

World Wildlife Conservation Day

Source: TH

World Wildlife Conservation Day (4th December) serves as a reminder of India's rich biodiversity and the urgent need for action to protect its <u>critically endangered species</u>.

- **History:** Originating from a 2012 pledge by the US State Department, the day encourages global action for wildlife preservation and sustainability.
- India's Biodiversity: India, a <u>megadiverse country</u> with only 2.4% of the world's land area, accounts for 7-8% of all recorded species, including 91,000 species of animals.
 - India hosts four out of 34 globally recognized biodiversity hotspots, namely the **Himalayas, Indo-Burma, Western Ghats-Sri Lanka, and Sundaland.**
- Threats to Wildlife: Rapid economic development and population growth in India increase demand for natural resources, conflicting with wildlife habitats.
 - <u>Poaching, trafficking</u>, and land cultivation lead to significant man-animal conflicts.
 Despite the importance of <u>wildlife sanctuaries</u> and <u>Biosphere Reserves</u>, they lack fencing and face ongoing challenges.
 - While big cats like tigers and lions receive attention, birds like the Great Indian Bustard are often overlooked despite threats.
 - As of 2022, India has 73 critically endangered species, up from 47 in 2011, including 9 endemic mammal species.



WILDLIFE CONSERVATION INITIATIVES Wildlife Crime Control Bureau (WCCB): Constitutional Provisions for Wildlife Collection, collation of intelligence & its dissemination, establishment of centralized Wild Life crime databank, coordination etc. **42nd Amendment** Wildlife Crime Control: Act, 1976: Forests & Protection of Wild Animals (5) Operation Save Kurma and Birds (moved from State to Concurrent List) (5) Operation Thunderbird **Article** Species-Specific Initiatives ⊢ Protection and conservation of Greater 48 A: State shall endeavor to protect & improve environment and safeguard forests and Adjutant in Gangetic riverine tract wildlife of country Dolphin Conservation in Non-Protected **Article** Area Segment of Ganga River **51 A (g):**Fundamental duty to protect & improve Conservation Breeding Centre for Wild natural environment including forests water buffalo (2020) and Wildlife Recovery programme for Snow leopard (2009) Legal Frameworks Recovery programme for Vultures (2006) Project Elephant (1992) Biological Diversity Wildlife (Protection) Project Tiger/National Tiger Conservation Act, 1972 Act, 2002 Authority (NTCA) (1973) Major Conservation Initiatives Inclia s Colloboration with Global Wildlife Conservation Efforts Integrated Development of Wildlife Habitats (IDWH): (s) Financial assistance provided to State/UT (S) Convention on International Trade in Governments for protection and conservation Endangered Species of Wild Fauna and Flora (CITES) (5) A Centrally Sponsored Scheme (9) Convention on the Conservation of Migratory National Wildlife Action Plan (2017-2031) Species of Wild Animals (CMS) Guidelines for Eco-tourism in Protected Areas (CBD) Sonvention on Biological Diversity **Human-Wildlife Conflict Mitigation** (9) World Heritage Convention Samsar Convention Wildlife Crime Control Bureau: To combat wildliferelated crimes (9) The Wildlife Trade Monitoring Network Wildlife Division (MoEFCC): (9) Policy and law for conservation of biodiversity (s) United Nations Forum on Forests (UNFF) and Protected Area network (IWC) International Whaling Commission (3) Technical and financial support to the State/ UTs under IDHW, Central Zoo Authority (s) International Union for Conservation of Nature (IUCN) and Wildlife Institute of India Global Tiger Forum (GTF)

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Axiom-4 Mission

Source: BS

Why in News?

Recently, the <u>Indian Space Research Organisation (ISRO)</u> announced that two Indian astronauts selected for the **Axiom-4 mission** (scheduled to launch in 2024) to the <u>International Space Station (ISS)</u> have completed the initial phase of training.

■ These two Indian astronauts are Prime-Group Captain Shubhanshu Shukla and Backup-Group Captain Prasanth Balakrishnan Nair.

What is the Axiom-4 Mission?

About:

- Axiom Mission 4 (Ax-4) is a private spaceflight to the ISS operated by Axiom Space (US-based space-infrastructure development company), using the SpaceX Crew Dragon spacecraft.
- The <u>SpaceX</u> Crew Dragon is a reusable spacecraft that carries astronauts to and from the ISS.
- It is the **fourth flight in collaboration with** the <u>National Aeronautics and Space</u> <u>Administration (NASA)</u>, following Axiom Missions 1, 2, and 3.

Mission Objectives:

- Commercial Space Initiatives: Axiom-4 focuses on enabling commercial activities like space tourism in Low Earth Orbit (LEO).
 - It aims to demonstrate the feasibility of commercial space stations as platforms for business and research.
- International Collaboration: The mission features a diverse multinational crew, emphasising global cooperation in space exploration.
 - It aims to **strengthen international partnerships** and promote joint efforts in advancing space science.
- Research and Development: The mission supports scientific experiments and technological advancements in microgravity.
 - Research areas include materials science, biology, and Earth observation, offering potential breakthroughs.

Key Features:

- Spacecraft and Crew: The mission will deploy a SpaceX Dragon spacecraft launched by a Falcon 9 rocket, carrying professional astronauts, researchers, and private individuals.
- Mission Duration and Activities: With an expected duration of 14 days, the crew will conduct experiments, technology demonstrations, and educational outreach aboard the ISS.
- Commercial Space Station Development: Axiom-4 is part of Axiom Space's vision to establish the first commercial space station, transitioning from ISS operations to an independent orbital platform.

Significance for India:

- The Ax-4 marks a pivotal collaboration between the ISRO and NASA, highlighting India's growing presence in space exploration.
- This mission will facilitate Indian astronauts' participation in activities aboard the ISS, enhancing India's capabilities in human.spaceflight and international cooperation in space science.



About Axiom-4 Mission

- NASA and Axiom Space, an american privately funded space infrastructure developer signed an order for the **fourth private** astronaut mission to the ISS, aiming to launch in August 2024 from Kennedy Space Center in Florida.
- The mission aims to dock with the ISS for a **fourteen-day duration**.
- Indian astronauts will receive training from NASA, international partners, and SpaceX, focusing on spacecraft systems and emergency preparedness, as part of India-US space cooperation goals.



Note:

- During the Prime Minister's 2023 visit to the US, a joint statement confirmed that **NASA** would provide advanced astronaut training to India under the <u>Artemis Accords</u>.
- India's <u>Gaganyaan human spaceflight mission</u> is planned for post-2025, following two successful unmanned missions.

What is the ISS?

- About: The <u>International Space Station (ISS)</u> is a large, permanently crewed laboratory orbiting Earth at an altitude of approximately 400 kilometres.
- Countries Involved: The ISS is a collaborative effort involving 15 countries and 5 space agencies:
 NASA, Roscosmos, European Space Agency, JAXA, and Canadian Space Agency.
- **Operation at ISS:** An international crew of seven astronauts and cosmonauts live and work aboard the station, travelling at a speed of 7.66 km/sec, completing an orbit around Earth every 90 minutes. The ISS orbits Earth 16 times within 24 hours.

UPSC Civil Services Examination, Previous Year Question (PYQ)

Prelims:

Q. What is the purpose of the US Space Agency's Themis Mission, which was recently in the news? (2008)

- (a) To study the possibility of life on Mars
- **(b)** To study the satellites of Saturn
- (c) To study the colourful display of high-latitude skies
- (d) To build a space laboratory to study the stellar explosions

Ans: (c)

Q. Consider the following statements: (2016)

The Mangalyaan launched by ISRO

- 1. is also called the Mars Orbiter Mission
- 2. made India the second country to have a spacecraft orbit the Mars after USA
- 3. made India the only country to be successful in making its spacecraft orbit the Mars in its very first attempt

Which of the statements given above is/are correct?

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

Ans: (c)

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