

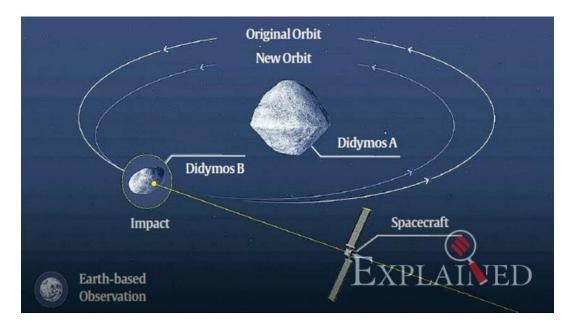
News Analysis (05 Sep, 2019)

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Asteroid Impact Deflection Assessment (AIDA)

Asteroid researchers with a view to establishing a planetary defence mechanism against huge asteroid will gather in Italy to discuss the progress of **Asteroid Impact Deflection** Assessment (AIDA).

- An asteroid hit is widely acknowledged as one of the most likely, among all the causes that may eventually cause the extinction of life on Earth,
- In general, there are two different ways of planetary defence against an asteroid.
 - Blowing up the asteroid before it reaches Earth,
 - **Deflecting** it off its Earth-bound course by hitting it with a spacecraft.
- The Asteroid Impact Deflection Assessment (AIDA) project seeks to explore the defence mechanism through deflection.
 - It is a **joint mission** of the **National Aeronautics and Space Administration** (NASA) and the European Space Agency (ESA).
 - It is an ambitious **double-spacecraft mission** to deflect an asteroid in space.
 - Target of AIDA
 - The target is the smaller of two bodies in the "double Didymos **asteroids**". These are in orbit between Earth and Mars.
 - Didymos is a near-Earth asteroid system.
 - Its main body measures about 780 m across; the smaller body is a "moonlet" about 160 m in diameter.



• The project aims to deflect the orbit of the smaller body through an **impact by one** spacecraft.

NASA is building the **Double Asteroid Impact Test (DART)** spacecraft for this.

- Then a second spacecraft will survey the crash site and **gather the maximum possible data** on the effect of this collision.
 - ESA's contribution is a mission called **Hera**, which will perform a close-up survey
 of the post-impact asteroid.
 - Hera will also deploy a pair of **CubeSats** for close-up asteroid surveys. This would allow researchers to model the efficiency of the collision.
- Flying along with **DART** will be an Italian-made miniature CubeSat, called **LICIACube**, to record the moment of impact.

The Double Asteroid Impact Test (DART) spacecraft will be launch in 2021. It is planned to collide with the target in September 2022.

CubeSats

- CubeSats are a class of research spacecraft called **nanosatellites**.
- CubeSats are built to standard dimensions (Units or "U") of 10 cm x 10 cm x 10 cm.
- They can be 1U, 2U, 3U, or 6U in size, and typically weigh less than 1.33 kg (3 lbs) per U.

Source: IE

Megalithic Sword Unearthed in Kozhikode

The State Archaeology Department in Kozhikode recently has unearthed a **Megalithic era iron sword**, **a chisel** and a few **decorated pottery** from a **rock-cut cave** at Pothuvachery in Kannur district of Kerala.

- The sword is 105 cm long, & is said to be **2,500 years old.**
- The recovery of the implements revealed the **technological advancement** of the Megalithic people.

Megalithic Culture

- Megaliths refer to **large stone structures** that were constructed either as burial sites or as commemorative sites.
- The burial sites are the sites with actual burial remains, such as **dolmenoid cists** (box-shaped stone burial chambers), **cairn circles** (stone circles with defined peripheries), and **capstones** (distinctive mushroom-shaped burial chambers found mainly in Kerala).
- Commemorative megaliths include memorial sites.
- In India, archaeologists trace the majority of the megaliths to the Iron Age (1500 BC to 500 BC), though some sites precede the Iron Age, extending up to 2000 BC.
- Megaliths are spread across the Indian subcontinent.
- The **majority** of megalithic sites are found in **Peninsular India**, concentrated in the states of Maharashtra (mainly in Vidarbha), Karnataka, Tamil Nadu, Kerala, Andhra Pradesh, and Telangana.

Rock-cut cave

- Natural caves were the earliest caves used by local inhabitants.
- Most of the rock-cut structures were closely associated with various **religions and religious activities.**
- As manifested by archaeological evidence, the **Mesolithic period** (c. 6000 BC) marked the first use and modifications of the early caves.
- The overhanging rocks embellished with <u>petroglyphs</u> or the rock-cut designs that were created by carving, chiselling and abrading part of rock surfaces forms the early instances of such rock caves.
- The **Bhimbetka rock shelters** inside the tiger reserve <u>'Ratapani Wildlife Sanctuary'</u> exemplifies the settlement of human life in these rock shelters during the <u>Stone Age</u> in India.
- In the beginning, remarkable Buddhist and Jain rock-cut structures were excavated by the Buddhist monks for **prayer and residence** purposes. The best example of this is **Chaityas** (prayer halls) and **Viharas** (monasteries).

Source: TH

Global Liveability Index

Indian cities have not fared too well in the **Economist Intelligence Unit's Global Liveability Index for 2019.**

- **New Delhi with 118th rank** has regi stered the biggest decline in Asia whereas Mumbai also fell two places since last year to rank 119th.
- The decline in Mumbai's rank was mainly due to a downgrade in its culture score.
- New Delhi has fallen in the index because of downgrades to its culture and environment score as well as fall in the stability score owing to rising crime rates.
- The list is topped by Vienna (Austria) for the second consecutive year.
- Asian cities overall have scored slightly below the global average.
- Among the ten least liveable cities globally, three are from Asia which are:
 - Port Moresby in Papua New Guinea (135th)
 - Pakistan's Karachi (136th)
 - Bangladesh's Dhaka (138th)
- Among the <u>BRICS</u> countries, Suzhou from China was ranked highest at 75, while India's capital New Delhi was ranked lowest at 118th.

Global Liveability Index

- The Economic Intelligence Unit considered **140 cities** for rankings.
- The ranking is based on a particular country's scores in five broad categories, namely:
 - Stability
 - Healthcare
 - Culture and Environment
 - Education
 - Infrastructure
- Each factor in a city is rated as **acceptable**, **tolerable**, **ncomfortable**, **undesirable** or **intolerable**.

Source:TH

Travel and Tourism Competitiveness Index

India has moved up six places to **rank 34**th on the World Travel and Tourism Competitiveness Index 2019, released by the **World Economic Forum.**

- India was ranked 40th in 2018.
- Spain, France, Germany, Japan and the United States are the world's most travel-ready nations.
 - o Japan remains Asia's most competitive travel and tourism economy, ranking 4th

globally.

- China is the largest travel and tourism economy in Asia-Pacific and 13th most competitive globally.
- **Published biennially,** Travel & Tourism Competitiveness Report and Index benchmarks the Travel & Tourism (T&T) competitiveness of 140 economies.

The 140 economies are ranked in **four sub-indexes**:

- Enabling environment,
- Travel and tourism policy and enabling conditions,
- Infrastructure, and
- Natural and cultural resources.

Source: BS

Ladakh Festival

Recently, Minister of State for Culture & Tourism has visited Ladakh Festival which is celebrated **every year in Leh and its nearby villages.**

- The festival is for **one week** which includes events like archery, polo, and **Masked** dances from the monasteries.
- It also includes dances by cultural troupes from the villages.



Masked Dances

Cham Dance is a famous **masked dance from Ladakh** which is the major attraction of the festival.

- It is also performed on **Tsechu Festival which** is the yearly **spiritual** festival carried out in many **monasteries** in Ladakh.
- It is said to bring good luck to the people viewing this dance.
- This dance which is accompanied by music played by monks using traditional Tibetan instruments is usually performed by a few selected sects of Buddhism.

India: 10th largest Gold Reserve in the World

According to the **World Gold Council**, India has gold reserves **totalling 618 tonnes**, the **10**th **largest gold reserve in the world**.

- **U.S has the highest gold reserves** with 8,133.5 tonnes of total gold reserves, followed by Germany with 3,366.8 tonnes and the **International Monetary Fund** (IMF) with a holding of 2,451.8 tonnes,
- India's gold reserves have grown substantially in the past couple of decades from 358 tonnes in 2000 to the current 618 tonnes.
- India's entry into the list of top ten countries comes at a time when the quantum of monthly purchases is the lowest in over three years.

World Gold Council

- The World Gold Council(WGC) is the market development organisation for the gold industry.
- **Headquartered in London**, the WGC covers the markets which comprise about three-quarters of the world's annual gold consumption.
- WGC seeks to stimulate and sustain demand for gold, provide industry leadership, and be the global authority on the gold market.
- It intervenes in global markets to make gold more accessible, devising solutions to broaden the understanding and use of gold as an investment asset.

Source: TH

North Eastern Regional Agricultural Marketing Corporation Limited (NERAMAC)

Recently, Ministry of Development of North Eastern Region has inaugurated a **marketing complex** in Guwahati, for **North Eastern Regional Agricultural Marketing Corporation Limited (NERAMAC).**

- The NERAMAC Limited was incorporated in the year 1982 as a marketing organization in the field of Agri-Horti sector of the North-eastern region, under the administrative control of the Ministry of Development of North Eastern Region (DoNER).
- It was set up to support farmers/producers of North East getting **remunerative prices** for their produce and thereby bridge the gap between the farmers and the

market and also to **enhance the agricultural**, **procurement**, **processing and marketing infrastructure** of the Northeastern Region of India.

• NERAMAC is continuously making all efforts for the development of the farmers of the region and double their income by the end of 2022.

Source: PIB