

My Notes....

NATIONAL

UN SELECTS POCHAMPALLY AS BEST TOURISM VILLAGES

Pochampally village in Telangana has been selected as **one of the best Tourism Villages** by the **United Nations World Tourism Organisation (UNWTO)**, the Union Minister G Kishan Reddy said on 16 November 2021. The prestigious award will be given on the occasion of the **24th session of the UNWTO General Assembly** in Madrid, Spain.

What

1. **Pochampally's unique weaving styles** and patterns received special focus through Prime Minister mantra of **Vocal 4 Local** as a part of Aatma Nirbhar Bharat.
2. **Pochampally** in Nalgonda district is often referred to as the **silk city of India** for the exquisite sarees that are woven through a unique style called **ikat**.
3. This style, **Pochampally Ikat**, received a **Geographical Indicator (GI Status)** in 2004.
4. **Pochampally** is also known as **Bhoodan Pochampally** to commemorate the **Bhoodan Movement** that was launched by **Acharya Vinobha Bhave** from this village on 18 April 1951.
5. Currently a **two-room Vinobha Bhave Mandir** exists within the village which was earlier the place where he resided during his visit to the village.
6. The **Best Tourism Villages by UNWTO Pilot initiative** aims to award those villages which are outstanding examples of **rural destinations** and showcase good practises in line with its specified **nine evaluation areas**.
7. It also aims to support villages **to enhance their rural tourism potential** through training and access to opportunities for improvement.

Flashback

1. The Ministry of Tourism recommended **three villages for the UNWTO Best Tourism Village** entry from India. These were **Kongthong in Meghalaya, Ladhpura Khas, Madhya Pradesh and Pochampally in Telangana**.
2. **Pochampally**, was awarded as one of the **best Tourism Villages by UNWTO**.
3. The Union Minister said his Ministry has drafted a **Rural Tourism Policy** which will not only promote tourism within our villages but also **revitalise local arts** and crafts and promote rural economy.

1ST SDG URBAN INDIA INDEX

Shimla, Coimbatore and **Chandigarh** have topped the **Niti Aayog's first Sustainable Development Goals (SDG) Urban India Index**, while **Dhanbad, Meerut** and **Itanagar** are the worst performers, according to a report released by the government think tank on 23 November 2021.

As per Index

1. Top **10 Urban areas in SDG Urban Index** and Dashboard 2021-22 are Shimla, Coimbatore, Chandigarh, Thiruvananthapuram, Kochi, Panaji, Pune, Tiruchirapalli, Ahmedabad and Nagpur.

2. **Bottom 10 Urban Areas in SDG Urban Index** and Dashboard 2021-22 are Dhanbad, Meerut, Itanagar, Guwahati, Patna, Jodhpur, Kohima, Agra, Kolakata and Faridabad.
3. **Out of 56 urban areas ranked in the index**, 44 are with population of above one million, 12 are state capitals with a population of less than a million.
4. While for some indicators, 'urban area' implies **urban local bodies (ULBs)**, in other cases, it refers to **all urban areas within a district collectively**.
5. The data on these indicators have been sourced from official data sources such as **NFHS, NCRB, U-DISE**, data portals of various ministries, and other government data sources.

About Methodology

1. According to the government think tank, **for each SDG**, the urban areas are ranked on a **scale of 0-100**.
2. A **score of 100 implies** that the urban area has achieved **the targets set for 2030**; a score of **0 implies that it is the farthest from achieving the targets** among the selected urban areas.
3. The areas with ranking **between 0 and 49** have been ranked as **aspirants**, those with **50-64 are termed as performers**, **65-99 are called front-runners** and the ones with perfect score are called achievers. However, not a single area has a perfect score.

Flashback

1. The **Niti Aayog** has developed the **SDG Urban index** and dashboard in **collaboration with GIZ and BMZ** under the umbrella of **Indo-German Development Cooperation**.
2. The index **highlights the strengths and gaps of ULB-level data**, monitoring, and reporting systems.
3. The index and dashboard will further **strengthen SDG localisation** and institute robust SDG monitoring at the city level.

INDIA'S MULTIDIMENSIONAL POVERTY INDEX (MPI)

Bihar, Jharkhand and Uttar Pradesh have emerged as the **poorest states in India**, according to **Niti Aayog's Multidimensional Poverty Index (MPI)**. **India's national MPI measure** uses the globally accepted and robust methodology developed by the **Oxford Poverty and Human Development Initiative (OPHI)** and the **United Nations Development Programme (UNDP)**.

According to the report

1. As per the index, **51.91 per cent population of Bihar is poor**, followed **42.16 per cent in Jharkhand**, **37.79 per cent in Uttar Pradesh**. While Madhya Pradesh (36.65 per cent) has been placed fourth in the index, **Meghalaya (32.67 per cent) is at the fifth spot**.
2. **Kerala (0.71 per cent)**, **Goa (3.76 per cent)**,

Flashback

1. The development of the **National Multidimensional Poverty Index of India** is an important contribution towards instituting a **public policy tool** which monitors **multidimensional poverty**, **informs evidence-based** and focused interventions, thereby ensuring that no one is left behind.
2. The baseline report of **India's first ever national MPI measure** is based on the reference period of 2015-16 of the **National Family Health Survey (NFHS)**.
3. The national MPI measure has been constructed by **utilising 12 key components** which cover areas such as health and nutrition, education and standard of living.

Sikkim (3.82 per cent), Tamil Nadu (4.89 per cent) and **Punjab (5.59 per cent)** have registered the **lowest poverty** across India and are at the **bottom of the index**.

3. **India's MPI** has **three** equally weighted dimensions, **health, education and standard of living** - which are represented by **12 indicators** namely **nutrition, child and adolescent mortality, antenatal care**, years of schooling, school attendance, cooking fuel, sanitation, drinking water, electricity, housing, assets and bank accounts.
4. The **Sustainable Development Goals (SDG) framework**, adopted by 193 countries in 2015, has redefined development policies, government priorities, and metrics for measuring development progress across the world.
5. The **SDG framework**, with **17 global goals** and **169 targets**, is significantly wider in scope and scale relative to the **Millennium Development Goals (MDG)**, its predecessor.

INDIA ELECTED TO WORLD HERITAGE COMMITTEE

India was on 25 November 2021 **elected** to the **World Heritage Committee of the UN's cultural organisation** for a four-year term, a week after the country was **re-elected to the Unesco Executive Board**. The **World Heritage Committee meets once a year**, and consists of representatives from 21 of the States Parties to the Convention elected by their General Assembly.

What

1. The Committee is responsible for the **implementation of the World Heritage Convention**, defines the use of the **World Heritage Fund** and allocates financial assistance upon requests from States parties.
2. It has the final say on **whether a property is inscribed on the World Heritage List**.
3. It examines reports on the state of **conservation of inscribed properties** and asks States Parties to take action when properties are not being properly managed.
4. It also decides on the **inscription or deletion of properties** on the **List of World Heritage in Danger**.

Flashback

1. On 17 November 2021, **India won re-election to the Executive Board** of the UN cultural organization for the 2021-25 terms with 164 votes.
2. The **Unesco Executive Board** is one of the **three constitutional organs** of the UN agency (the others being the **General Conference** and the **Secretariat**) and it is elected by the General Conference.
3. Acting under the authority of the General Conference, the Board **examines the programme of work for the organisation** and corresponding budget estimates submitted to it by the Director-General. It **consists of 58 member states each** with a four-year term of office.

CONTINUATION OF PMGSY APPROVED

The **Cabinet Committee on Economic Affairs** approved the **continuation of Pradhan Mantri Gram Sadak Yojana-I and II** for completion of balance road and bridge works up to **September 2022** and continuation of road connectivity **project for left wing extremism affected areas (RCPLWEA)** upto March, 2023.

What

1. The move is expected to enable completion of works in the **north-east and hilly area**, which are often stalled because of unfavorable weather conditions and Covid-induced lockdown.
2. This includes construction of 32,152 km of roads in **far-flung areas** of the country at a cost of Rs 33,822 crore.
3. The areas hit by **Left-Wing Extremism** and the tribal areas are going to be benefitted from this.
4. Majority of pending works under **PMGSY-I and II** are in the **North-East and Hill States** due to factors such as COVID lockdown, extended rains, winters, forest issues.
5. The **road connectivity project** of left wing extremism affected areas (RCPLWEA, which was **started in 2016** to improve connectivity in **44 LWE affected districts** in 9 states, is being extended upto March, 2023 for completion of these projects which are very critical from communication and security point of view.
6. According to the government, various independent impact evaluation studies carried out on **PMGSY** have concluded that the scheme has had a positive impact on **agriculture, health, education, urbanization** and employment generation, etc.

THREE AGRICULTURE LAWS REPEALS

Prime Minister on 19 November 2021 announced to **repeal the three contentious agriculture laws** that were enacted on 17 September 2020. The implementation of these laws was stayed by the **Supreme Court** on 12 January 2021. So, these laws were in effect for **only 221 days**.

What

1. The three laws are the **Farmers' Produce Trade and Commerce (Promotion and Facilitation) Act, 2020; Essential Commodities (Amendment) Act, 2020; and Farmers (Empowerment and Protection) Agreement on Price Assurance and Farm Services Act, 2020.**
2. The farmers feared the laws will lead to the abolishment of the **minimum support price (MSP)** guaranteed by the government on select crops, and leave them at the mercy of big corporations.
3. **A committee will be constituted** to take decisions on **all such matters** keeping in view the future.
4. In this committee, there will be representatives of the **central government, state governments, farmers, agricultural scientists, agricultural economists.**

Flashback

1. **Farmers' Produce Trade and Commerce (Promotion and Facilitation) Act, 2020** allow farmers to **sell their produce at places other than the APMC-regulated mandis.**
2. The **Essential Commodities (Amendment) Act** is about doing away with the Centre's powers to impose **stockholding limits** on foodstuffs, except under **"extraordinary conditions"**.
3. The **Farmers (Empowerment and Protection) Agreement on Price Assurance and Farm Services Act** has to do with providing a **regulatory framework for contract cultivation.**

SWACHH SURVEKSHAN 2021

Madhya Pradesh's **Indore** has been adjudged **India's cleanest city** for the **fifth consecutive year** by **Swachh Survekshan 2021**, the central government's annual cleanliness survey to promote sanitation in urban centres under the **Swachh Bharat Mission**. The findings were released 20 November 2021 by President Ram Nath Kovind. **Surat and Vijaywada** were ranked as the **second and third** cleanest cities, respectively, with a **population over 1 million**.

About the Survey

1. Every year, **cities and towns across India** are awarded the title of "**Swachh Cities**" on the basis of **their cleanliness and sanitation drives** as a part of the **Swachh Bharat Abhiyan** (Clean India Mission) that was launched in 2014.
2. **Varanasi** was ranked the cleanest under the '**Ganga town**' category.
3. **Among smaller cities** with population between **1-10 lakh**, **New Delhi ranked first** followed by **Ambikapur in Chhattisgarh** and **Tirupati in Andhra Pradesh**.
4. The survey's findings were based on assessments by field officers and citizens' feedback on **garbage disposal, open defecation-free ratings, functionality and maintenance of community toilets and safe management of faecal sludge from toilets and ensuring that no untreated sludge is discharged into open drains or water bodies**.

Flashback

1. The **Ministry of Housing and Urban Affairs**, the nodal agency for the Swachh Bharat Mission, conducted its **first survey in 2016**, ranking 73 cities (urban local bodies).
2. To expand the coverage, the ministry conducted its **second survey the following year**, ranking **434 cities**.
3. In **Swachh Survekshan 2018**, the scale **increased to 4,203 cities**.
4. In the 2019 **Swachh Survekshan** **4,237 cities** were covered and **4,320 were covered in 2021**.

CENTRE EXTENDS PMGKAY TILL MARCH

The cabinet on 24 November 2021 **extended the PM Garib Kalyan Anna Yojana** till March 2022. This will be the **fifth phase of the scheme** that was announced **in April 2020** to provide **5kg free foodgrain per month** to nearly 81 crore people who are covered under the **National Food Security Act (NFSA)**.

What

1. With this, the **free foodgrain programme** will be for two years since the Covid pandemic hit the country.
2. The **PMGKAY scheme for phase-V** would entail an estimated additional food subsidy of Rs 53,344.5 crore. The total outgo in terms of foodgrains for PMGKAY Phase V is likely to be about **163 lakh tonnes**.
3. The **phase-I and phase-II of this scheme** were operational from **April to June, 2020** and July to November, 2020 respectively.
4. **Phase-III of the scheme** was operational from **May to June, 2021**. **Phase-IV** of the scheme is **currently operational for July-November, 2021**.
5. So far, under the PMGKAY (phase I to IV) the Centre has allocated a total of about 600 lakh tonnes foodgrains to the states and UTs equivalent to about **Rs 2.07 lakh crore in food subsidy**.

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6. **Pradhan Mantri Garib Kalyan Anna Yojana (PM-GKAY)** is a scheme as part of **Atmanirbhar Bharat** to supply free food grains to migrants and poor.

INDIA'S FERTILITY RATE DECLINES: NFHS-5

India's population appears to be stabilising as the **Total Fertility Rate (TFR)** - an average number of children per woman - has further **decreased to 2.0** in the latest **health and family survey (NFHS-5)** from 2.2 in the previous one (2015-16).

What the survey said

1. The **fertility rate** has declined across the **majority of the country's states**. All states except Madhya Pradesh, Rajasthan, Jharkhand, and Uttar Pradesh in phase 2 and Bihar, Manipur and Meghalaya from phase 1, have attained a replacement level of 2.1.
2. Overall **Contraceptive Prevalence Rate (CPR) has increased** substantially **from 54% to 67%** at the all-India level and in almost all Phase-II States and UTs with an exception of Punjab.
3. The **use of modern methods of contraceptives** has also increased in almost all States/UTs. Besides, unmet needs of family planning have witnessed a significant decline **from 13% to 9% at the all-India level** and in most of the Phase-2 States and UTs.
4. The **sex ratio at birth for children born in the last five years** indicating females per 1000 males also improved to 1020 during the current survey period from 991 during 2015-16.
5. The **percentage of women between 20-24 years age** who married before attaining 18 years of age also declined in the last five years.
6. There was also a **slight drop in the percentage of women aged 15-19 years** who were already mothers or pregnant at the time of the survey.

Flashback

1. The **health ministry** released the findings of the second phase of the **fifth round of NFHS** which includes **14 states and UTs**.
2. The **first phase of the survey was conducted in 2020**. The NFHS-5 was conducted through two years 2019-21 because of Covid-19 related disruption.

INTERNATIONAL

INDIA IN FAVOUR OF UN ERADICATE RURAL POVERTY

India on 22 November 2021 **voted in favour of a UN resolution to eradicate rural poverty** to implement the **2030 Agenda for Sustainable Development**. Sneha Dubey, India's First Secretary at United Nations General Assembly (UNGA), said, "**Eradicating rural poverty** to implement the 2030 Agenda for Sustainable Development is a very important and critical issue for my delegation and my country."

What

1. This statement was made after the **adoption of a resolution** Eradicating rural poverty to implement the **2030 Agenda for Sustainable Development**.
2. In India, we are implementing a **comprehensive development strategy** to eradicate poverty through **accelerated economic growth** and broader social safety nets, lifting millions out of poverty in the last decade.

3. During the COVID-19 pandemic, we have undertaken an **unparalleled social protection response** that has been pro-poor and broad-based in outreach.
4. While **extending support to the resolution**, First Secretary Dubey said that India has reservations about the language used in Operative Para 19.
5. Therefore, we disassociate from operative paragraph 19 of the resolution "**Eradicating rural poverty to implement the 2030 Agenda for Sustainable Development**," Indian First Secretary added.

BRICS INNOVATION ACTION

The **BRICS Innovation Action 2021-24** prepared under India's leadership has been agreed by all countries concerned as a key deliverable of the Science & Technology Ministerial at the **13th BRICS S&T Committee Meeting**. The **BRICS (Brazil, Russia, India, China and South Africa)** countries' scientific ministries met on 16 November 2021 for the **BRICS S&T Ministerial** to be held on 26 November, a release from the Science & Technology Ministry said on 17 November 2021.

What

1. **India** presented the **draft declaration** of the ministerial meeting, highlighting various **scientific achievements**, including thematic meetings and events organised under India's chairmanship.
2. The meeting was hosted by the **Department of Science and Technology (DST)**, India.
3. The BRICS Science, Technology and Innovation Ministerial Meeting (comprising ministers responsible for science, technology and innovation in Brazil, Russia, India, China and South Africa) provides an **overarching vision** and advice on **institutional and financial frameworks** for major BRICS programmes and initiatives in these sectors.
4. About **20 scientific meetings were organised in 2021** with some of the key events hosted by India, including **BRICS Young Scientist Conclave 2021**, BRICS Working Group Meeting on Science, Technology, Innovation Entrepreneurship Partnership, and **BRICS Working Group Meeting on Astronomy**.

WORLD'S FIRST BITCOIN CITY

El Salvador, the **only country to recognise Bitcoin as a legal tender**, is planning to build an entire city based on the largest cryptocurrency Bitcoin, President Nayib Bukele announced to a gathering of Bitcoin enthusiasts. **El Salvador's "Bitcoin City"** would be funded with the issuance of a \$1 billion Bitcoin Bond. The city will be located along the Gulf of Fonseca near a volcano.

What is Bitcoin city?

1. **Bitcoin city**, as planned by the El Salvador president, will be laid out in a circle (like a coin) and in the city center will be a plaza that will be host to a **huge Bitcoin symbol**.
2. The **city will be built near the Conchagua volcano** to take advantage of the country's **geothermal energy**— to power both the city and cryptocurrency mining —an energy consuming process of solving complex mathematical calculations day and night to verify and add crypto coins to the Blockchain network.
3. It is worth noting that El Salvador is already running a **pilot Bitcoin mining venture** at another geothermal power plant beside the Tecapa volcano.

- The residents of Bitcoin city won't have to pay any income, property, capital gains or even payroll taxes. The city would be built with **attracting foreign investment** in mind.

EXERCISE 'DOSTI' CONCLUDED

The **15th edition** of the **Maldives, India, and Sri Lanka** biennial Trilateral **Exercise 'Dosti'**, which began in the Maldives on 20 November and conclude on 24 November 2021. This year **marked 30 years** since the initiation of the exercise. The **coast guards of India**, the Maldives and Sri Lanka undertook the five-day military exercise to **enhance interoperability and cooperation**.

According to an official release

- Indian Coast Guard vessels, **ICGS Vajra**, **ICGS Apoorva** and, **Sri Lanka Coast Guard**, **SLCGS Suraksha** arrived in the Maldives for the exercise.
- The **aim of India-Maldives-Sri Lanka Tri-Lateral Exercise 'Dosti'** is to further fortify the friendship, **enhance the mutual operational capability**, and exercise interoperability and to build cooperation between the Coast Guards of Maldives, India and Sri Lanka.
- The exercises carried out over the **past ten years** have focused on exercises and drills on providing assistance in **sea accidents**, eliminating sea pollution, and **the Coast Guard's procedure** and conduct during situations such as oil spills.
- Exercise Dosti was initiated in 1991**, between the **Indian and Maldives Coast Guard**.
- Sri Lanka** joined the exercise for the **first time in 2012**.

ECONOMY

RBI REPORT RELEASED ON DIGITAL LENDING

A **working group** constituted by the **Reserve Bank of India** on **digital lending** through online platforms and mobile apps has submitted its report. This report is aimed at **enhancing customer protection** and making the digital lending ecosystem safe while encouraging innovation.

Recommendations of the WG

- The group has recommended subjecting the **digital lending** applications to a verification process by a nodal agency, which may be set up in consultation with stakeholders.
- Setting up a **Self-Regulatory Organisation (SRO)** covering the participants in the **digital lending ecosystem**
- An **anti-predatory lending policy** may be framed by each lender based on the characteristics to be defined by RBI/ proposed SRO.
- The group has recommended that in the **medium term**, the Central Government may consider bringing in legislation to prevent **illegal lending activities** by introducing the **'Banning of Unregulated Lending Activities Act'**.
- Research by the working group has shown that **600 out of the 1100 lending apps** currently available are **'illegal'** in nature.
- Algorithmic features** used in digital lending to be documented should ensure necessary transparency

- Each digital lender to provide a key fact statement in a standardised format including the **Annual Percentage Rate**
- The **working group (WG)** was set up on 13 January 2021, with **Jayant Kumar Dash**, Executive Director, RBI as the Chairman.

INDIA, US REACH COMPROMISE ON DIGITAL TAX

India and the US have reached a compromise on the **2 per cent equalisation levy** or **digital tax on e-commerce supply of services** charged by the country and the US' proposed retaliatory action against it. The two countries agree on the terms of **Unilateral Measures Compromise** on 21 Oct 2021 agreed upon by the US with the **UK, Austria, France, Italy** and **Spain**, according to an official release issued by the Finance Ministry on 24 November 2021.

What the release said

- New Delhi** has bought itself time till 1 April 2022 for start of implementation period for the interim arrangement.
- Between India and the US**, the interim period would commence from 1 April 2022 till implementation of **Pillar One** or 31 March 2024, whichever is earlier.
- The US had announced in January this year that **India's equalisation levy** was discriminatory and actionable, and in March, **proposed 25 per cent retaliatory tariffs** on about 40 products including shrimps, wooden furniture, gold, silver and jewellery items and basmati rice.
- The **levies could add up to about \$55 million** which was the approximate amount of the DST payable by US-based companies such as **Google, Amazon, LinkedIn** and **Facebook**, as per calculations made by the USTR.

Flashback

- On 8 October 2021, **India and US** joined **134 other members of the OECD/G20** Inclusive Framework (including Austria, France, Italy, Spain, and the United Kingdom) in reaching agreement on the statement on a **two-pillar solution** to address the tax challenges arising from the digitalisation of the economy.
- On 21 October 2021, the US and Austria, France, Italy, Spain, and the United Kingdom reached an agreement on a **transitional approach to existing Unilateral Measures** while implementing **Pillar 1**.
- The proposed **two-pillar solution of the global tax deal** consists of two components — **Pillar One**, which is about reallocation of an additional **share of profit to the market jurisdictions** and **Pillar Two**, consisting of minimum tax and **subject to tax rules**.

WORLD'S LARGEST RECIPIENT OF REMITTANCES

India, the **world's largest recipient of remittances**, received USD 87 billion in 2021 with the **United States being the biggest source**, accounting for over 20 per cent of these funds, according to the World Bank. **India is followed by China, Mexico**, the Philippines, and Egypt, the Washington-based global lender said in its report released on 17 November 2021.

What the World Bank said

- In India**, remittances are projected to grow **three per cent in 2022** to USD 89.6 billion, reflecting a drop in overall migrant stock, as a large proportion of returnees from the Arab countries await return.

2. Remittances to **low- and middle-income countries** are projected to have grown a strong 7.3 per cent to reach USD 589 billion in 2021.
3. **Remittance flows from migrants** have greatly complemented government **cash transfer programs** to support families suffering economic hardships during the COVID-19 crisis.
4. Facilitating the flow of remittances to provide relief to **strained household budgets** should be a key component of government policies to support a global recovery from the pandemic.
5. India had received over **USD 83 billion in remittances in 2020**.

DEVELOPED NATIONS WANT TO EXPAND WTO AGENDA

In the run-up to the **WTO ministerial meeting** later this month, developed countries led by the **European Union and the US** are seeking to expand the issues on the table to include **reforms in the basic structure** of the global trade body as well as sustainability, **micro, small & medium enterprises (MSMEs)** and gender issues in what is seen as an attempt to mount pressure on developing countries such as India to make trade-offs.

What

1. They are seeking to defer a decision on **public stockholding for foodgrains** — crucial for **India's procurement programme** — by at least two years and have so far not agreed on waiver of **intellectual property rights** for Covid vaccines and medicines.
2. They are seeking to get us to agree on an **agreement on fisheries** without addressing our concerns over our fisherfolk. This government has stood its ground at the WTO, **G20 and COP26 talks**.
3. In case of areas such as **MSMEs, women empowerment and environment**, the proponents such as the **EU are not seeking binding commitments** from the WTO membership.
4. But the fear is that inclusion of these issues in the WTO declaration will open the doors for them being brought into the framework after a few years.
5. What is coming as a setback for the developing countries is that the developed countries are **blocking any deal on patents waiver** to provide vaccines to the poor countries.
6. At the same time, they are pushing for a package on trade and Covid, which is seen to be an attempt by the developed countries to ensure uninterrupted supplies and secure market access.

SCIENCE AND TECHNOLOGY

WORLD'S FIRST PLANETARY DEFENSE SYSTEM

The **world's first planetary defense system** called the **Double Asteroid Redirection Test (DART) spacecraft** was successfully launched by NASA on 24 November 2021 from the Vandenberg US Space Force Base. It was carried aboard **SpaceX's Falcon 9 rocket**. About 55 minutes into its flight, the spacecraft separated from the Falcon 9 second stage, and will soon begin to **orient itself toward the Sun**.

What

1. The **DART spacecraft** was built by the **Johns Hopkins Applied Physics Laboratory** in Maryland at the direction of NASA's Planetary Defense Coordination Office.

- The target of the spacecraft is a **small moonlet called Dimorphos** which is about 160-metre in diameter.
- The **spacecraft will collide** with it at a speed of about **6.6 kilometres per second** or 24,000 kilometres per hour. The collision is expected to take place between 26 September and 1 October 2022.
- The **moonlet does not pose any threat to Earth** and the mission is only to test the new technology.
- Currently, **there are over 25,000 Near Earth Objects** and no known asteroid larger than 140 metre in size has a significant chance of hitting Earth for the next 100 years.

DART's Mission Objectives are:

- Demonstrate a kinetic impact with Dimorphos**
- Change the **binary orbital period of Dimorphos**.
- Use ground-based telescope observations** to measure Dimorphos' period change before and after impact.
- Measure the effects of the impact and resulting **ejecta on Dimorphos**.

FIRST GLOBAL AGREEMENT ON ETHICS OF AI

The **first ever** global standard on the **ethics of artificial intelligence (AI)** was presented by Audrey Azoulay, director-general of the **United Nations Educational, Scientific and Cultural Organization (UNESCO)**, on 25 November 2021. The agreement was adopted by the **member states of UNESCO** at its General Conference on 23 November 2021.

What

- AI** has the **potential to benefit societies and economies** in many ways, but it also presents **risks and challenges**, UNESCO said.
- The **Recommendation on the Ethics of Artificial Intelligence** sets out common values and principles to assist in the **creation of the legal infrastructure** required to ensure the **healthy development of AI**.
- The world needs **rules for artificial intelligence to benefit humanity**. The Recommendation on the ethics of AI is a major answer.
- The Recommendation has **three main parts: values, principles and strategic areas**.
- The **main contents** of the Recommendation include **protecting data, banning social scoring and mass surveillance**, helping to monitor and evaluate, and protecting the environment.

Flashback

- On 7 December and 8 December, the **2021 International Forum on Artificial Intelligence (AI) and Education** will be held as a "hybrid" (online and in person) event in Qingdao, China.
- Participants will consider **how AI governance and innovation networks** can be enhanced to direct AI towards the common good in education, and for humanity.

INDIAN NAVY GETS NEW SUBMARINE

The **Indian Navy** on 25 November 2021 commissioned **India's fourth Scorpene-class submarine INS Vela** at the naval dockyard in Mumbai. This is the **fourth of the six submarines** the Indian Navy is to induct under the **Kalvari-class submarine Project-75**. It has been **built by Mazagon Dock Shipbuilders Ltd** in collaboration with **M/s Naval Group of France**.

What

1. **INS Vela** has the ability to undertake an **entire spectrum of submarine operations**.
2. **Vela** is named after a **decommissioned submarine Vela**, which served the Navy from **1973 to 2010**.
3. The earlier Vela belonged to **Foxtrot class submarine** of Soviet origin.
4. The submarine is equipped with **C303 anti torpedo countermeasure system**, and can carry up to 18 torpedoes or Exocet anti-ship missiles or 30 mines in place of torpedoes.
5. This is the **second major induction in the Indian Navy** in less than a week. On 21 November 2021, the Navy commissioned warship **INS Visakhapatnam**.

What is Project 75?

1. Conceptualised for the acquisition for **25 submarines** at the time of the IK Gujral government, **P 75 evolved into a 30-year plan** for building submarines.
2. **In 2005, India and France** signed a \$ 3.75 billion contract for building **six Scorpene class submarines**.
3. The executing company on the Indian side is **Mazgaon Docks Ltd**, and on the French side, it is DCNS, which is now called Naval Group.
4. The project has been dogged by delays and questions over the reluctance of the French government to act on the commitment for **“transfer of technology”** that was an integral part of the contract.
5. As a result, the first of the six subs, **INS Kalvari**, was commissioned five years behind schedule, in 2017.

ISRO SCIENTISTS DISCOVER EXOPLANET

The **exoplanet search and study group** at the Ahmedabad-based **Physical Research Laboratory (PRL)**, has discovered a **new exoplanet orbiting** too close to an evolved or ageing star with a **mass of 1.5 times that of the Sun** and located 725 light-years away, according to Indian Space Research Organisation.

What

1. This discovery was made using **PRL Advanced Radial-velocity Abu-sky Search (PARAS)** optical fibre-fed spectrograph, the **first of its kind in India**, on the 1.2-metre Telescope of PRL at its **Mt. Abu Observatory**.
2. **Using PARAS**, which has the capability to measure the **mass of an exoplanet**, the exoplanet's mass is found to be 70 per cent and **size about 1.4 times that of Jupiter**. These measurements were carried out between December 2020 and March 2021.
3. Further follow-up measurements were also obtained from the **TCES spectrograph from Germany** in April 2021, and also independent photometric observations from the PRL's 43-cm telescope at Mt. Abu.

Flashback

1. The detection of such system enhances our **understanding of various mechanisms** responsible for **inflation in hot-Jupiters** and the formation and evolution of planetary systems around evolving and ageing stars.
2. This is the **second exoplanet discovered by PRL** (an autonomous unit of the Department of Space) scientists using PARAS at 1.2 m Mt. Abu telescope; the **first exoplanet K2-236b**, a sub-Saturn size at 600 light-years away, was discovered in 2018.

- The star is known as **HD 82139** as per the **Henry Draper catalogue** and TOI 1789 as per the TESS catalogue.
- Hence, the planet is known as **TOI 1789b or HD 82139b** as per the IAU nomenclature.

INDIA'S FIRST PRIVATELY BUILT CRYOGENIC ENGINE

Skyroot Aerospace, a Hyderabad-based space **technology startup**, has test fired **India's first privately developed fully cryogenic rocket engine**, successfully demonstrating the technology that will power the upper stages of its upcoming **Vikram-2 orbital launch vehicle**.

What

- The rocket engine, named **Dhawan-1** in honour of Indian rocket scientist **Satish Dhawan**, has been developed using **3D printing technology** and is fuelled by **liquefied natural gas** and **liquid oxygen**—a high-performance, low-cost and clean rocket fuel.
- This is a completely **Made-in-India** cryogenic engine developed using **3D printing with a superalloy**, reducing manufacturing time by more than 95%.
- This test makes us **one of the very few companies in the world** to have successfully demonstrated this technology.
- Cryogenic engines** are given the name due to the **use of propellants** that are stored at **cryogenic temperatures** of less than negative 150 degrees Celsius.
- With this milestone, Skyroot has demonstrated **all the three propulsion technologies** that will be used in its first series of small satellite launch vehicles.

Flashback

- In December last year**, the company successfully test fired its **Kalam-5 solid propulsion rocket engine**, a larger version of which will be used to power the lower stages of its **Vikram rocket**.
- Skyroot** is backed by the **promoters of renewable energy firm Greenko Group**, explosives manufacturer and **ISRO supplier Solar Industries** and Curefit founder Mukesh Bansal.
- Skyroot** also plans to be able to **fire its rockets off portable launchers**, something that will offer a lot of flexibility to firms that partner with it.
- In **September this year**, the company became the **first space tech firm to formally enter into an agreement** with the Indian Space Research Organisation (ISRO) to utilise its facilities and get access to its expertise for testing and qualification of its small **satellite launch vehicles**, the first launch of which is scheduled for 2022.

INDIA'S FIRST DEVICE FOR ULTRA-PURE HYDROGEN

Scientists at **Indian Institute of Technology (IIT), BHU** claim to have developed a **first-of-its-kind device in India** for the on-site production of **ultra-pure Hydrogen**. According to the team, at a time when India has committed to **zero net emissions by 2070** at the **COP26 Climate Summit** this is a major development in the **Nations Sustainable Development Goals**, the **device is 100 per cent indigenous** and every component made in **IIT (Banaras Hindu University) facilities**.

About the device

1. The compact and **ergonomically designed device** caters towards sustainability and portrays **socio and economic benefits**.
2. It is based on **membrane technology** for on-site production of **ultra-pure hydrogen from methanol**. It generates hydrogen, which is fed to the fuel cell to generate power (electricity).
3. Further, the produced power can be used for **EV charging**, supplying power to mobile towers, and can also be installed at petrol pumps **to generate hydrogen for hydrogen-based vehicles**.
4. The device is easy to use and **covers a minimum space of 2 m² (square meter) area**. Moreover, it requires only 0.6 lit/hr of methanol for the production of around 900 lit/hr of hydrogen.
5. The government recently launched the **National Hydrogen Mission** and **National Electric Mobility Mission Plan** to reduce **the carbon footprint** and dependency on fossil fuels.
6. However, it pertains to **two major concerns** -- firstly, **charging EVs through clean and green energy** and secondly, **commercialising hydrogen energy's storage** and transportation.

MISCELLANEOUS

WORLD'S UNDERGROUND FUNGAL LIFE MAPPED

The Scientists unveiled plans on 30 November 2021 to map the **world's huge underground webs of fungi** for the **first time**, to **identify hotspots** that could better protect natural ecosystems and **store carbon dioxide** to help tackle climate change. **Underground fungal networks underpin the health of plants**, trees and broader ecosystems by creating thread-like webs in soil that suck in CO₂ and transport nutrients like phosphorus to plants.

What

1. The **Society for the Protection of Underground Networks (SPUN)** said it would collect 10,000 samples over the next 18 months from around the world, using **machine learning** to seek out the most **biodiverse hotspots** and **map global fungal networks**.
2. When something obvious like a coral reef dies, people notice – but these guys are **really invisible ecosystem engineers**, so their losses are largely undocumented.
3. **Fungal networks**, which **store billions of tonnes of CO₂**, are under threat from factors including **fertiliser use in agriculture, urbanisation and climate change**, according to SPUN, a non-profit network whose members include scientists from the **United States, Germany** and **Britain**.
4. The **world-first map** will be used to identify sites with the potential to store more CO₂, and withstand changes brought about by global heating.
5. It would also **identify at-risk areas** and work to improve conservation of **below-ground biodiversity hotspots**.
6. The project is backed by a **\$3.5 million donation** from the Jeremy and Hannelore Grantham Environmental Trust.

INTERNATIONAL DAY FOR TOLERANCE

International Day for Tolerance is commemorated every year on **16 November** to **foster mutual understanding among different cultures** and strengthen tolerance among people. The **United Nations** declared 16 November as the **International Day for tolerance in 1995** as it was the same day when the **United Nations Educational, Scientific and Cultural Organization (Unesco)** formulated the Declaration of Principles on Tolerance.

What

1. In the year 1995, **Unesco created a prize** for the promotion of tolerance and non-violence and to mark the **United Nations Year for Tolerance** and the **125th anniversary of the birth of Mahatma Gandhi**.
2. The prize was named after **Madanjeet Singh** who sponsored the celebrations in the year.
3. In 2000, Singh also became the **UN's goodwill ambassador** and contributed immensely to bringing communal harmony among communities.
4. The prize is titled **Unesco-Madanjeet Singh Prize** for the Promotion of Tolerance and Non-Violence and rewards significant activities in the scientific, artistic, cultural or communication fields aimed at the promotion of a spirit of tolerance and non-violence. It is awarded every two years on 16 November.
5. Last time, the **Unesco-Madanjeet Singh Prize** for the Promotion of Tolerance and Non-Violence was awarded in 2020 to the nongovernmental **Centre Résolution Conflits (Centre for Resolution of Conflicts - CRC)** in the Democratic Republic of Congo.

PRATHAM AWARDED INDIRA GANDHI PRIZE 2021

The **Indira Gandhi Prize for Peace, Disarmament and Development** for 2021 has been awarded to civil society organisation **Pratham** for its pioneering work in **improving the quality of education for underprivileged children** in India and across the world. The awardee was picked by an international jury chaired by former Chief Justice of India **T S Thakur**, the Indira Gandhi Memorial Trust said in a statement on 19 November 2021.

What

1. The **2021 Prize** is awarded to **Pratham** for its pioneering work over more than a quarter century in seeking to ensure that **every child has access to quality education**, for its **innovative use of digital technology** to deliver education, for its programmes to provide skills to young adults, for its **regular evaluation of quality education** and for its timely response in enabling children to learn during the COVID-19 related school closures.
2. **Set up in 1995** in Mumbai by Madhav Chavan and Farida Lambay, Pratham has sought to **give practical shape** to its belief that every child should be in school and learning.
3. It **started work in Mumbai slums**, setting up **community-based**

Flashback

1. The **Indira Gandhi Prize for Peace, Disarmament and Development** was instituted in the memory of the former prime minister by a trust in her name in **1986**.
2. It consists of a monetary award of **Rs 25 lakh** along with a citation.
3. The award is given to individuals or organisations who work towards **ensuring international peace and development**, ensuring that scientific discoveries are used to further the scope of freedom and better humanity, and **creating new international economic order**.

- Balwadis** or pre-schools, and offering remedial education for students lagging behind their grade level curriculum.
- Its outreach in India has now expanded to on average 1 million children directly and 5 million through government partnerships annually.
 - Its **Annual Status of Education Report (ASER)**, based on surveying 6, 00,000 rural Indian children, is now used as a **model to assess education outcomes and learning deficiencies in 14 countries** over three continents.
 - To respond to the concerns raised by **ASER in 2007**, Pratham launched its flagship programme, which aims to improve children's learning by **strengthening basic reading and arithmetic**.

RANKING OF BEST POLICE STATION IN THE COUNTRY

Sadar Bazar police station in **Delhi** has been ranked as the **best police station** in the country as part of the annual **home ministry exercise to grade police stations** based on parameters including **handling of crime, infrastructure, and approachability of personnel**.

What

- Gangapur PS in Ganjam district of Odisha** was adjudged as the **second best police station** and **Bhattu Kalan PS in Fatehabad, Haryana** as the **third best**.
- Home Minister on 19 November 2021 handed **over trophies to SHOs** of the top three ranking police stations at the DGP conference being organized by the Intelligence Bureau in Lucknow.
- The Government of India selects the **best-performing police stations** across the country every year, to incentivize more effective functioning of police stations and promote healthy competition among them.
- The police stations are **ranked each year** as per directions given by Prime Minister at the **2015 DGP conference** held in Kutch, Gujarat.
- The ranking process assesses the performance of police stations on parameters like **handling of property offences, crime against women, crime against weaker sections, missing persons cases**, infrastructure, approachability of personnel and feedback of citizens etc.
- In 2020, Nongpok Sekmai PS in Thoubal district of Manipur** was adjudged as the **best police station** in the country, followed by the all-women police station **Suramangalam in Salem City, Tamil Nadu**; and **Kharsang in Changlang, Arunachal Pradesh**.

SII GETS NOD TO EXPORT VACCINES TO COVAX

The Pune based vaccines manufacturer **Serum Institute of India (SII)** has got the nod to export **Covid vaccines under the COVAX programme** on 22 November 2021. The ministry has allowed SII to export 50 lakh doses of COVID-19 vaccine **Covishield to the COVAX** an UN Global body.

What

- COVAX** is co-led by **Gavi, the Coalition for Epidemic Preparedness Innovations (CEPI)** and the **World Health Organization** that aims to accelerate the development and manufacture of Covid vaccines.

DELHI: VIJAY NAGAR 9717380832 & OLD RAJENDER NAGAR 9811293743 | JAIPUR: 8290800441
 BENGALURU: KORMANGALA 7619166663 & CHANDRA LAYOUT 7619136662 | BHOPAL: 7509975361
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2. **Covax facility** was created to **ensure global equitable access to Covid-19 vaccines** after the outbreak of Covid pandemic.
3. The first batch of the vaccines will be exported to **Nepal, Tajikistan** and **Mozambique**.
4. The SII will also export **Covishield to Bangladesh under COVAX**. The Serum Institute can begin the vaccine export from 23 November 2021.

Flashback

1. India will be resuming export of vaccines under **Vaccine Maitri** in the fourth quarter starting from October.
2. The vaccine export will resume fulfilling the commitment of India **towards COVAX** in line with the motto '**Vasudhaiva Kutumbakam**'.
3. India stopped the Covid-19 vaccines in April this year after a severe surge in Covid case during the second wave to jab its own population.

PREVENTION OF GENDER BASED VIOLENCE: UN

On the **International Day for the Elimination of Violence against Women (EVAW) (25 November 2021)**, the **United Nations in Afghanistan** has called for concrete actions to **end violence against women**. Gender-based violence continues to be a serious threat to women and girls and a major obstacle to achieving lasting **sustainable development and peace**.

What

1. Referred to as a '**shadow pandemic**', violence against women has been worsened by the Covid-19 pandemic and the humanitarian crisis.
2. Globally, **one in three women have experienced physical or sexual violence**, mostly by an intimate partner.
3. **Afghanistan has one of the highest rates of violence against women globally**, with nine out of 10 women experiencing at least one form of intimate partner violence in their lifetime.
4. The **global community needs to listen** to the voices and experiences of Afghan women and girls and urgently respond to their needs, especially survivors of violence and those who face multiple and intersecting forms of discrimination.
5. Violence against women and girls in Afghanistan has further increased due to **restrictions in women and girls' enjoyment of their rights and freedoms**, particularly women's right to work and their freedom of movement.