Date - 7 March 2022

Jan Aushadhi Day

- Jan Aushadhi Day is celebrated on 7th March. The day was observed to celebrate the achievements of Pradhan Mantri Bhartiya Jan Aushadhi Yojana.
- On this occasion, Prime Minister Shri Narendra Modi will interact virtually with the beneficiaries of this scheme.

Jan Aushadhi Kendra

- The center is the largest retail pharma chain in the world. These centers are spread over 700 districts. There are more than 6,200 such centers in India. In 2019-20, the total sales at these outlets were over Rs 390 crore.
- This has saved the common people Rs. 2,200 crore. Apart from the above benefits, these centers are good sources of self-employment.

Prime Minister's Bharatiya Janaushadhi Project (PMBJP)

- Pradhan Mantri Bhartiya Janaushadhi Pariyojana was launched by the Department of Pharmaceuticals to provide quality medicines at affordable prices.
- Under this scheme, special centers named "Pradhan Mantri Bhartiya
 Janaushadhi Kendra" have been set up so that generic medicines can be made
 available at low cost.
- These generic drugs are procured by the Bureau of Pharma Public Sector Undertakings of India (BPPI), which has been set up under the Department of Pharmaceuticals with the support of all CPSUs. BPPI also helps in marketing of generic medicines through these Janaushadhi Kendras.

Background

- This scheme was launched by the UPA government in 2008. In the year 2015, this scheme was relaunched by the Prime Minister of India, Shri Narendra Modi.
- This campaign was started by selling generic medicines through "Jan Aushadhi Medical Stores" across the country.
- In September 2015, the name of 'Jan Aushadhi Yojana' was changed to 'Pradhan Mantri Janaushadhi Yojana' (PMJAY). It was changed to "Pradhan Mantri Bhartiya Janaushadhi Yojana" in November 2016.

Vacuum bomb

- Today is the twelfth day of the ongoing war between Russia and Ukraine. All
 countries around the world are urging Russian President Putin to stop this war, but
 Putin is not ready to back down even an inch. In return, Ukraine is also standing on
 the front.
- Meanwhile, Ukraine has accused Russia of using banned clusters and vacuum bombs. Ukrainian President Vladimir Zelensky has claimed that Vladimir Putin is committing a war crime by using these weapons. It is being told that many civilians have died in these attacks.

Vacuum Bomb:

- Vacuum bomb is a highly explosive weapon of high power, capable of using the atmosphere to increase its firepower manifold.
- Vacuum bombs are also called thermobaric weapons. It is one of the most powerful non-nuclear weapons ever developed. Because of this, this weapon has been banned under the Geneva Convention.
- This bomb is also called the Father of All Bombs. This generates heat like an atomic bomb and it explodes with an ultrasonic shockweb that brings more destruction.

Modus operandi:

- The vacuum bomb absorbs oxygen from its surroundings to raise the temperature to a significant degree. Due to absorbing oxygen in this way, this bomb causes more destruction than conventional weapons.
- These weapons first release a special type of spray into the air, which contains very fine particles of metal, flammable dust or chemical drop.

- These sprays are spread around the environment, especially in urban areas and penetrate easily inside enemy bunkers. Then the ignition source in the bomb generates fire, which spreads very rapidly across the area, creating a tremendous and dangerous vacuum.
- The power of such an explosion is so high that even the roofs of houses fly away.
 The bunkers are ruined and the bodies of the people in it are blown away. The person who is present near the bomb immediately turns into steam. It has such an effect on distant people that blood starts flowing from the internal organs of their body.
- Thermobaric weapons were developed in the 1960s by both the US and the Soviet Union. Both the US and Russia have made several versions of such bombs, but due to international sanctions they have neither sold it to any other country nor used it publicly.
- In September 2007, Russia detonated the largest thermobaric weapon ever used, releasing the equivalent of 39.9 tons of energy. At the same time, the cost of each unit of America's thermobaric weapons is more than \$ 16 million.

Yilan Crater

- Recently, scientists of the US space agency NASA have discovered the world's largest crater within a million years in northeast China. This is the second impact crater discovered in China.
- Crater is a round or almost round shaped crater on any celestial object which is made in an explosive manner.
- It may have been formed by the eruption of a volcano; may have been formed by the impact of a meteorite falling from space; or it can also be formed through some other explosion inside the ground.

There are many types of craters such as

- Impact crater, which is formed when a small object collides with a large object at very high speed. For example, impact craters are formed when asteroids or meteorites collide.
- **Volcanic crater** formed by volcanic eruptions.
- **Collapse crater,** which is formed by an explosion under the ground, such as a nuclear test, etc. In this the ground sinks downwards.
- Maar Crater, which is formed by the explosion of water mixed with boiling lava.
- **Bill crater,** which is formed by the collapse of the roof of the cave or the gap below the ground.

- **Explosion crater,** which is formed when debris from an underground explosion is thrown outwards, that is, the ground does not sink into it.
- The name of the new crater discovered in China is Yilan Crater. This crater was formed within about 1 lakh years. It is in Xiyuan County, China's coastal province of Liaoning.
- This crater with a diameter of about 1.85 km is made in the lower part of Jing'an mountain. Radiocarbon dating has shown that it was formed between about 46 thousand and 53 thousand years. This has been revealed from the investigation of charcoal and other organic matter present here.
- Whatever study has been done about this crater has been published in the Science Journal named 'Meteoretics and Planetary'.
- The southern part of Yilan Crater is missing, making it look like a moon. It seems that something must have happened here that broke the wall of the pit.
- Experts believe that this crater, which looks like the moon, is formed due to the collision of an asteroid or meteorite. So far, the record for the largest crater formed within a million years was named after Meteor Crater in Arizona, USA.
- It was formed between 49 and 50 thousand years. Its diameter was 1.2 kilometers. Apart from this, there is another crater named Jiyuan in China, which is 1.8 kilometers in diameter, but its age has not been ascertained yet.
- So far, about 190 craters present on Earth have been detected, which scientists have divided on the basis of age.
- About 200 million years old 'Vredefort Crater' present in the Free State of South
 Africa is the largest and oldest crater in the world. Its diameter is about 380 km.
 UNESCO declared it a World Heritage Site in 2005.

'World Wildlife Day'

- 'World Wildlife Day' is organized every year on 3rd March since the year 2013.
- It is worth noting that on this date the Convention on International Trade in Endangered Species of Wildlife and Flora (CITES) was adopted in the year 1973.
- It is directed by the CITES Secretariat to ensure the global observance of this special day for wildlife in the UN calendar by resolution of the United Nations General Assembly.

Theme of the year 2022:

- **Theme:** Restoration of key species for ecosystem restoration.
- The theme has been chosen as a way to draw attention to the conservation status of some of the most critically endangered species of wildlife and flora.

Significance of this day:

- It is aligned with the United Nations Sustainable Development Goals-1, 12, 14 and 15 and seeks to conserve life on land and under water to reduce poverty, ensure sustainable use of resources and prevent loss of biodiversity. It also aligns with their broader commitments.
- Our planet is currently facing many challenges, which harm biodiversity and due to this one lakh species may become extinct in the coming decades.

Current status of fauna and flora species:

- More than 8000 species of wildlife and flora are endangered and more than 30,000 species are on the verge of extinction.
- It is also estimated that about one lakh species have become extinct.
- India accounts for 7-8% of all recorded species, including over 45,000 species of plants and 91,000 species of animals.
- India is one of the most biodiverse regions of the world with three biodiversity hotspots – the Western Ghats, the Eastern Himalayas and the Indo-Burma hotspots.
- There are 7 Natural World Heritage Sites, 11 Biosphere Reserves and 39 Ramsar Sites in the country.
- India has many wildlife conservation parks and sanctuaries, including Jim
 Corbett National Park in Uttarakhand, Ranthambore National Park in Rajasthan,
 Gir National Park in Gujarat, Bannerghatta Biological Park in Karnataka, Periyar
 National Park in Kerala, Hemis National Park in Ladakh, Himachal The state
 includes the Great Himalayan National Park etc.
- Along with human activities, the main factors in the extinction of species include habitat loss due to urbanization, overexploitation, relocation of species from their natural habitat, global pollution and climate change etc.
- Illegal wildlife trade is also harming plant and wild animal populations and pushing endangered species to extinction. This can also have many public health consequences such as the spread of zoonotic pathogens.

India's domestic legal framework for wildlife conservation:

Constitutional Provisions for Wildlife:

- Conservation of forests and wild animals and birds were transferred from the State List to the Concurrent List through the 42nd Amendment Act, 1976.
- Article 51 A (G) of the Constitution states that it shall be the fundamental duty of every citizen to protect and improve the natural environment including forests and wildlife.
- Under the Directive Principles of State Policy, Article 48A states that the State shall endeavor to protect and improve the environment and to protect the forests and wildlife of the country.

Legal Framework:

- Wildlife (Protection) Act, 1972
- Environment Protection Act, 1986
- Biodiversity Act, 2002

India's contribution to global wildlife conservation efforts:

- Convention on International Trade in Endangered Species of Wildlife and Flora (CITES)
- Convention on the Protection of Migratory Species of Wildlife (CMS)
- Convention on Biological Diversity (CBD)
- World Heritage Convention
- Ramsar Convention
- Wildlife Trade Monitoring Network
- United Nations Forum on Forests
- International Whaling Commission
- International Union for Conservation of Nature
- Global Tiger Forum

Swadeep Kumar