News Analysis (17 Aug, 2020)

Minimum Age of Marriage for Girls

Why in News

The Prime Minister, during his address to the nation on the **74th Independence Day,** announced that the **central government has set up a committee to reconsider the minimum age of marriage for women,** which is **currently 18.**

Key Points

- **About the Committee:**
  - On 2nd June 2020, the **Union Ministry for Women and Child Development** set up a committee to examine matters pertaining to age of motherhood, imperatives of lowering **Maternal Mortality Ratio** and the improvement of nutritional levels among women. The Committee is **headed by Jaya Jaitely.**

    The Committee was **proposed in the Union Budget 2020-21.**
  - It will examine the **correlation of age of marriage and motherhood with health, medical well-being,** and nutritional status of the mother and neonate, infant or child, during pregnancy, birth and thereafter.
  - It will also look at key parameters like **Infant Mortality Rate (IMR), Maternal Mortality Rate (MMR), Total Fertility Rate (TFR), Sex Ratio at Birth (SRB)** and **Child Sex Ratio (CSR),** and will **examine the possibility of increasing the age of marriage for women from the present 18 years to 21 years.**

- **Link Between Age of Marriage and Nutrition:**
  - A study conducted by the **International Food Policy Research Institute (IFPRI)**, which was published in 2019, showed that **children born to adolescent mothers (10-19 years) were 5 percentage points more likely to be stunted** (shorter for their age) than those born to young adults (20-24 years), and 11 percentage points more stunted than children born to adult mothers (25 years or older).
  - Children born to adolescent mothers also had **10 percentage points higher prevalence of low weight** as adult mothers.
  - It also highlighted other factors, such as **lower education** among teenage mothers and their **poor economic status,** which had the strongest links with a child's height and weight measurements.
  - It **recommended** that **increasing age at first marriage, age at first birth, and girl's education** are a promising approach to improve maternal and child nutrition.
- **Arguments Against Increasing the Minimum Age of Marriage of Women:**
  - The **National Coalition Advocating for Adolescent Concerns** asserts that increasing the legal age of marriage for girls will only **"artificially expand the numbers of married persons deemed underage** and criminalise them and render underage married girls without legal protec**tion".**
  - **Instead,** transformative, well resourced measures that increase girls' access to education and health, create enabling opportunities and place girl's empowerment at the centre will not just delay marriage but lead to long term, positive health and education outcomes.
  - It recommended **bringing education for three-to-five year-olds and 15-to-18 years under the Right to Education,** instead of confining the law to children between 6 years to 14 years.

Present Age for Marriage

- The **Special Marriage Act, 1954** and the **Prohibition of Child Marriage Act, 2006** prescribe **18** and **21** years as the minimum age of consent for marriage for **women** and **men** respectively.
  - It needs to be noted that the **minimum age of marriage is distinct from the age of majority** which is gender-neutral. An individual attains the age of majority at **18** as per the **Indian Majority Act, 1875.**

- The laws prescribe a minimum age of marriage to essentially **outlaw <u>child marriages</u>** and **prevent the abuse of minors.** Personal laws of various religions that deal with marriage have their own standards, often reflecting custom.
    - For Hindus, **Section 5(iii) of The Hindu Marriage Act, 1955,** sets 18 years as the minimum age for the bride and 21 years as the minimum age for the groom. However, **child marriages are not illegal** — even though they can be declared void at the request of the minor in the marriage.
    - In **Islam,** the marriage of a minor who has attained puberty is considered valid.
- Additionally, **sexual intercourse with a minor is rape,** and the 'consent' of a minor is regarded as invalid since she is deemed incapable of giving consent at that age.

History

- The **Indian Penal Code enacted in 1860** criminalised sexual intercourse with a **girl** below the age of **10.** The provision of rape was amended in 1927 through **the Age of Consent Bill, 1927,** which declared that marriage with a girl under **12** would be invalid.
- In **1929, the Child Marriage Restraint Act** set **16** and **18** years as the minimum age of marriage for girls and boys respectively.
    > **This law**, popularly **known as the Sarda Act** after its sponsor Harbilas Sarda, a judge and a member of Arya Samaj, was eventually **amended in 1978** to prescribe **18** and **21** years as the age of marriage for a woman and a man respectively.

Different Legal Age of Marriage for Men and Women

- There is **no reasoning in the law for having different legal standards of age** for men and women to marry. The laws are a codification of custom and religious practices.
- However, the law has been challenged on the grounds of **discrimination.**
    > Such a law **violates Articles 14 and 21 of the Constitution,** which guarantee the right to equality and the right to live with dignity.

- **Against the Supreme Courts' Following Judgements:**
  - In **2014,** in the _'National Legal Services Authority of India v Union of India'_ case, the Supreme Court, while **recognising transgenders as the third gender,** said that justice is delivered with the "assumption that **humans have equal value** and should, therefore, be treated as equal, as well as by equal laws".
  - In **2019,** in _'Joseph Shine v Union of India',_ the Supreme Court **decriminalised adultery,** and said that **"a law that treats women differently based on gender stereotypes is an affront to women's dignity".**
- Further **India is a state party to the Convention on the Elimination of All Forms of Discrimination against Women, 1979.**
  - The **Committee on the Elimination of Discrimination against Women (CEDAW),** which monitors the implementation of the Convention, calls for the abolition of laws that assume women have a different physical or intellectual rate of growth than men.
- It needs to be noted that despite laws mandating minimum age and criminalising sexual intercourse with a minor, **child marriages are very prevalent in the country.**
  - UNICEF estimates suggest that each year, at least **1.5 million girls under the age of 18 are married in India,** which makes the country **home to the largest number of child brides in the world** — accounting for a third of the global total.

Way Forward

- Early pregnancy is associated with increased child mortality rates and affects the health of the mother. Thus, there is a need to focus on a mother's health and readiness to carry a child.
- The government needs to emphasize upon economic and social empowerment of women and girls, as well as targeted social and behaviour change communication (SBCC) campaigns. Increasing the minimum age of marriage of women will also lead to gender-neutrality.

Source: IE

National Digital Health Mission

Why in News

The Prime Minister of India announced the launch of **National Digital Health Mission (NDHM)** on 74th Independence Day..

This is a part of three digital announcements by the Prime Minister including a new cyber security policy and optical fibre connectivity to six lakh villages in the country.

Key Points

- The NDHM is a complete **digital health ecosystem.** The digital platform will be launched with four key features — **health ID, personal health records, Digi Doctor** and **health facility registry.**
- At a later stage, it will also include **e-pharmacy and telemedicine services,** regulatory guidelines for which are being framed.
- The NDHM is implemented by the **National Health Authority (NHA)** under the Ministry of Health and Family Welfare.
    - The **National Health Authority (NHA),** is also the implementing agency for **Ayushman Bharat.**
- The platform will be available in the form of an **app** and **website.**
- The **Digi Doctor** option will allow doctors from across the country to enrol and their details, including their contact numbers if they want to provide them, will be available.
    - These doctors will also be **assigned digital signatures for free** which can be used for **writing prescriptions.**
    - It will be **voluntary for the hospitals and doctors** to provide details for the app.
- **Health ID**
    - The national health ID will be a **repository of all health-related information** of every Indian.
    - **Various healthcare providers —** such as hospitals, laboratories, insurance companies, online pharmacies, telemedicine firms — will be expected to participate in the health ID system.
    - Every patient who wishes to have their health records available digitally must create a **unique Health ID,** using their basic details and mobile or **Aadhaar** number.
    - Each Health ID will be linked to a **health data consent manager,** which will be used to seek the patient's consent and allow for seamless **flow of health information from the Personal Health Records module.**
    - The Health ID will be **voluntary** and **applicable across states,** hospitals, diagnostic laboratories and pharmacies.

Background

- The **National Health Policy 2017** had envisaged creation of a digital health technology eco-system aiming at developing an integrated health information system that serves the needs of all stakeholders and improves efficiency, transparency and citizens' experience with linkage across public and private healthcare.
  - A Digital Health ID was proposed to "greatly reduce the risk of preventable medical errors and significantly increase quality of care".
- In the context of this, the central government's think-tank NITI Aayog, in **June 2018,** floated a consultation of a digital backbone for India's health system — **National Health Stack (NHS).**
  - NHS was intended to be a digital infrastructure built with the aim of making the health insurance system more transparent and robust, while factoring in the uniqueness of India's health sector, and the political realities of federalism.
- A committee headed by former Unique Identification Authority of India (UIDAI) chairman released the **National Digital Health Blueprint** in **July 2019.**
  - NDHB recognised the need to establish a specialised organisation, called the **National Digital Health Mission (NDHM),** to facilitate the evolution of the National Digital Health Ecosystem.
- On **7th August 2020,** National Digital Health Mission (NDHM) released its latest **strategic document**, outlining the envisioned digital registries of doctors, hospitals, pharmacies, and insurance companies, digital personal health records, and digital clinical decision systems.

National Health Policy 2017

Aiming to provide healthcare in an **"assured manner"** to all, the NHP 2017 strives to address current and emerging challenges arising from the ever-changing socio-economic, technological and epidemiological scenarios.

- **Features**
  - The policy advocates a **progressively incremental assurance-based approach.**
  - It denotes an important change towards a comprehensive primary health care package which includes care for major **NCDs (non-communicable diseases), mental health, geriatric health care, palliative care and rehabilitative care services.**
  - It envisages providing larger package of assured comprehensive primary health care through the **'Health and Wellness Centres'**
  - The policy proposes **free drugs, free diagnostics and free emergency and essential health care services in all public hospitals** in a bid to provide access and financial protection.
  - It also envisages a **three-dimensional integration of AYUSH systems** encompassing cross referrals, co-location and integrative practices across systems of medicines.
  - It also seeks an **effective grievance redressal mechanism.**
- **Health Expenditure:** The policy proposes raising public health expenditure to **2.5% of the GDP by 2025.**
- **Targets:**
  - To **increase life expectancy** at birth from 67.5 to 70 by 2025 and reduce infant mortality rate to 28 by 2019.
  - To **reduce mortality of children under-five** years of age to 23 by the year 2025.
  - To allocate a major proportion of resources to primary care and intends to ensure availability **of two beds per 1,000 population** distributed in a manner to enable access **within golden hour** (the first hour after traumatic injury, when the victim is most likely to benefit from emergency treatment).
  - To achieve the **global 2020 HIV target under 90-90-90 UNAIDS Target according to which by 2020,**
    - 90% of all people living with HIV will know their HIV status.
    - 90% of all people with diagnosed HIV infection will receive sustained antiretroviral therapy.
    - 90% of all people receiving antiretroviral therapy will have viral suppression.

Way Forward

- The NDHM still does not recognize **'Health' as a justiciable right.** There should be a push draft at making health a right, as prescribed in the **draft National Health Policy, 2015.**

- One of the biggest concerns is regarding **data security and privacy of patients.** It must be ensured that the health records of the patients remain entirely confidential and secure.
- In addition, the **failure** of a similar **National Health Service (NHS) in the United Kingdom** must be learnt lessons from and the technical and implementation-related deficiencies must be proactively addressed prior to launching the mission on a pan India scale.
- The standardisation of NDHM architecture across the country will need to find ways to **accommodate state-specific rules.** It also needs to be in sync with government schemes like **Ayushman Bharat Yojana** and other IT-enabled schemes like **Reproductive Child Health Care** and **NIKSHAY** etc.

Source: IE

RTI on PM-CARES Fund

Why in News

The **Prime Minister's Office (PMO)** has denied a **Right to Information** request related to the **Prime Minister's Citizen Assistance and Relief in Emergency Situations Fund (PM-CARES Fund).**

Key Points

- **Denied Information:** The PMO denied information on the **number of applications and appeals** related to PM-CARES and the Prime Minister's National Relief Fund.
- **Reason for denial:** The information was denied by the PMO on the grounds that providing it would **"disproportionately divert the resources of the office"** under **Section 7(9)** of the **Right to Information Act, 2005.**
    - According to the Section 7 (9) of the RTI Act, "an information shall ordinarily be provided in the form in which it is sought unless **it would disproportionately divert the resources** of the public authority or **would be detrimental to the safety** or **preservation** of the record in question."

- **Criticism:**
  - **Misuse:** The move has been criticized by the **Central Information Commission (CIC)** as **misuse of Section 7(9) by the PMO.**
  - **Kerala HC Judgement:** According to the judgment by the **Kerala High Court in 2010,** Section 7(9) does not exempt any public authority from disclosing information.

    It only gives discretion to the public authority to provide the information **in a form other than the form in** which the information is sought for.
  - **Section 8 (1)** lists the various valid reasons for exemption against furnishing information under the Act and not Section 7(9).
- **Concerns around PM CARES Fund:**
  - Concerns have been raised around **the opaqueness** of PM CARES Fund's trust deed against public scrutiny of the expenditure of the fund.
  - The need for a new PM CARES Fund, given that a **PM National Relief Fund (PMNRF)** with similar objectives exists.
  - The decision to allow **uncapped corporate donations** to the fund to count as **CSR expenditure,** a facility not provided to PMNRF or the CM's Relief Funds, goes against previous guidelines stating that CSR should not be used to fund government schemes.
    - A government panel had previously advised against allowing CSR contributions to the PMNRF on the grounds that the **double benefit of tax** exemption would be a **"regressive incentive".**
    - Donations to PMCARES have been made tax-exempt, and can be counted against a company's Corporate Social Responsibility (CSR) obligations. It is also exempt from the Foreign Contribution (Regulation) Act, 2010, and **accepts foreign contributions.**
- **Background:**
  - Earlier, the Prime Minister's Office (PMO) had said that the PM-Cares Fund is **not a public authority** under the ambit of **Section 2(h)** of the RTI Act, 2005.
  - A **Public Interest Litigation (PIL)** petition has been moved before the Delhi High Court asking to bring PM-CARES Fund under the ambit of the Right to Information (RTI) Act.
  - A Petition seeking transfer of contributions made to PM-CARES Fund To the **National Disaster Response Fund (NDRF)** has also been made in the Supreme Court of India.

    The government maintained that statutory funds like NDRF, formed under Section 46 of the Disaster Management Act of 2005, are provided for by central and State budgets. These statutory funds **do not take private contributions,** unlike PM-CARES Fund.

Section 2(h) of the RTI Act, 2005

Under **section 2(h) of the RTI Act "Public authority"** means any authority or body or institution of self government established or constituted—

- by or under the Constitution;
- by any other law made by Parliament/State Legislature.
- by notification issued or order made by the appropriate Government, and includes any—
    - body owned, controlled or substantially financed;
    - non-Government organisation substantially financed, directly or indirectly by funds provided by the appropriate Government.
- Recently, The Supreme Court has ruled that the office of the **Chief Justice of India (CJI) is a public authority** under the Right to Information (RTI) Act, 2005.

Section 8 of the RTI Act, 2005

This provides for exemption from disclosure of information such as-

- Which would affect the sovereignty and integrity of India, the security, strategic, scientific or economic interests of the State;
- Which has been expressly forbidden to be published by any court of law or tribunal;
- Which would cause a breach of privilege of Parliament or the State Legislature;
- Information including commercial confidence, trade secrets or intellectual property;
- Information received in confidence from foreign government;
- Information which would endanger the life or physical safety of any person; etc.

Source: TH

Oil Spill in Mauritius

Why in News

A japanese bulk-carrier ship MV Wakashio which was carrying fuel oil has split into two parts near **Blue Bay Marine Park** in **south-east Mauritius.**
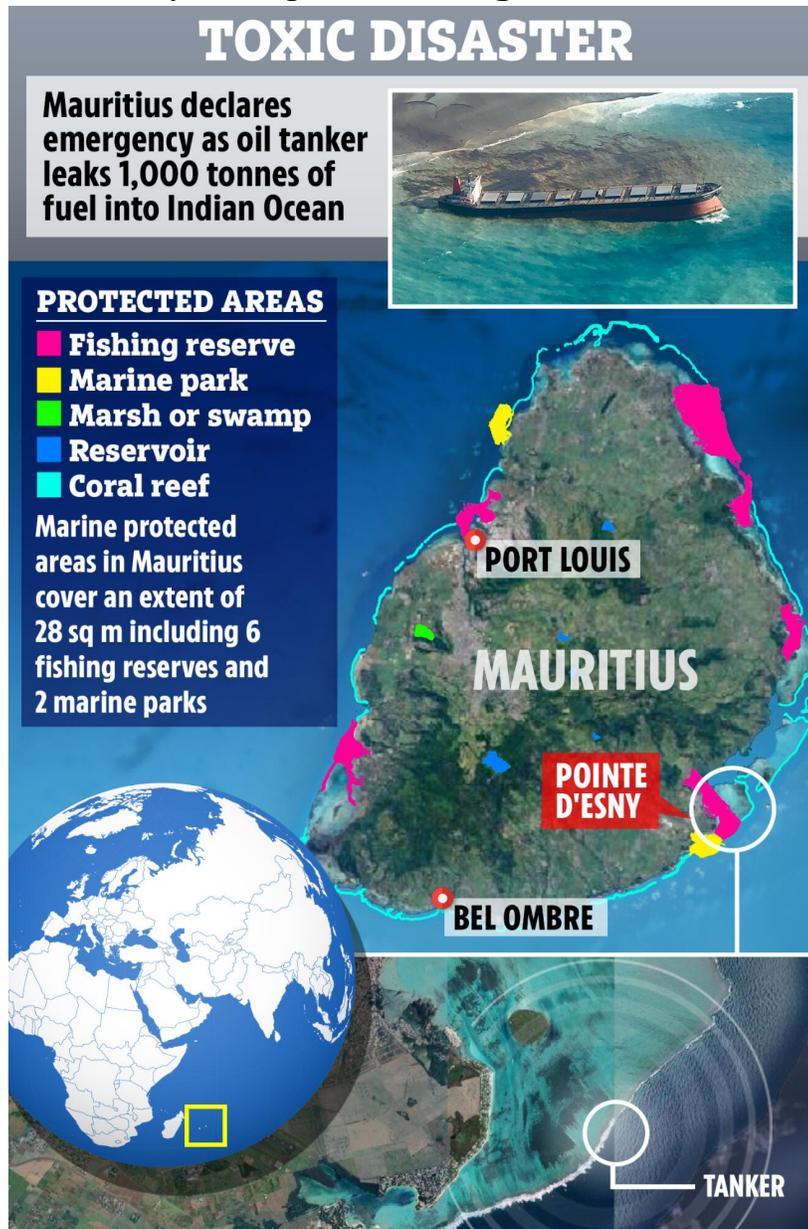
The ship was already leaking and has caused an oil spill of over 1000 tonnes in the **Indian Ocean.**

Key Points

- The vessel has broken near **Pointe d'esny** in Mauritius and the area has many environmentally sensitive zones.

- **Effects:** The oil spill threatens the ecology of the **coastline of Mauritius** and the **marine life in the Indian Ocean.**
    - It endangers the already endangered **coral reefs, seagrasses in the shallow waters, mangroves, the fishes and other aquatic fauna.**
    - Some key wildlife at risk include: Giant tortoises, endangered green turtle, and the critically endangered **Pink Pigeon.**

- The **pink pigeon** *(Nesoenas mayeri)* is a species of pigeon, endemic to the Mascarene island of Mauritius.
- It has been listed as **'endangered'** in the **International Union for Conservation of Nature (IUCN)** Red List of Threatened Species.

- **Liability:** Under the **International Convention on Civil Liability for Bunker Oil Pollution, 2001, the owners of vessels are responsible for damage caused by oil leaks.**
  - This convention, also known as **BUNKER convention,** came into force in **2008** and is administered by the **International Maritime Organization (IMO).**
  - The Convention was adopted to ensure that **adequate, prompt, and effective compensation** is available to persons who suffer **damage caused by spills of oil,** when carried as fuel in ships' bunkers.
- **Blue Bay Marine Park:** It is designated as a **Wetland of International Importance by <u>Ramsar Convention</u>.**
    The presence of **coral reefs, mangroves, seagrass meadows,** and **macro algae** make it an ecologically sensitive zone.

Oil Spill

- **Definition:** An oil spill refers to any **uncontrolled release** of crude oil, gasoline, fuels, or other oil by-products into the environment. Oil spills can pollute land, air, or water, though it is mostly used for oceanic oil spills.
- **Cause:** They have become a major environmental problem, chiefly as a result of **intensified petroleum exploration and production** on continental shelves and the transport of large amounts of oils in vessels.
- **Environmental Impacts**
  - Oil on ocean surfaces is harmful to many forms of aquatic life because it **prevents sufficient amounts of sunlight** from penetrating the surface, and it also reduces the **level of dissolved oxygen.**
  - Crude oil ruins the insulating and waterproofing properties of feathers and fur of birds, and thus oil-coated birds and marine mammals may die from **hypothermia** (decrease in body temperature to below-normal levels).
  - Moreover, **ingested** oil can be toxic to affected animals, and damage their **habitat and reproductive rate.**
  - **Saltwater marshes** and **mangroves** frequently suffer from oil spills.
  - Experts say that despite best efforts, generally **less than 10% of oil spilled** in incidents like these is successfully **cleaned up.**
- **Economic Impacts:**
  - If beaches and populated shorelines are fouled, **tourism** and **commerce** may be severely affected.
  - The **power plants and other utilities** that depend on drawing or discharging sea water are severely affected by oil spills.
  - Major oil spills are frequently followed by the **immediate suspension of commercial fishing.**

- **Cleanup of Oil Spill:**
  - **Containment Booms:** Floating barriers, called booms are used to restrict the spread of oil and to allow for its recovery, removal, or dispersal.
  - **Skimmers:** They are devices used for physically separating spilled oil from the water's surface.
  - **Sorbents:** Various sorbents (e.g., straw, volcanic ash, and shavings of polyester-derived plastic) that absorb the oil from the water are used.
  - **Dispersing agents:** These are chemicals that contain surfactants, or compounds that act to break liquid substances such as oil into small droplets. They accelerate its natural dispersion into the sea.
  - **Biological agents:** Nutrients, enzymes, or microorganisms such as *Alcanivorax* bacteria or *Methylocella silvestris* that increase the rate at which natural biodegradation of oil occurs are added.
- **Other Incidents of Oil Spills:**
  - Recently, **Russia** declared a state of emergency in its **Krasnoyarsk Region** after a **power plant fuel leaked** causing 20,000 tonnes of diesel oil to escape into the **Ambarnaya River.**
  - In 2010, the **Deep Water Horizon incident** off the **Gulf of Mexico** saw nearly 400,000 tonnes of oil spill, resulting in the death of thousands of species ranging from plankton to dolphins
  - In 1978, a large crude oil carrier ran aground off the coast of **Brittany, France,** which leaked nearly 70 million gallons of oil into the sea, killing millions of invertebrates and an estimated 20,000 birds

Source: TH

Anti-Drug Working Group BRICS

Why in News

Recently, the 4th Session of the **BRICS Anti-Drug Working Group** was held through a video conference.

The session was **chaired by Russia** this year.

Key Points

- **Issues Raised by India:** India raised the misuse of **darknet** and modern technology used for **drug trafficking by the international criminals** in the meeting.

  It also called for nodal points to enable **real-time information sharing** among BRICS nations.

- **Trends of Drug Trafficking:** The BRICS grouping discussed **international and regional trends of illegal trafficking** in narcotic drugs, psychotropic substances among others.

  It also discussed **steps to curb** increased instances of drug trafficking through the maritime route.

- **A Global Menace:**

  According to the **report** released in May 2020 by the **United Nations Office on Drugs and Crime Report (UNODC), Covid-19** induced **lockdowns** and movement restrictions may lead to an initial statistical reduction in drug seizures, but is **unlikely to have any effect on illicit drug supply.**

- **India and Illicit Drug Trade:**
  - **Major Hub of Illicit Drug Trade:** According to **UNODC,** India is one of the major hubs of illicit drug trade ranging from age-old **cannabis** to newer prescription drugs like tramadol, and designer drugs like methamphetamine.
  - **Drug Trafficking Routes:** India is in the **middle of two major illicit opium production** regions in the world, the **Golden Crescent (Iran-Afghanistan-Pakistan)** in the west and the **Golden Triangle (South-East Asia)** in the east.

- **Anti-Drug Action Plan:**

  India has also launched the **Anti-Drug Action Plan for 2020-21** which includes:
    - De-addiction Facilities,
    - Drop-in-Centres for Addicts,
    - Integrated Rehabilitation Centre for Addicts (IRCAs),
    - Drug-Free India Campaign.

- **Darknet:**
  - It refers to the **hidden internet platform** used for **narcotics sale, exchange of pornographic content and other illegal activities** by using the secret alleys of the **onion router** (ToR- a free and open-source software for enabling anonymous communication) to stay away from the surveillance of law enforcement agencies.

    It is **tough to crack** because of its end-to-end encryption.
  - The **dark net is part of the deep web,** which encompasses all unindexed sites that don't pop up when an Internet search is done.
  - However, **not all activities associated with the deep web are nefarious like darknet.** In most cases, these pages are not searchable because they are **password-protected** and require authorization in order to access them.

    Personal email, online banking, and other similar sites are included under the umbrella of the deep web.
  - The internet we see today is the only tip of the iceberg, the majority is deep web only.

BRICS

- BRICS is an **acronym** for the grouping of the world's leading emerging economies, namely **Brazil, Russia, India, China, and South Africa.**
    - In 2001, the British Economist Jim O'Neill coined the term **BRIC** to describe the four emerging economies of Brazil, Russia, India, and China.
    - The grouping was formalised during the first meeting of BRIC Foreign Ministers in 2006.
    - **South Africa** was invited to join BRIC in December 2010, after which the group adopted the acronym BRICS.
- The **chairmanship** of the forum is **rotated annually** among the members, in accordance with the acronym B-R-I-C-S.
- During the Sixth BRICS Summit in Fortaleza (2014) the leaders signed the Agreement establishing the **New Development Bank (NDB).** They also signed the **BRICS Contingent Reserve Arrangement.**

Golden Triangle

- It represents the region coinciding with the rural mountains of Myanmar, Laos, and Thailand.
- It is Southeast Asia's main opium-producing region and one of the oldest narcotics supply routes to Europe and North America.

Golden Crescent

- This region of South Asia is a principal global site for opium production and distribution.
- It comprises Afghanistan, Iran, and Pakistan.

Source: PIB

SalivaDirect: Covid-19 Test

Why in News

The **USA Food and Drug Administration (FDA)** has authorised the emergency **use of a new saliva-based laboratory diagnostic test for Covid-19 - 'SalivaDirect'.**

Key Points

- **About SalivaDirect:**
  - It is a new **rapid diagnostic test** for novel coronavirus infection that **uses saliva samples.** It is **simpler, less expensive and less invasive than the traditional method** for such testing known as **nasopharyngeal (NP) swabbing.**
    - NP swab is used to **detect upper respiratory tract infections,** such as whooping cough and Covid-19. It is used in **Polymerase Chain Reaction (PCR) and antigen tests.**
    - In this test, secretions from the back of the nose and upper throat are collected using a swab.
    - The secretions are sent to a laboratory where they are grown in order to make it easier to identify which viruses, bacteria or fungi are present.
  - Collecting and testing saliva samples include **three steps:**
    - Saliva is collected without preservative buffers.
    - It is first **treated with proteinase K** followed by a heat inactivation step (to remove contamination).
    - It is then directly used as an input in the dualplex **RT-qPCR mechanism**.
      - In Quantitative Reverse Transcription Polymerase Chain Reaction (RT-qPCR) mechanism, the **viral RNA** is quantified to detect the novel coronavirus.
      - **Coronavirus is made up of Ribonucleic Acid (RNA).**
- **Benefits:**
  - **High Sensitivity:** The sensitivity is about **93%.** SalivaDirect test can detect when the number of virus copies in the saliva sample is as low as 6-12 copies per microlitre.
  - **Non-Invasive:** It uses saliva, instead of relying on nasopharyngeal (nasal) specimens, which makes the sample collection non-invasive.
  - **Protects Healthcare Workers:** Collecting the sample from the nasopharyngeal region requires a swab to be inserted into the back of the nostrils, which very often causes irritation leading to sneezing and coughing, thus exposing healthcare workers from getting exposed to the virus.
  - **Large-scale Testing:**
    - Saliva samples are a **viable alternative to nasopharyngeal swabs** and could allow for at-home, self-administered sample collection for accurate large-scale SARS-CoV-2 testing.
    - Further, collecting nasopharyngeal samples can be uncomfortable to people, discouraging them from getting tested. The saliva test is likely to increase testing compliance.

Source: TH

Fly Ash

Why in News

Recently, **National Thermal Power Corporation (NTPC)** has developed an infrastructure to transport **fly ash** from power plants in bulk to cement plants, at a cheaper cost.

- It will pave the way for **efficient and environment friendly** transportation.
- This development is in line with NTPC's commitment towards **100% utilization of fly ash from power plants.** At present, 63% of the fly ash is being utilised in India.

Key Points

Fly Ash:
- **Definition:** It is a **byproduct from burning of coal** in electric power generating plants.
    - It is **called fly ash because** it is transported from the combustion chamber by exhaust gases.
    - It is collected from the exhaust gases by **electrostatic precipitators** or bag filters.
- **Composition:** Fly ash includes substantial amounts of silicon dioxide (SiO_2), aluminium oxide (Al_2O_3), ferric oxide (Fe_2O_3) and calcium oxide (CaO).
- **Properties:**
    - **Resemble Portland cement** but is chemically different.
        - Portland cement is a binding material in the form of a finely ground powder, that is manufactured by burning and grinding a mixture of **limestone and clay.**
        - Its **chemical composition** includes calcium silicates, calcium aluminate and calcium aluminoferrite.
    - Exhibit **cementitious** properties.
        - A cementitious material is one that hardens when mixed with water.
- **Uses:** It is used in concrete and cement products, road base, metal recovery, and mineral filler among others.
- **Harmful Effects:** Fly ash particles are toxic air pollutants. They can trigger heart disease, cancer, respiratory diseases and stroke.
    - When combined with water they cause **leaching of heavy metals in ground water.**
    - It also **pollutes the soil,** and affects the root development system of trees.

NTPC

- NTPC Ltd. is a **central Public Sector Undertaking (PSU)** under the **Ministry of Power.**
- **Aim:** To provide reliable power and related solutions in an economical, efficient and environment-friendly manner, driven by innovation and agility.
- It became a **Maharatna company** in May 2010.
- It is located in **New Delhi.**

Source: PIB

Navroz: Parsi New Year

Why in News

Navroj was celebrated in India on **16th August 2020.**

> Globally **Navroz is celebrated on 21st March,** however, **in India it is celebrated on 16th August** because of the **Shahenshahi calendar** that is followed by Parsis in India.
> The Shahenshahi calendar **doesn't account for leap years.**

Key Points

- Navroz is also known as **Parsi New Year.** In Persian, **'Nav' stands for new, and 'Roz' stands for the day,** which literally translates to **'new day'.**
- It is celebrated **to mark the beginning of the Iranian (Persian) calendar.**
- The tradition is **observed by Iranians and the Parsi community around the world.**
- In India Navroz is also known as **Jamshed-i-Navroz,** after the Persian King, **Jamshed.** The king Jamshed is credited with having created the Shahenshahi calendar.
- Navroj is inscribed in the list of **UNESCO Intangible Cultural Heritage of Humanity of India.**

Traditional New Year Festivals in India	
Name	**Features**

Chaitra Shukla Pratipada	- It marks the beginning of the new year of the **Vikram Samvat** also known as the Vedic (Hindu) calendar. - Vikram Samvat is based on the day when the emperor Vikramaditya defeated Sakas, invaded Ujjain and called for a new era.
Gudi Padwa and Ugadi	- Celebrated in the month of **Chaitra Shukla Pratipada** as per the Hindu Lunar Calendar. - Deccan region including **Karnataka, Andhra Pradesh and Maharashtra.**
Navreh	It is the lunar New Year that is celebrated in **Kashmir.** It falls on the very first day of the Chaitra Navratras.
Sajibu Cheiraoba	It is celebrated by **Meiteis (an ethnic group in Manipur)** which is observed on the first day of Manipur lunar month Shajibu, which falls in the month of **April every year.**
Cheti Chand	- It is celebrated by **Sindhi community.** Chaitra month is called 'Chet' in Sindhi. - The day commemorates the birth anniversary of **Ishta Deva Uderolal/Jhulelal,** the patron saint of Sindhis.
Bihu	- It is celebrated three times a year. - **Rongali or Bohag Bihu** is observed in April. Kongali or Kati Bihu observed in October and Bhogali or Magh Bihu observed in January. - Rongali or Bohag Bihu is the **Assamese new year** and spring festival. - The Rongali Bihu coincides with Sikh New Year- Baisakhi.
Baisakhi	- It is celebrated as the Indian thanksgiving day by farmers. - It also has religious significance for the Sikhs community as the foundation of the **Khalsa Panth** was laid on this day by **Guru Gobind Singh.**
Losoong	- Losoong also known as Namsoong is the **Sikkimese New Year.** - It is usually the time when the farmers rejoice and celebrate their harvest. - It is mostly celebrated in the month of **December every year** with traditional gaiety and colour both by the **Lepchas and Bhutias.**

Source: PIB