

**HEALTH**

❖ **India floats global digital system to face pandemic challenges**

❖ **CONTEXT:** Addressing the G7 health ministers' meeting in Japan, Union Health Minister of India Mansukh Mandaviya proposed the convergence of all digital initiatives through a global initiative on digital health housed at the World Health Organisation (WHO) headquarters.

- India's Health Minister stressed the need for a collaborative global health architecture that can assure the power of digital solutions to all countries to combat the challenges posed by a future pandemic.
- He proposed the convergence of all digital initiatives through a "global initiative on digital health" housed at the World Health Organisation (WHO) headquarters.
- Highlighting the case of Covid-19 vaccination programme, the minister raised concern that more than two years after vaccines were rolled out in December 2020, only 34% of the populations in low and middle income countries have access to them as compared to 73% in high income countries as on April 2023.
- Health equity, especially when it comes to medical countermeasures such as diagnostics, drugs and vaccines at the time of a pandemic, is one of the three priority areas for India's health agenda for G20.
- Indian Health Minister was one of the four health ministers from the 'Outreach 4' countries – India, Indonesia, Vietnam, and Thailand – invited to the meeting.

➤ **What is digital health?**

- Digital health refers to the use of technology, such as mobile devices, software applications, and other digital tools, to improve health and healthcare delivery.
- Basically, it is a multidisciplinary concept that includes concepts from an intersection between technology and healthcare.
- It encompasses a wide range of technologies and services, including telemedicine, electronic health records, wearable devices, health information exchange, and more.
- India's CoWIN, UNICEF's RapidPro and FamilyConnect etc. are few notable examples of digital health initiatives.
  - ✓ The real-time information platform, RapidPro, is a core solution in UNICEF's digital health portfolio.
  - ✓ UNICEF's FamilyConnect sends targeted life cycle-based messages via SMS to pregnant women, new mothers, heads of households etc.

➤ **Importance of Digital Health:**

- Empowers patients: Digital tools are giving providers a more holistic view of patient health through access to data and giving patients more control over their health. Hence, it empowers patients to make better-informed decisions about their own health. E.g., wearable devices can monitor vital signs and provide real-time feedback to patients and clinicians.
- Treatment of disease: Digital health tools provide new options for facilitating prevention, early diagnosis of life-threatening diseases, and management of chronic conditions outside of traditional health care settings.
- Reduce inefficiencies; Improve access; Reduce costs; Increase quality, and Make medicine more personalized for patients.
- Digital health is a great enabler in delivery of healthcare services and has the potential to support overall universal health coverage targets. This is because it can ensure availability, accessibility and affordability, and equity of health services. For example, telemedicine allows patients to connect with healthcare providers remotely.

➤ **Challenges of digital health:**

- Equitable access: Universalization of digital health and enabling of equitable access to healthcare services across the world, particularly for low- and middle-income countries is challenging. The issue of accessibility becomes more daunting against the backdrop of low digital literacy and low-level of internet penetration.
- Ethical Challenges related to privacy, security and data ownership.
- The increasing digitization of healthcare and the growth of mobile and IoT devices as data collection tools, raises many ethical issues.
- Analysts also raise ethical concerns relating to data ownership.
- Ethical challenges related to regularisation of digital health technologies
- The growth of apps and technologies developed for a consumer market blurs the lines between what is medical and non-medical devices. Hence, it raises ethical challenges relating to how to regularize such technologies.
- Data management: Due to the massive amounts of data collected from a variety of systems that store and code data differently, data interoperability is an ongoing challenge.

**CLIMATE CHANGE**

❖ **The economics of climate change in India**

❖ **CONTEXT:** Over the past few weeks and months there have been several stories about how extreme weather events (such as unexpected rainfall or unusually high temperatures) have disrupted normal life in India. There is also a constant reminder that more of the same can be expected with each passing year.

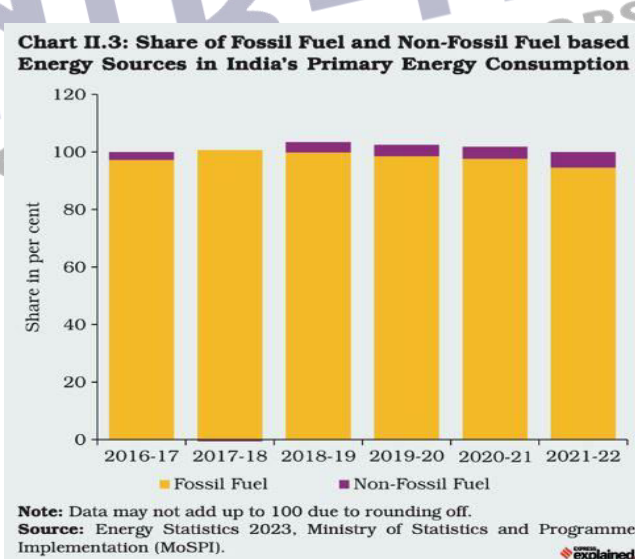
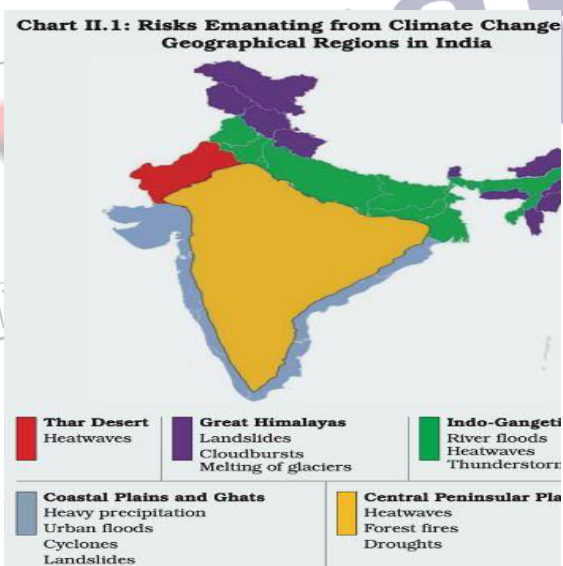
- To be sure, the Global Climate Risk Index 2021 had ranked India seventh in the list of most affected countries in terms of exposure and vulnerability to climate risk events.
- In its latest report of currency and finance, the RBI (India's central bank) has a chapter dedicated to answering many of these questions and explaining the macroeconomic effects of climate change in India.

➤ **What is the evidence of climate change?**

- The most obvious signs of climate change are the anomalies in temperature and precipitation (rain, hail, snow etc.)
- annual average temperature in India has been increasing gradually, the rise has been significantly sharper during the last vicennial (twenty years) than during any other 20-year time interval since 1901 finds the RBI paper.
- Similarly, the south west monsoon, too, has been becoming more erratic.
- “Notably, while the average annual rainfall at the all-India level during the last vicennial (2000-2020) saw a rise over that during 1960-1999, over a longer time horizon since 1901, annual average rainfall in India has gradually declined...Moreover, evidence suggests that while dry spells have become more frequent during the last several years, intense wet spells have also increased,” finds RBI’s research.
- Research about natural disasters since 1975 has shown that India is relatively more exposed to floods and storms (i.e., cyclones and hailstorms) than droughts and heatwaves. “Such incidences pose significant risks to agricultural production and food price volatility,” states the RBI.

➤ **How vulnerable is India to climate change?**

- There are two ways to analyse this. One by looking at India’s geographical attributes and the other by looking at the structure of India’s economy.
- India’s diverse topography is not only exposed to different temperature and precipitation patterns, but also makes it vulnerable to extreme weather events posing wide-ranging spatial and temporal implications for the economy.
- India’s economic structure has undergone a considerable change since Independence. As such, bulk of the economic activity now happens in the services sector as against the agriculture and allied sectors. This has significant implications for carbon emissions because services are “globally considered to be emission-light with relatively lower energy intensity of output”.
- sectoral break-up shows that metal industries, electricity and transports — all highlighted — are the highest emission-intensive sectors, together accounting for around 9 per cent of India’s total GVA (gross value added) in 2018-19.
- In other words, the sectoral composition of the Indian economy helps reduce its carbon emissions. However, notwithstanding this, fossil fuels have an overwhelmingly large share in India’s primary energy consumption and this fact needs to change.



➤ **What is the macroeconomic impact of climate change on India?**

- Climate change can adversely impact both the supply side (read the productive potential) as well as the demand side. It can stroke inflation, reduce economic output, trigger uncertainty and change consumer behaviour.
- Over the years, there have been several predictions and assessments made about the impact of climate change on India’s economy. Some are listed below:
  1. According to Niti Aayog in 2019, around 600 million of India’s population are facing severe water stress, with 8 million children below 14 years in urban India at risk due to poor water supply.
  2. The World Bank in 2020 said that India could account for 34 million of the projected 80 million global job losses from heat stress associated productivity decline by 2030.
  3. The IPCC Working Group in 2022 stated that India is one of the most vulnerable countries globally in terms of the population that would be affected by the sea level rise. By the middle of the present century, around 35 million people in India could face annual coastal flooding, with 45-50 million at risk by the end of the century.

- Typically the risks from climate change are categorised in two main ways. One is the physical risks and these include chronic issues (such as a gradual and sustained change in temperature and precipitation) as well as acute events such as extreme weather occurrences).
  - The second category of risks are called transition risks; simply put, these refer to economy-wide changes arising from the transition towards a low-carbon economy. ( if the shift towards becoming a low-carbon economy is too rapid, it could materially damage a country’s financial stability)
- **Can policies provide some solutions?**
- The Network of Central Banks and Supervisors for Greening the Financial System (NGFS) have created an analytical framework called the National Institute Global Econometric Model (NIGEM) “to produce policy insights”.
  - In this model, the researchers looked at how GDP growth rate and inflation would be affected under six different policy stances when compared to the baseline (which is the best case scenario involving no impact of climate change).

Below 2 degree Celsius	This scenario assumes that optimal carbon prices as per the long-term path are set immediately after 2020 and keeps the 67 <sup>th</sup> percentile of warming below 2 degree Celsius throughout the 21 <sup>st</sup> century.
Current Policies	Existing climate policies remain in place without any change in policy ambitions.
Delayed Transition	This scenario assumes that the next 10 years see a "fossil recovery" and thus, follow the trajectory of the current policy scenario until 2030. This is related to Below 2 degree Celsius scenario but follows a very skewed path due to late start.
Divergent Net Zero	This scenario assumes that optimal carbon prices, in line with the long-term targets, are implemented immediately after 2020 after a limited temporary overshoot before reaching net zero. This is related to net zero 2050 but follows a divergent path - mitigation efforts are unevenly distributed across sectors, with stronger mitigation action taking place in the Transport and Buildings sectors-reflecting lack of coordination.
Nationally Determined Contributions (NDCs)	This scenario foresees that currently pledged unconditional NDCs are implemented fully and respective targets on energy and emissions in 2025 and 2030 are reached in all countries. This scenario also factors in the net zero 2070 goal of India as per its NDC.
Net Zero 2050	This scenario foresees global CO <sub>2</sub> emissions to be at net zero in 2050. It limits the temperature rise to 1.5 degree Celsius. Furthermore, countries with a clear commitment to a specific net-zero policy target at the end of 2020 are assumed to meet this target.

- Policy actions have a negative impact on India’s GDP no matter what. However, global scenarios of “current policies” and “nationally determined contributions (or NDCs)” have the highest negative impact on output, whereas rapidly moving towards Net Zero by 2050 will contain the hit to GDP. Moving towards net zero by 2050 will spike inflation far more in the immediate future than continuing on current policies.
- Overall, these trade-offs will become sharper as India tries to achieve the twin goals of achieving net zero emissions by 2070 and becoming an advanced economy (which implies higher emissions) by 2047.

**PRELIMS**

**1. Appointment of CBI Director**

➤ **IN NEWS:** Karnataka Director General of Police Praveen Sood will be the next CBI (Central Bureau of Investigation) Director.

➤ **About Central Bureau of Investigation (CBI):**

- The CBI was established as the Special Police Establishment in 1941, to investigate cases of corruption in the procurement during the Second World War.
- Later, the **Santhanam Committee** on Prevention of Corruption recommended the establishment of the CBI. The CBI was then formed by a resolution of the Home Affairs Ministry in 1963. The Ministry of Personnel, later on, took over the responsibility of the CBI and now it plays the role of an attached office.
- It derives its powers from the Delhi Special Police Establishment Act, 1946.
- It is also the nodal police agency in India which coordinates investigation on behalf of Interpol member countries.
- **Motto:** Industry, Impartiality and Integrity
- **Control:**
  - ✓ **Nodal Ministry:** Ministry of Personnel, Public Grievances and Pensions;
  - ✓ For investigation of offences under the Prevention of Corruption Act, CBI vests superintendence to the Central Vigilance Commission

➤ **Appointment of CBI Director:**

- The CBI is headed by a director. He is assisted by a special/additional director.
- The Central Government appoints the Director on the recommendation of a three-member committee, comprising of –
  - ✓ Prime Minister as Chairman,

- ✓ Leader of Opposition in Lok Sabha,
- ✓ Chief Justice of India
- The Director of CBI has been provided security of two-year tenure in office by the Chief Vigilance Commission Act, 2003.
- 2. Paralakhemundi Light Railway (PLR)**
  - **IN NEWS:** The Indian Railways has taken up the renovation of the historic Paralakhemundi railway station, one of India's oldest and the first in **Odisha's Gajapati district**.
  - However, there are concerns that the 124-year-old station might be demolished to pave way for new structures. Experts have raised red flags and sought heritage status for the structure.
  - **Recent developments and INTACH's demand**
    - In 2011, the Railway Ministry had sanctioned a plan to upgrade the 90 km Naupada-Gunupur via Paralakhemundi narrow gauge line to a broad gauge, which would allow for the operation of more trains on the route and facilitate hassle-free traffic.
    - It would also develop a new station building on a raised platform, for the benefit of the passengers and carried out safety-related modernisation works including building an electronic interlocking system at the station.
    - However, the **Indian National Trust for Art and Cultural Heritage (INTACH)**, a non-profit working on heritage conservation and awareness, has argued for the old structure to be preserved. According to INTACH, the structure is in good shape and does not need any further work which would undermine its tremendous historical value.
    - Thus, it has demanded the railway station's preservation as a heritage building, along with the restoration of other ancillary buildings like the old station master's building which INTACH wants to convert into a museum.
  - **About PLR:**
    - Naupada (a small town, now in Andhra Pradesh) got rail lines in 1894, as part of construction of Cuttack-Khurda Road railway line extending up to Vijayawada.
    - The then Maharaja of Parlakimedi (now Paralakhemundi) **Goura Chandra Gajapati Narayan Deo II** conceived of an idea to connect his capital with this mainline in an effort to strengthen his communication network. After receiving nod of the British authorities in 1898, he built a 39-km rail line PLR by spending around Rs 7 lakh from the royal coffers.
    - The 2-ft and 6 inches narrow gauge line was completed in 1899 and opened for traffic in 1900.
    - In January 1902, with the British government changing its policy, the Bengal-Nagpur Railway (BNR) took over PLR along with operational charge of railway operations between Vizianagaram (now in Andhra Pradesh) to Cuttack.
    - PLR had incurred initial losses, it started gradually started to make profits after 1910. The profit from the line encouraged Krishna Chandra Gajapati, the successor of the Paralakhemundi estate, to take up further expansion of the line up to Gunupur, the southern part of the state, by 1930.
- 3. SAMUDRA SHAKTI – 23**
  - **IN NEWS:** INS Kavaratti, indigenously designed & built ASW Corvette, arrived at Batam, Indonesia to participate in the **4th edition of India-Indonesia Bilateral Naval Exercise Samudra Shakti-23** from 14-19 May 23.
    - An Indian Navy Dornier Maritime Patrol aircraft and Chetak helicopter is also participating. The Indonesian Navy will be represented by KRI Sultan Iskandar Muda, CN 235 Maritime Patrol Aircraft and AS565 Panther Helicopter.
    - Exercise Samudra Shakti is aimed at enhancing interoperability, jointness and mutual cooperation between both the navies.
    - The Harbour phase will comprise Cross deck visits, professional Interactions, Subject Matter Expert Exchanges, and sports fixtures.
    - During the Sea Phase, weapon firing, Helicopter Operations, Anti-submarine warfare & air defence exercises and boarding operations are planned.
    - Samudra Shakti -23 will showcase the high level of interoperability between the two navies and their shared commitment towards peace and stability in the region.
- 4. Satkosia sanctuary**
  - **IN NEWS:** Once home to over 200 elephants, Satkosia wildlife sanctuary houses about 20-25 jumbos at present, raising questions about the migration patterns of the long-ranging animals.
    - Satkosia Gorge Sanctuary owes its name to the narrow stretch of River Mahanadi i.e. "Sat – kosh". It is located in the state of Odisha.
    - The sanctuary has been recognized as a critical tiger habitat by the National Tiger Conservation Authority (NTCA).
    - Satkosia Tiger Reserve comprises of two adjoining Sanctuaries of central Odisha named as Satkosia Gorge Sanctuary and Baisipalli Sanctuary. These two sanctuaries together covering an area of 963.87 sq.km. have been notified as Satkosia Tiger Reserve.

- Flora: It is home to a diverse range of flora, including dry deciduous forests, moist deciduous forests, and tropical moist forests. The sanctuary is known for its Sal forests, which cover a large part of the area.
- Fauna: Elephants, Tigers, Leopards, Wild dogs, Sloth bears, Gaurs, sambar deer, spotted deer etc.

### ANSWER WRITING

#### **Q. If the rupee is internationalised, and then India will truly become self-reliant. Explain**

The Government of India has made suitable amendments in the Foreign Trade Policy and Handbook of Procedures to allow for International Trade Settlement in Indian Rupees (INR) i.e., invoicing, payment, and settlement of exports / imports in Indian Rupees.

About:

In July 2022, the Reserve Bank of India (RBI) introduced a mechanism for the “international settlement of trade Indian rupee,” marking the beginning of the internationalization of the Indian rupee. The RBI’s move was aimed at facilitating bilateral trade with Russia, which was facing sanctions from the United States. In December 2022, India used the Indian rupee to make its first successful trade with Russia.

What is Internationalisation of Rupee?

Internationalisation of Indian rupee is the process of increasing the use of Indian rupee in international trade and investment. It is a process that involves making the rupee more widely accepted and used in international transactions.

#### **Need for Internationalisation of Rupee:**

There are number of reason to internationalization of Indian rupee. These are:

- Increased trade and investment: The internationalisation of the rupee can make it easier for Indian businesses to trade with other countries. This can lead to increased exports and imports, which can boost the Indian economy.
- Reduced exchange rate risk: The internationalisation of the rupee can help to reduce exchange rate risk for Indian businesses. This is because businesses will not have to convert their rupees into foreign currencies when they trade with other countries.
- Increased stability of the rupee: The internationalisation of the rupee can help to increase the stability of the rupee. This is because it will make the rupee more widely used and accepted in international markets.
- Enhanced credibility of the Indian economy: The internationalisation of the rupee can enhance the credibility of the Indian economy. This is because it will show that India is a stable and reliable economy.
- Dollar Dominant: The Dollar is the dominant currency followed by Euro, Japanese Yen and Pound sterling in the world trade. According to a data dollar accounts for 88.3% of global foreign exchange market and the rupee accounts for only 1.7%, for which internationalization of Indian rupee is need of the time now.
- Impact of Russia-Ukraine war: When the Russia-Ukraine war started in February 2022 the need of the internationalisation of Indian rupee became more needed due to western countries financial sanctions on Russia.
- Political and Strategic benefits for India: In addition to these economic benefits, the internationalisation of the rupee can also have a number of political and strategic benefits for India. For example, it can help to reduce India's dependence on the US dollar, which can give India more autonomy in its foreign policy. It can also help to improve India's ties with other countries, which can be beneficial in a number of ways.

#### **How does it work?**

- The internationalization of the Indian rupee is a significant milestone for India’s economy, as it allows the country to use its currency as an alternative to other major currencies like the US dollar, euro, and yen. In simple terms, the mechanism works by allowing countries to settle their import and export transactions in Indian rupees instead of relying on other global currencies.
- When a country engages in international trade, they have to make payments in foreign currency, which is widely accepted across the world. The US dollar is the most important reserve currency right now, and most transactions are settled in dollars. This means that if an Indian buyer purchases a product from a French seller, the Indian buyer has to convert their Indian rupees into US dollars, which the French seller then has to convert into euros to use. This process costs money and puts both parties at risk of the exchange rate changing, which makes trade harder and more expensive.

**Role of Reserve Bank of India:** The Reserve Bank of India (RBI) has taken a number of steps to promote the internationalisation of the rupee. These include:

- Invoicing of exports and imports in rupees.
- Facilitating trade in rupees through the Asian Clearing Union (ACU).
- Issuing Masala bonds, which are rupee-denominated bonds that are issued to foreign investors.
- Relaxing restrictions on foreign investment in India.

#### **Advantages of Internationalization of Rupee:**

- Global acceptance of the Indian rupee.
- Reduction in exchange rate risks.
- Reduction in import cost for Indian businesses.
- Promotion of trade and investment for foreign businesses to invest in India and for Indian businesses to invest abroad.
- More competitiveness in global markets.

- Diversification of India's foreign exchange reserves away from a concentration in US dollars.

**Challenges of Internationalization of Rupee:**

- Exchange rate volatility is a primary challenge.
- Challenges in terms of regulatory compliance, market infrastructure, and investor protection.
- Limited liquidity of rupee in international market
- India's financial markets are still relatively underdeveloped compare to other major economies.
- A supportive regulatory environment is required.

**Way Forward:**

For Internationalisation of Indian rupees we need a successful transition, careful planning and coordination between policymakers, market participants, and regulators is necessary. An increase in the international use of the Indian rupee will go a long way in positioning India as a more attractive destination for foreign investment and trade.

**MCQs**

- Consider the following statements regarding One Station One Product (OSOP) scheme.
  - Ministry of railways has launched OSOP scheme.
  - To promote "Vocal for Local" vision.
  - OSOP outlets at railway station are allotted for showcasing, selling and giving high visibility of indigenous/local product.

Which of the following statement is are correct?

a) Only 1                      b) Only 2  
c) 2 and 3                      d) **1, 2 and 3**
- Recently, KHOONI DARWAZA is in news. Where it is located?
 

a) **New Delhi**                      b) Mumbai  
c) Hyderabad                      d) Kolkata
- Consider the following statements with respect to United Nations Forum on Forests (UNFF18)
  - It is a subsidiary body established under Economic and Social Council of the United Nations (ECOSOC) based on the Rio Declaration.
  - It is mandatory for UN members to adopt Strategic Plan of Global Forest Goals and associated targets to be achieved by 2030.

Which of the statement(s) given above is/are correct?

a) **1 only**                      b) 2 only  
c) Both 1 and 2                      d) Neither 1 nor 2
- Consider the following statements with respect to Monkey Pox (mpox)
  - It is a zoonotic disease that transmitted from infected animals to humans.
  - It is an orthopoxvirus, a genus of viruses that includes variola virus which causes smallpox.
  - WHO has recently ended the mpox as public health emergency of international concern (PHEIC)

Which of the statement(s) given above are correct?

a) 1 and 2 only                      b) 2 and 3 only  
c) 1 and 3 only                      d) **1, 2 and 3**
- Recently, exercise 'Samudra Shakti-23' is in news. Which of the following countries are linked to this?
 

a) **India-Indonesia**  
b) India- srilanka  
c) India- japan  
d) India – bangladesh.
- With reference to the Model Prisons Act, 2023, consider the following statements:
  - Union Home Ministry had assigned the task of revision of the Prisons Act, 1894 to the Bureau of Police Research and Development.
  - Some salient features of the new Model Prisons Act include provision for security assessment and segregation of prisoners, and individual sentence planning.

Which of the statements given above is/are correct?

a) 1 only                      b) 2 only  
c) **Both 1 and 2**                      d) neither 1 nor 2
- With reference to the India-EU Trade and Technology Council, consider the following statements:
  - The first Ministerial meeting of the India-EU Trade and Technology Council held in Brussels.
  - The three Working Groups under the Council are Working Group on Strategic Technologies, Digital Governance, and Digital Connectivity, Working Group on Green and Clean Energy Technologies, and Working Group on Trade, Investment and Resilient Value Chains.

Which of the statements given above is/are correct?

a) 1 only                      b) 2 only  
c) **Both 1 and 2**                      d) neither 1 nor 2
- Consider the following statements regarding Baobab Trees:
  - They are long-lived deciduous trees.
  - In India, they are mainly found in the state of Madhya Pradesh.

Which of the statements given above is/are correct?

a) 1 only                      b) 2 only  
c) **Both 1 and 2**                      d) neither 1 nor 2
- Bannerghatta National Park, recently seen in the news, lies in which state?
 

a) Madhya Pradesh                      b) Odisha  
c) **Karnataka**                      d) Maharashtra
- Consider the following statements regarding Allegator Gar:
  - It is one of the largest of all freshwater fishes endemic to the Indian subcontinent.
  - It is classified as Endangered under the IUCN Red List.

Which of the statements given above is/are correct?

a) 1 only                      b) 2 only  
c) Both 1 and 2                      d) **neither 1 nor 2**