

General Studies-1

Mahadayi verdict

The Mahadayi Water Disputes Tribunal which has been hearing the tussle over sharing of the Mahadayi or Mandovi river between Goa, Karnataka and Maharashtra, has delivered its final verdict.

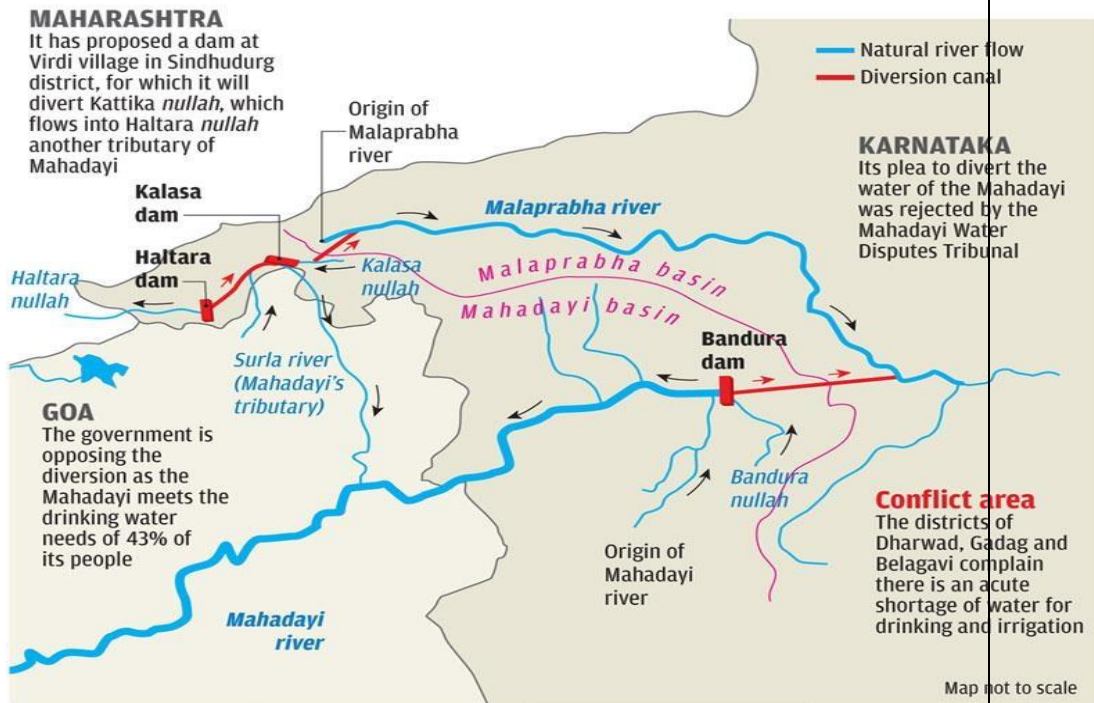
About the Verdict:

- The tribunal has allowed Karnataka access to 13.4 tmc of water for its consumptive use (5.4 tmc) and power generation (8.02 tmc).
- The share of Goa was pegged at 24 tmc with the Tribunal allowing it for the state's municipal water needs, irrigation water requirements and industrial water demands.
- Maharashtra got the lowest share of 1.33 tmc for meeting its in-basin needs with respect to five projects.
- The tribunal also directed the Centre to set up the Mahadayi Water Management Authority to implement its report and final decision.

What is Dispute?

Controversial water diversion plan

Under the Kalasa Bandura project, the Karnataka government has proposed dams and canals to divert the Mahadayi's water to address the water deficit in the Malaprabha basin



Total cost of project
₹ 93.98 cr

A total of 501 ha of forest will be affected by the project

The proposed dams are in forest areas for which no forest clearances have been taken

Kalasa and Bandura dams are close to Mhadei and Bhimgad wildlife sanctuaries, respectively

Swadesh Darshan Scheme

Why in News?

Dr. Najma A. Heptulla, Hon'ble Governor of Manipur will be inaugurating the project "Development of North East Circuit: Imphal & Khongjom" implemented under the Swadesh Darshan Scheme of Ministry of Tourism, Government of India.

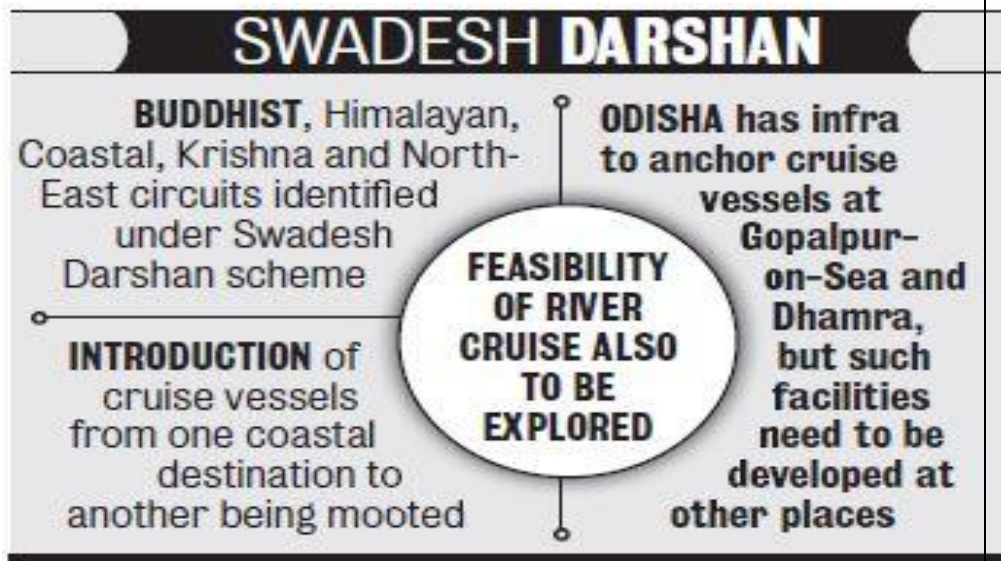
The above project is the first project under the Swadesh Darshan Scheme being inaugurated in the country.

About Swadesh Darshan Scheme:

Swadesh Darshan scheme is one of the flagship scheme of Ministry of tourism for development of thematic circuits in the country in a planned and prioritised manner.

The scheme was launched in 2014 -15 and as on date the Ministry has sanctioned 70 projects for Rs.5708.88 Crore to 29 States and UTs under the Scheme.

30 projects / major components of these projects are expected to be completed this year.



Nowruz

Why in News?

The President of India, Shri Ram Nath Kovind in his message on the eve of the Parsi New Year (Nowruz) has said: -

“On the auspicious occasion of Parsi New Year, I offer my greetings and good wishes to all fellow citizens, and especially to all my Parsi brothers and sisters.

About Nowruz:

- **Nowruz** is the name of the [Iranian New Year's Day](#), also known as the [Persian](#) New Year, which is celebrated worldwide by various ethno-linguistic groups.
- Despite its [Iranian](#) and [Zoroastrian](#) origins, Nowruz has been celebrated by diverse communities. It has been celebrated for over 3,000 years in [Western Asia](#), [Central Asia](#), the [Caucasus](#), the [Black Sea Basin](#), and the [Balkans](#).
- It is a [secular](#) holiday for most celebrants that is enjoyed by people of several different faiths, but remains a holy day for Zoroastrians.
- Nowruz is the day of the [vernal equinox](#), and marks the beginning of spring in the [Northern Hemisphere](#). It marks the first day of the first month ([Farvardin](#)) of the [Iranian calendar](#).
- It usually occurs on [March 21](#) or the previous or following day, depending on where it is observed.
- The moment the [Sun](#) crosses the [celestial equator](#) and equalizes night and day is calculated exactly every year, and families gather together to observe the rituals.

NCMC meets for the second time in two days to review flood situation in Kerala

The National Crisis Management Committee (NCMC) met for the second time in two days here today to review the rescue & relief operations in the flood affected areas in Kerala.

About NCMC:

A National Crisis Management Committee(NCMC) has been constituted in the Cabinet Secretariat. The composition of the Committee is as under:-

- Cabinet Secretary Chairman
- Secretary to Prime Minister Member
- Secretary (MHA) Member
- Secretary (MCD) Member
- Director (IB) Member

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- Secretary (R&AW) Member
- Secretary (Agri & Coopn.) Co-opted Member
- An officer of Cabinet Secretariat. Convenor

When a situation is to be handled also by the NCMC, it will give such directions to the Crisis Management Group of the Ministry as deemed necessary.

Functions of Committee:

- Review every year Contingency Plans formulated by the Central Ministries/Departments;
- Review the measures required for dealing with a natural calamity
- Coordinate the activities of the Central Ministries and the State Governments in relation to disaster preparedness and relief, and
- Obtain information from the Nodal Officers on measures relating to the above

General Studies- 2

Indecent Representation of the Women (Prohibition) Act, 1986

THE INDECENT REPRESENTATION OF WOMEN (PROHIBITION) ACT 1986

INTRO :

This Act is different than the Act of obscenity (S. 292). Exploitation of body of women is resorted by advertisers, magazine and other frequently but not coming under law of obscenity. Therefore this provision has been made.

Provision :

- v) No person shall publish or arrange or take part in the publication or exhibition of any advertisement containing indecent representation of women in any form.
- ii) No person shall produce, sell, hire, distribute, circulate or send by post any book, pamphlet, slide, film, writing, drawing, painting, photograph which contain indecent representation of women.

Context:

After taking into account of the recent technological advancement in the field of communications such as social media platforms, etc, the Ministry of Women and Child Development has decided to move fresh Bill to broaden the scope of the Indecent Representation of the Women (Prohibition) Act, 1986 to cover the audio-visual media and content in electronic form.

The reformulated Bill proposes following amendments in the parent Act:

- Amendment in definition of term advertisement to include digital form or electronic form or hoardings, or through SMS, MMS etc.

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- Amendment in definition of distribution to include publication, license or uploading using computer resource, or communication device or in.
- Insertion of a new definition to define the term publish.
- Amendment in section 4 to include that No person shall publish or distribute or cause to be published or cause to be distributed by any means any material which contains indecent representation of women in any form.
- Penalty similar to that provided under the Information Technology Act, 2000
- Creation of a Centralised Authority under the aegis of National Commission of Women (NCW). This Authority will be headed by Member Secretary, NCW, having representatives from Advertising Standards Council of India, Press Council of India, Ministry of Information and Broadcasting and one member having experience of working on women issues.
- Functions: This Centralised Authority will be authorized to receive complaints or grievances regarding any programme or advertisement broadcasted or publication and investigate/ examine all matters relating to the indecent representation of women.

Need for revisiting the law:

The Government of India has enacted the Indecent Representation of Women (Prohibition) Act (IRWA), 1986 to prohibit indecent representation of women through advertisements, publications, writings, paintings, figures or in any other manner.

- Since the enactment of the Act, technological revolution has resulted in the development of new forms of communication, such as internet, multi-media messaging, cable television, over-the-top (OTT) services and applications e.g. Skype, Viber, WhatsApp, Chat On, Snapchat, Instagram etc.
- Therefore, these technological advancements make it necessary to widen the scope of the law so as to cover such forms of media on one hand and to strengthen the existing safeguards to

prevent indecent representation of women through any media form on the other.

Representation of the People (Amendment) Bill, 2017

Context:

Lok Sabha has passed Representation of the People (Amendment) Bill, 2017 to extend the facility of 'proxy voting' to overseas Indians, on the lines of service voters.

- The Bill seeks to amend Representation of People Act (RPA), 1950 and Representation of People Act (RPA), 1951 to allow for proxy voting and make certain provisions of these Acts gender-neutral.

Highlights of the Bill:

The Bill proposes to allow non-resident Indians (NRIs) to emerge as a decisive force in the country's electoral politics on their own terms.

The amendment paves the way to remove an "unreasonable restriction" posed by Section 20A of the Representation of the People Act, which requires overseas electors to be physically present in their electoral constituencies to cast their votes.

What necessitated this move?

- Section 20A of the Act provides for registration and inclusion of overseas electors in the electoral rolls.
- The Registration of Electors Rules, 1960 provide for overseas electors to register themselves in the electoral rolls of their respective constituencies on the basis of self-attested copies of their passport and valid visa, and exercise their franchise in person on production of the original passport at the time of voting at the specified polling booth.
- Thus, the rules demand for the physical presence of overseas electors in their respective polling stations in India on the day of polling.

- This causes hardship to the overseas electors. This amendment proposes facilitating an external mode of voting, that is, voting by proxy, whereby such electors can exercise their franchise from their places of residence abroad.

What is voting by proxy?

According to the provisions of 'Representation of the People Act (Amendment) Bill, 2017 overseas Indians, who are entitled to vote in India, can appoint a proxy voter to cast their votes on their behalf. Also, the overseas Indians would be allowed to use the option of proxy, which till now was only available to service personnel.

Arbitration & Conciliation (Amendment) Bill, 2018

Context:

The Lok Sabha has passed the Arbitration and Conciliation (Amendment) Bill, 2018. It will amend the Arbitration and Conciliation Act, 1996. The Act contains provisions to deal with domestic and international arbitration, and defines the law for conducting conciliation proceedings.

Key features of the Bill are:

Arbitration Council of India: The Bill seeks to establish an independent body called the Arbitration Council of India (ACI) for the promotion of arbitration, mediation, conciliation and other alternative dispute redressal mechanisms.

Its functions include: (i) framing policies for grading arbitral institutions and accrediting arbitrators, (ii) making policies for the establishment, operation and maintenance of uniform professional standards for all alternate dispute redressal matters, and (iii) maintaining a depository of arbitral awards (judgments) made in India and abroad.

Composition of the ACI: The ACI will consist of a Chairperson who is either: (i) a Judge of the Supreme Court; or (ii) a Judge of a High Court; or (iii) Chief Justice of a High Court; or (iv) an eminent person with expert knowledge in conduct of arbitration. Other members will include

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an eminent arbitration practitioner, an academician with experience in arbitration, and government appointees.

Appointment of arbitrators: Under the 1996 Act, parties were free to appoint arbitrators. In case of disagreement on an appointment, the parties could request the Supreme Court, or the concerned High Court, or any person or institution designated by such Court, to appoint an arbitrator.

Role of courts: Under the Bill, the Supreme Court and High Courts may now designate arbitral institutions, which parties can approach for the appointment of arbitrators.

For international commercial arbitration, appointments will be made by the institution designated by the Supreme Court.

For domestic arbitration, appointments will be made by the institution designated by the concerned High Court.

In case there are no arbitral institutions available, the Chief Justice of the concerned High Court may maintain a panel of arbitrators to perform the functions of the arbitral institutions. An application for appointment of an arbitrator is required to be disposed of within 30 days.

Relaxation of time limits:

Under the 1996 Act, arbitral tribunals are required to make their award within a period of 12 months for all arbitration proceedings. The Bill proposed to remove this time restriction for international commercial arbitrations.

Completion of written submissions:

Currently, there is no time limit to file written submissions before an arbitral tribunal. The Bill requires that the written claim and the defence to the claim in an arbitration proceeding, should be completed within six months of the appointment of the arbitrators.

Confidentiality of proceedings:

The Bill provides that all details of arbitration proceedings will be kept confidential except for the details of the arbitral award in certain circumstances. Disclosure of the arbitral award will only be made where it is necessary for implementing or enforcing the award.

Unnat Bharat Abhiyan 2.0

Why in News?

Higher Education Institutions of Human Resource Development Ministry under its flagship program – Unnat Bharat Abhiyan (UBA) 2.0 will participate in Gram Sabhas to be organised on the occasion of Independence Day tomorrow.

688 institutions are selected on a Challenge Mode (426 technical and 262 non- technical) which are reputed Higher Educational Institutes (both public and private) of the country, which have adopted 3555 villages for their development through UBA.

IIT Delhi is also organizing 5 Gram Sabhas in its adopted village Panchayats.

Background:

- Under Unnat Bharat Abhiyan (UBA) 2.0-a flagship program of MHRD, GOI 688 institutions are selected

on a Challenge Mode (426 technical and 262 non- technical) which are reputed Higher Educational Institutes (both public and private) of the country, which have adopted total no. of 3555 villages for their development through UBA.

- Also, scope for providing Subject Expert Groups assistance and Regional Coordinating Institutes to handhold and guide the participating institutions have been strengthened.
- IIT Delhi has been designated to function as the National Coordinating Institute for this programme.
- Large number of participating institutes have interacted with villagers, did village & household level surveys and prepared action plans.
- The challenges and issues have been identified through public participation.

UNDER ITS WINGS

<p>➤ Ministry of human resource department launched Unnat Bharat Abhiyan in 2014 under which, state or central government educational institutes are encouraged to adopt gram panchayats</p>	<p>adopted village using innovative technological solutions</p>
<p>➤ These institutions will address the needs of their</p>	<p>➤ Solutions will be funded by panchayat, govt schemes</p>



➤ Drinking water, sanitation, agriculture, energy and education are some of the areas that will be addressed

International Year of Millets

Why in News?

The Union Minister of Agriculture and Farmers' Welfare, Shri Radha Mohan Singh has written to the Director General, United Nations Food & Agriculture Organization (FAO) and proposed the declaration of an upcoming year as "International Year of Millets".

The Union Agriculture Minister stated that India is celebrating 2018 as the National Year of Millets and is promoting cultivation by amending cropping pattern of areas which are especially susceptible to climate change.

What are Millets?

- **Millets** are a group of highly variable small-seeded [grasses](#), widely grown around the world as [cereal crops](#) or grains for [fodder](#) and human food.
- Millets are important crops in the [semiarid tropics](#) of Asia and Africa (especially in [India](#), [Mali](#), [Nigeria](#), and [Niger](#)), with 97% of millet production in [developing countries](#).

- The crop is favored due to its [productivity](#) and short growing season under dry, high-temperature conditions.

Benefits Of Millets:

- An important staple cereal crop for millions of small holder dryland farmers across sub-saharan Africa and Asia, millets offer nutrition, resilience, income and livelihood for farmers even in difficult times. They have multiple untapped uses such as food, feed, fodder, biofuels and brewing.
- Therefore, millets are Smart Food as they are Good for You, Good for the Farmer and Good for the Planet.
- Nutritionally superior to wheat & rice owing to their higher levels of protein with more balanced amino acid profile, crude fiber & minerals such as Iron, Zinc, and Phosphorous, millets can provide nutritional security and act as a shield against nutritional deficiency, especially among children and women.
- The anaemia (iron deficiency), B-complex vitamin deficiency, pellagra (niacin deficiency) can be effectively tackled with intake of less expensive but nutritionally rich food grains like millets.
- Millets can also help tackle health challenges such as obesity, diabetes and lifestyle problems as they are gluten free, have a low glycemic index and are high in dietary fibre and antioxidants.
- Adapted to low or no purchased inputs and to harsh environment of the semi-arid tropics, they are the backbone for dry land agriculture.
- Photo-insensitive & resilient to climate change, millets are hardy, resilient crops that have a low carbon and water footprint, can withstand high temperatures and grow on poor soils with little or no external inputs. In times of climate change they are often the last crop standing and, thus, are a good risk management strategy for resource-poor marginal farmers.

Postal Highway

Context:

The Indian government has handed over a cheque amounting Rs 33 crore to the Nepal Government for construction of a Postal Highway.

Background:

The amount has been released towards 25% of the tendered cost (including 10% mobilization advance) of the two road packages of Birgunj-Thori Road being implemented under Postal Highway Project in Nepal with Government of India's grant assistance.

With this payment, the Government of India has released a total of Rs 117.63 Crores to the Government of Nepal for implementing 14 packages of the Postal Highway Projects.

About the Postal Highway project:

- Postal Highway also called Hulaki Rajmarg runs across the Terai region of Nepal, from Bhadrapur in the east to Dodhara in the west, cutting across the entire width of the country.
- It is the Oldest highway in Nepal constructed by Juddha Shumsher Jung Bahadur Rana & Padma Shumsher Jung Bahadur Rana to aid transportation and facilitate postal services throughout the nation.

RUCO (Repurpose Used Cooking Oil) initiative

Why in News?

The Food Safety and Standards Authority of India (FSSAI) has launched RUCO (Repurpose Used Cooking Oil), an initiative that will enable collection and conversion of used cooking oil to bio-diesel.

- Under this initiative, 64 companies at 101 locations have been identified to enable collection of used cooking oil. For instance: McDonald's has already started converting used cooking oil to biodiesel from 100 outlets in Mumbai and Pune.

- FSSAI wants businesses using more than 100 litres of oil for frying, to maintain a stock register and ensure that UCO is handed over to only registered collecting agencies.

Significance of the initiative:

FSSAI believes India has the potential to recover 220 crore litres of used cooking oil for the production of biodiesel by 2022 through a co-ordinated action. While biodiesel produced from used cooking oil is currently very small, but a robust ecosystem for conversion and collection is rapidly growing in India and will soon reach a sizable scale.

Background:

The initiative has been launched nearly a month after the food safety regulator notified standards for used cooking oil. According to FSSAI regulations, the maximum permissible limits for Total Polar Compounds (TPC) have been set at 25%, beyond which the cooking oil is unsafe for consumption.

What is Total Polar Compounds (TPC)?

In many countries, TPC is used to measure the quality of oil. The level of TPC increases every time oil is re-heated. Some of the studies show that TPC accumulation in oil without food is slower than that in oil frying with food.

Higher level of TPC in cooking oil leads to health issues like hypertension, atherosclerosis, Alzheimer’s disease and liver disease. One of the studies also noticed high levels of glucose, creatinine and cholesterol with declined levels of protein and albumin in cooking oil.

About FSSAI:

The Food Safety and Standards Authority of India (FSSAI) has been established under Food Safety and Standards Act, 2006 which consolidates various acts & orders that have hitherto handled food related issues in various Ministries and Departments.

- It was created for laying down science based standards for articles of food and to regulate their manufacture, storage,

distribution, sale and import to ensure availability of safe and wholesome food for human consumption.

- Ministry of Health & Family Welfare, Government of India is the Administrative Ministry for the implementation of FSSAI.
- Composition: The Chairperson and Chief Executive Officer of Food Safety and Standards Authority of India (FSSAI) are appointed by Government of India. The Chairperson is in the rank of Secretary to Government of India.

DGMO Level Talks Between India and Pakistan

DGMO (Director General Military) level talks at behest of Pakistan DGMO was held on 16 August 18. Pleasantries were exchanged between the DGMO on the occasion of Independence Day of both countries.

The quantum of cease fire violations has drastically reduced and augers well for the future.

Concerns by India:

- Indian DGMO emphatically stated that infiltration attempts by terrorists were a major cause of concern.
- He also informed the Pakistan DGMO that ‘these activities have increased in the areas North of Pir Panjal Mountain Ranges.
- Pakistan must institute measures to prevent infiltration from the launch pads located on its side of the Line of Control’.
- Indian DGMO assured that the Indian Army will abide by its commitment to uphold the Ceasefire Understanding of 2003 provided Pakistan Army initiates positive steps to control infiltration and abetment of terrorism in J&K.

Assurances by Pakistan:

Pakistan DGMO made an assurance that Pakistan Army would take prompt actions against move of inimical elements in proximity to the Line of Control and respond to information shared by the Indian side thereby facilitating conduct of anti-terrorist operations.

BIS raid Packaged Drinking Water Manufacturing Unit

Why in News?

Bureau of Indian Standards (BIS) conducted an enforcement raid recently on M/s Hi-Tech Aqua, in Mayapuri Industrial Area, Delhi.

The manufacturing of Packaged Drinking Water without having a valid BIS licence is a cognizable offence under Section 17 (3) of BIS Act, 2016.

About BIS:

- The **Bureau of Indian Standards (BIS)** is the national Standards Body of India working under the aegis of [Ministry of Consumer Affairs, Food & Public Distribution, Government of India](#).
- It is established by the Bureau of Indian Standards Act, 1986 which came into effect on 23rd December 1986.
- The Minister in charge of the Ministry or Department having administrative control of the BIS is the ex-officio President of the BIS.
- As a corporate body, it has 25 members drawn from Central or State Governments, industry, scientific and research institutions, and consumer organisations.
- Its headquarters are in [New Delhi](#), with regional offices in [Kolkata](#), [Chennai](#), [Mumbai](#), [Chandigarh](#) and [Delhi](#) and 20 branch offices.
- It also works as [WTO-TBT](#) enquiry point for India.

General Studies- 3

Iris Scan Authentication feature for Aadhaar-based transactions by Axis bank

Why in News?

Axis Bank has become the first bank in the country to introduce Iris Scan Authentication feature for Aadhaar-based transactions through its micro ATM tablets.

How it works?

- The bank has deployed highly secure iris powered micro ATM tablets which are STQC certified and UIDAI compliant registered devices with completely integrated iris sensors.
- Micro ATMs completely eliminate the requirement of debit cards, passwords, PINs, and user IDs, and empower consumers to avail banking services using only their Aadhaar numbers and biometrics (iris scan/fingerprint scan).

Significance:

This service, which requires a customer to scan their iris on a tablet, will boost the bank's financial inclusion efforts by making Aadhaar authentication process hassle-free and offering easier access to digital banking for consumers especially in the rural parts of the country.

Giant Metrewave Radio Telescope (GMRT)

Context:

Astronomers have used an Indian telescope to discover the most distant radio galaxy ever known, located at a distance of 12 billion light-years.

The galaxy, from a time when the universe was only 7% of its current age was found using the Giant Metrewave Radio Telescope (GMRT) in Pune.

The distance to this galaxy was determined using the Gemini North telescope in Hawaii and the Large Binocular Telescope in Arizona.

What are radio galaxies?

- Radio galaxies are very rare objects in the universe. They are colossal galaxies with a supermassive black hole in their centre that actively accretes gas and dust from its surroundings.
- This activity initiates the launch of high-energy jet streams, which are capable of accelerating charged particles around the supermassive black hole to almost the speed of light.
- The discovery of such galaxies at extremely large distances is important for our understanding of the formation and evolution of galaxies.

About GMRT:

- The Giant Metrewave Radio Telescope (GMRT), located near Pune in India, is an array of thirty fully steerable parabolic radio telescopes of 45 metre diameter, observing at metre wavelengths.
- It is operated by the National Centre for Radio Astrophysics, a part of the Tata Institute of Fundamental Research, Mumbai.
- At the time it was built, it was the world's largest interferometric array offering a baseline of up to 25 kilometres (16 mi).
- One of the aims for the telescope during its development was to search for the highly redshifted 21-cm line radiation from primordial neutral hydrogen clouds in order to determine the epoch of galaxy formation in the universe

US Space Force

Why in News?

NASA Administrator recently expressed full support for President Donald Trump's proposed military "Space Force" but added that it will have a role separate from NASA.

Background:

U.S. President Donald Trump is planning to create a “space force” or a sixth branch of the American armed forces. The space force plan requires congressional approval. Military leaders and experts have questioned the wisdom of launching an expensive, bureaucratic new service branch.

About Space Force?

- The United States Space Force, as proposed by the Trump administration, would be a new branch of the military by 2020, on par with the army, navy, air force, marines and coast guard.
- An independent branch can't be created until Congress approves it, but the administration can take several steps on its own to prepare for the launch of a new force, the first since the air force was formed shortly after the second world war.
- Officials plan to create a Space Operations Force – an “elite group of war fighters specializing in the domain of space” drawn from various branches of the military, in the style of existing special operations forces, Pence said.
- They'll also create a United States Space Command and a Space Development Agency, and appoint an assistant secretary of defense for space.

The need:

- The White House points to galactic threats from US adversaries, particularly Russia and China, which could develop weapons to jam, blind or destroy satellites that are crucial to communications systems.
- In 2007, China destroyed one of its own satellites, in a test of a weapon that could be used to target others. Russia has also tested a missile that could be used to track and destroy satellites.
- Not everyone is convinced, however, with critics saying threats on earth are much more real than the prospect of wars in space.

NASA's New Horizons mission

Why in News?

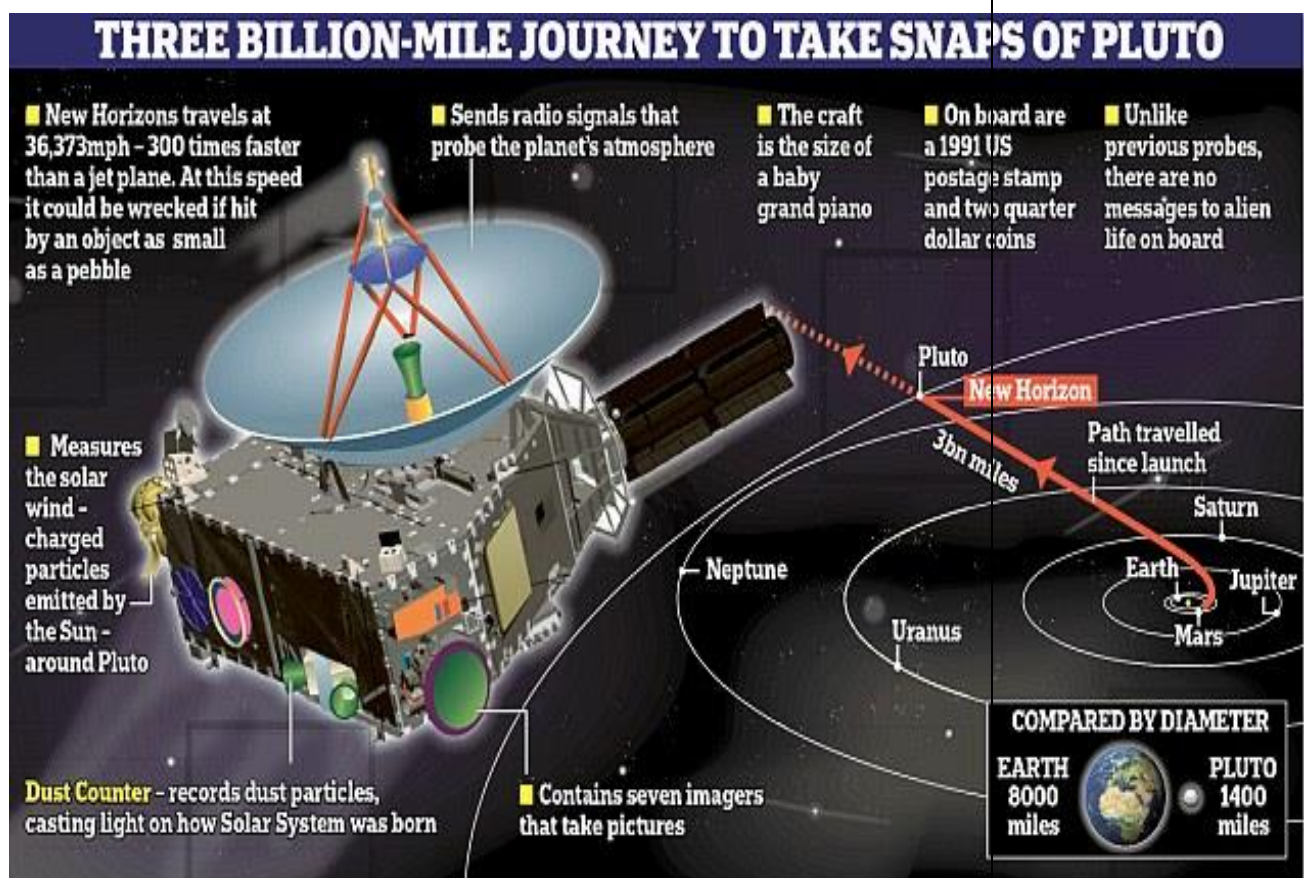
Scientific data sent back by National Aeronautics and Space Administration's (NASA) New Horizons spacecraft suggests that there could be a hydrogen wall at the end of our solar system.

What does the presence of Hydrogen wall indicate?

- It is believed that this hydrogen wall is a "signature of the furthest reaches of sun's energy".
- Technically speaking, the charged particles which the sun sends outwards causes hydrogen to release characteristic ultraviolet light. But as one keeps going away from the sun its influence wanes, which might create a pileup of interstellar hydrogen.

About New Horizons Mission:

- **New Horizons** is an [interplanetary space probe](#) that was launched as a part of [NASA's New Frontiers program](#).
- The spacecraft was launched in 2006 with the primary mission to perform a [flyby](#) study of the [Pluto](#) system in 2015, and a secondary mission to fly by and study one or more other [Kuiper belt](#) objects (KBOs) in the decade to follow.
- It is the [fifth artificial object](#) to achieve the [escape velocity](#) needed to [leave the Solar System](#).
- New Horizon's core science mission is to map the surfaces of Pluto and Charon, to study Pluto's atmosphere and to take temperature readings.
- The spacecraft was launched in 2006, before the big debate started over Pluto's status as a planet. In August of that same year, the International Astronomical Union reclassified Pluto as a dwarf planet.



NITI Aayog launches "Pitch to MOVE"

What is It?

NITI Aayog has launched "Pitch to MOVE" - a mobility pitch competition that aims to provide budding entrepreneurs of India a unique opportunity to pitch their business ideas to a distinguished jury.

Startups working in the various fields of mobility can pitch their ideas to industry leaders and Venture Capitalists for raising investments.

Winners of the event will be felicitated by Hon'ble PM during the Global Mobility Summit.

About "Pitch to MOVE"

- Pitch to MOVE" is organised by NITI Aayog in collaboration with Invest India and Society of Indian Automobile Manufacturers (SIAM)

as a part of a series of engaging featured events in the run up to the main event.

- Pitch to MOVE aims to:

identify and incentivise the startups, which will help the Government realize its vision of Shared, Connected, Intermodal and Environment Friendly Mobility for India.

The objective is to harness the latest disruption for generating employment and growth in our country.

Benefits:

- The importance of mobility as the potential driver of innovation, job creation, economic growth and social change for the 21st century is highlighted time and again.
- With rapidly evolving technologies and business models for delivering mobility services, our goal of cleaner and more efficient mobility systems will be achieved with the help of the dynamic entrepreneurial class of India.

Compensatory afforestation fund :

Why in News?

CAF Rules were finally published on August 10, 2018, paving the way for smooth transfer of funds worth about Rs. 52, 000 crore to the States.

CAF Act will come into force from September 30, 2018.

Benefits of Fund:

Release of fund to States will boost the efforts of the Government towards:

- restoration and enhancement of forest wealth,
- enhance bio-richness, water availability and secure ecological security of the country,
- and this effort will help in creating the additional carbon sink to meet the nation's Intended Nationally Determined Contribution (INDC) of 2.5 to 3 billion tonnes of carbon dioxide equivalent through additional forest and tree cover by the year 2030.

Operation of Funds:

- The fund will be kept in the interest-bearing Public account of the Centre and States, will be safe and will be used only for compensatory afforestation, soil moisture conservation, wildlife management and catchment area treatment.
- These activities will be managed by statutory body called National Authority and State Authority and has a strong monitoring mechanism.
- CAF Act has been enacted to manage the funds collected for compensatory afforestation and net present value of forest land diverted for non-forestry use under Forest Conservation Act 1980, which had till now been managed by adhoc Compensatory Afforestation Fund Management and Planning Authority (CAMPA).
- The release of the fund was restricted to only 10% of principal amount from interest accrued over it.
- Now, the Fund will be managed as per the CAF Act and Rules, unlocking the use of funds collected for the purpose of forest ecosystem restoration and water security.

Lab for conservation of endangered species

Why in News?

Union Minister for Science & Technology, Earth Sciences & Environment, Forest & Climate Change Minister Dr Harsh Vardhan today dedicated India's only facility for conservation of endangered species.

The Laboratory for the Conservation of Endangered Species (LaCONES), a dedicated facility of CSIR's Centre for Cellular and Molecular Biology (CCMB) in Hyderabad uses modern biotechnologies for conservation of endangered wildlife.

About LaCONES:

- CCMB-LaCONES is the only laboratory in India that has developed methods for collection and cryopreservation of semen and oocytes from wildlife and successfully reproducing endangered blackbuck, spotted deer and Nicobar pigeons.
- Through this work, it has established Genetic Resource Bank for Indian wildlife.

- So far, genetic resources from 23 species of Indian wild animals have been collected and preserved.
- This facility would increase the collection of genetic resources from wildlife through collaboration with zoos in India.
- It would also facilitate exchange of genetic material between the Indian zoos for maintaining genetic diversity and conservation management made accessible to scientists and wildlife managers for implementing conservation programs.

The Parker Solar Probe

Context:

NASA's Parker Solar Probe, mankind's first mission to 'touch' the Sun, has been launched today on a seven-year long journey to unlock the mysteries of our star's fiery outer atmosphere and its effects on space weather.

About the Probe:

- The car-sized spacecraft will travel directly into the Sun's atmosphere, about four million miles from its surface - and more than seven times closer than any spacecraft has come before, thanks to its innovative Thermal Protection System.
- Parker Solar Probe will explore the corona, a region of the Sun only seen from Earth when the Moon blocks out the Sun's bright face during total solar eclipses.
- The corona holds the answers to many of scientists' outstanding questions about the Sun's activity and processes.
- The USD 1.5 billion mission will perform the closest-ever observations of a star when it travels through the Sun's outer atmosphere, called the corona.
- It will make 24 passes through the corona during its seven-year mission.
- The mission will rely on measurements and imaging to revolutionise our understanding of the corona and how processes there ultimately affect near-Earth space.
- The Parker Solar Probe carries a lineup of instruments to study the Sun both remotely and in situ, or directly.

Together, the data from these instruments should help scientists answer three foundational questions about our star.

Probing the sun

New NASA mission aims to investigate the strange and mysterious star

Parker Solar Probe

Unmanned aircraft


Mission

- ▶ First to fly directly into the sun's atmosphere, called the **corona**
- ▶ Trace the flow of energy and understand the heating of corona, explore solar wind acceleration, capture images of solar structures

Scheduled launch:

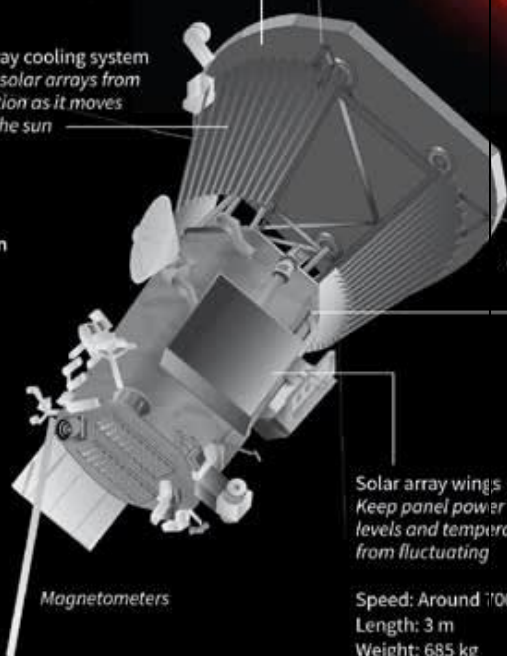
August 11, 2018
from Cape Canaveral, Florida, USA

7 flybys of the sun over a 7-year period



- Launch Aug 2018
- First flyby close to sun Nov 2018
- Closest to the sun (Distance: 6.3 million km) Dec 2024

Sun, Mercury, Venus, Earth

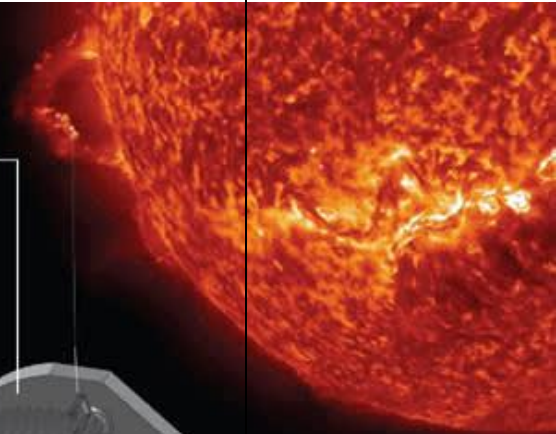


- Thermal protection system**
 - Fitted with 11.5-cm-thick **carbon-composite shield**
 - Can withstand nearly 1,400°C around the sun's surface
 - Allows instruments to operate at about room temperature
- Solar array cooling system**
Protects solar arrays from incineration as it moves around the sun
- Antenna**
- Wide-field imager for solar probe**
Telescopes to take images of corona and inner heliosphere
- Solar array wings**
Keep panel power levels and temperatures from fluctuating
- Magnetometers**
- Speed:** Around 700,000 kph
Length: 3 m
Weight: 685 kg

The sun's unstable corona produces

- solar wind
- flares
- explosions of magnetic field and plasma

Source - NASA/ParkerSolarProbe/AFP Photo/NASA/SDO: Solar eruption of super-hot plasma captured on Nov, 2012



Human space flight Programme



Context:

In his address to the nation on India's 72nd Independence Day, Prime Minister Narendra Modi announced that India will send an astronaut to space in the year 2022.

Indian Human Space Flight Programme:

- India plans to build a crew vehicle that can accommodate 2 or 3 astronauts and human rate its GLSV Mk-III launcher. In 2004, ISRO prepared a document with the road-map for developing technologies relevant to human spaceflight.
- Initially, a manned space flight was proposed before 2017, at a budget of Rs 12.4 billion (\$242 million), using a fully autonomous orbital vehicle carrying two or three crew members to 400-km (250 miles) low Earth orbit for up to 7 days and back. The planning commission approved the mission and the government sanctioned Rs 95 crore to study all aspects of the manned space mission.
- ISRO has initiated pre-project Research and Development activities focusing on critical technologies for Human Space Flight Program.

Technological Challenges:

Three major areas that ISRO needs to master are, environmental control and life support (ECLS) system, crew escape system and flight suite and it's currently working on them, under pre-project studies for which the Government sanctioned Rs 145 crore.

Recent technological advancements:

- In what appears to be a preparation for the Gaganyaan mission, ISRO last month conducted its first 'pad abort' test that was successful.
- The 'pad abort' test or Crew Escape System is an emergency escape measure that helps pull the crew away from the launch vehicle when a mission has to be aborted. The test was conducted at the Satish Dhawan Space Centre, Sriharikota.
- The Pad Abort Test demonstrated the safe recovery of the crew module in case of any exigency at the launch pad.

Laser Interferometer Gravitational Wave Observatory (LIGO) project.

Why in News?

The Environment Ministry has allowed scientists to test the suitability of land in Maharashtra's Hingoli district to host the India wing of the ambitious Laser Interferometer Gravitational Wave Observatory (LIGO) project.

This is a key step to establishing the one-of-its-kind astronomical observatory.

About LIGO Project:

- The project involves constructing a network of L-shaped arms, each four kilometres long, which can detect even the faintest ripples from cosmic explosions millions of light years away.
- The LIGO project operates three gravitational-wave (GW) detectors.
- Two are at Hanford in the State of Washington, north-western USA, and one is at Livingston in Louisiana, south-eastern USA.

- Currently these observatories are being upgraded to their advanced configurations.
- The proposed LIGO-India project aims to move one Advanced LIGO detector from Hanford to India.

LIGO-India:

- The LIGO-India project is an international collaboration between the LIGO Laboratory and three lead institutions in the LIGO-India consortium: Institute of Plasma Research, Gandhinagar; IUCAA, Pune; and Raja Ramanna Centre for Advanced Technology, Indore.
- The LIGO lab would provide the complete design and all the key detector components.
- Indian scientists would provide the infrastructure to install the detector and it would be operated jointly by LIGO-India and the LIGO-Lab.
- The project, piloted by the Department of Atomic Energy (DAE) and Department of Science and Technology (DST), reportedly costs ₹1,200 crore and is expected to be ready by 2025.

International Conference on Recent Advances in Food Processing Technology (iCRAFPT)

Why in News?

International Conference on Recent Advances in Food Processing Technology (iCRAFPT) got underway today at Indian Institute of Food Processing Technology, Thanjavur in Tamilnadu.

About IIFPT:

- The Indian Institute of Food Processing Technology (IIFPT), a premier national Institute working under the administrative control of Ministry of Food Processing Industries (MoFPI), Government of India functioning from its headquarters in Thanjavur, Tamil Nadu.
- Besides delivering research and education in food processing, the institute has been incubating farmers, entrepreneurs and aspiring youth for prospective food business ventures.
- Considering this importance and promotion of food processing among the farmers, budding entrepreneurs and researchers.



C.A From 11th Aug to 18th Aug 2018

- The institute has been organizing an International Conference on Recent Advances in Food Processing Technology (iCRAFPT) during 17th to 19th August 2018 with the theme of Doubling farmers' income through food processing.