

My Notes....

NATIONAL

NATIONAL AIR SPORT POLICY 2022 LAUNCHED

Civil aviation minister Jyotiraditya Scindia launched a **national air sports policy** while explaining the enormous potential it holds. The minister said that the country's air sports market has the potential to expand to **Rs 1,000-crore industry**. The air sports business in **India generates revenues about Rs 80 crore to Rs 100 crore** at the moment. He introduced the **National Air Sports Policy 2022 (NASP)** to encourage its development.

What

1. The government has established the **Air Sports Federation of India (ASFI)**, which will have a **four-tier structure**, as part of the **new National Air Sports Policy 2022**.
2. ASFI shall be an **autonomous body** under the civil aviation ministry.
3. Each federation's association can represent **more than one sport**, and each association's press and secretary will be represented in **ASFI as full members with voting rights**.
4. The policy intends to make **India's air sports ecosystem safe**, affordable, accessible, enjoyable, and sustainable.
5. **Air spaces** will be created in certain locations to allow uninhibited **air sporting activities** in the designated areas and will be coordinated with the **Air Traffic Control (ATC)** authority responsible for the provision of Air Traffic Services in the respective airspace under NASP.

The following will be covered by the National Air Sports Policy 2022:

1. Aerobatics
2. Aero modelling and model rocketry
3. Amateur-built and experimental aircraft
4. Ballooning
5. Drones
6. Gliding and powered gliding
7. Hang gliding and powered hang gliding
8. Parachuting, which will include skydiving, BASE jumping and wing suits
9. Paragliding and para motoring, including powered parachute trikes
10. Powered aircraft, including ultra-light, microlight and light-sports aircraft
11. Rotorcraft that includes autogyro

SYSTEM FOR PAPERLESS LEGISLATION

A **delegation of MLAs from Gujarat** visited the **Uttar Pradesh Legislative Assembly** on 9 June 2022, to learn about the **novel e-Vidhan system** for paperless proceedings that has been recently adopted by the UP state assembly. **Uttar Pradesh is one of the few state legislatures in India** that has implemented the **digital Vidhan Sabha system**, and its last session was completely digitised.

What is the National e-Vidhan Application (NeVA) system?

1. The **National e-Vidhan Application (NeVA)** is a system for **digitising the legislative bodies** of all Indian states and the Parliament through a single platform on which house proceedings, **starred/unstarred questions and answers**, committee reports etc. will be available.
2. **Nagaland became the first state to implement NeVA**, in March this year.

- The **NeVA system** has been developed to make all the work and data related to legislative bodies **available online** for the use of both citizens and the members of Assemblies. It includes a **website and a mobile app**.
- There has been a shift towards digitisation in recent years by the government. Prime Minister mentioned the idea of “**One Nation One Legislative Platform**” in **November 2021**.

Has this been done elsewhere?

- Though **both Houses of Parliament have not gone fully digital yet**, governments world over are heading towards embracing the digital mode.
- In December last year, the **Government of Dubai** became the **world’s first government to go 100 percent paperless**. It announced all procedures were completely digitised.
- The **US government announced in 2019** that by the end of 2022, all government agencies would stop dealing with paper.

AGNIPATH SCHEME ANNOUNCED

The government on 14 June 2022 unveiled its **new Agnipath scheme** for **recruiting soldiers** across the **three services**. The new defence recruitment reform, which has been cleared by the Cabinet Committee on Security, will come into effect immediately, and the soldiers recruited under the scheme will be called **Agniveers**.

What is the Agnipath scheme?

- Under the new scheme, **around 45,000 to 50,000 soldiers** will be recruited annually, and most **will leave the service in just four years**.
- Of the total annual recruits, **only 25 per cent will be allowed to continue for another 15 years** under permanent commission.
- The move will make the permanent force levels much leaner for the over 13-lakh strong armed forces in the country.
- This will, in turn, considerably **reduce the defence pension bill**, which has been a major concern for governments for many years.
- The **new system is only for personnel below officer ranks** (those who do not join the forces as commissioned officers).
- Under the **Agnipath scheme**, aspirants between the **ages of 17.5 years and 21 years** will be eligible to apply. The recruitment standards will remain the same, and recruitment will be done twice a year through rallies.

Significance of the scheme

- The **average age in the forces is 32 years today**, which will **go down to 26 in six to seven years**, the scheme envisions. It will create “**future-ready**” soldiers.
- The “efforts are being made that the **profile of the Armed Forces** should be as youthful as the wider Indian population.” **A youthful armed forces** will allow them to be easily trained for new technologies.
- It will increase employment opportunities** and because of the **skills and experience** acquired during the four-year service such soldiers will get employment in various fields.
- This will also lead to availability of a **higher-skilled workforce to the economy** which will be helpful in **productivity gain and overall GDP growth**.

'LIFESTYLE FOR ENVIRONMENT' MOVEMENT LUNCHEON

Prime Minister launched the '**Lifestyle for the Environment (LiFE) Movement**', a global initiative, on 5 June 2022 via video conferencing. The launch will initiate "**LiFE global call for papers**" inviting ideas and suggestions from academics, universities and research institutions to influence and persuade individuals, communities and organisations across the world to adopt an **environment-conscious lifestyle**.

What

1. The **vision of LiFE** is to live a lifestyle that is in **tune with our planet** and does not harm it and those who live such a lifestyle are called **Pro-Planet People**.
2. **Mission LiFE** borrows from the past, operates in the present and focuses on the future.
3. **Reduce, Reuse and Recycle** are the concepts woven in our life and **circular economy** has been an integral part of our culture and lifestyle.
4. The launch initiated '**LiFE Global Call for Papers**' inviting ideas and suggestions from academics, universities and research institutions etc to influence and persuade individuals, communities and organisations across the world to adopt an **environment-conscious lifestyle**.
5. The **idea of LiFE** was introduced by the Prime Minister during the **26th United Nations Climate Change Conference** of the Parties **COP-26** in Glasgow last year.
6. The idea promotes an **environment-conscious lifestyle** that focuses on mindful and deliberate utilisation instead of **mindless and destructive consumption**.
7. The programme also witnessed the participation of Co-Chairman **Bill and Melinda Gates Foundation Bill Gates**, Climate Economist Lord Nicholas Stern, author of Nudge Theory Prof. Cass Sunstein, CEO and President **World Resources Institute** Aniruddha Dasgupta, **UNEP Global Head** Ms. Inger Andersen, **UNDP Global Head** Achim Steiner, **World Bank President David Malpass** among others.

INDIA IN WORLD COMPETITIVENESS INDEX

India has witnessed the **sharpest rise** among the Asian economies, with a six-position jump **from 43rd to 37th rank** on the annual **World Competitiveness Index** compiled by the Institute for Management Development, largely due to gains in **economic performance**.

India in Index

1. After a stable but stagnant five years, 2022 witnessed **significant improvement** in the **competitiveness of the Indian economy** this is largely due to **gains in economic performance** (from 37th to 28th).
2. The **domestic economy** has experienced a stratospheric rise from **30th to 9th position** in a year.
3. The **labour market**, a key sub-factor in the business efficiency parameter, **moved up from 15th to 6th**, while management practices and business attitudes and values also made major leaps.
4. **India is also a driving force** in the global movement to **fight climate change** and **PM's pledge of net-zero by 2070** at the COP26 summit in November 2021, sits in harmony with its strength in **environment-related technologies** in the ranking.
5. The challenges that India faces include managing trade disruptions and **energy security**, maintaining high GDP growth post the pandemic, **skill development and employment generation**, asset monetisation and resource mobilisation for infrastructure development.
6. The **top five attractive factors** of India's economy for business are - a **skilled workforce**, **cost competitiveness**, **dynamism of the economy**, high educational level and open and positive attitudes.

7. The three most important trends found to be impacting businesses in 2022 are **inflationary pressures (50 per cent)**, **geopolitical conflicts (49 per cent)** and **supply chain bottlenecks (48 per cent)** with COVID being the fourth (43 per cent).

Flashback

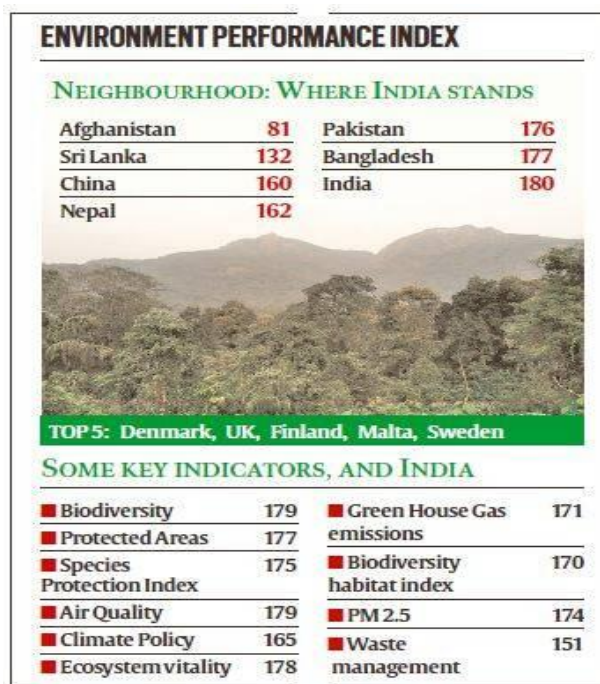
1. **IMD business school** in Switzerland and Singapore released the **2022 World Competitiveness Ranking**.
2. Its think-tank, IMD World Competitiveness Center, **ranks 63 economies** and assesses the extent to which a country promotes the prosperity of its people by **measuring economic well-being** via hard data and survey responses from executives.
3. **Denmark** has moved to the **top of the 63-nation list** from the **third position** last year, while **Switzerland slipped from the top ranking** to the **second position** and Singapore regained the third spot from fifth, a global study showed on 15 June 2022.
4. Others in the top 10 include **Sweden at the fourth position**, followed by Hong Kong SAR (5th), the Netherlands (6th), Taiwan (7th), Finland (8th), Norway (9th) and the USA (10th).
5. The **top-performing Asian economies** are **Singapore (3rd)**, **Hong Kong (5th)**, **Taiwan (7th)**, **China (17th)** and **Australia (19th)**.

INDIA IN ENVIRONMENTAL PERFORMANCE INDEX

India has been placed at the **bottom on a list of 180 countries** judged for their environmental performances by US-based institutions. **Denmark topped the 2022 Environmental Performance Index (EPI)** published recently by the **Yale Center for Environmental Law and Policy** and the Center for International Earth Science Information Network, Columbia University, **followed by the UK and Finland**, which earned high scores for slashing greenhouse gas emissions in recent years.

What

1. The EPI provides a **data-driven summary** of the state of sustainability around the world.
2. Using **40 performance indicators** across **11 issue categories**, the EPI ranks 180 countries on **climate change performance, environmental health** and **ecosystem vitality**.
3. These indicators provide a gauge at a national scale of how close the countries are to established **environmental policy targets**.
4. The lowest scores go to **India (18.9)**, **Myanmar (19.4)**, **Vietnam (20.1)**, **Bangladesh (23.1)** and **Pakistan (24.6)**.
5. India, with increasingly **dangerous air quality** and **rapidly rising greenhouse gas emissions**, falls to the bottom of rankings for the first time.



6. **China is placed 161st**, with an overall **EPI score of 28.4**. **China and India** are projected to be the largest and **second-largest emitters of greenhouse gases** in 2050, despite recently promising to curb emission growth rates.
7. Lagging its peers, the **United States is placed 20th out of 22 wealthy democracies** in the Global West and 43rd overall.
8. This relatively low ranking reflects the **rollback of environmental protections** during the Trump administration.
9. It said only a handful of countries, including **Denmark and the UK**, are currently slated to reach greenhouse gas neutrality by 2050.
10. **EPI projections** indicate that just **four countries** -- **China, India, the US and Russia** -- will account for over 50 per cent of residual **global greenhouse gas emissions** in 2050 if current trends hold.

DRAFT AMENDMENTS TO IT RULES, 2021

The **Ministry of Electronics and Information Technology (MeitY)** has published a **fresh draft of amendments** to the **Information Technology Rules, 2021**, which proposes the creation of government-appointed appeal committees that will be able to **veto content-moderation decisions** taken by social media intermediaries like Facebook, Twitter and YouTube.

What are the proposed amendments to the IT Rules, 2021?

1. The draft proposes to **create government-appointed appeal committees** that will be empowered to **review** and possibly **reverse content moderation decisions** taken by social media companies.
2. The Central Government shall constitute one or more **Grievance Appellate Committees**, which shall consist of a Chairperson and such other Members, as the Central Government may, by notification in the Official Gazette, appoint.
3. What it essentially means is that in case a **user is not satisfied** with the content moderation decision taken by a **company's grievance officer**, they can appeal that decision before the proposed government-appointed appeals committee.
4. Every order passed by the **Grievance Appellate Committee** shall be complied with by the concerned intermediary. Currently, the only recourse a user has against companies' content decisions is to approach the courts.
5. Apart from this, the new proposal also suggests **placing additional responsibilities** on grievance officers appointed by social media companies.
6. It says that if a user complains about content which is "**patently false**", **infringes copyright**, and threatens the integrity of India, among other things, a grievance officer will have to expeditiously address it within 72 hours.
7. Under current rules, grievance officers have **15 days to act** on and dispose of users' complaints.

FIRST-OF-ITS-KIND VAWT & SOLAR PV SYSTEM

The **Chhatrapati Shivaji Maharaj International Airport (CSMIA)** in Mumbai has become **India's first airport** to launch a **one-of-its-kind Vertical Axis Wind Turbine (VAWT) & Solar PV hybrid (Solar Mill)** to explore the possibility of utilization of wind energy at the airport.

What

1. The CSMIA has introduced this **pilot program** in collaboration with **WindStream Energy Technologies India Pvt Ltd**.

2. This sustainable initiative undertaken by CSMIA **reduces dependence on conventional electricity** which propels its journey towards '**Net Zero**' emissions.
3. The CSMIA has deployed a **10Kwp Hybrid SolarMill** consisting of 2 Kwp TurboMill (3 Savonius type VAWT) and 8 Kwp Solar PV modules with an estimated minimum energy generation of 36 Kwh/day.
4. **WindStream Energy Technologies India Pvt Ltd** has developed this novel and patented, **first-of-its-kind**, fully integrated, hybrid renewable energy product which harnesses solar and wind energy combined to generate electricity.
5. The energy generated through this technology can be customized on a **need-specific basis**.
6. Due to its **modular and scalable size**, it's easy to mount the technology on any mobile or static rooftop.
7. This technology is a **vital step in deploying a solution at the airport** that is **renewable, clean, green, environment-friendly**, bird-friendly, and a silent solution with a 25-year design life.
8. This plant requires **bare minimum maintenance of installation**, unlike any other machines for electrical supply, where load & batteries are attached to the system.

INDIA'S FIRST ROAD CONSTRUCTED FROM STEEL SLAG

Steel Minister Ram Chandra Prasad Singh on 15 June 2022 inaugurated a **six-lane highway** in Surat made of **steel slag** -- a **first for the country**. The road constructed using **100 per cent steel-processed slag** is a real example of converting "**waste into wealth**" and improving sustainability of steel plants. **Slag** is a **by-product of steel manufacturing**.

What

1. Use of such material in **road construction** shall not only increase its durability but also **help in reducing the cost of construction** as slag-based materials have better properties than natural aggregates.
2. The use of steel slag in road construction will also address the **shortage of natural aggregates** in the country.
3. The **production of steel slag in India** from different process routes is likely to increase by 2030.
4. The road has been jointly made with the **Central Road Research Institute (CRRI)** -- a laboratory of the **Council of Scientific and Industrial Research (CSIR)**, **ArcelorMittal Nippon Steel (AMNS) India**.
5. Slag is a by-product which comes out during **manufacturing of steel** through three processes, namely **basic oxygen furnace (BOF) route, electric arc furnace (EAF) and induction furnace (IF)**.
6. This is a breakthrough for the industry as far as **utilisation of slag** is concerned. Slag was being used only for **only landfilling**.

INTERNATIONAL

FIRST EVER UN RESOLUTION MENTIONS HINDI

In a significant initiative, a **resolution on multilingualism** adopted in the **UN General Assembly** on 10 June 2022 **mentions the Hindi language for the first time**, with India emphasising that it is imperative that the United Nations embraces multilingualism in a true sense.

More about resolution

1. The resolution adopted in the **193-member UN General Assembly**, presented by Andorra and co-sponsored by **over 80 nations including India**, underlines the responsibility of the United Nations Secretariat towards **“integrating multilingualism into its activities, on an equitable basis.”**
2. It recognises the efforts of the United Nations **to use non-official languages**, in addition to the **six official languages** - Arabic, Chinese, English, French, Russian and Spanish - where appropriate, for communications with specific local target audiences and emphasises the importance of multilingualism in the activities of the United Nations.
3. The resolution “expresses appreciation for the efforts of the **Department of Global Communications** in highlighting some recent important communications and messages of the Secretary-General in **non-official languages**, such as **Portuguese, Hindi, Kiswahili**, Persian, Bangla and Urdu, in addition to official languages, in order to promote multilingualism.”
4. The resolution also mentions **Bangla and Urdu for the first time**. India welcome all these additions.
5. Last month, **India contributed USD 800,000** towards efforts to continue to expand the use of Hindi in the United Nations.

Flashback

1. Since 2018, the **UN News in Hindi is disseminated through UN’s website** and social media handles on Twitter, Instagram and Facebook.
2. A **UN News-Hindi audio bulletin (UN Radio)** is released every week. Its weblink is available on the UN Hindi News website.
3. The resolution also requests the Secretary-General to continue his efforts **to ensure that multilingualism**, as a core value of the United Nations, is not undermined by the measures taken in response to the liquidity situation and the **coronavirus disease**.

INDIA, CANADA INK PACT

India and Canada have signed an agreement to **increase bilateral cooperation on climate action, environmental protection and conservation**. Union Environment Minister Bhupender Yadav and his Canadian counterpart signed the Memorandum of Understanding (MoU) on the margins of the **Stockholm+50 meeting**.

Under the pact

1. The two countries have agreed to **collaborate, exchange information and expertise**, and support their respective ambition in a wide range of areas, including **increasing renewable energy capacity, decarbonizing heavy industries**, reducing plastic pollution, supporting the sound management of chemicals, and ensuring sustainable consumption.
2. Both countries are intent on supporting each other's climate and environmental goals by **finding effective**, long-term solutions that will also provide opportunities to advance economic growth and job creation.
3. Canada has several proven clean technologies which could be of interest to India, such as **water and waste management systems, clean hydrogen, smart grids, and energy storage**.
4. The meeting is being held to **commemorate 50 years of the Stockholm Conference** - the **first United Nations conference on environment**.

'RED-FLAG' LAW PASSED IN US

The **United States House of Representatives** on 9 June 2022 passed a '**red-flag**' bill aimed at barring those considered dangerous to themselves or others from **possessing firearms**. Currently, **19 US states**, and also Washington D.C., have these '**red-flag**' laws in place. The latest push is to create a federal law of the same nature to check **gun violence**.

What are 'red flag' laws?

1. The '**extreme risk protection laws**', known informally as '**red-flag**' laws, are among the possible solutions offered to tackle the **endemic gun violence** in the United States.
2. These laws allow courts to issue a **special protection** order which authorises the police to **temporarily confiscate guns** from people that display concerning behaviour, such as issuing threats of harm.
3. The **first 'red-flag' law** was introduced in Connecticut **in 1999**, after a mass shooting occurred in the state the previous year.
4. The shooter had previously displayed signs of **emotional instability** and was undergoing treatment for **stress-related problems**.
5. The **current 'red-flag' bill** passed on 9 June 2022, called the '**Federal Extreme Risk Protection Order**', was sponsored by the Democratic Representative of Georgia, **Lucy Mcbath**.
6. She had personally suffered due to **gun violence**, when her teenage son, **Jordan Davis was shot and killed in 2012**, following an argument over loud music played by Davis.

INDIA AND VIETNAM SIGN MUTUAL LOGISTICS AGREEMENT

India and Vietnam on 8 June 2022 signed a **Memorandum of Understanding (MoU)** on **mutual logistics support** in presence of the two Defence Ministers during the ongoing visit of Defence Minister Rajnath Singh to the Southeast Asian nation. The Defence Ministers signed the '**Joint Vision Statement on India-Vietnam Defence Partnership towards 2030**', which will significantly enhance the scope and scale of existing defence cooperation.

What

1. In these times of increasing **cooperative engagements** between the defence forces of the two countries, this is a major step towards simplifying procedures for **mutually beneficial logistic support** and is the first such major agreement which Vietnam has signed with any country.
2. **India** has signed **several logistics agreements** including **all Quad countries, France, Singapore and South Korea** beginning with the **Logistics Exchange Memorandum of Agreement with the U.S.** in 2016.
3. **Logistics agreements** are **administrative arrangements** facilitating access to military facilities for exchange of fuel and **provisions on mutual agreement** simplifying logistical support and increasing operational turnaround of the military when operating away from India.
4. Both Ministers also agreed for early finalisation of **\$US 500 million Defence Line of Credit** extended to Vietnam.

Flashback

1. The relations between the two countries were elevated to the level of a "**strategic partnership**" during the visit of Vietnam's then Prime Minister **Nguyen Tan Dung** to India in July 2007.
2. In 2016, during Prime M visit to Vietnam, the bilateral relations were further elevated to a "**comprehensive strategic partnership**".
3. Vietnam has become an important partner in **India's Act East policy** and the **Indo-Pacific vision**.

ECONOMY

RBI PROPOSES LINKING CREDIT CARDS TO UPI

The **Reserve Bank of India (RBI)** has proposed to allow the **linking of credit cards to the UPI platform**, Governor Das said on 8 June 2022 as he announced a **rate hike**. At present, **UPI facilitates transactions** by linking savings or current accounts through users' **debit cards**.

What is the significance of the move?

1. The integration will first begin with the **indigenous RuPay credit cards**. Both the **RuPay network and UPI** are managed by the same organisation – the **National Payments Corporation of India (NPCI)**.
2. The **linkage of UPI and credit cards** could possibly result in **credit card usage zooming up** in India given UPI's widespread adoption.
3. The integration also opens up avenues to build **credit on UPI through credit cards** in India, where in the last few years, a number of startups like Slice, Uni, One etc. have emerged.
4. The move could also be a push to increase adoption by banking on **UPI's large user base**. So far, **UPI could only be linked to debit cards** and bank accounts.
5. This will provide **additional convenience to the users** and enhance the scope of digital payments.

What could be the hurdles?

1. There are some **regulatory areas** that would have to be addressed before the linkage happens.
2. For instance, it is not clear how the **Merchant Discount Rate (MDR)** will be applied to UPI transactions done through credit cards.
3. The **MDR is a fee** that a merchant is charged by their issuing bank for accepting payments from their customers via credit and debit cards.

SCIENCE AND TECHNOLOGY

INDIA SETS UP UNIQUE TELESCOPE

India has commissioned a **unique liquid-mirror telescope** atop a mountain in the **Himalayan range in Uttarakhand** that will keep a watch on the overhead sky to **identify transient or variable objects** such **space debris, asteroids, supernovae and gravitational lenses**. It is the **country's first** and the **Asia's largest liquid-mirror telescope**. The telescope will help in **surveying the sky**, making it possible **to observe several galaxies** and other astronomical sources just by staring at the strip of sky that passes overhead.

More about telescope

1. The telescope, built by astronomers from **India, Belgium and Canada**, is located at an **altitude of 2450 metres** at the **Devasthal Observatory** campus of **Aryabhata Research Institute of Observational Sciences (ARIES)**, an autonomous institute under the Department of Science and Technology (DST), in Nainital district, Uttarakhand.
2. **ARIES**, referring to new facilities at **Devasthal Observatory** that now hosts two four-meter class telescopes – the **International Liquid-Mirror Telescope (ILMT)** and the **Devasthal Optical Telescope (DOT)**.
3. Both are the **largest aperture telescopes** available in the country. The 3.6 metre DOT, with the availability of sophisticated back-end instruments, will allow rapid follow-up observations of the newly-detected transient sources with the adjacent ILMT.

- Application of **Big Data** and **Artificial Intelligence/Machine Learning (AI/ML)** algorithms will also be implemented for classifying the objects observed with the ILMT.
- The ILMT will **produce about 10 GB of data every night**, which will be quickly analyzed to reveal variable and transient stellar sources.

How it will work

- The scientists from the **three countries (India, Belgium and Canada)** spun a **pool of mercury** which is a **reflective liquid**, so that the surface curved into a **parabolic shape** which is ideal for focusing light.
- A thin transparent film of **mylar protects the mercury from wind**. The reflected light passes through a sophisticated multi-lens optical corrector that produces sharp images over a wide field of view. A **large-format electronic camera** located at the focus records the images.

INDIA SUCCESSFULLY TEST FIRES AGNI-4 MISSILE

India on 6 June 2022 successfully tested its **nuclear-capable intermediate-range ballistic missile Agni-4** with a range of **4000 km**. The flight was part of routine user training launches carried out under the aegis of the **Strategic Forces Command (SFC)**.

What

- The **SFC** is responsible for the **management and administration** of the country's **tactical and strategic** nuclear weapons stockpile. It is a part of **India's Nuclear Command Authority**.
- A successful training launch of an **Intermediate-Range Ballistic Missile, Agni-4**, was carried out on June 6, 2022, from APJ Abdul Kalam Island, Odisha.
- India is in the process of further strengthening its **strategic missiles arsenal** by adopting newer technologies and capabilities.
- The launch validated **all operational parameters** as also the reliability of the system.
- The successful test reaffirms India's policy of having a '**Credible Minimum Deterrence Capability**.'

Flashback

- Agni-IV is the fourth** in the Agni series of missiles - earlier known as **Agni II prime** - developed by the **Defence Research and Development Organisation** or DRDO.
- Last year, India successfully test-fired the **nuclear-capable strategic Agni Prime missile** with the capability to hit targets between **1,000 to 2,000 kilometres**.
- The two previous successful launches of the **long-range surface to surface ballistic missile** happened in January 2017 and December 2018, proving the reliability and efficacy of the weapon system. Over the last ten years, there have been **eight such tests**.

FIRST HOMEGROWN COVID-19 VACCINE FOR ANIMALS

Agriculture Minister **Narendra Singh Tomar** on 9 June 2022 launched the very first homegrown Covid-19 vaccine **Anocovax for animals**. The new vaccine for animals **Anocovax** has been developed by the Haryana-based agri-research institute **ICAR-National Research Centre on Equines (NRC)**. Additionally, the minister launched the '**CAN-CoV-2 ELISA kit**', a sensitive and specific **nucleocapsid protein-based indirect ELISA kit**, for antibody detection against **SARS-CoV-2 in canines**.

What is Anocovax?

1. **Anocovax** is an **inactivated SARS-CoV-2 Delta Covid-19 vaccine** for animals.
2. The **Indian Council of Agricultural Research (ICAR)** said that the immunity induced by Anocovax neutralises both **Delta and Omicron variants** of SARS-CoV-2.
3. The new vaccine contains **inactivated SARS-CoV-2 (Delta) antigen** with **Alhydrogel** as an adjuvant. It is safe for **dogs, lions, leopards, mice and rabbits**.

What is ELISA kit

1. As of now, there are no laboratory animals required for the preparation of the antigens. The **kit is made in India** and a patent has been filed for the same.
2. No other comparable kits for detection of **antibodies in canines** are available in the market.
3. **Surra ELISA kit**, a suitable diagnostic assay for '**Trypanosoma evansi**' infection in multiple animal species, was also launched.
4. It is important to note that **Surra** is one of the most important **haemoprotozoan diseases of the different livestock species** caused by **Trypanosoma evansi**.
5. The disease is prevalent in all the **agro-climatic parts of India**. In India, losses to livestock productivity were estimated to be ₹44,740 million annually due to **Surra**.

OFFSHORE METHANE GAS LEAK SPOTTED FROM SPACE

Scientists have for the **first time used satellite data** to detect a **major offshore leak** of the potent greenhouse gas **methane**, according to peer-reviewed research. The findings add a **crucial tool to an expanding space-based arsenal** for pinpointing previously **invisible methane plumes** from the oil and gas industry.

More about new Study

1. **Fossil fuel** operations globally **emitted about 120 million tonnes** of the **planet-warming gas** in 2020, nearly one-third of all methane emissions from **human activity**, according to the **International Energy Agency (IEA)**.
2. The new study in the **journal Environmental Science and Technology Letters** identified a **plume from an oil and gas production platform** in the **Gulf of Mexico** that spewed some 40,000 tonnes over a 17-day period in December.
3. The platform, near **Campeche in southern Mexico**, is in one of the country's biggest oil producing fields.
4. The study demonstrates **how satellites can detect methane plumes** from **offshore infrastructure**. It opens the door to **systematic monitoring of industrial emissions** from individual **offshore platforms**.
5. **Satellite-based methods for spotting methane leaks over land** have developed rapidly in the last few years, training an uncomfortable spotlight on regulators and industry.
6. But equivalent techniques have been lacking for **leaks from offshore oil and gas operations**, which account for **about 30 percent of global production**.
7. **Methane** is responsible for **roughly 30 percent of the global rise in temperatures** to date.

Flashback

1. Methane lingers in the atmosphere for **only a decade**, compared to hundreds or thousands of years for CO₂.
2. **Methane** is generated by the **production, transport and use of fossil fuels**, but also from the **decay of organic matter in wetlands**, and as a **by-product of livestock digestion** in agriculture.
3. At last year's **COP26 climate summit in Glasgow**, more than 100 nations agreed under the **Global Methane Pledge** to reduce emissions **30 percent by 2030**. But several major methane emitters -- including **China, Russia, Iran and India** -- failed to sign.

MISCELLANEOUS

STAN SWAMY HONOURED AT HUMAN RIGHTS AWARD

Social activist **Father Stan Swamy** was honoured at the award distribution function of **Martin Ennals Award for Human Rights Defenders 2022**, referred to as the **Nobel Prize of human rights defenders**, posthumously in Geneva on 2 June 2022. **Father Stan** had formed several organisations to promote human rights, particularly among the **Adivasi community in Jharkhand**. He also worked for the **displaced persons of the state**.

What

1. Every year, the **Martin Ennals Foundation**, based in Geneva, Switzerland, gives out an award that is regarded as the **Nobel Prize for human rights defenders**.
2. The recipients of this year's awards include **Daouda Diallo from Burkina Faso, Pham Doan Trang from Vietnam** and **Abdul-Hadi Al-Khawaja of Bahrain**.
3. In a special move, the **Martin Ennals Foundation** has decided to posthumously pay homage to **Father Stan Swamy**, a Jesuit priest and tribal rights activist from Jharkhand.
4. **Martin Ennals was a British activist** who spent his life working **to secure human rights** across the world.
5. He was Secretary-General of **Amnesty International** from 1968 to 1980. Ennals also co-founded several organisations, such as **Article 19**, International Alert and Huridocs and formed "**the binding force between them**".
6. **Ennals died in 1991** and, in his memory, the **Martin Ennals Award for Human Rights Defenders** is given to "**individuals and organisations** that have shown exceptional commitment to defending and promoting human rights, despite the risks involved".

WORLD ENVIRONMENT DAY 2022

Every year, **World Environment Day** is observed on **5 June**. This day is celebrated to **encourage awareness** and **environmental protection**. According to the United Nations, "the celebration of this day provides us with an **opportunity to broaden the basis for an enlightened opinion** and responsible conduct by individuals, enterprises, and communities in **preserving and enhancing the environment**."

What

1. Led by the **United Nations Environment Programme (UNEP)**, and held annually since 1973.
2. The theme for World Environment Day 2022 is '**Only One Earth**', with the focus on '**Living Sustainably in Harmony with Nature**'.
3. The progress of mankind in the last century was accompanied by a massive increase in the **exploitation of natural resources**. From climate change and **marine pollution** to the depletion of flora and fauna, environmental issues have only increased with each passing decade.
4. **United Nations Conference on the Human Environment** aka the **Stockholm conference** held in 1972 became the **first world conference with the environment** as its major agenda and it declared the **right to live** in a healthy environment as a basic human right.
5. Not only was the idea of a **World Environment Day** formalized there but also this conference saw the creation of the **United Nations Environment Programme**.
6. **2022 is a historic milestone** as it **marks 50 years** since the **1972 Stockholm Conference**.

7. With Sweden as the host country, the slogan for World Environment day 2022 is “**Only One Earth**”, which focuses on living sustainably in harmony with nature.

WORLD FOOD SAFETY DAY

Every year, **7 June is observed as World Food Safety Day** around the world. The intent behind the day is **to promote awareness** and encourage adequate steps to prevent, detect and manage foodborne risks. The day was set aside by the **United Nations in 2018** to raise awareness of food safety. Every year, the organisation comes up **with a theme** that **focuses on the current and potential challenges** around food safety.

What

1. This year, the theme of World Food Safety Day is, “**Safer Food, Better Health**”. There is no doubt that “**safe food is essential to human health and well-being,**” WHO says in a report ahead of the important day.
2. According to a 2019 report by WHO, the **world records over 600 million cases of foodborne diseases** annually.
3. This means that **almost 1 out of 10 people** in the world suffer adverse health effects after eating contaminated food.
4. The report also cited that **children under five years of age** carry **40 percent of the foodborne disease burden** with 1,25,000 deaths every year.
5. In fact, **World Food Safety Day** was jointly kickstarted by the **WHO** and the **Food and Agriculture Organisation** of the United Nations with support from member states and other stakeholders.

CASES OF NOROVIRUS FOUND IN KERALA

At least **two cases of norovirus** have been found in **Thiruvananthapuram** among lower primary school students. **The infection**, which causes **vomiting, diarrhoea** and **fever** as symptoms, was diagnosed after samples were tested at a government analytical lab. So far, it is believed that students got **food poisoning from mid-day meals** distributed at the schools.

What is norovirus?

1. **Norovirus** is a **highly contagious virus** that is also sometimes referred to as the ‘**stomach flu**’ or the ‘**winter vomiting bug**’.
2. It can be transmitted through contaminated food, water, and surfaces. The primary route is **oral-faecal**.
3. It is similar to **diarrhoea-inducing rotavirus** and infects people across age groups.
4. Disease outbreaks typically occur aboard cruise ships, in nursing homes, dormitories, and other closed spaces.
5. According to the WHO, emerging evidence suggests that “**norovirus infection** is associated with **intestinal inflammation, malnutrition** and may cause **long-term morbidity**”.
6. It adds that an estimated 685 million cases of norovirus are seen annually, including 200 million cases amongst children under 5
7. One may get infected multiple times as the virus has different strains. **Norovirus is resistant to many disinfectants** and can withstand heat up to **60°C**.
8. Therefore, merely **steaming food** or **chlorinating water does not kill the virus**. The virus can also survive **many common hand sanitisers**.

BREAKTHROUGH IN CANCER CURE

In a medical trial, results of which were published in The Indian Express on 8 June 2022, **12 patients in the United States** were completely cured of **rectal cancer** without requiring any **surgery or chemotherapy**. The trial used a **monoclonal antibody** called **dostarlimab** every three weeks for six months for the treatment of a particular kind of **stage two or three rectal cancer**. The study was done by doctors from the **Memorial Sloan Kettering Cancer Centre** in New York, and its results have been published in the New England Journal of Medicine.

What are the findings?

1. The trial showed that **immunotherapy alone** – without any **chemotherapy, radiotherapy, or surgery** that have been staples of cancer treatment – could completely cure the patients with a particular kind of **rectal cancer** called ‘**mismatch repair deficient**’ cancer”.
2. No cases of **progression or recurrence had been reported** during the follow-up, the study said.
3. The response too was rapid, with symptoms **resolving in 81% of the patients** within nine weeks of starting the therapy.
4. ‘**Mismatch repair deficient**’ cancer is most common among **colorectal, gastrointestinal, and endometrial cancers**.
5. Patients suffering from this condition **lack the genes to correct typos in the DNA** that occur naturally while cells make copies.
6. The **immunotherapy** belongs to a category called **PD1 blockades** that are now recommended for the treatment of such cancers rather than chemotherapy or radiotherapy.
7. **PD1 is a type of protein** that regulates certain functions of the immune system, including by **suppressing T cell activity**, and PD1 blockade therapy looks to release the **T cells** from this suppression.
8. The **anomalies in the DNA result in cancerous growths in patients** with mismatch repair deficient cancers. If you imagine the immune system to be a car, **PD1 acts as the brakes for the T cells of the immune system**.

THE ‘WAR ON DRUGS’

The Canadian government has decided to allow the province of **British Columbia (BC)** to decriminalise the possession of a **small amount of illicit drugs for 3 years** on an experimental basis. The pilot project begins from 31 Jan 2023. With rising overdose deaths in the province, it is hoped that by eliminating criminal penalties, there will be a **reduction of fear and shame for users** that need medical help.

What is the ‘war on drugs’?

1. **In 1971**, then US President **Richard Nixon** held a press conference and declared **drug abuse, public enemy number one**.
2. He said that “a new, all out offensive” was required, that would be “**worldwide**” in nature.
3. Ten years earlier, the UN had passed the **Single Convention on Narcotic Drugs** which sought to prohibit the production and supply of various substances through international cooperation.
4. This marked the beginning of a **global campaign to eradicate the use of illicit drugs** and its production, called the ‘**War on Drugs**’.

What about India?

1. **In India**, drug consumption or possession is a **criminal offence**. The **Narcotic Drugs and Psychotropic Substances (NDPS) Act** of 1985 is the main legislation dealing with drugs and their trafficking.
2. Currently, the **NDPS Act only adopts a reformatory approach** towards addicts. It gives addicts immunity from prosecution and imprisonment (if found guilty) if they volunteer to undergo treatment and rehabilitation.
3. However, **there is no provision for relief or exemption for**, say, **first-time users** or **recreational users**.
4. **Section 27 of the NDPS Act** prescribes imprisonment of up to a year or a fine of up to Rs 20,000, or both, for consumption of **any narcotic drug or psychotropic substance**. It makes no distinction between addicts, **first-time users and recreational users**.

FACT TO REMEMBER:

1. **NATIONAL AIR SPORT POLICY 2022 LAUNCHED**
2. **AGNIPATH SCHEME ANNOUNCED**
3. **INDIA IN ENVIRONMENTAL PERFORMANCE INDEX**
4. **DRAFT AMENDMENTS TO IT RULES, 2021**
5. **INDIA'S FIRST ROAD CONSTRUCTED FROM STEEL SLAG**
6. **FIRST EVER UN RESOLUTION MENTIONS HINDI**
7. **RBI PROPOSES LINKING CREDIT CARDS TO UPI**
8. **INDIA SETS UP UNIQUE TELESCOPE**
9. **INDIA SUCCESSFULLY TEST FIRES AGNI-4 MISSILE**
10. **FIRST HOMEGROWN COVID-19 VACCINE FOR ANIMALS**

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