissions, product storage, transportation, water consumption and legal compliance**. Some of the key features of the guidelines are:
 - The stone crushers should **obtain consent to establish and consent to operate (CTO) from the [State Pollution Control Board \(SPCB\)](#)** before starting their operations.
 - Stone crushing unit shall comply with **emission norms prescribed under the Environment (Protection) Rules, 1986** and conditions laid down in CTO by concerned SPCB/PCC.
 - They **should install adequate pollution control devices, such as dust suppression systems, covers, screens and sprinklers**, to reduce the dust emissions from crushing, loading and unloading activities.
 - They should also store their products in **covered areas or silos to prevent wind-blown dust**.
 - The stone crushers **should use water judiciously and ensure its availability and quality** and procure their raw material from legal sources and maintain proper records of their transactions.
 - A **District Level Committee to be constituted** under chairmanship of District Magistrate/Deputy Commissioner so that **surprise inspections for surveillance of stone crushing units located under their jurisdiction** can be carried out on regular basis.
 - **Health survey of workers should be carried out** by the stone crusher on half-yearly basis.

What is the Issue Associated with Stone Crushing Units?

- **About:**
 - **Stone crushing units** are one of the major sources of **air pollution in India**.
 - These units produce **crushed stones that are used as raw material for various construction activities**.
 - However, the process of stone crushing also **generates a lot of dust that affects the health of the workers** and the surrounding population.
 - Moreover, stone mining is also associated with this activity, which further degrades the environment.
- **Recent Instances:**
 - In December 2022, a draft notification by Haryana government proposed **easing of proximity norms for setting up new stone crushers near residential areas**. This was met with criticism by environmentalists who feared that it would worsen air quality and impact farmland.
 - In June 2023, a report by CSE claimed that **many stone crushers in India were operating without consent or environmental clearance from SPCBs**.
 - The report also highlighted that most of these units did not have proper pollution control devices or monitoring systems.
- **Steps to Address the Issue:**
 - The [Environment Pollution \(Prevention & Control\) Authority \(EPCA\)](#) banned the **operation of the stone crusher units, along with brick kilns and hot mix plants**, under the implementation of the [Graded Response Action Plan \(GRAP\)](#).
 - **GRAP** includes the measures which will be taken by different government agencies to prevent worsening of **Air Quality of Delhi-NCR and prevent PM10 and PM2.5 levels** to go beyond the 'moderate' national [Air Quality Index \(AQI\)](#) category.
 - In May 2023, a study by researchers from Pune University revealed that **a model stone crusher unit in Pune had successfully implemented pollution control measures and reduced its dust emissions by 90%**. The study suggested that such units could serve as examples for other stone crushers in India.

What is the Central Pollution Control Board?

- The **CPCB** is a statutory organisation that was established in **September 1974** under the [Water \(Prevention and Control of Pollution\) Act, 1974](#).
 - **Further**, CPCB was entrusted with the powers and functions under the **Air (Prevention and Control of Pollution) Act, 1981**.
 - It is the apex body for environmental protection and pollution control in India. It functions under the **Ministry of Environment, Forest and Climate Change (MoEFCC)** and coordinates with the State Pollution Control Boards (SPCBs) and other agencies.
- The CPCB has various divisions that deal with different aspects of pollution control such as **air quality management, water quality management, hazardous waste management, environmental assessment, laboratory services**, information technology, public participation etc.

Conclusion

- While the CPCB guidelines encompass several crucial aspects of pollution control, some areas require further attention and improvement. The **guidelines do not address noise emissions and the timing of operations for standalone stone crushers**, which often cause inconvenience and discomfort to nearby residents.
- Additionally, it is essential to **provide specific timelines for stone crushers to adhere to the guidelines and to direct SPCBs to enforce the guidelines effectively**.

UPSC Civil Services Examination Previous Year Question (PYQ)

Prelims

Q.1 In the cities of our country, which among the following atmospheric gases are normally considered in calculating the value of Air Quality Index? (2016)

1. Carbon dioxide
2. Carbon monoxide
3. Nitrogen dioxide
4. Sulfur dioxide
5. Methane

Select the correct answer using the code given below:

- (a) 1, 2 and 3 only
- (b) 2, 3 and 4 only
- (c) 1, 4 and 5 only
- (d) 1, 2, 3, 4 and 5

Ans: (b)

Mains

Q.1 Describe the key points of the revised Global Air Quality Guidelines (AQGs) recently released by the World Health Organisation (WHO). How are these different from its last update in 2005? What changes in India's National Clean Air Programme are required to achieve revised standards? **(2021)**

The Rising Popularity of Chess in India

Why in News?

Chess, once considered a niche game, is now **gaining immense popularity in India**. With a rising number of ardent fans and exceptional players, the sport is making waves on the global stage.

- Recently, **GM Arjun Erigaisi won the Sharjah master's International Chess Championship 2023**.

Note:

- Sharjah master's International Chess Championship is an **annual chess tournament** that is held at the **Sharjah Cultural and Chess Club in Sharjah, UAE**.
- It aims to promote **chess as a sport and a cultural activity in Sharjah** and the region, and to provide an opportunity for chess players to compete and improve their skills.

What are the Factors Driving the Popularity of Chess in India?

- **Exceptional Indian Players:**
 - D. Gukesh (World No. 18), Arjun Erigaisi (World No. 37), R. Praggnanandhaa (World No. 47), and Nihal Sarin (World No. 64) are highly talented young chess players from India.
 - **India is ranked No. 2 in the world in international chess**, showcasing the country's strong presence in the game.
 - **Viswanathan Anand, a five-time World champion**, acts as a mentor to the next generation of Indian players.
- **Success on the Global Stage:**
 - Indian chess players' impressive performance on the international level has contributed to the sport's popularity in the country.
 - The presence of gifted teenagers and the emergence of talented players have further fueled interest in the game.
 - The [44th Chess Olympiad](#) was held in Chennai in 2022. The prestigious competition, which has been organized **since 1927**, is being **hosted in India for the first time and in Asia after 30 years**.
- **Development of Chess Academies:**
 - The establishment of the **WestBridge Anand Chess Academy** has played a crucial role in nurturing young talents and providing them with guidance.
 - Viswanathan Anand's involvement in mentoring promising players has helped elevate the standards of Indian chess.
 - Chess academies and training programs have created opportunities for young enthusiasts to hone their skills.
- **Increasing Media Coverage and Spectator Engagement:**
 - Major chess events like the **Chess Olympiad and Tata Steel Chess India** have gained significant media attention in recent times.
 - Spectator **participation and fan engagement have grown**, with thousands of people attending live chess tournaments.
 - Enhanced **media coverage and online streaming** have made chess more accessible to a wider audience.
- **All India Chess Federation (AICF):**
 - It was founded in 1951 and is affiliated to **Fédération Internationale des Échecs (FIDE)**, the world body for chess.

- **Role of AICF:**
 - Organizing **national-level tournaments.**
 - Supporting player development and training.
 - **Representing India in international chess organizations.**
 - Identifying and nurturing young talent.
 - **Facilitating participation in international tournaments.**
 - Advocating for chess inclusion in school curricula.

What Challenges Exist in Promoting Chess in India?

- **Limited mainstream attention** compared to other sports.
- Lack of **corporate sponsorships and investment** in elite tournaments.
- Need for **greater emphasis on women's chess and talent identification.**

World Titles Won by Indians

- **Viswanathan Anand:**
 - The most successful Indian chess player, who won the **FIDE World Chess Championship in 2000, 2007, 2008, 2010 and 2012.**
 - He also won the **World Rapid Chess Championship in 2003 and 2017,** and the **World Blitz Chess Championship in 2000 and 2017.** He is the only player to have won the world title in all three formats of chess.
- **Koneru Humpy:**
 - The highest rated Indian female chess player, who won the **Women's World Rapid Chess Championship in 2019.**
 - She also won the **Women's Grand Prix series in 2019-2020.**
- **Harika Dronavalli:**
 - The second highest rated Indian female chess player, who won the **bronze medal** at the **Women's World Chess Championship in 2012, 2015 and 2017.** She also won the FIDE Women's Grand Prix event in Chengdu in 2016.
- **R Praggnanandhaa:**
 - The **youngest Indian grandmaster** and one of the most promising talents in world chess, who won the **World Youth Chess Championship (under-18)** in 2019. He also won the **Asian Continental Chess Championship (open)** in 2021.

UPSC Civil Services Examination Previous Year Question (PYQ)

Prelims

Q. Consider the following statements in respect of the 44th Chess Olympiad, 2022:

1. It was the first time that Chess Olympiad was held in India.
2. The official mascot was named Thambi'.
3. The trophy for the winning team in the open section is the Vera Menchik Cup.
4. The trophy for the winning team in the women's section is the Hamilton-Russell Cup.

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

Ans:

Exp: (b)

- The first official Olympiad held in London in 1927 at Westminster Central Hall was then known as the 'Tournament of Nations'. This is the first time the Chess Olympiad was held in the place of origin of chess, India. It is coming to Asia for the first time in 3 decades. It has the highest ever number of countries participating. It has the highest ever number of teams participating. It has the highest number of entries in the women's section. **Hence, statement 1 is Correct.**
- **The Official Mascot of 44th Chess Olympiad is 'Thambi'.** The word 'Thambi' in Tamil language means - little or younger brother. **Hence, statement 2 is correct.**
- The trophy for the winning team in the open section is the Hamilton-Russell Cup, which was offered by the English magnate Frederick Hamilton-Russell as a prize for the 1st Olympiad (London 1927). **Hence, statement 3 is NOT correct.**
- The trophy for the winning women's team is known as the Vera Menchik Cup in honour of the first Women's World Chess Champion. **Hence, statement 4 is NOT correct.**

[Source: TH](#)

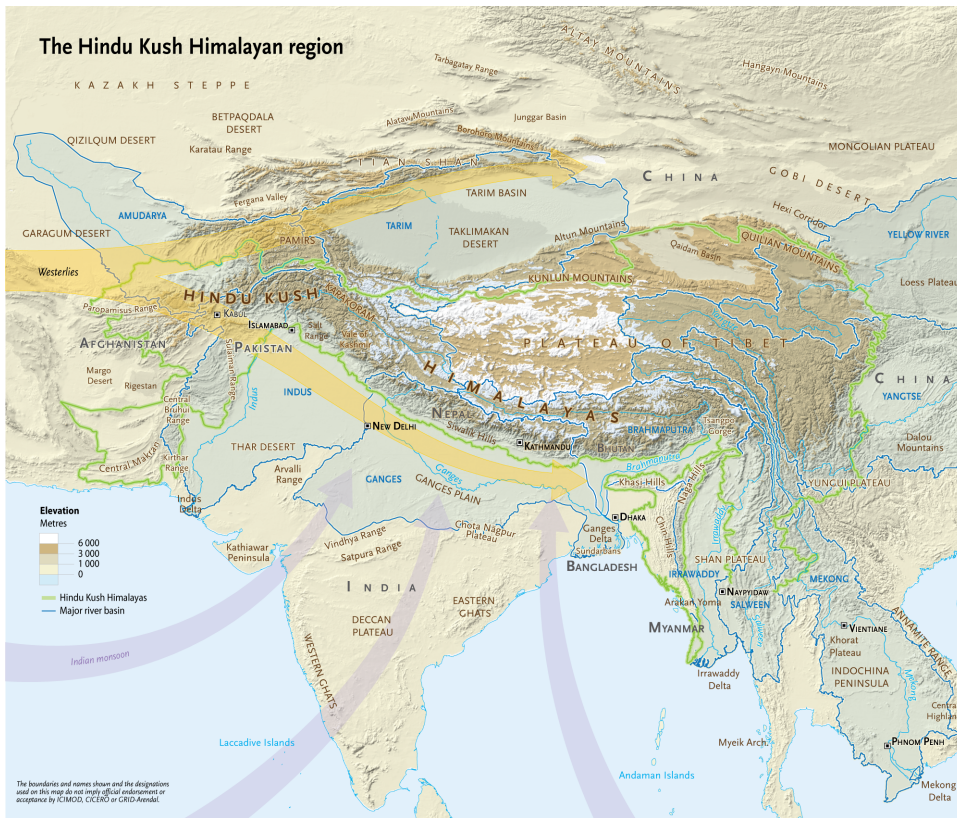
Rapid Fire Current Affairs

Urgent Action Needed to Save the Himalayas from Climate Change

The [Hindu Kush Himalaya \(HKH\) region](#), including [Mount Everest](#), faces irreversible changes due to global warming. **Rising temperatures endanger the environment, two-thirds of glaciers could vanish in 70 years**, and extreme weather events become more frequent. The **International Centre for Integrated Mountain Development (ICIMOD) urges immediate global action to honour the [Paris Agreement](#)**, make emission cuts, and transition to renewable energy. The SaveOurSnow campaign seeks public support. With 240 million people and vital water resources at risk, protecting the Himalayas requires urgent action.

ICIMOD is an **intergovernmental knowledge and learning centre** that develops and shares research, information, and innovations to empower people in the eight regional member countries of the HKH - **Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal, and Pakistan.**

International Everest Day is marked on **May 29** in honour of the remarkable achievement of **Edmund Hillary from New Zealand and Tenzing Norgay Sherpa from Nepal**. The two battled ice and storms to reach the pinnacle of the highest mountain on the earth on May 29, 1953 and became the first people to do so.



Read more: [Hindu Kush Himalaya \(HKH\) region](#)

New Snake Eel Species Discovered in Odisha's Palur Canal

Scientists from the [Zoological Survey of India \(ZSI\)](#) have identified a new species of eel in **the Palur canal of Odisha's Ganjam district**. Named *Pisodonophis kalinga* after ancient Odisha, the **eel belongs to the family Ophichthidae and order Anguilliformes**.

It has a snake-like appearance and can range in length from 560 millimetres to 7 metres. The discovery was made in the [Chilika lagoon, Asia's largest brackish water lagoon, and the adjoining Palur canal](#).

The new species, *Pisodonophis kalinga*, is abundant in the region during the monsoon season from September to November. DNA analysis confirmed its distinction from the previously assumed ***Pisodonophis boro (rice-paddy eel)***. This finding increases the total number of ***Pisodonophis* species in Indian waters to three**.

Read more: [Zoological Survey of India \(ZSI\)](#)

Mumbai Trans Harbour Link

The Prime Minister, Narendra Modi, expressed his delight over the **Mumbai Trans Harbour Link (MTHL)**, emphasizing its significance in enhancing the **"Ease of Living"** for the people. The MTHL, also known as the **Sewri-Nhava Sheva Trans Harbour Link**, is a remarkable infrastructure project that holds the potential to transform connectivity in the Mumbai Metropolitan Region. With its construction underway, the MTHL aims to **create a 21.8 km 6-lane access-controlled expressway grade road bridge**, making it India's longest sea bridge. The MTHL's completion will alleviate the perennial problem of traffic congestion and reduce travel time between **Sewri and Chirle to just 15 to 20 minutes**, providing a much-needed respite to commuters.

With an **open road tolling system**, MTHL becomes the **country's first project to adopt a method of collecting tolls without requiring vehicles to stop or slow down**. This innovative approach, using electronic sensors and cameras, streamlines traffic flow and enhances efficiency on the bridge.

Additionally, the **MTHL utilizes Orthotropic steel deck technology**, a construction method that **combines strength and flexibility**. This technology allows the bridge's steel deck to withstand heavy loads, such as vehicles, while maintaining a lightweight structure.



Read more: [India's Infrastructure Push](#)

Declining Foreign Direct Investment in India

The **fiscal year 2022-23** witnessed a decline in [foreign direct investment \(FDI\) inflows into India](#), attributed to global factors identified by the **Department for Promotion of Industry and Internal Trade (DPIIT)**. Despite India's commitment to **liberal FDI policies**, the combined **effect of the [hardening interest rates](#) and [deteriorating geopolitical situation](#)** has likely diminished investor confidence and appetite for investing in the country. This decline has been notable in five crucial sectors, including **computer hardware and software, construction, education, automobiles, and metallurgical industries**. These sectors, accounting for a significant **share of 30 billion USD in total FDI** in the previous fiscal year, necessitate a comprehensive analysis to uncover the specific reasons behind the contraction.

The consequences of declining FDI inflows are substantial, as FDI equity inflows experienced a 22% decline, amounting to USD 46 billion in the fiscal year 2022-23. Notably, investments during the January-March quarter plummeted by a staggering 40.5%, totaling USD 9.28 billion. Such a significant downturn in FDI inflows poses **implications for India's economic growth, employment opportunities, and technological advancements**. To tackle this situation, policymakers and stakeholders must conduct a comprehensive analysis of the factors influencing FDI inflows, considering both global and sector-specific challenges.

Read more: [foreign direct investment \(FDI\)](#)

The World's Worst Animal Disease Killing Frogs Worldwide

For Prelims: Panzootic, Chytridiomycosis or chytrid, Transboundary and Emerging Diseases, quantitative polymerase chain reaction (qPCR), CSIRO, [Council of Scientific and Industrial Research - Centre for Cellular and Molecular Biology \(CCMB\)](#), Amphibian Species, Fungal Diseases.

For Mains: Emerging diseases affecting the flora and fauna, Impact of the climate change on the biodiversity, Advances in biotechnology brings new awakening about the wildlife.

Why in News?

For the past 40 years, a devastating **fungal disease, called chytridiomycosis or chytrid**, has been ravaging frog populations around the world, wiping out 90 species. This is a **“panzootic” - a pandemic in the animal world.**

- Transboundary and Emerging Diseases, a multinational study has **developed a method to detect all known strains of this disease**, caused by the amphibian chytrid fungus.

What is Chytridiomycosis or Chytrid?

- **About:**
 - **Chytrid infects frogs by reproducing in their skin, affecting their ability to balance water and salt levels**, and eventually leading to death if infection levels are high enough.
 - The **high mortality rate** and the high number of species affected **make chytrid unequivocally the deadliest animal disease known to date.**
- **Origin:**
 - **Chytrid originated in Asia** and was unwittingly spread to other continents through global travel and trade in amphibians.
- **Infection:**
 - Chytrid has been devastating frog populations for the past 40 years, **wiping out 90 species, including seven in Australia**, and causing severe **declines in over 500 frog species.**
 - Many species' immune systems were simply not equipped to defend against the disease, and **mass mortalities ensued.**
 - In the 1980s, amphibian biologists began **to notice sharp population declines, and in 1998, the chytrid fungal pathogen** was finally recognised as the culprit.
- **Diagnosis of Disease:**
 - **Researchers use a qPCR test to detect chytrid in frogs by swabbing their skin**, and the new test is more sensitive, meaning it can detect very low infection levels, thereby broadening the scope of species that can be studied.
 - **qPCR stands for quantitative polymerase chain reaction.** It is a way to measure the volume of DNA from a species of interest. **The test was developed at CSIRO, Australia in 2004;** unlike a COVID test, however, scientists swab the frog's skin, not the nose.
 - CSIRO, which stands for **Commonwealth Scientific and Industrial Research Organisation**, is **Australia's national science agency.**
 - Over the past years, researchers from the [Council of Scientific and Industrial Research \(CSIR\)- Centre for Cellular and Molecular Biology](#) in India also has been working on a new qPCR test that can detect strains of chytrid from Asia.
 - In collaboration **with researchers in Australia and Panama**, India have now verified the qPCR test also reliably detects chytrid in these countries.
 - **This new test is more sensitive**, meaning it can detect very low infection levels, thereby broadening the scope of species study.
 - The **new qPCR test can detect strains of chytrid from Asia** and another closely related species of **chytrid that infects salamanders.**
 - **Immunity to Some Amphibians:**
 - **Some amphibian species don't become sick** when they carry the fungus, which is puzzling.
 - So far, no clear trend has been found between resistance and immune function. There is also evidence chytrid can suppress a host's immune response.
 - **Research about the Species:**
 - Asia is lagging the rest of the world in chytrid research.
 - A multinational study has **developed a method to detect all known strains of chytrid**, which will advance our ability to detect and research the disease, working towards

a widely available cure.

What is CSIR - Centre for Cellular and Molecular Biology?

- The **Centre for Cellular & Molecular Biology (CCMB)** is a premier research organization in frontier areas of modern biology and promotes centralised national facilities for new and modern techniques in the inter-disciplinary areas of biology.
- **CCMB was set up initially as a semi-autonomous Centre on April 1, 1977** with the Biochemistry Division of the then Regional Research Laboratory (presently, Indian Institute of Chemical Technology, IICT) Hyderabad forming its nucleus.

UPSC Civil Services Examination Previous Year Question (PYQ)

Q.1 The term 'ACE2' is talked about in the context of

- (a) Genes introduced in the genetically modified plants
- (b) Development of India's own satellite navigation system
- (c) Radio collars for wildlife tracking
- (d) Spread of viral diseases

Ans: (d)

Q.2 H1N1 virus is sometimes mentioned in the news with reference to which one of the following diseases?

- (a) AIDS
- (b) Bird flu
- (c) Dengue
- (d) Swine flu

Ans: (d)

[Source: TH](#)

Threats from Plastic Recycling

For Prelims: Threats from Plastic Recycling, [Plastic Pollution](#), Intergovernmental Negotiation Committee, [Carcinogens, Pesticides, Extended Producer Responsibility](#).

For Mains: Threats from Plastic Recycling.

Why in News?

- A recent report by Greenpeace Philippines titled "**Forever Toxic: The science on health**

"threats from plastic recycling" was published at the Second Session of **Intergovernmental Negotiation Committee Meet in Paris**, suggesting that recycling may not be the solution to [Plastic Pollution](#) as it is often believed to be.

What are the Key Findings of the Report?

- **Higher Level of Chemicals:**
 - Recycled plastics often contain **higher levels of chemicals** such as toxic flame **retardants, benzene and other [Carcinogens](#)**, environmental pollutants including brominated and chlorinated dioxins, and numerous endocrine disruptors **that can cause changes to the body's natural hormone** levels.
 - Plastics contain more than 13,000 chemicals and 3,200 of them are known to be **hazardous to human health**.
- **Poisonous Pathways:**
 - There are three poisonous **pathways for recycled plastic material** to accumulate toxic chemicals,
 - Direct contamination **from toxic chemicals in virgin plastic**.
 - Substances like **plastic containers for [Pesticides](#)**, cleaning solvents and others that enter the recycling chain and can contaminate plastic.
 - The recycling process, when plastics are heated.
- **Increased Risk of Plastic Fires:**
 - With an increase in plastic stockpiles, **the risk of large fires at recycling facilities has gone up**, especially in those that hold [e-waste](#) plastics with used batteries.
 - A survey in the United States and Canada in 2022 found a record 390 fires in plastic recycling and waste facilities.
 - In the 12 months up to April 2023, large fires **have been reported at plastic recycling facilities in Australia**, Canada, Ghana, Russia, Southern Taiwan, Thailand and the United Kingdom and in Florida, Indiana, North Carolina of the United States.
- **Increase in Plastic Production:**
 - Plastic production is **forecast to triple by 2060**, with only a **minimal increase in recycling** predicted.
 - Since the 1950s about **8 billion tonnes of plastic has been produced**.
 - Not only that just a tiny proportion (9%) of plastics are ever recycled, but also those that end up with higher concentrations of **toxic chemicals, multiplying their potential harm to human**, animal and environmental health.
- **Implications:**
 - Plastic production, disposal and incineration facilities are most often located in low-income, **marginalized communities across the world**, which suffer from higher rates of [Cancer](#), [Lung Disease](#) and **adverse birth outcomes** associated with their exposure to the toxic chemicals.

What are the Recommendations?

- Global plastic pollution can be reduced by 80% by 2040 if countries and companies make **deep policies and market shifts using existing technologies** and also shift to a circular economy.
- Plastics have **no place in a circular economy** and the only real solution to ending plastic pollution is to massively reduce plastic production.
- There is a need for an **ambitious, legally binding Global Plastics Treaty** that accelerates and provides the **conditions needed for a just transition** away from dependence on plastic.
 - The Treaty **should promote safer, toxics-free materials** and reuse-based, zero-waste economies, creating new jobs to support these practices, protecting human and planetary health, minimizing resource use and delivering a just transition for workers and affected communities across the plastics supply and waste chains.

What is Plastic Pollution?

- **About:**
 - Unlike other forms of waste like paper, food peels, leaves etc., which are biodegradable

(capable of being decomposed by bacteria or other living organisms) in nature, **plastic waste because of its non-biodegradable nature** persists **into the environment, for hundreds** (or even thousands) of years.

▪ **Major Polluting Plastic Waste:**

- **Microplastics:** They are small plastic pieces of less than **five millimeters in size**.
 - **Microplastic includes microbeads** (solid plastic particles of less than one millimeter in their largest dimension) that are used in cosmetics and personal care products, industrial scrubbers, microfibers used in textiles and virgin resin pellets used in plastic manufacturing processes.
 - Due to sun **exposure and physical wear**, large pieces of plastic that were not recycled break up to produce microplastics.
- **Single-use plastic:** It is a disposable material that can be used only once before it is either thrown away or recycled, like **plastic bags, water bottles, soda bottles, straws, plastic plates, cups**, most food packaging and coffee stirrers are sources of single use plastic.

▪ **Initiatives to Tackle Plastic Pollution:**

- **Indian:**
 - [Plastic Waste Management \(Amendment\) Rules, 2022](#)
 - [Extended Producer Responsibility \(EPR\)](#)
 - [National Dashboard on Elimination of Single Use Plastic and Plastic Waste Management](#)
 - [India Plastics Pact](#)
 - [Project REPLAN](#)
- **Global:**
 - [European Union' Directive on Single-Use Plastics](#)
 - [Closing the loop.](#)
 - [The Global Tourism Plastics initiative](#)

UPSC Civil Services Exam, Previous Year Questions (PYQ)

Q. Why is there a great concern about the 'microbeads' that are released into environment? (2019)

- (a) They are considered harmful to marine ecosystems.
- (b) They are considered to cause skin cancer in children.
- (c) They are small enough to be absorbed by crop plants in irrigated fields.
- (d) They are often found to be used as food adulterants.

Ans: (a)

Exp:

- Microbeads are **small, solid, manufactured plastic particles** that are less than 5mm and do not degrade or dissolve in water.
 - Mainly made of polyethylene, microbeads can also be prepared from petrochemical plastics such as polystyrene and polypropylene. They may be added to a range of products, including rinse-off cosmetics, personal care and cleaning products.
- Microbeads, because of their small size pass unfiltered through the sewage treatment system and reach the water bodies. The untreated microbeads in the water bodies are taken up by the marine animals, thus producing toxicity and causing harm to the marine ecosystem.
 - In 2014, Netherland became the first country to ban cosmetics microbeads.
- **Therefore, option (a) is the correct answer.**

Source: DTE

PDF Refernece URL: <https://www.drishtias.com/current-affairs-news-analysis-editorials/news-analysis/31-05-2023/print>