

My Notes....

NATIONAL

INDIA IN WORLD HAPPINESS REPORT

The **World Happiness Report 2021** has been released by the **UN Sustainable Development Solutions Network** and **Finland was once again crowned** as the **world's happiest country**. **India has been ranked 139** out of 149 countries in the list of UN World Happiness Report 2021. **In 2019, India was ranked 140th.**

What is World Happiness Report?

1. The **World Happiness Report** is a landmark survey of the **state of global happiness** that ranks 149 countries by **how happy their citizens perceive themselves to be**.
2. The World Happiness Report 2021 focuses on the effects of Covid-19 and how people all over the world have fared.
3. The **annual report** ranks nations **based on gross domestic product per person, healthy life expectancy** and the **opinions of residents**.

4. Surveys ask respondents to indicate on a 1-10 scale **how much social support they feel** they have if something goes wrong, **their freedom to make their own life choices**, their sense of **how corrupt their society** is and **how generous they are**.

5. **Finland has been ranked as the happiest country** in the world for the **fourth consecutive year**.

6. The Nordic nation is followed by **Iceland, Denmark, Switzerland, The Netherlands, Sweden, Germany and Norway**.
7. Pakistan is on 105th, Bangladesh on 101st and China on 84th, according to the report.
8. **People in war-torn Afghanistan are the unhappy** with their lives, followed by Zimbabwe (148), Rwanda (147), Botswana (146) and Lesotho (145).

Flashback

1. The **World Happiness Report**, conducted **annually since 2012**, is calculated based on such measurements as **GDP per capita, level of social support, life expectancy, observance of civil liberties, job security, level of corruption**, as well as the results of public opinion polls.
2. The report suggests that the **average age of a country's population**, whether it's an island, and its proximity to other highly-infected countries were contributing factors in the disparity between death rates globally.
3. The East Asian experience shows that stringent government policies not only control Covid-19 effectively but also buffer the negative impact of daily infections on people's happiness, said report.

9. The happiness study ranks the countries of the world on the basis of questions from the Gallup World Poll. The results are then correlated with other factors, including GDP and social security.
10. The **United States ranks at 19th place for happiness**, despite being one of the richest countries in the world.

STATES COMPLETE EASE OF DOING BUSINESS

As many as **20 states** have successfully **completed ease of doing business reforms**, the finance ministry said on 20 March 2021. States completing the reforms are eligible for **additional borrowing of 0.25 per cent of Gross State Domestic Product (GSDP)**. The number of States who have successfully completed the **'Ease of Doing Business' reforms** has **reached to 20**. Five more states namely, **Arunachal Pradesh, Chhattisgarh, Goa, Meghalaya and Tripura** have completed the 'Ease of Doing Business' reforms stipulated by the **Department of Expenditure**, the Ministry said.

What

1. The **Department of Expenditure** has granted permission to these 20 States to raise additional financial resources of Rs 39,521 crore through Open Market Borrowings.
2. The **ease of doing business is an important indicator** of the **investment friendly business climate in the country**.
3. Improvements in the ease of doing business will enable faster future growth of the state economy.
4. Therefore, the government of India had in May 2020, decided to link grant of **additional borrowing permissions to States** who undertake the reforms to **facilitate ease of doing business**.

INDIA IN GLOBAL GENDER GAP INDEX 2021

India has slipped **28 places to rank 140th** among **156 countries** in the **World Economic Forum's Global Gender Gap Report 2021**, becoming the third-worst performer in South Asia. According to the report, **India has closed 62.5 per cent of its gender gap** till date. The **country had ranked 112th among 153 countries** in the **Global Gender Gap Index 2020**.

What

1. The decline also took place on the **economic participation and opportunity subindex**, albeit to a lesser extent, the report said **India's gender gap** on this dimension **widened by 3 per cent this year**, leading to a **32.6 per cent gap** closed till date.
2. Most of the decline occurred on the **political empowerment subindex**, where **India regressed 13.5 percentage points**, with a significant decline in the number of women ministers (from 23.1 per cent in 2019 to 9.1 per cent in 2021).
3. Among the **drivers of this decline** is a **decrease in women's labour force participation rate**, which fell from **24.8 per cent to 22.3 per cent**. In addition, the share of women in professional and technical roles declined further to 29.2 per cent.
4. The **share of women in senior and managerial positions also remains low**: only **14.6 per cent of these positions are held by women** and there are only 8.9 per cent firms with female top managers.

5. Further, the estimated **earned income of women in India is only one-fifth of men's**, which puts the country among the bottom 10 globally on this indicator.
6. **Discrimination against women** is also **reflected in the health and survival subindex** statistics. With 93.7 per cent of this gap closed to date, **India ranks among the bottom five countries** in this subindex.
7. **Wide gaps in sex ratio at birth** are due to the high incidence of gender-based sex-selective practices. In addition, **more than one in four women has faced intimate violence in her lifetime**, the report said.
8. Conversely, **96.2 per cent of the educational attainment subindex gender gap** has been closed, with parity achieved in primary, secondary and tertiary education. Yet, gender gaps persist in terms of literacy: **one third of women are illiterate (34.2 per cent) compared to 17.6 per cent of men.**



INDIA IN INTERNATIONAL IP INDEX

India ranked 40 among 53 global economies on the latest annual edition of the International Intellectual Property (IP) Index released on 23 March 2021. Released annually by the US Chamber of Commerce Global Innovation Policy Centre (GIPC), the Index evaluates Intellectual Property rights in 53 global economies from patent and copyright policies to commercialisation of IP assets and ratification of international treaties.

What

- The overall **global IP environment improved in 2020**, with positive score increasing in 32 of the 53 economies measured by the IP Index. This is the **ninth IP index released by the GIPC**.
- India ranked 40th in 2020**, scoring 38.4 out of 100 on a set of 50 intellectual property-related indicators, the GIPC said.
- India's overall score has increased** from 36.04 per cent (16.22 out of 45) in the **seventh edition** to 38.46 per cent (19.23 out of 50) in the **eighth edition**.
- India has shown real improvement** over the past few years, the report said, adding that it has made a string of positive efforts which resulted in a score increase because of stronger enforcement efforts and precedent-setting court cases involving **copyright and trademark infringement**.
- Nevertheless, rights-holders in India continue to face substantive challenges, particularly regarding the patenting environment, in which **India's policy**

framework continues to deny patent eligibility to a broad range of innovations, it said.

6. As one of the **world's most innovative and creative economies**, a **unified intellectual property (IP) framework** supports **India's competitiveness**.
7. This is especially true for many of **India's most highly regarded sectors**, including **advanced manufacturing, biopharmaceutical products**, and **creative content**.
8. **Among BRICS nations**, **India registered the second-highest growth** over nine

Flashback

1. The **2021 Index illustrates that economies with the most effective IP frameworks** are more likely to achieve the **socio-economic benefits** needed to combat COVID-19, including **greater access to venture capital, increased private sector investment** in research and development, and over **10 times more clinical trial activity**.
2. Over the last year, **transparent and predictable intellectual property rights have also fostered** unprecedented levels of highly successful **public-private sector collaborations**.
3. The **international IP system** gave the innovative scientific community the capacity to respond to the global pandemic.
4. **Countries with the most effective IP ecosystems** as measured by the **2021 Index** become trusted partners in our mission to develop, manufacture, and distribute the solutions needed to defeat COVID-19 in record time.

editions of the US Chamber Index hit years with an overall improvement of over 13 per cent.

'CATCH THE RAIN' CAMPAIGN

Prime Minister was launched the "**Jal Shakti Abhiyan: Catch the Rain**" campaign on the **World Water Day** on 22 March 2021. The historic MoU to implement the **Ken Betwa Link Project**, the **first project of the national perspective plan for interlinking of rivers**, was also signed by **Uttar Pradesh and Madhya Pradesh** chief ministers at the event.

What

1. The **campaign will be undertaken across the country** in both rural and urban areas with the theme "**catch the rain, where it falls, when it falls**".
2. It will be implemented from **March 22 to November 30** - the pre-monsoon and monsoon period in the country.
3. It was launched as a '**Jan Andolan**' (**public movement**) to take water conservation at the grassroot level through people's participation.
4. It is intended to nudge all stakeholders to create rainwater harvesting structures suitable to climatic conditions and subsoil strata, to ensure proper storage of rainwater.
5. The **Ken Betwa link project agreement** heralds the **beginning of inter-state cooperation** to implement the vision of former prime minister **Atal Bihari Vajpayee** to carry water from areas that have surplus water to drought prone and water deficit areas through the interlinking of rivers.

6. This project involves transfer of **water from Ken to Betwa River through the construction of Daudhan Dam** and a canal linking the two rivers, the lower Orr project, Kotha barrage and Bina complex multipurpose project.
7. It will provide annual irrigation of 10.62 lakh hectare, drinking water supply to about 62 lakh people and also **generate 103 MW of hydropower**.

MARINE AIDS TO NAVIGATION BILL PASSED

Lok Sabha on 22 March 2021 **passed a bill to replace an over nine-decade-old law governing lighthouses**. The **Marine Aids to Navigation Bill, 2021**, seeks to provide for a fresh framework to establish and manage vessel traffic services, besides changing the use of the term marine aids to navigation. Shipping and Waterways Minister Mansukh Mandaviya said the government **plans to turn old lighthouses into tourist destinations** to showcase the **country's rich history in navigation**. The **country has 195 lighthouses**.

What

1. **Ship recycling in the country will be doubled** in the near future, that it has generated direct and indirect employment opportunities.
2. The bill also seeks to rename the existing post of Director General of Lighthouse and Lightships to Director General to provide a framework for establishment, operation and management of vessel traffic services.
3. It aims at **repealing the colonial Lighthouse Act, 1927**, and provides for empowering the **Directorate General of Lighthouses and Lightships (DGLL)** with additional power and functions.
4. The **bill provides for empowering the DGLL** with additional power and functions such as **vessel traffic service, wreck flagging, training and certification**, implementation of other obligations under international conventions where India is a signatory.
5. It comprises a **new schedule of offences**, along with commensurate penalties for obstructing and damaging the aids to navigation, and non-compliance with directives issued by the central government and other bodies.
6. With the advent of **modern technologically improved aids to maritime navigation**, the role of authorities regulating and operating maritime navigation has changed drastically.
7. The proposed legislation encompasses a **major shift from lighthouses to modern aids of navigation**.

PRESIDENT GIVES ASSENT TO NCT BILL

President Ram Nath Kovind on 28 March 2021 **gave his assent to a Bill** that accords **primacy to Delhi's Lieutenant Governor (L-G) over the elected government**. The central government announced about the presidential assent to the Government of National Capital Territory of Delhi (GNCTD) (Amendment) Bill, 2021 through a gazette notification.

What

1. According to the legislation, the "**government**" in Delhi means the "**Lieutenant Governor**" and the **city government will now have to seek the opinion of the L-G before taking any executive action**.

2. Parliament passed the Bill last week -- Lok Sabha on 22 March 2021 and Rajya Sabha on 24 March 2021.
3. The Centre has maintained that **the Bill is in line with the Supreme Court's July 2018 ruling** on the **ambit of powers of the Lieutenant Governor and the Delhi government** after a series of run-ins between the two.
4. The **amendments would lead to transparency** and **clarity in governance** in NCT of Delhi and enhance public accountability.
5. The **GNCTD law was first brought in 1991**. However, the law went to the high court and Supreme Court benches as there were problems and ambiguity.
6. The Delhi assembly can make laws on all subjects in the **state list and concurrent list except public order, police and land**.

MEDICAL TERMINATION BILL 2020 PASSED

Rajya Sabha on 16 March 2021 **passed a Bill to raise the upper limit** for permitting abortions **from the present 20 weeks to 24 weeks** for "**special categories of women**" including rape survivors, victims of incest, minors and the differently-abled. The **Medical Termination of Pregnancy (Amendment) Bill, 2020** to **amend the Medical Termination of Pregnancy Act, 1971** was passed by voice vote. The Bill was passed by Lok Sabha about a year ago.

What is the need for the Amendment?

1. A **2015 study in the India Journal of Medical Ethics** noted that **10-13 per cent of maternal deaths in India** are due to unsafe abortions.
2. This makes unsafe abortions to be the **third-highest cause of maternal deaths in India**.
3. At present, **women seeking to terminate the pregnancy beyond 20 weeks** have to face the huge legal recourse which leads to denying the reproductive rights of women.
4. Obstetricians say that places providing unsafe abortion services, even leading to the death of the mother.
5. The original law states that, if a **minor wants to terminate her pregnancy**, written consent from the guardian is required. The proposed law has **excluded this provision**.

The MTP Act 1971 and The MTP Act Amendments 2020		
	Present Law	Proposed Amendments
Indications (Contraceptive failure)	Only applies to married women	Unmarried women are also covered
Gestational Age Limit	20 weeks for all indications	24 weeks for rape survivors Beyond 24 weeks for substantial fetal abnormalities
Medical practitioner opinions required before termination	One RMP till 12 weeks Two RMPs till 20 weeks	One RMP till 20 weeks Two RMPs 20-24 weeks Medical Board approval after 24 weeks
Breach of the woman's confidentiality	Fine up to Rs 1000	Fine and/or Imprisonment of 1 year

INTERNATIONAL

UNHRC ADOPTS RESOLUTION AGAINST SRI LANKA

The **UN Human Rights Council** in Geneva on 23 March 2021 **adopted a resolution against Sri Lanka's rights record**, in a **setback to Colombo**, which made determined efforts **to garner international support ahead of the voting**. The resolution titled '**Promotion of Reconciliation Accountability and Human Rights in Sri Lanka**' was adopted by the UNHRC after **22 members out of 47 voted in favour** of it. **Eleven members voted against** the resolution.

What

1. **India was among 14 countries** which **abstained** from voting.
2. **Sri Lanka described** the draft resolution as "**unwarranted**, unjustified and in violations of the relevant articles of the **United Nations' Charter**."
3. India urged that the government of Sri Lanka to carry forward some process of reconciliation **address the aspirations of Tamil community** and continue to engage constructively with the international community to ensure that the **fundamental freedoms and human rights** of all its citizens are fully protected.
4. **Sri Lanka was earlier defeated at three consecutive resolutions** at the UN rights body when Gotabaya's elder brother and incumbent Prime Minister Mahinda Rajapaksa was the country's president between 2012 and 2014.
5. The government of Gotabaya Rajapaksa had officially withdrawn from co-sponsoring the previous resolution undertaken by the previous government. It had called for an **international investigation into alleged war crimes** committed by both the government troops and the **Liberation Tigers of Tamil Eelam (LTTE)** during the final phase of the **near-three-decade-long civil war** that ended in May 2009.
6. Sri Lanka was assured of support from **China, Russia** and several Muslim countries, including Pakistan.
7. The **resolution calls upon** "the (Sri Lankan) government **to ensure prompt thorough and impartial investigation**, if warranted, prosecution of all alleged crimes relating to human rights violations and serious violations of international human rights law".
8. The resolution has been **tabled by Core Group on Sri Lanka** consisting of the **United Kingdom, Canada, Germany, Malawi, Montenegro, and North Macedonia** at the **46th Session of the (UNHRC)** in Geneva.

INDIA, BANGLADESH SIGN FIVE MOUS

Prime Minister met his Bangladeshi counterpart Sheikh Hasina on 27 March 2021 and **discussed the progress achieved** in areas like **connectivity, energy, trade, health and developmental cooperation** following which the two countries signed **five MoUs** covering a number of areas of **bilateral cooperation**. Modi, who is visiting Bangladesh on his **first trip to a foreign country** since the outbreak of the coronavirus, held one-on-one talks with Hasina which was followed by delegation-level meeting which continued for over an hour.

The MoUs are:

1. **MoU on disaster management**, resilience and mitigation

2. MoU between **Bangladesh National Cadet Corps (BNCC)** and **National Cadet Corps of India (INCC)**
3. MoU on the **Establishment of a Framework of Cooperation in the Area of Trade Remedial Measures** between Bangladesh and India;
4. MoU on **Supply of ICT equipment**, courseware and reference books and training for Bangladesh-Bharat Digital Service & Employment and Training (BDSET) Center
5. MoU on **Establishment of Sports facilities at Rajshahi College field** and surrounding areas

EU ADOPTS 'SINATRA DOCTRINE'

As **China's increasing aggressiveness to undermine European unity** through a '**divide and rule**' policy continues, the **Central and Eastern Europe (CEE) member countries** have responded by accepting their own way to deal with the increasing threat of Beijing's influence, known as the '**Sinatra Doctrine**'. This '**Sinatra Doctrine**' is being seen by scholars as a **threat and a blowback** to China's growing influence in the CEE.

What

1. The doctrine would be based on **two pillars: continuing cooperation with China** in regards to **address global challenges** such as **climate change, combating COVID-19** and **regional conflicts**, while also strengthening the **European Union's (EU) strategic sovereignty** by protecting technological sectors of its economy.
2. **China's credit-based offer in a neo-colonial fashion** has proven ill-suited for the CEE members of the EU.
3. Moreover, **Chinese investments in the 12 EU member states** participating in the **17+1 initiative** between 2010 to 2019 has been approximately 8.6 billion euros, whereas China's investment over the same period in Finland has been 12 billion euros or in the Netherlands has been 10.2 billion euros, which remained a major turn-off for these member countries.
4. This mismatch between **Beijing's economic promises and ultimate outcome** has been a **major reason for the discontent** that the CEE member countries share with China.
5. The **COVID-19 pandemic** has highlighted some of the **weaknesses in the relationship between Europeans and the communist nation**, as highlighted by European Union foreign policy chief Josep Borrell in the '**Sinatra Doctrine**', which calls for building a united front and EU's response against a more assertive, expansionist and authoritarian China.

PASSEX EXERCISE BEGINS

India and the US on 28 March 2021 **kicked off a two-day naval exercise** in the **eastern Indian Ocean Region**, reflecting the growing congruence in their **defence and military partnership**. The Indian Navy deployed its **warship Shivalik** and long-range maritime patrol **aircraft P8I** in the '**PASSEX**' exercise while the US Navy was represented by the **USS Theodore Roosevelt** carrier strike group.

What

1. A **carrier battle group or carrier strike group** is a **mega naval fleet** comprising an aircraft carrier, accompanied by a **large number of destroyers, frigates** and other ships.
2. In a first, enhancing jointmanship, **Indian Air Force fighters** were also included in the exercise affording the IAF an opportunity to practice **air interception and air defence** with the US Navy.
3. The exercise is **aimed at consolidating the synergy** and **interoperability** achieved during the **Malabar exercise** that took place in November last.
4. Besides the Indian Navy, the **Malabar naval exercise** was participated by the navies of the **US, Australia and Japan**. The four countries are part of the **Quad or Quadrilateral coalition**.
5. China has been suspicious about the **purpose of the Malabar exercise** as it feels that the annual war game is an effort to contain its influence in the **Indo-Pacific region**.

INDIA, SOUTH KOREA AGREES TO EXPORT OF MILITARY HARDWARE

In a significant move, **India and South Korea** have agreed to go for **joint production and export of military hardware, enhance intelligence sharing** and boost cooperation in **cyber and space domains** as part overall expansion of defence and security ties, official sources said on 28 March 2021. The South Korean minister was on a three-day visit to India that was focused on **boosting bilateral defence and military cooperation**.

What

1. In the field of **defence industrial cooperation**, the sources said the two sides decided **to focus on joint research, joint production and joint export**.
2. **South Korea** has been a **major supplier of weapons and military equipment to India**.
3. **In 2019**, the two countries **finalised a roadmap** for cooperation in joint production of **various land and naval systems**.
4. In the talks, the South Korean minister also expressed keenness in seizing the opportunities in **India's two defence corridors**, particularly by investing in joint ventures under the '**Aatmanirbhar Bharat**' (self-reliant India) initiative.
5. The government is working on **setting up two defence industrial corridors** in the country, **one in Uttar Pradesh** and **another in Tamil Nadu**, with an aim to ensure connectivity among various defence industrial units.
6. The two sides also **agreed to increase focus on cyber and space cooperation** besides resolving to continue to focus on streamlining the **intelligence exchange mechanism**.
7. The Korean minister also highlighted the **congruence between India's Act East Policy** and his **country's Southern Policy**.
8. In light of India's experience in the UN peacekeeping operations, the **Indian side conveyed to the South Korean delegation** that it will ensure an appropriate participation in the upcoming **UN Peacekeeping Ministerial meet in that country** in December 2021.

INDIA AGAINST ASEAN FOR SCRI

India has opposed Japan's suggestion to include the Asean countries in the Supply Chain Resilience Initiative (SCRI) which seeks to reduce dependence on China and build resilient supply chains in the IndoPacific region. While Japan is keen to on-board the 10-member Association of South East Asian Nations (Asean), officials said New Delhi wants to safeguard its interests from China's indirect influence through the bloc as it builds on its self-reliance through reduced dependence on imports. India, Japan and Australia are members of the SCRI.

What

1. Launched last year, the **trilateral (SCRI)** aims to create a free and transparent trade and investment environment.
2. In 2019, the cumulative gross domestic product of the three countries was **\$9.3 trillion**, and their merchandise goods and services trade was **worth \$2.7 trillion** and **\$0.9 trillion**, respectively.
3. The **SCRI, first proposed by Japan**, aims to reduce dependence on China amid a likelihood of rechurning of supply chains in the Indo-Pacific region amid the Covid-19 pandemic.
4. It **seeks to build upon the existing bilateral frameworks** like the **Asean-Japan Economic Resilience Action Plan** and **IndiaJapan Industrial Competitiveness Partnership** and attract foreign direct investment in the region.
5. The **three countries are considering setting up industrial parks**, a mechanism to address resolution of trade and investment barriers, a streamlined risk management system, and **improved sea and air connectivity** between the three nations.
6. Moreover, at least 10 product and services categories have been identified from the perspective of the volume of trade in all categories of goods for collaboration.

INDIA-US STRATEGIC ENERGY PARTNERSHIP

India and the United States have agreed to revamp their strategic energy partnership to focus on greater collaboration in cleaner energy sectors such as biofuels, and hydrogen production, an Indian government said in a statement on 29 March 2021. The statement was issued after a virtual meeting of Indian oil minister Dharmendra Pradhan and U.S. Energy Secretary Jennifer Granholm.

What

1. The two countries will intensify efforts to take advantage of **advanced U.S. technologies** and **India's rapidly growing energy market**.
2. The **United States overtook Saudi Arabia** as **India's second biggest oil supplier** after Iraq last month.
3. **India and the US** decided to **revamp the existing energy cooperation framework** to focus more on **clean energy keeping advanced American technology** and the rapidly growing Indian energy market in mind to reflect new priorities set by Prime Minister Narendra Modi and President Joe Biden.
4. India and US have decided to revamp the **India-US Strategic Energy Partnership (SEP)** accordingly and convene the third meeting of the revamped SEP at an early date.

5. Earlier, two SEPs were [held under the Trump Administration], where the **focus of energy cooperation was more on supply of fossil fuels from America rather than cooperation in reducing carbon footprints**. While the import of fossil fuel from the US will continue, Washington will support India's efforts for clean energy.
6. The inaugural SEP, a ministerial meeting, was first held on April 17, 2018. Its second meeting took place on July 17, 2020.

ECONOMY

BILL TO SET UP NABFID PASSED

Parliament on 25 March 2021 passed a bill to set up the National Bank for Financing Infrastructure and Development (NaBFID) to fund infrastructure projects in India. The Rajya Sabha passed the National Bank for Financing Infrastructure and Development (NaBFID) Bill 2021 by voice vote on 25 March 2021. **The bill was passed in the Lok Sabha on 23 March 2021.**

What

1. The bill seeks **to establish the National Bank for Financing Infrastructure and Development** to support the **development of long-term non-recourse infrastructure financing in India** including **development of the bonds and derivatives markets** necessary for infrastructure financing and to carry on the business of financing infrastructure and for matters connected therewith or incidental thereto.
2. The **DFI (Development Finance Institution)**, called the **National Bank for Financing Infrastructure and Development (NaBFID)**, will be answerable to Parliament.
3. Finance Minister Nirmala Sitharaman explained that the **five years' tax break to the DFI or NaBFID is given so that more funds flow to it.**
4. The **Act (bill) gives space to private institutions** to come up for which we give tax benefits for **first five years** and for this institution (NaBFID), we are giving tax benefits for 10 years, FM Said.
5. **Sovereign guarantee has been provided.** This institution will be able to access the **line of credit from RBI.**
6. It **will attract investment from both domestic and global institutional investors** as domestic retail investors. We are not depending on just FDIs.
7. In her **2019-20 budget speech**, Sitharaman had proposed a study for **setting up DFIs** for promoting infrastructure funding.

DFI FOR INFRA PROJECTS

The **Union Cabinet** on 16 March 2021 decided to **set up a development finance institution (DFI) to finance long-term infrastructure projects**, finance minister Nirmala Sitharaman announced. The government has already allocated ₹20,000 crore in FY22 during Budget 2021 to **capitalise the institution. DFI will start with 100% govt**

ownership and gradually brought down to 26% and will help in **increasing long term funds**.

What

1. The **proposed DFI will have 50% non-official directors**. DFI will have **certain tax benefits for ten years**, FM mentioned.
2. The central government is also planning to issue **some securities to Development Finance Institution**, by which cost of funds will come down.
3. All this **will help DFI leverage initial capital** and draw funds from various sources; will also have positive impact on bond market in India.
4. In her Budget 2019-20, Sitharaman had proposed a study for **setting up DFIs for promoting infrastructure funding**.
5. About 7,000 projects have been identified under the **National Infrastructure Pipeline (NIP)** with a projected investment of a whopping ₹111 lakh crore during 2020-25.

PARLIAMENTARY PANEL REPORT ON BAD BANK

A **parliamentary panel** has recommended that the **stressed assets of banks must be transferred to the proposed bad bank at book value** as the more time such assets are left on the lenders' balance sheet the more is the prospect of their value eroding. The **Parliamentary Standing Committee on Finance** said the bad bank, which will be **owned by both public and private sector banks**, will help in saving time and avoiding delays in resolving soured loans through consolidated decision making.

What

1. The **Union Budget 2021-22** proposed **setting up an asset reconstruction and asset management company** led by banks to take on and consolidate the existing stressed debt, which would manage and dispose the assets to **alternate investment funds**.
2. The panel urged the Reserve Bank of India to clearly define every step of the procedure to remove any ambiguity or discretion from the banks' side. "**...RBI can play an instrumental role in success of Bad Bank** if they issue an order or notification which makes the entire process crystal clear, defining each step of the procedure, thus removing any ambiguity or discretion from the bank's side," said the panel.
3. A **regulatory intervention at this stage will further streamline** and add more paces to resolution of stressed assets, the report said.
4. The RBI needs to demonstrate why their proposed rules for loss transfer to the ARC-AMC are in fact the best approach. Their rules should reflect both administrative clarity as well as economic logic.
5. The RBI should intervene as soon as possible to **unlock value from non-performing assets**.

SCIENCE AND TECHNOLOGY

FREE SPACE QUANTUM COMMUNICATION

For the **first time in the country**, Indian Space Research Organisation (ISRO) has successfully demonstrated **free-space Quantum Communication** over a **distance of 300 metre**. A number of key technologies were developed indigenously to accomplish this major feat, which included the use of **indigenously developed NAVIC receiver** for time synchronization between the transmitter and receiver modules, and gimbal mechanism systems instead of bulky large-aperture telescopes for optical alignment.

What

1. The **Quantum Key Distribution (QKD) technology** underpins Quantum Communication technology that **ensures unconditional data security** by virtue of the principles of quantum mechanics, which is not possible with the conventional encryption systems.
2. The **conventional cryptosystems** used for data-encryption rely on the complexity of **mathematical algorithms**, whereas the **security offered by quantum communication** is based on the **laws of Physics**.
3. Therefore, quantum cryptography is considered as '**future-proof**', since no future advancements in the computational power can break quantum-cryptosystem.
4. The **free-space QKD** was demonstrated at **Space Applications Centre (SAC), Ahmedabad**, between two line-of-sight buildings within the campus.
5. The **experiment was performed at night**, in order to ensure that **there is no interference of the direct sunlight**.
6. The experiment is a major breakthrough towards ISRO's goal of demonstrating **Satellite Based Quantum Communication (SBQC)**, where ISRO is gearing up to demonstrate the technology between two Indian ground stations.

S-TIC OPENED INAUGURATED

Three Space Technology Incubation Centres (S-TIC) were inaugurated at **National Institute of Technology (NIT)** at **Nagpur, Bhopal** and **Rourkela** by the Chairman of Indian Space Research Organisation (ISRO) K Sivan. ISRO signed **bilateral Memorandum of Understanding** with Visvesvaraya National Institute of Technology, Nagpur (for Western region), Maulana Azad National Institute of Technology, Bhopal (for Central region), and National Institute of Technology, Rourkela (for Eastern region).

What

1. The **S-TIC concept** is conceived with one selected major academic institute taking the lead role in a particular region and providing opportunities for final year graduate, postgraduate and research scholars as "**future budding entrepreneurs**".
2. Projects of practical relevance **linked to the ongoing or future missions of ISRO** will be made available to the students at STIC, and their research outcome will be translated into a **Proof-of-Concept** or **prototype through industries** within their region, ISRO said.
3. **S-TICs have already been functioning**, at **National Institute of Technology, Agartala** (for North-Eastern region), **Dr. B R Ambedkar National Institute of**

Technology, Jalandhar (for Northern region) and National Institute of Technology, Tiruchirappalli (for Southern region).

4. It can be referred by the **Academia, Industry and Start-ups** to prepare a detailed proposal for execution of the projects.
5. This is one of the major steps by DOS / ISRO to achieve the development and **indigenisation of space grade components / products / processes** in tandem with objectives of '**Aatmanirbhar Bharat**', ISRO said.

CSIR-CSIO DEVELOP UV DUCTS

To help prevent spread of the coronavirus at public places in India, **scientists at CSIO Chandigarh** have **invented UV ducts** that **can kill the virus** in the air along with air sampling and **viral load testing techniques** that can check the viral load in the air. The three inventions were placed before the Union Health Minister, Dr Harsh Vardhan at CSIR-CSIO, on 21 March 2021.

What

1. The **UV-C Air Duct Disinfection System -V1.06** is designed as a retrofit into existing air ducts. It consists a slide mechanism, **regulated UV light source**, and sensors. The device can be fit into ducts by minor modifications.
2. The **UV ducts system will be installed in the existing AC ducts** and that is how it will disinfect the air. It can be used in shopping malls, movie halls and other public places where the system is centrally air conditioned. **Virus and bacteria** can be killed by applying controlled **UVC light**.
3. It was said that **UV-C Light source emits light having high energy photons** that kills **virus, bacteria**.
4. It is used for sampling air from large volume of space like hospitals, markets, schools, bus stands, railway stations where there is possibility of **virus and bacterial infection**.
5. The system is calibrated to flow air at specific rates through specially designed filter.
6. Various other instruments and systems including **electrostatic sanitization sprayers, contactless sanitizers, ultraviolet chambers**, ventilators and foot operated taps etc developed by CSIR-CSIO were also displayed.

ISRO EMBARKING ON REPLICATING NASA

The **ISRO is embarking on a mission** of a different kind **by taking the Indian Institute of Space Science and Technology (IIST) to a much higher**, futuristic research orbit. The **Bengaluru-headquarteted space agency** is striking a partnership with the IIST - something **similar to the JPL- Caltech model in the United States**. **JPL (Jet Propulsion Laboratory) is federally funded by US space agency NASA and managed by Caltech** (California Institute of Technology).

What

1. To coordinate **joint research activities between ISRO centres and IIST**, akin to the **Caltech-JPL model**, a dedicated framework has now been put into place, with **CBPO (Capacity Building Programme Office)** located at ISRO headquarters as a focal point.

2. An **Advanced Space Research Group** has been created to identify application-oriented research projects of importance to ISRO (Indian Space Research Organisation) centres and matching with the interests of IIST faculty.
3. An **Empowered Overseeing Committee** has been constituted to review and approve the proposals.
4. Under the initiative, "**very advanced, totally new and futuristic projects**" -- nothing that has been done by ISRO -- would be taken up. **Twenty-eight to 30 projects** have been identified.
5. **Thiruvananthapuram-based IIST**, an autonomous institution under the Department of Space (DoS) and a '**Deemed to be University**', is similar to Caltech.

TWO NEW SEAWEED SPECIES DISCOVERED

Two new red algal seaweed species, which can be a **potential raw material** for those involved in **jelly and ice cream production**, have been discovered along **India's coastline**. A group of marine botanists, led by Felix Bast from the **Central University of Punjab, Bathinda (CUPB)**, have traced these **native seaweed species** along the coasts of **Kanyakumari in Tamil Nadu** and in **Gujarat** and **Daman Diu**.

What

1. Both varieties—**Hypnea indica** and **Hypnea Bullata**—were discovered in Kanyakumari.
2. The **fine and hairy algae Hypnea indica** was discovered in **Shivrajpur and Somnath Pathan in Gujarat**, whereas **Hypnea Bullata** grew along the **coastline of Daman and Diu**.
3. All field samplings for this study, undertaken as part of **SERB-Core Research Grant** awarded by the **Department of Science and Technology**, were collected in 2018.
4. The researchers said that the **seaweeds thrived on rocks** that submerged during high tides and remain exposed during low tides at these locations.
5. It is for the **first time discovered these red algal species of sea weeds** along Indian coasts.
6. These species **were not abundantly found** but were growing in isolated patches, mainly in the **intertidal regions of the sea**. The region near the **Pamban bridge** is an **epicentre of algal diversity** and needs to be further studied.

Flashback

1. **India has a vast coastline of over 7,500 kms.** There is a great potential and a need for creating an ecosystem — where farmers and the fishermen communities are scientifically **trained in seaweed cultivation**.
2. Alongside, associated industries, too, need to support such efforts, **Seaweed cultivation** undertaken by **smaller countries** like **Indonesia, Malaysia and Thailand**.
3. With India currently drafting its **maiden policy on Blue Economy**, proposed to improve utilisation of ocean resources in the coming decade.

HANSA-NG LAUNCHED

CSIR National Aerospace Laboratories (NAL) rolled out its **HANSA-NG (Next Generation) aircraft** on 31 March 2021 at the aircraft hangar at the **Belur campus**. The **all-composite HANSA-NG, certified in 2000** by the DGCA under the **JAR-VLA category**, has been revitalised to cater to the demand for trainer aircraft. With the growing need for an **advanced Swadeshi trainer aircraft**, the government sanctioned the **HANSA-NG project** towards the end of 2018.

What

1. The **trainer aircraft** is equipped with **IFR-compliant avionics** with **smart multi-functional displays**, a glass cockpit and a bubble canopy design.
2. The selection of a **highly efficient digitally controlled Rotax 912 ISC engine** with superior performance increased the range and endurance.
3. Approvals were obtained from DGCA and manufacturing of HANSA-NG was initiated in September 2020.
4. The **Indira Gandhi Rashtriya Uran Akademi (IGRUA)** signed an MoU with **CSIR-NAL** as a launch customer of HANSA-NG for pilot training.
5. The **Centre for Civil Aircraft Design and Development (C-CADD)** at Bangalore's **National Aerospace Laboratories (CSIR-NAL)**, now renamed as **Roddam Narasimha Civil Aircraft Centre (RN-CAC)**, was inaugurated on the occasion.
6. The centre is named after renowned Indian aerospace scientist and engineer Professor **Roddam Narasimha** who passed away in December 2020.
7. **RN-CAC** will create the essential nucleus and **play the pivotal role in the Regional Transport Aircraft (RTA) programme** once the formal approval is received from the government.
8. The aircraft is expected to start its flight tests later in 2021.

MISCELLANEOUS

INTERNATIONAL DAY OF FORESTS 2021

The **United Nations** observes **21 March as the International Day of Forests**, commemorating the **green cover around the world** and reiterating its importance. The **theme of the International Day of Forests for 2021** is "**Forest restoration: a path to recovery and well-being**". The United Nations General Assembly proclaimed 21 March as the **International Day of Forests (IDF) in 2012**.

What

1. The Day celebrates and **raises awareness of the importance of all types of forests**.
2. On this day, countries are encouraged to undertake **local, national and international efforts** to organize activities involving **forests and trees**, such as **tree-planting campaigns**.
3. The Day is celebrated by the **United Nations Forum on Forests** and the **Food and Agriculture Organization of the United Nations (FAO)**, in collaboration with governments, the Collaborative Partnership on Forests and other relevant organisations in the field.

4. This year's theme aims to emphasise **how restoration and sustainable management of forests** can help address climate change and biodiversity crisis.

5. It can also help **produce goods and services for sustainable development**, fostering an economic activity that creates jobs and improves lives.

6. Themes of the International Day of Forests are aimed to **fit into the UN Decade on Ecosystem**

Restoration (2021-2030), which calls for the protection and revival of ecosystems around the world.

Forest cover in India

1. Since Independence, a **fifth of India's land has consistently been under forests**, despite the **population increasing more than three times**.
2. As per the biennial State of Forest Report, 2019, **India's forest cover** has increased by 3,976 sq km or 0.56% since 2017.
3. For the second consecutive time since 2007, the report recorded a gain — an impressive **1,275 sq km** — in dense forest (including very dense forest with a canopy density of over 70%, and moderately dense forest with a canopy density of 40-70%).

CEEW STUDY ON RENEWABLE ELECTRICITY IN INDIA

Renewables in electricity must increase 55-fold for India to achieve **net-zero emissions by 2050**, according to a report by **Council on Energy, Environment and Water (CEEW)**. India will need to **generate at least 83 per cent of its electricity from (non-hydro power) renewable energy** sources by 2050 to achieve **net-zero greenhouse gas emissions** by mid-century, according to the study.

What

1. This would mean a **massive 55-fold increase in the use of non-hydro renewables** in electricity generation within the coming three decades, from **only 160 Terawatt-hour (TWh) (10 per cent) in 2019**.
2. Further, **to achieve net-zero by 2050 the share of electricity in India's industrial energy use must rise three-fold**, from 20.3 per cent in 2018 to 70 per cent in 2050, the study - **Peaking and Net-Zero for India's Energy Sector CO2 Emissions: An Analytical Exposition** - revealed.
3. The share of electric vehicles in passenger car sales will also have to rise to 76 per cent by 2050 from just 0.1 per cent in 2019.
4. These estimates are based on **CEEW's best understanding of progress on mitigation technologies**.
5. To meet net-zero, India will need to **either eliminate greenhouse gas (GHG) emissions or balance these by sequestering GHG emissions**.
6. Advanced economies, including **China, Japan, the UK, and the US**, will have taken at least 30, and at times well over 40 years for this transition.
7. Advanced economies peaked emissions at much higher levels of development, slower rates of growth and would have had longer transition periods.

GANDHI PEACE PRIZE 2020

The **Gandhi Peace Prize for the year 2020** is being conferred on **Bangabandhu Sheikh Mujibur Rahman**, the culture ministry said on 22 March 2021. The **prestigious prize for the year 2019** is being conferred on **late Sultan Qaboos bin Said Al Said** of Oman in recognition of his **vision to strengthen relations with India**, and his efforts to promote peace and non-violence in the Gulf region, the ministry said.

What

1. The **Gandhi Peace Prize is an annual award** instituted by the government of India **in 1995**, the **125th birth anniversary commemoration year of Mahatma Gandhi**. The award is open to all people regardless of nationality, race, language, caste, creed or sex.
2. The **jury for Gandhi Peace Prize is chaired by Prime Minister Narendra Modi** and comprises of two ex-officio members, namely the chief justice of India and leader of the single largest opposition party in the Lok Sabha.
3. The jury met on March 19, 2021 and after due deliberations, unanimously decided to select **Bangladesh's father of the nation, Sheikh Mujibur Rahman**, and **Oman's longtime ruler Sultan Qaboos** for the prize.
4. The award carries an amount of Rs 1 crore, a citation, plaque and an exquisite traditional handicraft/ handloom item.
5. **Recent awardees of the Gandhi Peace Prize** include include **Vivekananda Kendra, India (2015); Akshaya Patra Foundation, India and Sulabh International** (jointly, for 2016); **Ekal Abhiyan Trust, India (2017)** and **Yohei Sasakawa, Japan (2018)**.

12TH-CENTURY SCULPTURE DISCOVERED

A **4.5-foot statue of Channakeshavaswami**, dated back to the **12th century**, was discovered while extracting sand at **Hemavathy river**, at **Hale Beluru village** in Karnataka's Sakleshpur taluk on 23 March 2021. The **sculpture resembles the statue of the Belur Channakeshavaswamy temple**.

What

1. Except for slight scratches, while **lifting by the excavator machine**, there is no damage to the statue.
2. It is said that the people who found the sculpture, left it covered under the sand out of fear and then informed the authorities.
3. There is a **Channakeshava temple** in the **village dated back to the Hoysala period**.
4. Renovation works are in progress at the temple, which is in a dilapidated condition.
5. The discovered sculpture has been kept in the temple. The **villagers cleaned the sculpture and performed puja**.
6. The villagers urged the authorities to hand over the statue to the temple after research by the Department of Archaeology and Museums.

RENEW COMMISSIONS WIND POWER PROJECT

Goldman Sachs-promoted **ReNew Power** commissioned a **300-megawatt (Mw) wind project** in the **Kutch district of Gujarat**. The project was executed by ReNew's arm, **ReNew Wind Energy (AP2)**, and has a **power-purchase agreement (PPA) with the Solar Energy Corporation of India (SECI)** under **wind power project** bidding tranche-III. With this project, **ReNew's total wind energy capacity in Gujarat increased to 950 Mw**. The project will **supply power to districts in Haryana and Odisha** at Rs 2.44 per kWh.

What

1. Recently, **ReNew Power** announced it would list on **NASDAQ** through a business combination with **RMG Acquisition Corporation II**.
2. The pro forma consolidated and fully diluted enterprise value is expected to be close to \$8 billion.
3. This is the **first ever De-SPAC transaction globally involving a renewable power generating firm** and **first involving an India based target since 2016**.
4. The project, in **Gadhsisa village of Kutch district**, was awarded in an auction conducted by **Solar Energy Corporation of India (SECI)**. It will **provide power to Haryana and Odisha**.
5. **ReNew** is among the **country's largest independent power producers** in terms of total generation capacity from renewable energy.

QCI CENSUS FOR WATERBODIES IN GANGA BASIN

More than **one-fourth of government-owned waterbodies in the Ganga basin** across **five states** are dried up, show preliminary findings of the **census survey of ponds, tanks and lakes** in the river basin. The census is being conducted by the **Quality Council of India (QCI)**, an autonomous body set up by the **ministry of commerce and industry** with the **objective of 100% mapping of all such waterbodies in Ganga districts** for their improvement or rejuvenation.

What

1. The **QCI** has, so far, **assessed 578 waterbodies**, covering **all 329 in UP**. A **total of 411 out of 578 surveyed bodies** are surrounded by **settlements**.
2. The survey, being done under the Centre's '**Namami Gange**' (Ganga Rejuvenation) programme, is not yet completed in **Uttarakhand, Bihar, Jharkhand and Bengal**.
3. Encroachment and use of waterbodies for **dumping solid waste** could be the reasons behind their drying up. There should be a separate authority to take care of ponds and other such waterbodies.
4. Currently, **many ponds and tanks exist only in revenue records**.
5. The **QCI** in its findings noted that the pace of survey in Bengal is quite slow due to lack of official support in the state. Murshidabad district officials stopped its ground assessment works, stating "**reasons of political unrest**" there. It was suggested that the team go there for their survey only after the state polls.
6. The **QCI was supposed to start the survey in March last year**, but it **started only in November due to Covid-19**.

WORLD'S FIRST COVID-19 VACCINE FOR ANIMALS

Russia has registered the **world's first vaccine against COVID-19 for animals**, the country's agriculture safety watchdog Rosselkhoznadzor said on 31 March 2021. **Russia already has three coronavirus vaccines for humans**; the most well known of which is **Sputnik V**. Moscow has also given emergency approval to two others, **EpiVacCorona** and **CoviVac**.

What

1. The **vaccine for animals**, developed by a **unit of Rosselkhoznadzor**, was named **Carnivac-Cov**.
2. The clinical trials of **Carnivac-Cov**, which started last October, involved **dogs, cats, Arctic foxes, minks, foxes** and other animals.
3. The results of the trials allow us to conclude that the vaccine is harmless and highly immunogenic as all the vaccinated animals **developed antibodies to the coronavirus in 100% of cases**.
4. **Immunity lasts for six months after vaccination**, but the shot's developers are continuing to analyse this.
5. Mass production of the vaccine could start as early as April, Rosselkhoznadzor added.