

# My Notes....

## NATIONAL

### PM MITRA APPROVED

Government has approved setting up of **7 Mega Integrated Textile Region and Apparel (PM MITRA) Parks** with a total outlay of Rs. 4,445 crore in a **period of 5 years**. It was announced in Union Budget for 2021-22.

#### What

1. **PM MITRA** is inspired by the **5F vision** of Hon'ble Prime Minister. The '**5F**' Formula encompasses - **Farm to fibre; fibre to factory; factory to fashion; fashion to foreign**.
2. This **integrated vision** will help furthering the **growth of textile sector** in the economy.
3. No other competing nation has a complete textile ecosystem like us. **India is strong in all five Fs**.
4. The **7 Mega Integrated Textile Region and Apparel Parks (PM MITRA)** will be setup at **Greenfield / Brownfield sites** located in different willing States.
5. **PM MITRA Park** will be developed by a **Special Purpose Vehicle** which will be owned by State Government and Government of India in a **Public Private Partnership (PPP)** Mode.
6. **SPV** in which State Government has **majority ownership** will be entitled to receive part of the lease rental from developed industrial sites and will be able to use that for further expansion of textiles industry in the area by expanding the **PM MITRA Park**, providing **Skill Development initiatives** and **other Welfare measures** for workers.

#### The PM MITRA parks will have following:

1. **Core Infrastructure:** Incubation Centre & **Plug & Play facility**, Developed Factory Sites, Roads, Power, Water and Waste Water system, Common Processing House & CETP and other related facilities e.g. Design Centre, Testing Centres etc.
2. **Support Infrastructure:** Workers' hostels & housing, **Logistics Park**, warehousing, medical, training & skill development facilities

### PM GATISHAKTI LAUNCHED

Prime Minister on 13 October 2021 launch the **digital platform** for the **first ever National Infrastructure Masterplan**, through which the entire network of projects - from roads and railways to telecom networks and gas pipelines - **until 2020**, with **plans up to 2024-25**, will be laid out. The platform will provide **high resolution satellite images, infrastructure**, utilities, administrative boundaries, land and logistics. The masterplan, called **PM GatiShakti**, was announced on **Independence Day**.

#### About the Plan

1. The **GatiShakti project** will break **departmental silos** and institutionalise holistic planning for the stakeholders across major infrastructure projects.
2. The plan looks to make a **centralized portal** comprising of **all existing and planned infrastructure initiatives** of as many as **16 central ministries and departments**.
3. **GatiShakti** is based on the **six pillars** of **comprehensiveness, prioritisation, optimisation, synchronisation** and being **analytical** and **dynamic**.
4. The master plan is expected to generate **large-scale employment opportunities, cut down logistics costs, improve supply chains** and make local goods competitive globally.

5. The Plan will not only give infrastructure creation a new direction but also provide a **new pace to existing projects**.

#### Aim of the national plan

1. The “**PM Gati Shakti National Master Plan for Multi-Modal Infrastructure Connectivity to Economic Zones**” with tag line ‘**Gati se Shakti**’ will include projects under existing flagship schemes of different ministries such as **Bharatmala, Sagarmala, Udaan, expansion of railway network**, inland waterways and **Bharat Net**.

2. The seamless **multi-modal connectivity** will ensure the seamless movement of goods and people and enhance the **ease of living** as well as the **ease of doing business**.

3. Gati Shakti will also help in fulfilling the ambitious targets set by the government for the period of 2024-25, including expanding the **length of the national highway network to 2 lakh route km**, creation of **over 200 airports**, heliports and water aerodromes and doubling the gas pipeline network to 35,000 km.

#### Aims to achieve by 2024-25 under Gati Shakti

1. **11 industrial corridors** and **two new defence corridors** in Tamil Nadu and Uttar Pradesh
2. **4G connectivity in all villages**
3. **Increasing renewable energy** capacity to 225 GW from 87.7 GW
4. Expanding the national highway network to **2 lakh km**
5. **Increasing length of transmission network** to 4, 54,200 circuit km
6. Creation of **220 new airports, heliports and water aerodromes**
7. Increasing cargo handling capacity of railways to **1,600 million tons** from 1210 million tons
8. Adding **17,000 km to gas pipeline network**
9. 202 fishing clusters/harbours/landing centres

## SBM-U 2.0 AND AMRUT 2.0 LAUNCHED

Prime Minister on 1 October 2021 launched the **second phase** of the **Swachh Bharat Mission-Urban (SBM-U 2.0)** and **Atal Mission for Rejuvenation and Urban Transformation (AMRUT 2.0)**. These **missions signify** a step forward in the march towards effectively addressing the challenges of **rapidly urbanising India** and will also help contribute towards achievement of the **Sustainable Development Goals 2030**.

#### About SBM-U 2.0

1. **SBM-U 2.0** envisions making all cities ‘garbage free’ and ensuring **grey and black water** management in all cities other than those **covered under AMRUT**.
2. Make all **urban local bodies open defecation free+** and those with a population of **less than one lakh** as open defecation

#### Flashback

1. **SBM-U 2.0** and **AMRUT 2.0** have been designed to realise the aspiration to make all cities **garbage free** and **water secure** and have contributed significantly to improve the **urban landscape** during the last seven years.
2. The **two flagship missions** have augmented the capacity to deliver basic services of **water supply** and **sanitation to the citizens**.
3. ‘**Swachhta**’ has become a jan andolan today, all urban local bodies have been declared **open defecation free** and **70 per cent solid waste** is being scientifically processed now.
4. **AMRUT** has been **ensuring water security** by adding 1.1 crore household water tap connections and **85 lakh sewer connections**, thus benefiting more than four crore people.

free++, thereby achieving the vision of safe sanitation in urban areas.

3. The mission will focus on **source segregation of solid waste**, utilising the principles of **3Rs (reduce, reuse, recycle)**, scientific processing of **all types of municipal solid waste** and remediation of legacy dumpsites for effective **solid waste management**.

#### About AMRUT 2.0

1. **AMRUT 2.0** aims at providing **100 per cent coverage of water supply** to all households in around **4,700 urban local bodies** by providing about 2.68 crore tap connections.
2. **100 per cent coverage of sewerage and septage** in 500 AMRUT cities by providing around 2.64 crore sewer or septage connections, which will benefit more than 10.5 crore people in urban areas.
3. **AMRUT 2.0** will adopt the principles of a **circular economy** and promote **conservation and rejuvenation** of surface and groundwater bodies.
4. The mission will promote **data-led governance in water management** and technology sub-mission to leverage the latest global technologies and skills.

### INDIA IN GLOBAL HUNGER INDEX 2021

India has **slipped to 101st position** in the **Global Hunger Index (GHI) 2021** of 116 countries, from its **2020 position of 94th** and is behind its neighbours Pakistan, Bangladesh and Nepal. **Eighteen countries**, including **China, Brazil and Kuwait**, shared the top rank with **GHI score** of less than five, the website of the Global Hunger Index that tracks hunger and malnutrition said on 14 October 2021.

#### According to the Report

1. The report termed the level of hunger in India "**alarming**".

2. **In 2020, India was ranked 94th out of 107 countries.** Now with 116 countries in the fray, it has **dropped to 101st rank.**

3. India's GHI score has also decelerated -- **from 38.8 in 2000** to the **range of 28.8 - 27.5 between 2012 and 2021.**

4. With this, **only 15 countries** — Papua New Guinea (102), Afghanistan (103), Nigeria (103), Congo (105), Mozambique (106), Sierra Leone (106), Timor-Leste (108), Haiti (109), Liberia (110), Madagascar (111), Democratic Republic of Congo (112), Chad (113), Central African Republic (114), Yemen (115) and Somalia (116) — fared worse than India this year.

#### Flashback

1. The fight against hunger is dangerously off track. Based on the current GHI projections, the world as whole -- and 47 countries **in particular** -- will fail to achieve a **low level of hunger by 2030.**
2. **Food security** is under assault on multiple fronts, it said, adding that **worsening conflict**, weather extremes associated with **global climate change** and the **economic and health challenges** associated with the COVID19 pandemic are all driving hunger.
3. **Inequality** -- between regions, countries, districts, and communities -- is pervasive and, (if) left unchecked, will keep the world from achieving the **Sustainable Development Goal (SDG)** mandate to leave no one behind.
4. Further, the report noted that it is difficult to be optimistic in 2021 because the forces now driving hunger are overpowering good intentions and lofty goals.
5. Among the most powerful and toxic of these forces are **conflict, climate change**, and **COVID-19three Cs** that threaten to wipe out any progress that has been made against hunger in recent years.

5. Neighbouring countries like **Nepal (76), Bangladesh (76), Myanmar (71) and Pakistan (92)** are also in the 'alarming' hunger category, but have fared better at feeding its citizens than India.

### Indicators of GHI

1. The report prepared jointly by **Irish aid agency Concern Worldwide** and German organisation **Welt Hunger Hilfe**.
2. The GHI score is calculated on **four indicators --undernourishment; child wasting** (the share of children under the age of five who are wasted i.e who have low weight for their height, **reflecting acute undernutrition**); **child stunting** (children under the age of five who have low height for their age, **reflecting chronic undernutrition**) and **child mortality** (the mortality rate of children under the age of five).
3. The **share of wasting among children in India rose from 17.1 per cent** between 1998-2002 to **17.3 per cent between 2016-2020**.
4. People have been severely hit by COVID-19 and by pandemic related restrictions in India, the country with **highest child wasting rate worldwide**.
5. However, **India has shown improvement in other indicators** such as the **under-5 mortality rate, prevalence of stunting among children** and **prevalence of undernourishment** owing to inadequate food.

## INDIAN SPACE ASSOCIATION LAUNCHED

Prime Minister launched the **Indian Space Association (ISpA)** at a virtual event on 11 October 2021. The **industry association** will act as an independent and “**single-window**” agency for enabling the **opening up of the space sector** to **start-ups** and the **private sector**.

### What

1. **ISpA**, based on “**four pillars**” of space technology: The **freedom to innovate in the private sector**; making the **government act as an enabler**; preparing the next generation for the **future of the space industry**; and ensuring the space sector is used as a **common resource for the progress of humanity**.
2. **ISpA** will perform the **role of policy advocacy** and engage with stakeholders in the space sector, including the government and all its other agencies,

### What ISpA will do

1. **ISpA** will be **focussed on capacity building** and creation of space hubs as well as incubators in the country for private space start-ups.
2. It will work in **tandem with NSIL**, a central public sector enterprise under the Department of Space (DOS), which functions as the commercial arm for ISRO and secures launch contracts from customer satellites.
3. The association will also work with **IN-SPACE**, which acts as a regulator facilitating the use of government facilities to private companies.
4. Lt Gen. **A.K. Bhatt** (retd) will function as the director general while Jayant Patil, senior executive vice president, defence, L&T-NxT, will serve as chairperson.
5. **ISpA's** founding member companies include **OneWeb, Bharti Airtel, Mapmyindia, Walchandnagar Industries, L&T, ADTL, and Ananth Technologies Ltd**, which have been heavily involved in supporting ISRO with launches and development.
6. The **first few start-ups** to become members include **Astrome Technologies, Pixxel, Agnikul Cosmos, Digantra, and Skyroot Aerospace**.



**NewSpace India Ltd (NSIL)** and **Indian National Space Promotion and Authorisation Centre (IN-SPACe)**, among others.

3. These reforms **will provide opportunities** for both **industry and academia**.
4. The expected reforms are supposed **to enable and promote private players** to carry out independent space activities, facilitate services and technology created by the Indian Space Research Organisation (ISRO) to be utilised by the private sector, **provide regulatory and policy inputs**, and inspire and promote an conducive ecosystem for start-ups, MSMEs, and academia.

## UN REPORT ON MULTIDimensionALLY POOR

**Five out of six** multidimensionally poor people in **India** are from lower tribes or castes, according to a new analysis on **global multidimensional poverty** released by the United Nations on 7 October 2021. The **global Multidimensional Poverty Index (MPI)** produced by the **United Nations Development Programme (UNDP)** and the Oxford Poverty and Human Development Initiative said this in its latest report on poverty.

### In India

1. In India, **five out of six multidimensionally poor** people are from lower tribes or castes.
2. The **Scheduled Tribe group accounts for 9.4 per cent** of the population and is the poorest, with 65 million of the 129 million people living in multidimensional poverty.
3. They account for about **one-sixth of all people living in multidimensional poverty** in India.
4. Following the **Scheduled Tribe group** is the **Scheduled Caste group** with 33.3 per cent -- 94 million of 283 million people -- living in multidimensional poverty.
5. The report further said that **27.2 per cent of the Other Backward Class group**- 160 million of 588 million people - live in **multidimensional poverty**, "showing a lower incidence but a similar intensity compared with the Scheduled Caste group.
6. Overall, **five out of six multidimensionally poor** people in India live in households whose head is from a **Scheduled Tribe**, a **Scheduled Caste** or **Other Backward Class**.
7. The **top five countries** with the largest number of people living in **multidimensional poverty** are in India (2015/16) at 381 millions, Nigeria (2018): 93 million, Pakistan (2017/18): 83 million, Ethiopia (2019): 77 million, Democratic Republic of the Congo (2017/18): 56 million.

### Flashback

1. The **global Multidimensional Poverty Index (MPI)**, produced by the **UN Development Programme (UNDP)** and the **Oxford Poverty and Human Development Initiative**, also found that in **nine specific ethnic groups** surveyed, more than 90 per cent of the population is trapped in poverty.
2. In some cases, **disparities across ethnic and racial groups** are greater than across regions within a country.
3. More than that, the disparities across the Index for ethnicity, is greater than that across all **109 countries**, and all other variables tested.
4. Besides income, the Index measures poverty using various indicators, including **poor health, insufficient education** and a **low standard of living**.
5. The research for the report was conducted across **109 countries**, covering 5.9 billion people, and presents an ethnicity/race/caste disaggregation, for **41 nations**.

## NEW HELICOPTER POLICY ANNOUNCED

Civil Aviation Minister Jyotiraditya Scindia 8 October 2021 announced a **new helicopter policy** under which **dedicated hubs and corridors** would be established and landing charges and parking deposits abolished to boost commercial operations.

### Under the new policy

1. The government is going to put together a **dedicated helicopter-acceleration cell** in the Civil Aviation Ministry that will look at **helicopter industry's issues**.
2. There will be **no landing charges or parking deposits** for heliports or helicopter companies from now onward.
3. Officers of **Airports Authority of India (AAI)** and **Air Traffic Control (ATC)** will engage with the helicopter industry stakeholders so that adequate training is given to all individuals regarding helicopter issues.
4. **An advisory group** has been set up in the Civil Aviation Ministry to discuss any pain points of the industry.
5. **Heli-Disha**, a booklet that was released on 8 October 2021 in **Dehradun**, would be given to every collector of every district of the country.
6. The booklet contained **all regulations and issues related to helicopter** size, weight, operations, etc, and it would be distributed so that awareness about them is created in the district administrations across the country.
7. A **centralised Heli-Seva portal** will be upgraded to a level so that all permissions for a helicopter flight could be granted online.
8. The government is going to make four **Heli-hubs** to start with -- **one at Juhu in Mumbai**, second in **Guwahati**, third in **Delhi** and **fourth at HAL airport in Bengaluru**.
9. 10 cities and 82 routes have been identified to develop helicopter corridors.

## GUIDELINES FOR CYBERSECURITY IN POWER SECTOR

The government on 7 October 2021 announced the release of **guidelines for cybersecurity** in the **power sector for the first time**, to create a secure cyber ecosystem. Under the direction of Union Power and New & Renewable Energy Minister R K Singh, the **Central Electricity Authority (CEA)** has prepared the guidelines for cybersecurity in the power sector and it was released on 7 October 2021, the power ministry said.

### What

1. The CEA under the provision on cybersecurity in the '**Central Electricity Authority (Technical Standards for Connectivity to the Grid) (Amendment) Regulations, 2019**' has framed the **guidelines on cybersecurity in the power sector** to be adhered to by all power sector utilities to create a secure cyber ecosystem.
2. This is the first time that **comprehensive guidelines** have been formulated on cybersecurity in the power sector.
3. The guidelines lay down actions required to raise the **level of cybersecurity preparedness** for the power sector.
4. The norms have been prepared after intensive deliberations with stakeholders and inputs from expert agencies in the **field of cybersecurity**, such as **CERT-In, NCIIPC, NSCS and IIT-Kanpur**, and subsequent deliberations in the power ministry also.
5. It lays down a **cyber assurance framework**, strengthens the regulatory framework, puts in place mechanisms for security threat early warning, **vulnerability management** and response to security threats, and secures remote operations and services, among others.
6. The norms are **applicable to all responsible entities** as well as system integrators, equipment manufacturers, suppliers/ vendors, service providers, and IT hardware and

software **OEMs (original equipment manufacturers) engaged** in the Indian power supply system.

- The guidelines mandate **ICT-based procurement** from identified '**trusted sources**' and '**trusted products**' or else the product has to be tested for malware/ hardware trojan before deployment for use in the power supply system network.
- It will promote research and development in cybersecurity and open up the market for setting up cyber testing infra in public as well as private sectors in the country.

## BIODIVERSITY COP STARTS

The **15th Conference of Parties** to the **1992 UN Convention on Biological Diversity (CBD COP)** starts on 11 October 2021 at **China's Kunming**, mostly a virtual session, where as per the UN officials, governments will "**need to commit to repairing our broken relationship with nature.**"

### What

- The **Convention on Biological Diversity (CBD)** is an **international, legally binding treaty** with three main goals: **conservation of biodiversity, sustainable use of biodiversity**, and the fair and equitable sharing of the benefits arising from the **use of genetic resources**.
- India is a signatory to the CBD** and hence, liable to implement the strategic targets set under the convention.
- The **2018 sixth national report** by India claimed that **India is "on track"** to achieve the biodiversity targets.
- Over 20 per cent of India's total geographical area** is under biodiversity conservation and India has exceeded in achieving the terrestrial component of **17 per cent of Aichi target 11** and **20 per cent of the National Biodiversity Targets (NBT) 6**.
- For implementation of **Aichi Targets**, the signatory country had to submit national targets based on the legal framework of their country. Also, **India adopted 12 NBT under the Convention**.

## INTERNATIONAL

### IEA INVITES INDIA TO BECOME FULL-TIME MEMBER

**International Energy Agency (IEA)** has invited India, the **world's third-largest energy consumer**, to become its **full-time member** - a proposal if accepted will require New Delhi to raise strategic oil reserves to 90 days requirement. Oil Minister Hardeep Singh Puri on 11 October 2021 said he held online discussions with IEA Executive Director Fatih Birol.

### What

- India** in March 2017 became an **associate member of the Paris-based body** which advises industrialised nations on **energy policies**.
- In January this year, IEA members and India agreed to enter into a **strategic partnership**, strengthening their collaboration across a **range of vital areas** including **energy security** and **clean energy transition**.
- IEA states that "India is becoming increasingly influential in global energy trends."
- Its in-depth report on India's energy policies, which was **released in January 2020**, states that the **country's demand for energy is set to grow rapidly** in the coming decades, with electricity use set to increase particularly fast.
- IEA is made up of 30 member countries** and **eight associate nations**. Four countries are seeking accession to full membership - **Chile, Colombia, Israel and Lithuania**.

6. According to IEA, a member country must maintain "**crude oil and/or product reserves equivalent to 90 days of the previous year's net imports**, to which the government has immediate access (even if it does not own them directly) and could be used to address disruptions to global oil supply." India's current strategic oil reserves **equal 9.5 days of its requirement**.

7. Also, a member of IEA has to show "**a demand restraint programme** to reduce national oil consumption by up to 10%." India has the fastest-growing energy market in the world.

#### Flashback

1. The **IEA was founded in 1974** by industrialised countries - within the framework of the **Organisation for Economic Co-operation and Development (OECD)** - in response to the oil embargo.
2. As a result, countries seeking to become **members of the IEA** must **also be members of the OECD** and **hold 90 days of oil imports** as commercial stocks.
3. Starting in 2015, the IEA has been opening its doors to major emerging economies that are at the centre of the **global conversation on energy**.
4. Since then, **eight countries** have joined the IEA's Association programme: Brazil, China, India, Indonesia, Morocco, Singapore, South Africa and Thailand.
5. Along with the 30 members and the countries formally seeking accession, this expanded IEA now represents **75% of global energy demand**.

## INDIA GETS RE-ELECTED TO UNHRC

India was **re-elected** to the **United Nations Human Rights Council (UNHRC)** for the **2022-24** for a 6<sup>th</sup> term on 14 October 2021 and vowed to continue to work for the promotion and protection of human rights through "**Samman, Samvad and Sahyog**".

#### What

1. The **UN General Assembly** elected by **secret ballot** Argentina, Benin, Cameroon, Eritrea, Finland, Gambia, Honduras, India, Kazakhstan, Lithuania, Luxembourg, Malaysia, Montenegro, Paraguay, Qatar, Somalia, UAE and the USA.
2. The **US joined the cohort more than three years** after the Trump administration quit the 47-member body over what it called **chronic bias against Israel** and a **lack of reform**.
3. **China and some of its allies** including **Belarus and Venezuela** have taken advantage of the US absence from the council to push through joint statements supporting Beijing's actions in Hong Kong, Xinjiang and Tibet, and denouncing "**human rights violations**" in Western countries, including against indigenous Canadians.
4. For 14 October 2021 vote, non-governmental organizations accused regional groups of stitching up a "**legitimizing facade**" rather than a genuine contest at the council, by presenting the same number of candidates as vacant seats.
5. The council is made up of **47 member states**. For years, the body has been criticized for allowing authoritarian governments to take part.
6. **Human Rights Council candidates are elected in geographical groups** to ensure even representation.
7. There were no competitive races on 14 October 2021 **to elect 13 new members** and **re-elect five members**. Members cannot serve more than two consecutive terms.



## TURKEY RATIFIES PARIS CLIMATE AGREEMENT

Turkey's parliament ratified the Paris climate agreement on 6 October 2021, making it the **last G20 country to do so**, after holding off for years due to what it saw as injustices in its responsibilities as part of the agreement. Turkey has been a signatory to the Paris agreement since April 2016.

### What

1. The **United Nations Framework Convention on Climate Change (UNFCCC)** currently lists Turkey in the Annex I group, described as **industrialised countries**.
2. **Turkey** was ratifying the deal as a **developing country** and would implement it as long as it did not **"harm its right to economic and social development."**
3. Turkey has also sent a proposal to UNFCCC Secretariat in Bonn, Germany, to have its name removed from the Annex I list.
4. If Turkey is removed from the Annex I list of countries, it would be able to benefit from investment, insurance and technology transfer that can be provided as part of the agreement.
5. The proposal is on the provisional agenda for the **COP26 Climate Change Conference** to be held in Glasgow from Oct. 31 to Nov. 12.

### Flashback

1. The **Paris agreement** aims to limit the global average temperature rise to **"well below" 2 degrees Celsius above pre-industrial levels** and "make efforts" to limit it to **1.5 degrees Celsius**.
2. The **1.1-degree Celsius** warming already recorded has been enough to unleash disastrous weather, including the recent fires in **Turkey, Greece** and the **United States**.

## ACCESS TO A CLEAN ENVIRONMENT A HUMAN RIGHT

The **UN Human Rights Council** on 8 October 2021 recognised **access to a clean and healthy environment** as a **fundamental right**, formally adding its weight to the global fight against climate change and its devastating consequences. The vote passed with overwhelming support, despite criticism in the lead-up from some countries, notably the **United States** and **Britain**.

### What

1. The resolution, **first discussed in the 1990s**, is **not legally binding** but has the potential to shape global standards.
2. Lawyers involved in **climate litigation** say it could help them **build arguments** in cases involving the **environment and human rights**.
3. This has **life-changing potential in a world** where the global environmental crisis causes more than nine million premature deaths every year, said David Boyd, UN special rapporteur on human rights and the environment, who called the decision a **"historic breakthrough"**.
4. The text, **proposed by Costa Rica**, the **Maldives**, Morocco, Slovenia and Switzerland, was passed with **43 votes in favour** and **4 abstentions from Russia, India, China and Japan**, prompting a rare burst of applause in the Geneva forum.
5. **Britain** which was among the **critics of the proposal** in recent intense negotiations, **voted in favour** in a surprise, last-minute move.
6. The **United States did not vote** since it is **not currently a member** of the 47-member Council.
7. **Another proposal** led by the **Marshall Islands** to create a **new special rapporteur** on climate change was also approved by the Council on 8 October 2021.

## “MITRA SHAKTI” BEGIN

Two years after its **seventh edition** was held at Foreign Training Node in Pune, the **eighth edition** of India-Sri Lanka bilateral joint exercise, **Mitra Shakti**, have conducted at Combat Training School, Ampara in Sri Lanka from 4 October to 15, for 12 days.

### What

1. **The exercise aims to promote close relations** between the **armies of both countries** and enhance inter-operability and sharing best practices in **counter-insurgency** and **counter-terrorism operations**.
2. **‘Mitra Shakti’** which means **‘power of friendship’** is conducted under the **United Nations (UN) mandate** as both the armies contribute to the **United National Peacekeeping Forces**, which are deployed in troubled areas across the world.
3. An all-arms contingent of **120 personnel of the Indian Army** is participating in the exercise along with a battalion of the Sri Lankan Army.
4. The exercise will involve **tactical level operations** at sub unit level in an international Counter Insurgency and Counter Terrorism environment and will go a long way in further strengthening the relationship between both the **South Asian Nations** and will act as a catalyst in bringing synergy and cooperation at grass root level between both Armies.

### Flashback

1. The **seventh edition** was conducted at Foreign Training Node, which is located at the **Aundh Military Station in Pune** in December 2019.
2. These exercises are conducted **every year** alternately in India and Sri Lanka and were deferred in 2020 due to the pandemic.
3. The exercise is also important from the **defence diplomacy point of view** considering the dynamics in the **Indian Ocean region**.

## MARITIME EXERCISE 'JIMEX'

The **fifth edition** of the **India-Japan Maritime Bilateral Exercise (JIMEX)** begins in the Arabian Sea on 6-8 October 2021. **JIMEX-21** aims to develop a **common understanding of operational procedures** and **enhance inter-operability** through the conduct of a **multitude of advanced exercises**, across the entire spectrum of maritime operations.

### What

1. **Multi-faceted tactical exercises** involving **weapon firings, cross-deck helicopter operations** and complex surface, anti-submarine and air warfare drills will consolidate coordination developed by the two navies.
2. Indigenously built guided missile stealth destroyer **'Kochi'** and guided-missile frigate **'Teg'**, under the command of Rear Admiral Ajay Kochhar, who is the flag officer commanding the western fleet will represent the Indian Navy.
3. Naval cooperation between **India and Japan** has increased in scope and complexity over years.
4. **JIMEX-21** will further enhance the **cooperation and mutual confidence** between the **two navies** and fortify the long-standing bond of friendship between the two countries.
5. **JIMEX series of exercises** were commenced in January 2012 with a special focus on **maritime security cooperation**. The **last edition of JIMEX** was conducted in September 2020.

## ECONOMY

### INDIA JOINS HISTORIC GLOBAL CORPORATE TAX PACT

A group of 136 countries on 8 October 2021 set a **minimum global tax rate of 15%** for **big companies** and sought to make it harder for them to **avoid taxation** in a landmark deal that U.S. President Joe Biden said levelled the playing field. The deal aims to end a four-decade-long “**race to the bottom**” by setting a floor for countries that have sought to attract investment and jobs by taxing multinational companies lightly, effectively allowing them to shop around for low tax rates.

#### What

1. The deal **aims to stop large firms booking profits in low-tax countries** such as Ireland regardless of where their clients are, an issue that has become ever more pressing with the growth of “**Big Tech**” giants that can easily do business across borders.
2. Out of the 140 countries involved, **136 supported the deal**, with **Kenya, Nigeria, Pakistan and Sri Lanka abstaining for now**.
3. The Paris-based **Organisation for Economic Cooperation and Development (OECD)**, which has been leading the talks, said that the **deal would cover 90% of the global economy**.

#### WHY A GLOBAL MINIMUM TAX?

1. With **budgets strained after the COVID-19 crisis**, many governments want more than ever to **discourage multinationals from shifting profits** - and tax revenues - to **low-tax countries** regardless of where their sales are made.
2. Increasingly, **income from intangible sources** such as **drug patents, software and royalties on intellectual property** has migrated to these jurisdictions, allowing companies to avoid paying higher taxes in their traditional home countries.
3. The minimum tax and other provisions aim to **put an end to decades of tax competition** between governments to attract foreign investment.

### AIR INDIA BACK IN FOUNDER TATA

The government on 8 October 2021 announced **Tata Group as the winning bidder for Air India**, clearing the way for the **cash-strapped Maharaja going back to the founder** exactly 68 years after India had **nationalised its private airlines in 1953**. The Tata's wholly-owned subsidiary **Talace Pvt Ltd** put an **enterprise value (EV)** bid at Rs 18,000 crore with debt to be retained at Rs 15,300 crore and cash component of Rs 2,700 crore.

#### What

1. This was **higher than the Ajay Singh-led consortia's enterprise value (EV) bid** at Rs 15,100 crore with debt to be retained at Rs 12,835 crore and cash component of Rs 2,265 crore.
2. The **salt-to-satellite conglomerate** will now take over Air India (the **merged AI-Indian Airlines entity**), **AI Express** and AI's 50% stake in ground handling firm AI-SATS, before the end of this fiscal.
3. The Tatas' bid, in the government's third time lucky attempt to sell AI, was higher than a consortia comprising of SpiceJet promoter Ajay Singh.
4. **Tatas are now going to consolidate their airlines business** as they now have two budget airlines — **AI Express** and **AirAsia India** — and as many full service ones — **AI** and **Vistara**.

5. **Three airlines** are likely to be **integrated first**. Vistara's 49% stake holder, Singapore Airlines (SIA), will decide on its next step — whether to merge in the AI fold or remain a separate airline — in the coming months.
6. This **biggest ever consolidation in Indian airline industry** means an end to uncertainty over AI survival as the government had made it clear it will have to shut down the Maharaja — that has a accumulated debt-cum-losses of about Rs 1 lakh crore and loses an additional Rs 20-25 crore daily — in case no one bought it.
7. **Tatas will get AI's intangible assets** like **4,400 domestic** and **1,800 international landing** and parking slots at Indian airports; and **900 slots at airports abroad**.
8. AI had a total debt of Rs 60,074 crore as on 31 March 2019. The new owner will need to take on debt of Rs 23,286.5 crore.
9. The **remaining amount will be transferred to a SPV**, Air India Assets Holding Ltd (AIAHL). The SPV will monetise AI's assets like property and land bank and use those funds to pay off the debt.

## SCIENCE AND TECHNOLOGY

### WORLD'S FIRST MALARIA VACCINE

The **World Health Organization (WHO)** has recommended the use of the **first-ever malaria vaccine** for children. WHO Director-General **Tedros Adhanom Ghebreyesus** endorsed the **RTS,S/AS01 malaria** or **Mosquirix** - a vaccine developed by British drugmaker **GlaxoSmithKline (GSK)**.

#### What

1. Many vaccines exist against viruses and bacteria but this was the **first time** that the WHO recommended broad **use of a vaccine against a human parasite**.
2. The vaccine acts against **plasmodium falciparum** - one of **five parasite species** and the most deadly.
3. The symptoms of malaria are--**fever, headaches, and muscle pain**, then cycles of chills, fever, and sweating.
4. The Vaccine was recommending children in **sub-Saharan Africa** and in other regions with moderate to high malaria transmission get **four doses up to the age of two**.
5. Malaria claims the lives of more than **400,000 people every year**. Children account for **67% of all malarial deaths** worldwide, according to the WHO.

#### Countries that have eliminated malaria

1. Globally, the **elimination net is widening**, with more countries moving towards the **goal of zero malaria**. In 2019, **27 countries reported fewer than 100 indigenous cases** of the disease, up from **6 countries in 2000**.
2. Countries that have achieved at **least 3 consecutive years of zero indigenous cases of malaria** are eligible to apply for the **WHO certification of malaria elimination**.
3. Over the last two decades, **11 countries have been certified** by the WHO Director-General as malaria-free: **United Arab Emirates (2007), Morocco (2010), Turkmenistan (2010), Armenia (2011), Sri Lanka (2016), Kyrgyzstan (2016), Paraguay (2018), Uzbekistan (2018), Algeria (2019), Argentina (2019), and El Salvador (2021)**.

## FIRST "DEMAND DRIVEN" SATELLITE MISSION

ISRO's commercial arm, **NewSpace India Limited (NSIL)** on 1 October 2021 announced its **first "demand-driven"** communication satellite mission as part of **Space reforms** announced by the Government in June last year. **NSIL**, incorporated in March 2019, got mandated to undertake **operational satellite missions** on a **"demand driven"** model, wherein it has the responsibility to **build, launch, own** and **operate** the satellite and provide services to its committed customer.

### What

1. As part of this initiative, **NSIL**, a **Central Public Sector Enterprise (CPSE)**, under the **Department of Space (DOS)**, is now undertaking its **"1st demand driven communication satellite mission"** named **GSAT-24**, a four-tonne class Ku- band satellite.
2. NSIL is getting this satellite **built by ISRO** (Indian Space Research Organisation) and will be launching it using **Ariane-5 launcher** operated by Arianespace.
3. The entire satellite capacity on-board GSAT-24 will be **leased to its committed customer M/s Tata Sky** for meeting their DTH application needs, an NSIL said.
4. NSIL said it has entered into necessary **agreement with Tata Sky** for utilising the satellite capacity on-board GSAT-24 and with Arianespace for seeking the launch services.
5. **GSAT-24 satellite** will be **owned and operated by NSIL** on a commercial basis. The GSAT-24 satellite mission will be fully funded by NSIL.
6. NSIL is envisaging the launch of GSAT-24 satellite during first quarter of 2022.

## FIRST GLIMPSE OF MERCURY

A **joint European-Japanese spacecraft** got its **first glimpse of Mercury** as it swung by the **solar system's innermost planet** while on a mission to deliver two probes into orbit in 2025. The **BepiColombo mission** made the first of **six flybys of Mercury** on 1 October 2021, using the **planet's gravity** to slow the spacecraft down.

### What

1. After swooping past Mercury at **altitudes of under 200 kilometers**, the spacecraft took a **low resolution black-and-white photo** with one of its monitoring cameras before zipping off again.
2. The European Space Agency said the captured image shows the **Northern Hemisphere** and Mercury's characteristic pock-marked features; among them the 166-kilometre-wide **Lermontov crater**.
3. The joint mission by the European agency and the **Japan Aerospace Exploration Agency** was launched in 2018, flying once past Earth and twice past Venus on its journey to the solar system's smallest planet.
4. Five further flybys are needed before **BepiColombo** is sufficiently slowed down to release ESA's Mercury Planetary Orbiter and JAXA's Mercury **Magnetospheric Orbiter**. The two probes will study Mercury's core and processes on its surface, as well as its magnetic sphere.
5. The mission is named after Italian scientist **Giuseppe 'Bepi' Colombo**, who is credited with helping develop the gravity assist maneuver that **NASA's Mariner 10** first used when it flew to **Mercury in 1974**.



## WHO FORMS NEW GROUP TO STUDY COVID ORIGIN

The **World Health Organisation** on 14 October 2021 formed a **new advisory group** to determine the **origins of the SARS-CoV-2 virus**. This is the **second time** that the global health body is putting together a team to put to rest speculations and theories that surround the genesis of the coronavirus. International teams have already visited China twice for this purpose.

### What

1. The report of the first phase of investigation listed **four possible scenarios** pertaining to the **origin of the Covid-19 pandemic**.
2. The WHO report concluded that the virus possibly made its way to the human population through **direct zootonic transmission**.
3. It further said that introduction through an intermediate host or through the **cold food chain products** is also likely.
4. It cited introduction through a **laboratory incident** as the least likely of all possible pathways.
5. The **sole Indian on the team** is epidemiologist and Padma Shri-winner **Dr. Raman Gangakhedkar**.
6. For months, countries around the world, including the **United States, United Kingdom and Australia**, have called for thorough studies into the **origin of the virus**, including the **lab leak theory**.

## MISCELLANEOUS

### NOBEL PRIZE 2021 IN MEDICINE

American scientists **David Julius** and **Ardem Patapoutian** won the **2021 Nobel Prize for Physiology or Medicine** for their **discoveries of receptors for temperature and touch**, the award-giving body said on 4 October 2021. Their groundbreaking discoveries "have allowed us to understand **how heat, cold and mechanical force can initiate the nerve impulses** that allow us to perceive and adapt to the world around us.

### What

1. This knowledge is being used to develop treatments for a wide range of disease conditions, including **chronic pain**.
2. The more than **century-old prize** is awarded by the Royal Swedish Academy of Sciences and is worth 10 million Swedish crowns (\$1.15 million).
3. The prizes, for achievements in **science, literature and peace**, were created and funded in the will of **Swedish dynamite inventor** and businessman **Alfred Nobel**.
4. They have been **awarded since 1901**, with the **economics prize first handed out** in 1969.
5. The **Nobel Prize for Medicine** often lives in the shadow of the **Nobels for literature and peace**, and their sometimes more widely known **laureates**.
6. Last year's prize went to **Americans Harvey Alter and Charles Rice** and Briton **Michael Houghton** for work in identifying the **Hepatitis C virus**, which causes **cirrhosis and liver cancer**.

## NOBEL PRIZE 2021 IN PHYSICS

Scientists **Syukuro Manabe**, **Klaus Hasselmann** and **Giorgio Parisi** won the **2021 Nobel Prize for Physics** for their "**groundbreaking contributions** to our **understanding of complex physical systems**," the award-giving body said on 5 October 2021. **Manabe, 90**, has U.S. citizenship. **Parisi is Italian** and **Hasselmann is German**.

### What

1. **Complex systems** are characterised by **randomness and disorder** and are difficult to **understand**, the Swedish Academy of Sciences said in a statement.
2. This year's Prize recognises **new methods for describing them** and predicting their **long-term behaviour**.
3. The prestigious prize is worth **10 million Swedish crowns** (\$1.15 million).
4. **Physics is the second Nobel** to be awarded this week after **Americans David Julius and Ardem Patapoutian** won the prize for medicine on 4 October 2021 for the **discovery of receptors in the skin** that sense temperature and touch.
5. Last year, scientists **Roger Penrose**, **Reinhard Genzel** and **Andrea Ghez** won the Nobel physics prize for their discoveries **concerning black holes**.

## NOBEL PRIZE 2021 IN CHEMISTRY

German **Benjamin List** and Scottish-born **David MacMillan** won the **2021 Nobel Prize in Chemistry** for their development of **asymmetric organocatalysis**, a "new and ingenious tool for **molecule building**". "**Organic catalysts** can be used to drive multitudes of chemical reactions," the Royal Swedish Academy of Sciences said.

### What

1. Using these reactions, researchers can now more efficiently construct anything from **new pharmaceuticals to molecules** that can capture **light in solar cells**.
2. It said these catalysts were both **environmentally friendly** and cheap to produce.
3. The chemistry award is the **third of this year's crop of Nobel prizes** and follows the prizes for **medicine or physiology**, and **physics**, announced earlier this week.
4. **Previous winners of the Chemistry prize** include **Marie Curie** and **Fredrick Sanger**, who won twice.
5. Seven women have won, including last year's laureates **Emmanuelle Charpentier** and **Jennifer Doudna** who were awarded the prize for creating **genetic 'scissors'** that can **edit DNA**.

## NOBEL PRIZE IN LITERATURE 2021

The **Nobel Prize in Literature 2021** was awarded to the 73-year-old **Zanzibar-born** writer **Abdulrazak Gurnah** "for his **uncompromising and compassionate penetration** of the **effects of colonialism** and the fate of the refugee in the gulf between **cultures and continents**."

### What

1. **Gurnah was born in 1948** and grew up on the island of **Zanzibar**, but arrived in England as a refugee at the end of the 1960s.
2. **Abdulrazak Gurnah** has published **ten novels** and a number of short stories. The theme of the **refugee's disruption runs** throughout his work.
3. He began writing as a 21-year-old in **English exile**, and although **Swahili was his first language**, English became his literary tool.

4. His most famous novel is **Paradise**, which was shortlisted for the **Booker prize in 1994**.
5. Gurnah consciously breaks with convention, **upending the colonial perspective** to highlight that of the **indigenous populations**. Thus, his novel **Desertion (2005)** about a love affair becomes a blunt contradiction to what he has called “**the imperial romance**,” the Nobel Prize added.
6. **Gurnah** becomes the **first Tanzanian writer** to win the Nobel Prize.
7. One of his most recent works is **Afterlives**, a many **layered story on Africa’s colonial history** written in his trademark graceful prose that earned great plaudits.

## NOBEL PEACE PRIZE 2021

The **Nobel Peace Prize** was awarded to journalists **Maria Ressa of the Philippines** and **Dmitry Muratov of Russia** on 8 October 2021 for their **fight for freedom of expression** in their respective countries. **Free, independent and fact-based journalism** serves to protect against abuse of power, lies and war propaganda.

### What

1. The **Norwegian Nobel Committee** is convinced that **freedom of expression and freedom of information** help to ensure an informed public.
2. The duos were honoured for their efforts **'to safeguard freedom of expression**, which is a **precondition for democracy** and lasting peace, the chairwoman of the Norwegian Nobel Committee, Berit Reiss-Andersen, said.
3. These **rights are crucial prerequisites for democracy** and protect against war and conflict.
4. The award of the 2021 to **Maria Ressa** and **Dmitry Muratov** is intended to underscore the importance of protecting and **defending these fundamental rights**.
5. The **Nobel Peace Prize** will be presented on 10 Dec. 2021, the anniversary of the death of Swedish industrialist **Alfred Nobel**, who founded the awards in his 1895 will.

## NOBEL PRIZE 2021 FOR ECONOMICS

Three **US-based economists** won the **2021 Nobel prize for economics** on 11 October 2021 for **pioneering research on the labour market** impacts of minimum wage, immigration and education, and for **creating the scientific framework** to allow conclusions to be drawn from such studies that **can't use traditional methodology**.

### What

1. Canadian-born **David Card** of the University of California at Berkeley was awarded **one half of the prize**, while the other half was shared by **Joshua Angrist** from the Massachusetts Institute of Technology and **Dutch-born Guido Imbens**, 58, from Stanford University.
2. The Royal Swedish Academy of Sciences said the three have “**completely reshaped empirical work in the economic sciences**.”
3. Card's studies of **core questions for society** and **Angrist and Imbens' methodological contributions** have shown that natural experiments are a rich source of knowledge.
4. Their research has substantially improved our ability to answer key causal questions, which has been of **great benefit for society**.
5. Unlike the other Nobel prizes, the **economics award wasn't established in the will of Alfred Nobel** but by the **Swedish central bank in his memory in 1968**, with the first winner selected a year later. It is the **last prize announced each year**.