



Civil Service India
Your IAS Guide



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NERAMAC
North Eastern Regional Agricultural Marketing
Corporation Limited



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Arts and Culture



Subhadra Kumari Chauhan: Google paid tribute to Subhadra Kumari Chauhan on her 117th birth anniversary by dedicating a creative doodle to her.

Key Facts:

- She authored a number of works in Hindi poetry, with Jhansi ki Rani being her most famous composition.
- The poem, which describes the life of Rani Lakshmi Bai, is one of the most recited and sung poems in Hindi literature.
- Her poetry and prose primarily centered on the hardships that Indian women overcame, such as gender and caste discrimination.
- Her poetry remained uniquely underscored by her resolute nationalism.

About Subhadra Kumari Chauhan:

- Subhadra Kumari Chauhan was born on August 16, 1904 in Nihalpur village of Uttar Pradesh
- She was an Indian activist, freedom fighter, and poet.
- She wrote in the Khariboli dialect of Hindi, in a simple, clear style.
- She got her first poem published when she was 9 years old.
- One of her most popular poems is "Jhansi ki Rani" (about the courageous

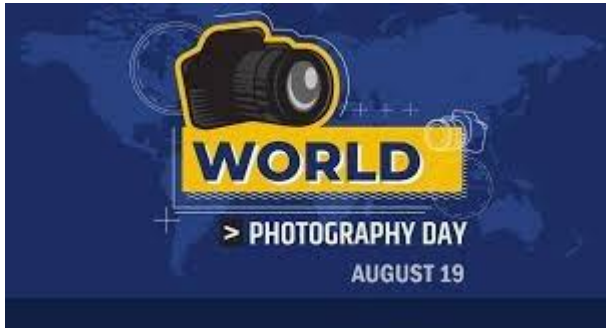
Queen of Jhansi) which is the most recited poems of Hindi literature.

- This and her other poems, Jallianwala Bagh mein Vasant, Veeron Ka Kaisa Ho Basant, Rakhi Ki Chunauti, and Vida, openly talk about the freedom movement.
- Other remarkable poems by her include 'Balika ka Parichay' and 'Khilonewala'.
- During 1940s, she published about 88 poems and 46 short stories for the fight of India's independence.
- She died in 1948.
- **The ICGS Subhadra Kumari Chauhan, an Indian Coast Guard ship, was named for the poet.**

Her role during freedom movement:

- Subhadra and her husband joined Mahatma Gandhi's Non Cooperation Movement in 1921.
- Her poems are said to have inspired great numbers of Indian youth to participate in the Indian Freedom Movement.
- She was the first woman Satyagrahi to court arrest in Nagpur.
- She was jailed twice for her involvement in protests against British rule in 1923 and 1942.
- She was a member of the legislative assembly of the state (erstwhile Central Provinces).

Today, Chauhan's poetry remains a staple in many Indian classrooms as a symbol of historical progress, encouraging future generations to stand up against social injustice and celebrate the words that shaped a nation's history.



World Photography Day: World

Photography Day is celebrated on 19 August every year.

Highlights:

- This day is observed to promote photography as a hobby and also inspire photographers around the globe to share a single photo with the rest of the world.
- The day commemorates the importance of cameras and photography in our lives.
- Photography enthusiasts come together across the world to celebrate the art of taking photographs.
- The first official World Photo Day was observed on August 19, 2010.

History of the day:

- The origins of World Photography Day can be traced back to 1837.
- In France, Joseph Nicephore Niepce and Louis Daguerre invented the daguerreotype, the first ever photographic process.
- It was on August 19, 1939 that the French government purchased the patent of Daguerreotype process and announced the invention as a gift “free to the world”.
- Later on, the day began to be marked as World Photography Day.
- In 1861, the first durable colour photograph was captured.

- From then on, the medium of photography kept evolving. The first digital photograph was created in 1957, two decades before the digital camera was invented.

Significance of World Photography Day:

- The science of photography has played a pivotal role throughout human history.
- Today, due to photography, there are records of historic moments because they have been captured in photographs and can be looked at forever.
- Photography can capture expressions, feelings, ideas, and moments instantly and immortalise them for future generations to witness.



MAMI film festival: Indian Actor producer Priyanka Chopra Jonas was recently announced as the chairperson of Jio MAMI Film Festival, almost four months after Deepika Padukone stepped down from the position.

Key Points:

- The Mumbai Academy of Moving Image (MAMI) unveiled its plans for the coming year, edition and the change in leadership.
- Priyanka was unanimously nominated by MAMI's Board of Trustees which comprises Nita M Ambani (Co

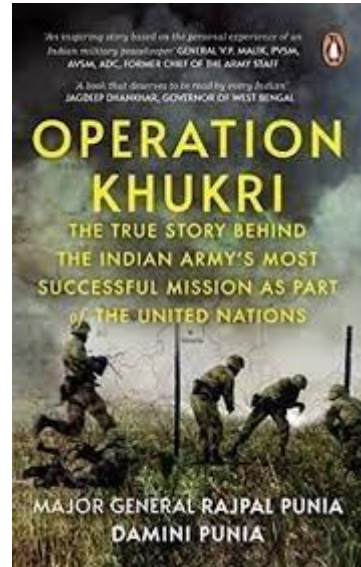
Chairperson), Anupama Chopra (Festival Director), Ajay Bijli, Anand G. Mahindra, Farhan Akhtar, Isha Ambani, Kabir Khan, Kaustubh Dhavse, Kiran Rao, Rana Daggubati, Riteish Deshmukh, Rohan Sippy, Siddharth Roy Kapur, Vikramaditya Motwane, Vishal Bhardwaj and Zoya Akhtar.

- The board also welcomed two new members to its fold, acclaimed filmmaker Anjali Menon and renowned filmmaker archivist Shivendra Singh Dungarpur
- The hybrid edition of the festival will take place in March depending on how the COVID 19 situation is in the country.
- The tentative dates of the festival are March 11 to March 15, 2022.

About MAMI Film Festival:

- The Mumbai Academy of Moving Image (MAMI) is a public trust that organizes the annual international film festival in Mumbai known as the Mumbai Film Festival.
- It was founded in 1997.
- The festival previews new films of all genres from around the world with a range of Competitions and Showcase categories

Books and Authors:



OPERATION KHUKRI: CDS General Bipin Rawat was recently presented a book “OPERATION KHUKRI” authored by Major General Rajpal Punia & Ms Damini Punia.

Highlights:

- The book highlights the Indian Army’s successful rescue mission in Sierra Leone as part of the United Nations. The year was 2000, Sierra Leone, in West Africa, had been ravaged by years of civil strife.
- With the intervention of the United Nations, two companies of the Indian Army were deployed in Kailahun as part of a United Nations peacekeeping mission.

About the Operation Khukri:

- Operation Khukri was one of the Indian Army’s most successful international missions.
- This book is a first hand account by Major Rajpal Punia, who, after three months of impasse and failed diplomacy, orchestrated the operation, surviving the ambush of the RUF in prolonged jungle warfare twice, and returning with all 233 soldiers standing tall.



Projects in Somnath: Prime Minister Narendra Modi recently inaugurated and laid the foundation stone of multiple projects in Somnath, Gujarat.

Key Details:

- Development of Somnath has been proposed as one of the iconic tourism destinations by the Ministry of Tourism under its Integrated Destination Development Scheme (IDDS) for development of components such as Prabhas Patan Museum, Tourist Amenities, Haat etc.
- A few regional interventions such as Keshod Airport, improvement of NH 51, development of Sea Plane services etc. for providing improved connectivity to Somnath, ensuring a comprehensive and broad development of the entire region are also proposed under this under consideration project.
- The projects inaugurated include:
 - a. **Somnath Promenade**
 - b. **Somnath Exhibition Centre**
 - c. **The reconstructed temple precinct of Old Somnath**
 - d. **Foundation for Parvati temple**
- The inaugurations of the new projects at Somnath Temple were launched highlighting the history of its plunder and reconstruction time and again.
- He was making a reference to the Taliban and reminded the world that

the reign of terror is always temporary and cannot be permanent.

About:

Somnath Promenade:

- The Somnath Promenade has been developed under PRASHAD (Pilgrimage Rejuvenation and Spiritual, Heritage Augmentation Drive) Scheme at a total cost of over ₹ 47 crore.

Somnath Exhibition Centre:

- The Somnath Exhibition Centre, developed in the premises of 'Tourist Facilitation Centre', displays the exhibits from dismantled parts of old Somnath temple and its sculptures having Nagar style temple architecture of old Somnath.

The reconstructed temple precinct of Old Somnath:

- The reconstructed temple precinct of Old (Juna) Somnath has been completed by Shree Somnath Trust with a total outlay of ₹ 3.5 crore.
- This temple is also referred to as Ahilyabai Temple since it was built by Queen Ahilyabai of Indore, when she found that the old temple was in ruins.
- The entire old temple complex has been holistically redeveloped for the safety of pilgrims and with augmented capacity.
- The development works of Juna Somnath Mandir Premises include a ramp for universal access, Courtyard, sitting arrangements for the pilgrims, 15 shops, lift and two large halls.

Foundation for Parvati temple:

- The proposed Parvatimata Mandir in Shree Somnath Temple premises

would be a grand structure with an area of 1650 Met² and 71 Ft. height using Aras Stones from Ambaji, Banaskantha.

- Shree Parvati Temple is proposed to be constructed with a total outlay of ₹ 30 Cr.
- There would be 44 poles, as were there in the original temple, which would be created using Marble with an artistic way.
- The core Garbh Grih of the Madir contains the land of 380 Met², and Dance Mandap spreading over 1250 Met².

About Somnath Temple:

- **Som** in Hindi means Moon and **Nath** means Lord and hence **Somnath** means the Lord of Moon i.e., is Lord Shiva.
- somnath Temple is the first among the 12 Jyotirlingas which are symbolic representations of Lord Shiva.
- Located at the Veraval Port or Prabhas Pattan in Saurashtra, Gujrat, the present temple is built in the Chalukyan style.
- This Architecture is also known as the “Kailash Mahameru Prasad” style.
- It reflects the skill of the SompuraSalats, one of Gujarat’s master masons.

History:

- *It is believed to have been raided and plundered at least 17 times in history.*
- *Somnath’s first temple is said to have existed 2000 years ago.*
- *In 649 AD, King Maitre of Vallabhaneni built a second temple in place of the temple and renovated it.*
- *In 725, the old ruler of Sindh took his army and attacked the temple and destroyed the temple.*

- *Pratishtha King Nag Bhatt II constructed the temple for the third time in 815 using a red stone (sandstone) stone.*
- *In 1026, Mahmud Ghazni lent the precious jewels and property of Somnath temple.*
- *After looting, slaughtering innumerable pilgrims of the temple and burning the temple and destroying it.*
- *During 1026 1042 Solanki Raja Bhimdev built the fourth temple of Bhoj and Anhilwad Patan.*
- *Somnath was destroyed when Delhi Sultanate occupied Gujarat in 1299.*
- *Afzal Khan, the commander of Ala ud din Khilji, plundered it.*
- *In 1394 it was destroyed again.*
- *In 1706, Mughal ruler Aurangzeb again demolished the temple.*

Ahilyabai and Somnath:

- Dedicated to Lord Shiva, Ahilyabai Temple was built by Maratha queen Ahilyabai Holkar in 17th century.
- The history of Ahilyabai Temple and Somnath Temple is closely interlinked.
- It is said that this temple was constructed as a substitute for the main Somnath Temple when it was raided and ravaged by the Muslim rulers.
- It is also said that the location of the swayambhulinga came in Ahilyabai’s dreams post which she started the construction immediately.
- Many Hindus believe that Ahilyabai Temple contains the original Jyotirling which was hidden here assuming that the original Somnath Temple is going to be raided.

Modern/Post Modern Indian History:

- Sardar Vallabhbhai Patel, the Iron man of India, was instrumental in the construction of the present temple.
- Renowned temple architect Prabhas Chandar designed it.
- The first President of India Dr Rajendra Prasad installed the Jyotirling in the new temple on May 11, 1951.
- He was criticised by the then Prime Minister for displaying personal faith in public while being on the highest constitutional post of a secular nation.
- Recently, a similar Pran Pratistha Ritual was done at Ayodhya Ram Mandir by the present PM Modi.

Defence



INDIAN GALLANTRY AWARDS

Gallantry Awards: 144 Gallantry awards to Armed Forces, police, and paramilitary personnel were approved by the Supreme Commander of the Armed Forces President Ram Nath Kovind on the eve of Independence Day 2021.

Key Details:

- These include one Ashok Chakra, one Kirti Chakra, 15 Shaurya Chakras, four bar to Sena Medals (Gallantry), 116 Sena Medals (Gallantry), five Nao Sena Medals (Gallantry), and two Vayu Sena Medals (Gallantry).

- The President has also approved 28 Mention in Despatches to the Army personnel for their significant contributions in different military operations which include three posthumous for 'Operation Rakshak.'
- Besides, President also approved four awards for conspicuous gallantry and meritorious service to ICG personnel including one Tatrakshak Medal (Gallantry), and three Tatrakshak Medal (Meritorious Service).
- ASI of Jammu and Kashmir Police, Babu Ram has been posthumously honoured with Ashok Chakra while Altaf Hussain Bhat who was serving as a Constable in Jammu and Kashmir police has been posthumously honoured with the Kirti Chakra.

Note: For the first time in J&K police history, Ashok, Kirti and Shaurya chakras have been awarded to the force together.

- Of 15 Shaurya Chakras, six have gone to the Army, including one posthumous; three to CRPF; two to Odisha Police, both posthumously; two to the Air Force; and one each to the Navy and J&K Police (posthumous).
- All of the Army's Shaurya Chakras were awarded for operations of intercepting, or killing militants in J&K.
- For the Air Force, Shaurya Chakras were given to pilots who displayed exceptional expertise, and skill to manoeuvre their aircraft after they

had developed some issues, and regaining control of the aircraft, and preventing major disasters.

- One of the Vayu Sena medals was awarded to Squadron Leader Deepak Mohanan who is on deputation with the Coast Guard since 2017.
- His citation mentioned that as captain of a Chetak helicopter, Mohanan “displayed extraordinary courage and professional skills of a very high order wherein he carried out damage assessment of fire and explosion onboard MT Diamond, a Very Large Crude Carrier (VLCC) off the east coast of Sri Lanka, carrying 3.40 lakh metric tonnes of crude oil”.

List of the personnels being conferred with gallantry awards on the occasion of Independence Day:

Ashok Chakra

- ASI Babu Ram, J&K Police (Posthumous)

Shaurya Chakra

- Maj Arun Kumar Pandey, Rajput, 44 Rr
- Maj Ravi Kumar Chaudhary, Grenadiers, 55 Rr
- Capt Ashutosh Kumar, 18 Madras (Posthumous)
- Capt Vikas Khatri, Mech Inf, 16 Rr
- Rfn Mukesh Kumar, Raj Rif, 9 Rr
- Sep Neeraj Ahlawat, Jat, 34 Rr
- Captain Sachin Reuben Sequeira Navy
- Group Captain Perminder Antil (26686) Flying (Pilot) Air Force
- Wing Commander Varun Singh (27987) Flying (Pilot) Air Force
- Chitesh Kumar, Deputy Commandant, Crpf
- Manjinder Singh, Sub Inspector, Crpf
- Sunil Choudhary, Constable, Crpf
- Debasis Sethy, Commando, Odisha Police (Posthumous)
- Sudhir Kumar Tudu, Commando, Odisha Police (Posthumous)

- Shahbaz Ahmad, Special Police Officer, J&K Police (Posthumous)

Bar To Sena Medal (Gallantry)

- Lt Col Krishna Kant Bajpai, Sm**, 6 Rajput
- Maj Surendra Singh Lamba, Sm, Grenadiers, 29 Rr
- Maj Rahul Balamohan, Sm, Mahar, 1 Rr
- Maj Ankit Dahiya, Sm, Punjab, 22 Rr

Sena Medal (Gallantry)

- Lt Col Dharendra Pratap Singh Rawat, 3/11 Gr
- Lt Col Bhagat Akshay Suresh, Kumaon, 50 Rr
- Lt Col Manpreet Singh, Sikh Li, 19 Rr
- Lt Col Chetan Kaushik, 37 (I) R&o Flt
- Maj Bharat Singh Jhala, Jat, 34 Rr
- Maj Yashovardhan Bhati, Grenadiers, 29 Rr
- Maj Ankit Thakur, Arty, 6 Assam Rif
- Maj Rakesh Ranjan, 3 Gr, 32 Rr
- Maj Rohit Sharma, Grenadiers, 29 Rr
- Maj Anil Kandpal, Engrs, 44 Rr
- Maj Ajit Pal Singh, 8 Sikh
- Maj Govind Joshi, 5 Gr, Hq Sff
- Maj Anil Kumar Rangi, Grenadiers, 29 Rr
- Maj Gaurav Anand Bourai, Engrs, 1 Rr
- Maj Vipranishu Pandey, Engrs, 42 Rr
- Maj Gaurav Choudhary, 10 Para (Sf)
- Maj Tapan Kumar Tamang, Jak Rif, 52 Rr
- Maj Narendra Kumar, Sigs, 24 R&o Flt
- Maj Abhishek Kumar, Arty, 32 Rr
- Maj Ashutosh Kumar, Engrs, 2 Rr
- Maj Randeep Singh, Jak Rif, 3 Rr
- Maj Mahendra Singh, Asc, 42 Rr
- Maj Rahul Dutta, Arty, 32 Assam Rif
- Maj Satish Kumar Gupta, Sigs, 44 Rr
- Maj Sahil Sharma, Rajput, 44 Rr
- Maj Mayank Vishnoi, Rajput, 44 Rr
- Maj Athul James, Engrs, 1 Rr
- Maj Rohit Kumar Upreti, Engrs, 34 Rr
- Maj Pathak Saket, Eme, 44 Rr
- Maj Ankesh Jarial, Engrs, 3 Rr
- Maj Naorem Chingthangkomba Singh, Kumaon, 50 Rr
- Maj Kundan Kumar, Engrs, 42 Rr
- Maj Harjeet Singh, 5 Rajput
- Maj Manish Kumar Verma, Sigs, 19 Rr
- Maj Vibhore Joshi, Kumaon, 50 Rr
- Maj Abhishek Ghosh, Eme, 55 Rr
- Capt Aaditya Anand Tyagi, Assam, 42 Rr
- Capt Surya Prakash, Armd, 53 Rr
- Capt Neil Silas Lobo, Armd, 55 Rr
- Capt Sanjay Kumar Khanka, Jat, 34 Rr
- Capt Rohit Kumar Swami, 19 Garh Rif
- Capt Snehashish Paul, Sigs, 3 Rr
- Capt Manoj Kumar Kataria, 18 Jak Rif
- Sub Sukhdev Singh, 16 Grenadiers (Posthumous)
- Sub Amar Pal Singh, Jat, 34 Rr
- Sub Satwarg Singh, 15 Sikh Li

- Sub Balkar Singh, Sikh Li, 19 Rr
- Nb Sub Anil Kumar, 38 Fd Regt
- Nb Sub Ravinder, 16 Grenadiers (Posthumous)
- Nb Sub Sukhwinder Singh, 8 Sikh
- Nb Sub Rajwinder Singh, 1 Sikh Li (Posthumous)
- Nb Sub Pushakar Raj, 18 Jak Rif
- Dfr Ranjit Kumar, Armd, 22 Rr
- Hav Gurjeet Singh, 9 Para (Sf)
- Hav Suresh Dewan, Jak Rif, 3 Rr
- Hav Rakesh Kumar Tiwary, Mech Inf, 50 Rr
- Hav Hardhan Chandra Roy, 59 Med Regt (Posthumous)
- Hav Cheekala Praveen Kumar, 18 Madras (Posthumous)
- Hav Mahaveer Singh, Rajput, 44 Rr
- Hav Kayam Singh, Rajput, 44 Rr
- Hav Gokaran Singh, 21 Kumaon (Posthumous)
- Hav Ajit Singh, 15 Sikh Li
- Hav Guljar Singh, Mahar, 1 Rr
- Hav Showkat Ahmad Sheikh, 9 Para (Sf)
- Nk Rakesh Kumar, Jak Rif, 3 Rr
- Nk Radhe Shyam, Mech Inf, 42 Rr
- Nk Govind Singh, Punjab, 22 Rr
- Nk Rajwinder Singh, Punjab, 53 Rr (Posthumous)
- Nk Sayar Khan, Grenadiers, 29 Rr
- Nk Shaitan Singh Meena, Grenadiers, 29 Rr
- Nk Jeevan Singh, Kumaon, 50 Rr
- Nk Shivaji, Kumaon, 50 Rr
- Nk Gurpreet Singh, Sikh Li, 19 Rr
- Nk Baljit Kumar, Mahar, 1 Rr
- L/nk Nongmaithem Dhanabir Singh, 21 Para (Sf)
- L/nk Himmat Singh, Kumaon, 50 Rr
- L/nk Brij Mohan, Mech Inf, 16 Rr
- L/nk Kuldeep Kumar, Rajput, 44 Rr
- L/nk Dileep Kumar Yadav, Kumaon, 50 Rr
- L/nk Rajendra Singh Dosad, Kumaon, 50 Rr
- L/nk Surya Bahadur Soti, 3/3 Gr
- Sep Jahaneer Ahmad War, Sikh Li, 163 Inf Bn (Ta)
- Sep Mohit Bhadana, Rajput, 44 Rr
- Sep Samsad Ali, Mech Inf, 42 Rr
- Sep Gautam Tamang, Mech Inf, 9 Rr
- Sep Prashant Sharma, Mech Inf, 50 Rr (Posthumous)
- Sep Manish Kumar, Armd, 55 Rr
- Sep Kuldeep Singh, Armd, 55 Rr
- Sep Rohin Kumar, 14 Punjab (Posthumous)
- Sep Ryada Maheshwar, 18 Madras (Posthumous)
- Sep Ashish Kumar, Grenadiers, 55 Rr
- Sep Hawa Singh, Grenadiers, 55 Rr
- Sep Lachchu Singh, Rajput, 44 Rr
- Sep Gaurav Kumar Tomar, Rajput, 44 Rr
- Sep Jitendra Singh Jodha, Rajput, 44 Rr
- Sep Anuj Mavi, Rajput, 44 Rr
- Sep Anuj Rana, Rajput, 44 Rr
- Sep Rajesh Singh Kasana, Rajput, 44 Rr
- Sep Deepak Kumar, Jat, 34 Rr
- Sep Elonthung N Patton, Assam, 42 Rr
- Sep Ramandeep Singh, Sikh Li, 19 Rr
- Sep Tanveer Ahmed, Jak Li, 55 Rr
- Rfn Rohit, Jak Rif, 3 Rr
- Rfn Naranjan, Jak Rif, 3 Rr
- Rfn Sajad Hussain Khan, Jak Li, 9 Rr

- Spr Bibin C, Engrs, 44 Rr
- Spr Sivakumar G, Engrs, 44 Rr
- Spr Burla Anjaneyulu, Engrs, 1 Rr
- Gdr Vikash Kumar Ram, Grenadiers, 29 Rr
- Gdr Ravi Kumar Singh, Grenadiers, 29 Rr (Posthumous)
- Gdr Prashant Singh, Grenadiers, 29 Rr (Posthumous)
- Gnr Bhupender, 327 Med Regt (Posthumous)
- Gnr Subodh Ghosh, 59 Med Regt (Posthumous)
- Ptr Manmohan Singh, 4 Para (Sf)
- Swr Jilajeet Yadav, Armd, 53 Rr (Posthumous)
- Scout Tashi Namgyal Lepcha, 11 Gr, 1 Sikkim Scouts

Nao Sena Medal (Gallantry)

- Captain Prashant Handu Navy
- Commander Sunil S Korti Navy
- Commander Bipin Panikar Navy
- Lieutenant Commander Raj Krishna Manu Navy
- Prahlad, Mca (Fd) Li Navy

Vayu Sena Medal (Gallantry)

- Wing Commander Uttar Kumar Air Force
- Squadron Leader Deepak Mohanan Air Force

Mention in despatches

Operation Rakshak

- Col Jasbir Singh Maan, 666 Army Avn Sqn (R&o)
- Lt Col Shiv Bahadur Singh, 112 Engr Regt
- Maj Swapnil Zende, Arty, 34 R&o Flt
- Maj Deepak Kumar Singh, Asc, 3 Rr
- Maj Partha Sarathi Batabyal, Arty, 29 Rr
- Maj Pradip Shukla, 11 Garh Rif
- Maj Aditya Bhadauria, Kumaon, 50 Rr
- Maj Himanshu Pradhan, 8 Sikh
- Capt Shivam Dagur, Sigs, 1 Rr
- Capt Sachin Malhotra, 33 R&o Flt
- Lt Harinder Jit Singh, 4 Grenadiers
- Hav Kuljinder Singh, Sikh Li, 2 Rr
- Nk Roshan Singh, 628 Sata Bty
- Nk Karuppa Samy K, 872 Lt Regt
- Nk Aneesh Thomas, 17 Madras (Posthumous)
- Nk Mandle Pradip Sahebrao, 10 Mahar (Posthumous)

- Nk Kuldeep Kumar, Jak Li, 19 Rr
- Nk Sartaj Ahmad Wagay, Jak Li, 50 Rr
- Nk Rayees Ahmad Magray, Jak Li, 42 Rr
- Nk Vikram Singh, 11 Garh Rif
- L/nk Gaurav Singh, 8 Garh Rif
- L/nk Kamlesh Pant, Kumaon, 50 Rr
- Sep Ladhu Singh, Rajput, 44 Rr
- Sep Khuvendra Singh, Armd, 55 Rr

Operation Snow Leopard

- L/dfr Vikram Singh, 90 Armd Regt (Posthumous)

Operation Rhino

- Maj Soubam Kinobabu Singh, Jak Li, 15 Assam Rif
- Nb Sub Prem Kumar Tamang, 3/11 Gr
- L/nk Anal Jyoti Nath, Assam, 166 Inf Bn (Ta)



NDA Exam: The Supreme Court of India on August 18, 2021 passed an interim order stating that girls can also appear for the National Defence Academy (NDA) exam conducted by the Union Public Service Commission (UPSC).

Key Points:

- The apex court also slammed the Indian Army for not allowing women to take part in NDA entrance exams and called the Army's policy decision as gender discrimination.
- With this order, women will now be able to appear for the NDA

exam which is scheduled for September 5, 2021.

- According to the Apex Court, admissions will be subject to final orders of the court.
- The court has also directed Union Public Service Commission (UPSC) to take out the corrigendum and advertise it widely.
- This is for the first time that women candidates are allowed to appear for the NDA exam to take admission in the Army, Navy and Air Force wings of NDA and Indian Naval Academy Course (INAC).
- The court has also directed Union Public Service Commission (UPSC) to take out the corrigendum and advertise it widely.

Background:

- This order was issued on the basis of a writ petition filed by Kush Kalra seeking permission for women to sit in the exam for the entry in NDA.
- The petition for the NDA exam raised the issue of violation of Articles 14, 15, 16, and 19 of the Indian Constitution by denying the opportunity to eligible women candidates to join NDA.

Important Info:

NDA II 2021 written exam is scheduled to be conducted on November 14 across 75 exam centres spread throughout the country. Earlier, the exam was scheduled to be conducted on September 5.

About NDA Exam:

- National Defence Academy or NDA is one of the most sought after defence entrance exams in the country.
- The exam is conducted for admission to Army, Navy and Air Force wings of NDA and Indian Naval Academy Course (INAC).
- NDA is conducted twice a year in two stages: written exam and Services Selection Board (SSB) Interview.
- It covers general aptitude, team skills, psychological testing, Physical and social skills besides the medical tests.
- NDA exam, before the latest order by the Supreme Court permitting women to appear for the exam, was only reserved for unmarried men between the age of 16-19 years.
- The educational qualification is the pass certificate in 10+2 exams via a recognised board or University.

About NDA alumni:

- Alumni of NDA comprises of 3 Param Vir Chakra recipients and 12 Ashoka Chakra recipients.
- It has also produced 27 service Chiefs of Staff as of now.

About NDA:

- The National Defence Academy (NDA) is the joint defence service training institute of the Indian Armed Forces.
- This academy trains cadets of three services namely, the Indian Army, the Indian Air Force and the Indian

Navy together before they go on to respective service academy for precommission training.

- This academy is world's first triservice academy.
- The NDA was commissioned on December 7, 1954, with an inauguration ceremony that was held on January 16, 1955.



DTIS: In order to boost domestic defence and aerospace manufacturing, Ministry of Defence (MoD) has launched Defence Testing Infrastructure Scheme (DTIS).

Key Points:

- It is an Rs 400 crore scheme for creating state-of-the-art testing infrastructure in partnership with the private industry.
- The scheme was launched by Raksha Mantri Shri Rajnath Singh on May 08, 2020.
- DTIS is aimed at boosting domestic defence and aerospace manufacturing.

About DTIS:

- This scheme would run for the duration of five years.

- The scheme proposes to up of 68 Greenfield Defence Testing Infrastructure facilities that are required for defence and aerospace related production.
- The collaboration will ease the process of indigenous defence equipment, thereby making India selfreliant.
- The projects under the scheme will be provided with up to 75 percent Government funding in the form of 'GrantinAid'.
- The remaining 25 percent of the project cost will have to be borne by the Special Purpose Vehicle (SPV), which will be composed of the Indian private entities and State Governments.
- The special purpose vehicles, under the scheme will be registered under the Companies Act, 2013.
- They will operate and maintain all assets under the scheme in a selfsustainable manner by collecting user charges.
- The system tested will be certified according to proper accreditation.
- The majority of test facilities will come up in the Defence Industrial Corridors (DICs).
- In this regard, Department of Defence Production/Directorate General of Quality Assurance (DDP/DGQA) has published eight Expression of Interest (EOIs) catering to setting up of defence test facilities in selected domains.

Note:

- At present, India is one of the top importers of military hardware globally.
- The government has been focusing on making India a hub of defence production.
- According to the latest report by Stockholm International Peace Research Institute (SIPRI), a leading thinktank on military spending, India's defence expenditure stood at USD 71.1 billion in 2019, which is third highest after the US and China.

Economics



FIIndex: The Reserve Bank of India (RBI), on 17 August, 2021 announced the formation of a composite Financial Inclusion Index (FIIndex) to capture the extent of financial inclusion across the country.

- The annual FIIndex for the period ended March 2021 stood at 53.9 compared with 43.4 for the period ended March 2017.

About FIIndex:

- RBI's financial inclusion index (FIIndex) will be published annually in July.
- It is a comprehensive index that incorporates details of banking,

investments, insurance, postal as well as the pension sector.

- It is created in consultation with the government and respective sectoral regulators.
- There is no base year for this Index so it reflects the cumulative efforts of all stakeholders over the years towards financial inclusion.
- The index captures information on various aspects of financial inclusion in a single value ranging between 0 and 100.
- The 0 represents complete financial exclusion while 100 indicates full financial inclusion.
- The Financial Inclusion Index has been framed based on three broad parameters—

1. Usage (45 percent)

2. Access (35 percent)

3. Quality (20 percent)

- The parameters were computed based on 97 indicators.
- The Financial Inclusion Index will be responsive to ease of access, availability and usage of services, and quality of services.



RoDTEP Scheme Guidelines and Rates: The Centre has recently notified RoDTEP Scheme Guidelines and Rates.

Note: RoDTEP stands for Remission of Duties and Taxes on Exported Products.

Key Points:

- This scheme for zero rating of exports will help in boosting India's exports and competitiveness across the global markets.
- The rates of RoDTEP will cover 8555 tariff lines.
- Rates under RoDTEP scheme for different sectors have been set as 0.5 per cent, 2.5 per cent and 4 per cent.
- It will come into effect from January 1, 2021.

Scheme's objective is to refund, currently unrefunded:

- Duties/ taxes/ levies, at the Central, State & local level, borne on the exported product, including prior stage cumulative indirect taxes on goods & services used in production of the exported product.
- Such indirect Duties/ taxes/ levies in respect of distribution of exported products.
- However, it should be noted that rebate under the Scheme shall not be available in respect of duties and taxes already exempted or remitted or credited.
- Export centric industries are being reformed and introduced to better mechanisms so as to increase their competitiveness, boost exports, generate employment and contribute to the overall economy.

About RoDTEP Scheme:

- RoDTEP is one such reform which is based on the globally accepted principle.
- As per the principles, taxes and duties should not be exported, and taxes and levies borne on the exported products should be either exempted or remitted to exporters.

- Under the RoDTEP scheme, duties, taxes and levies are charged on exported products at state and local levels.
- It refunds the prior stage cumulative indirect taxes on goods as well as services used in production of the exported product and their distribution.
- Rebate will not apply to duties and taxes that are already exempted, remitted or credited.
- RoDTEP support will be available for eligible exporters as a percentage of Freight on Board (FOB) value.
- Rebate on some export products will be subject to value cap per unit of exported product.

Implementation:

- This scheme will be implemented by Customs with the help of simplified IT System. Ministry will issue rebate in the form of transferable duty credit or electronic scrip (escrip).
- It will be maintained by Central Board of Indirect Taxes and Customs (CBIC) in an electronic ledger.

Significance:

- RoDTEP is going to give a boost to Indian exports by providing a level playing field to domestic industry abroad.
- The Ministry of Finance (MoF) will finalize the overall outlay of the RoDTEP scheme in consultation with the Department of Commerce.
- The Ministry will take into account all the factors before finalizing it.



Startup Women Entrepreneur Awards

202021: The Government of India (GoI) recently announced MeitYNASSCOM Startup Women Entrepreneur Awards 202021 on August 17, 2021.

- GoI has also launched the Amrit Mahotsav Shri Shakti Innovation Challenge.

About Startup Women Entrepreneur Awards 202021:

- The award was set up by the Ministry for Electronics and IT (MeitY)NASSCOM in partnership with UN Women.

Aim:

- This award aims to recognize and cultivate the entrepreneurial spirit in women.
- It also inspires the next generation of women to lead the Indian digital era to serve as guiding role models;
 - To encourage promising entrepreneurs who not only contribute to the nation's economy but also to the social community
 - To provide leadership and serve as guiding examples for emerging and young future entrepreneurs.

Significance:

- The winners of the awards have also been selected for the

MeitYNASSCOM Tech Women Entrepreneur Accelerator Program.

- The program gives them access to networks, connections, learning and resources that are needed to build scalable, profitable and global businesses.

About Amrit Mahotsav Shri Shakti Innovation Challenge:

- Amrit Mahotsav Shri Shakti Innovation Challenge was launched by MyGov under the Ministry of Electronics and Information Technology, and UN Women

Aim:

- The aim of the Challenge is 'Nari Sashaktikaran', which is, to empower women to help them achieve their full potential.

Objective:

- The main objective of this challenge is to support and promote women entrepreneurs and women-led Startups to find innovative solutions in the area of Women Safety and Empowerment.

Implementation:

- The Challenge is being implemented under the MultiPartner Trust Fund (COVID19) Programme.

Significance:

- The five winners of this challenge will be awarded INR 5 lakh each to develop, market and implement their solutions.

Background:

- The awards were open to participation from tech startup women entrepreneurs and an overwhelming

response was received across the country with receipt of 159 applications.

- An eminent Jury comprising of leaders from MeitY, UN Women, Industry and Academia selected 12 women entrepreneurs as winners, while 2 women entrepreneurs were declared as the Jury Choice Awardees and one woman entrepreneur was felicitated as a special mention.
- Each winner and Jury Choice Awardees were rewarded Rs. 2 Lakh.
- Giving a fillip to women entrepreneurs, 33 women have also been selected for MeitYNASSCOM Tech Women Entrepreneur Accelerator Program to give them access to networks, connects, learning and resources that are needed to build scalable, profitable and global businesses.

Environment



Ramsar List: The Union Environment Ministry recently announced that 4 more wetlands from India have been added to the Ramsar list.

Key Points:

The wetlands that the Ramsar Convention has designated as wetlands of global importance are:

1. **Thol from Gujarat**
2. **Wadhvana from Gujarat,**
3. **Sultanpur from Haryana and**
4. **Bhindawas from Haryana.**

- India is home to more than a dozen of threatened and near threatened bird species and these sites are home to endangered Egyptian Vulture, Saker Falcon, Sociable Lapwing, and near threatened Dalmatian Pelican.
- With this, the number of Ramsar sites in India is 46 and the surface area covered by these sites is now 1,083,322 hectares.

About the Chosen Wetlands:

Thol Lake Wildlife Sanctuary:

- It lies on Central Asian Flyway in Gujarat.
- It supports more than 320 bird species and more than 30 threatened waterbird species like critically endangered whiterumped vulture, Sociable Lapwing, Common Pochard etc.

Wadhvana Wetland:

- It is an internationally important wetland situated in Gujarat.
- It is famous for its birdlife because it provides wintering ground to migratory waterbirds, migrating on Central Asian Flyway.
- Some of the species include endangered Pallas's fishEagle, vulnerable Common Pochard, and nearthreatened Dalmatian Pelican.

Sultanpur National Park:

- This Park from Haryana provides support to more than 220 species of resident, winter migratory and local migratory waterbirds.

Bhindawas Wildlife Sanctuary:

- It is the largest wetland in Haryana.
- This humanmade freshwater wetland comprises of more than 250 bird species.
- The bird species use the sanctuary throughout the year for resting and roosting.
- It also supports more than ten globally threatened species such as Steppe Eagle, endangered Egyptian Vulture, Blackbellied Tern and Pallas's Fish Eagle.

The Ramsar Convention:

- It was signed on 2nd February, 1971.
- It is one of the oldest intergovernmental accords signed by member countries.
- Its main objective is to preserve the ecological character of their wetlands of international importance.
- It is named after Ramsar, the Iranian city where the treaty was signed.
- Places chosen for conservation under it are given the tag 'Ramsar site'.

What is the aim of the Ramsar list?

- The aim of the Ramsar list is "to develop and maintain an international network of wetlands which are important for the conservation of global biological diversity and for sustaining human life through the maintenance of their ecosystem components, processes and benefits".

What are wetlands?

- A wetland is a distinct ecosystem that is flooded by water, either permanently or seasonally, where oxygenfree processes prevail.
- It is an area where water covers the soil, or is present either at or near the surface of the soil all year or for varying periods of time during the

year, including during the growing season.

- Water saturation (hydrology) largely determines how the soil develops and the types of plant and animal communities living in and on the soil.
- Wetlands may support both aquatic and terrestrial species.
- The prolonged presence of water creates conditions that favor the growth of specially adapted plants (hydrophytes) and promote the development of characteristic wetland (hydric) soils.

Different Types of Wetlands:

Five major wetland types are generally recognized:

- 1. Marine (coastal wetlands including coastal lagoons, rocky shores, and coral reefs);**
- 2. Estuarine (including deltas, tidal marshes, and mangrove swamps);**
- 3. Lacustrine (wetlands associated with lakes);**
- 4. Riverine (wetlands along rivers and streams); and**
- 5. Palustrine (meaning “marshy” marshes, swamps and bogs).**

Significance of Wetlands:

- Wetlands play a critical role in maintaining many natural cycles and supporting a wide range of biodiversity.
- They purify and replenish our water, and provide the fish and rice that feed billions.
- They serve as a natural sponge against flooding and drought, protect our coastlines and help fight climate change.

Note: About one quarter of the Earth's rain runs off as flood water, causing loss of life and billions of dollars in damage.



Earthquakes in Haiti: Recently, powerful earthquake in Haiti have killed hundreds and injured thousands more.

The earthquakes have been wreaking havoc in Haiti since at least the 18th century, when the city of Port-au-Prince was destroyed twice in 19 years.

What is the cause of earthquakes in Haiti?

- The Earth's crust is made up of tectonic plates that move and Haiti sits near the intersection of two of them, they are:
 - 1. The North American plate**
 - 2. The Caribbean plate.**
- Earthquakes can occur when those plates move against each other and create friction.
- Multiple fault lines between those plates cut through or near the island of Hispaniola, which Haiti shares with the Dominican Republic.
- The worst part is that not all of those fault lines behave the same way.

Why can earthquakes in Haiti be so devastating?

- Haiti is also densely populated.

- In addition, many of its buildings are designed to withstand hurricanes, not earthquakes.
- Those buildings can survive strong winds but are vulnerable to collapse when the ground shakes.

About Haiti:

- Haiti officially the Republic of Haiti, formerly known as Hayti, is a Caribbean country located on the island of Hispaniola in the Greater Antilles archipelago of the Caribbean Sea, to the east of Cuba and Jamaica and south of The Bahamas and the Turks and Caicos Islands.
- It occupies the western threeeighths of the island which it shares with the Dominican Republic.
- The capital of Haiti is PortauPrince.
- The currency used here is Haitian gourde.



Colorado River Basin: The federal government in the US, for the first time has declared a water shortage for the Colorado River basin due to a historic drought.

This shortage in turn will lead to water cuts in some southwestern states starting October 2021.

About Colorado River:

- The Colorado River is one of the principal rivers (along with the Rio

Grande) in the Southwestern United States and northern Mexico.

- It is about 1,450 miles long, with headwaters in Colorado and Wyoming, and eventually flows across the international border into Mexico.
- The river is the primary source of water for a region that receives little annual rainfall.
- More than 1,000 years ago, Native Americans irrigated their crops with the waters from the river.
- Today, the Colorado River is still used for irrigation and also used to generate hydroelectric power and to supply water to distant urban areas.

About Colorado River Basin:

- The Colorado River Basin offers a major renewable water supply in the southwestern United States.
- About twothirds of the water flowing in the Colorado River and its tributaries is used for irrigation, and the other onethird supplies urban areas, evaporates into the atmosphere, or provides water to riparian (streamside) vegetation.
- The Colorado River system, including the Colorado River, its tributaries, and the lands that these waters drain, is called the Colorado River basin, or watershed.
- The Colorado River Basin is divided into the Upper (Wyoming, Colorado, New Mexico, Utah and northern Arizona) and Lower Basins (parts of Nevada, Arizona, California, southwestern Utah and western New Mexico).
- The entire Colorado River system is managed with a series of dams and canals to regulate flood control, water conservation and hydropower benefits.

- In the Lower Basin, the Hoover Dam controls floods and regulates water delivery and storage.
- Apart from the Hoover dam, there is the Davis Dam, Parker Dam and the Imperial Dam that regulate the release of water from the Hoover Dam.
- Water is released from these dams and used by residents in California, Nevada, Arizona and Mexico.



Kigali Amendment: The Union Cabinet, chaired by the Prime Minister, Shri Narendra Modi, has given its approval for ratification of the Kigali Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer for phase down of Hydrofluorocarbons (HFCs) by India, adopted by the Parties to the Montreal Protocol on October, 2016 at 28th Meeting of the Parties to the Montreal Protocol held at Kigali, Rwanda.

Implementation strategy and targets:

- ❖ National strategy for phase down of Hydrofluorocarbons as per the applicable phase down schedule, India has said that it will draw up a national strategy for the phasedown of HFCs by 2023, in consultation with all the industry stakeholders.
- ❖ Amendments to the existing legislation framework, the Ozone Depleting Substances (Regulation and Control) Rules to allow appropriate control of the production and

consumption of Hydrofluorocarbons to ensure compliance with the Kigali Amendment will be done by mid2024.

- ❖ India will complete its phase down of HFCs in 4 steps from 2032 onwards with cumulative reduction of 10% in 2032, 20% in 2037, 30% in 2042 and 80% in 2047.

Background:

- ❖ India became a Party to the Montreal Protocol on Substances that Deplete the Ozone Layer on 19 June 1992 and since then has ratified the amendments to the Montreal Protocol.
- ❖ Through the present approval of the Cabinet, India will be ratifying the Kigali Amendment to the Montreal Protocol for phase down of Hydrofluorocarbons.
- ❖ India has successfully met the phase out targets of all the Ozone Depleting Substances as per the Montreal Protocol Schedule.

What is Kigali Amendment to Montreal Protocol?

- ❖ It is a legally binding agreement designed to create rights and obligations in international law.
- ❖ Kigali Amendment to the Montreal Protocol enables the phaseout of the hydrofluorocarbons (HFCs).
- ❖ The Kigali Amendment to Montreal Protocol was made in 2016.
- ❖ The amendment has been named after Rwanda Capital where it was negotiated.

Montreal Protocol:

- ❖ The Montreal Protocol on Substances that Deplete the Ozone Layer is an international environmental treaty for protection of the Ozone Layer by phasing out the production and

consumption of manmade chemicals referred to as ozone depleting substances (ODS).

- ❖ It came into force in 1989.
- ❖ It has 197 member parties to the protocol and become a first international treaty with complete ratification.
- ❖ It has undergone several amendments and Kigali amendment is the eighth amendment to this protocol.
- ❖ Under the Kigali Amendment; Parties to the Montreal Protocol will phase down production and consumption of Hydrofluorocarbons, commonly known as HFCs.
- ❖ Hydrofluorocarbons were introduced as nonozone depleting alternative to Hydrofluorocarbons (HFCs).
- ❖ While HFCs do not deplete the stratospheric ozone layer, they have high global warming potential ranging from 12 to 14,000, which have adverse impact on climate.
- ❖ Recognizing the growth in use of HFCs, especially in Refrigeration and Airconditioning sector the Parties to the Montreal Protocol, reached agreement at their 28th Meeting of the Parties (MOP) held in October 2016 in Kigali, Rwanda to add HFCs to the list of controlled substances and approved a timeline for their gradual reduction by 8085 percent by the late 2040s.

What are the Ozone Depleting Substances?

Ozone depleting substances are chemicals that destroy the earth's protective ozone layer.

They include:

- a) Chlorofluorocarbons (CFCs)
- b) Halons
- c) Carbon tetrachloride (CCl₄)
- d) Methyl bromide (CH₃Br)
- e) Bromochloromethane (CH₂BrCl)
- f) Methyl chloroform (CH₃CCl₃)

- g) Hydrobromofluorocarbons (HBFCs)
- h) hydrochlorofluorocarbons (HCFCs)

Where are they used?

The main uses of ozone depleting substances include:

- a) CFCs and HCFCs in refrigerators and air conditioners
- b) CFCs and HCFCs in foam
- c) CFCs and HCFCs as aerosol propellants
- d) HCFCs and halons in fire extinguishers
- e) Methyl bromide for fumigation of soil structures and goods to be imported or exported

Negative Effects of the Depletion of the Ozone Layer:

- ❖ Ozone layer depletion causes increased UV radiation levels at the Earth's surface, which is damaging to human health.
- ❖ Negative effects include increases in certain types of skin cancers, eye cataracts and immune deficiency disorders.

National



MOU On International Trade & Investment Law: The Union Cabinet, chaired by Prime Minister Shri Narendra Modi on 18th

August 2021 approved the signing of an Memorandum of Understanding (MoU) between Permanent Mission of India (PMI) to the WTO, Centre for Trade and Investment Law (CTIL) of the Indian Institute of Foreign Trade, and Centre for Trade and Economic Integration (CTEI) and Geneva based Centre for Trade and Economic Integration.

Key Details:

- The move will provide valuable academic and research opportunities to the employees of CTIL and the Department of Commerce in the field of international trade and investment law.
- In addition, capacity building programmes or activities will be carried out under the MoU to enhance the understanding of the DOC officials, CTIL researchers and academics on contemporary issues of international trade and build support for India's positions in international trade and investment law.
- The collaboration between academicians, jurists, policy makers, practitioners, and students from India, Switzerland and other countries would help create a technical and nuanced understanding of emerging and new areas of international trade and investment law and related disciplines.
- The proposed collaborations under the MoU with CTEI are academic in nature.
- Hence, the researchers and academicians from India, including employees from CTIL and Department of Commerce and other government agencies would benefit from capacity building and research oriented activities.
- This would be beneficial to formulating India's positions on

various issues on international trade negotiations and dispute settlement

- The MoU will remain in force for three years.



NERAMAC: The Cabinet Committee on Economic Affairs (CCEA) has approved a package of Rs 77.45 crore for the revival of state run North Eastern Regional Agricultural Marketing Corporation Ltd (NERAMAC).

- The decision was taken in the cabinet meeting, chaired by Prime Minister Narendra Modi here.

Key Points:

- As per the Government, this move will help ensure remunerative price to the farmers of Northeast region for their products.
- The package will also help NERAMAC to implement various innovative plans namely providing better farming facilities, training to farmers in clusters, organic seeds and fertilizer, post harvesting facilities in order to promote the products of NE farmers in the world market through participation in events, registration of GI products etc.
- The implementation of revival of NERAMAC is also expected to generate direct or indirect employment for about 33,000 persons.

About NERAMAC:

- North Eastern Regional Agricultural Marketing Corporation Ltd (NERAMAC) is a central Public Section Enterprises under the administrative control of Ministry of Development of North Eastern Regional (MDoNER).
- It was incorporated in the year 1982 as a marketing organization in the field of Agri Horti sector of the North eastern region.
- It was set up to support farmers and producers of North East for getting remunerative prices for their produce and thereby bridge the gap between the farmers and the market and also to enhance the agricultural, procurement, processing and marketing infrastructure of the Northeastern Region of India.
- NERAMAC has continuously been making all efforts for the development of the farmers of the region and double their income by the end of 2022.



National Hydrogen Mission: The Prime Minister of India Shri Narendra Modi recently announced the launch of the National Hydrogen Mission on India's 75th Independence Day during his Independence speech from the Red Fort.

Key Points:

- The Mission aims to aid the government in meeting its climate targets and making India a green hydrogen hub.
- This mission was announced in the backdrop of India spending Rs 12 trillion annually to meet its energy needs.
- India, at present imports 85% of its oil and 53% of its gas demand.
- It is expected to increase to 11.7 million tonnes (mt) by 2029 30.

What is National Hydrogen Mission?

- The National Hydrogen Mission was proposed in the Union Budget 2021.
- This mission was proposed to harness the potential of hydrogen in the energy area and enable generating hydrogen from green power sources.
- The mission seeks to focus deeply on the generation of green hydrogen which is extracted from clean and green power sources and enable its commercial viability as a transportation fuel.
- Green hydrogen energy is vital for India to meet its Nationally Determined Contributions.
- It is a clean burning molecule, which can decarbonise a range of sectors including iron and steel, chemicals, and transportation.
- The initiative has the potential of transforming transportation.

Major Activities to be carried out under the Mission:

- Creating volumes and infrastructure
- Demonstrations in niche applications
- Goal oriented Research & Development
- Facilitative policy support
- A robust framework for standards
- Regulations for hydrogen technologies

About Hydrogen:

- Hydrogen is the lightest and first element on the periodic table.
- Since the weight of hydrogen is less than air, it rises in the atmosphere and is therefore rarely found in its pure form, H₂.
- At standard temperature and pressure, hydrogen is a nontoxic, nonmetallic, odourless, tasteless, colourless, and highly combustible diatomic gas.
- It is used for industrial uses like petroleum refining, manufacturing of chemicals, steel, & ammonia fertilizers and aerospace applications.

What is Hydrogen Fuel?

- Hydrogen fuel is a zero emission fuel burned with oxygen.
- It can not only be used in fuel cells or internal combustion engines but it also is used as a fuel for spacecraft propulsion.
- It can be manufactured by the following processes:

Electrolysis:

- Electrolysis of water by using direct current.

Natural Gas Reforming/Gasification:

- Natural Gas on reaction with steam produces Synthesis gas.
- Synthetic gas is a mixture of hydrogen, carbon monoxide, and a small amount of carbon dioxide.

Fermentation:

- Biomass is converted into sugar rich feedstocks that can be fermented to produce hydrogen.
- It is then stored after mixing or converting to ammonia or synthetic gas for easy liquefaction and transport.

Types of Hydrogen Fuel:

- As per the World Energy Council (WEC), 96 percent of hydrogen is produced from fossil fuels through carbon intensive processes
- There are different types of hydrogen fuel. They are as follows:

Green Hydrogen:

- Green hydrogen is extracted through the electrolysis of clean energy sources such as renewables.
- This hydrogen type releases zero carbon (CO₂) emissions but is expensive and commercially not viable yet.
- The government is working on projects to produce green hydrogen.

Grey Hydrogen:

- Not an expensive type but releases a lot of CO₂ emissions as it is extracted through the burning of fossil fuels.

Blue Hydrogen:

- The CO₂ released during the production of hydrogen is trapped through carbon capture and storage (CCS) processes to turn grey hydrogen into blue hydrogen.

Brown Hydrogen:

- Hydrogen is extracted through two methods for Industrial purposes, namely, gasification of coal or through steam methane reformation (SMR).
- In SMR, methane from natural gas is heated with steam to produce carbon monoxide and hydrogen, which is used as fuel.
- However, these methods aren't carbon friendly and cause vast emissions of greenhouse gasses.

- Hydrogen produced from this method is called as brown hydrogen.

Green Hydrogen Consumption Obligation (GHCO):

- Government of India (GoI) has also planned to implement Green Hydrogen Consumption Obligation (GHCO) in fertilizer production and petroleum refining.
- It is similar to renewable purchase obligations (RPO) that require electricity distribution companies to buy a fixed amount of renewable energy.
- It helps to cut reliance on fossil fuels.



Sadbhavana Diwas: Every year India observes Sadbhavana Diwas on August 20 to commemorate the birth anniversary of late erstwhile Prime Minister, Rajiv Gandhi.

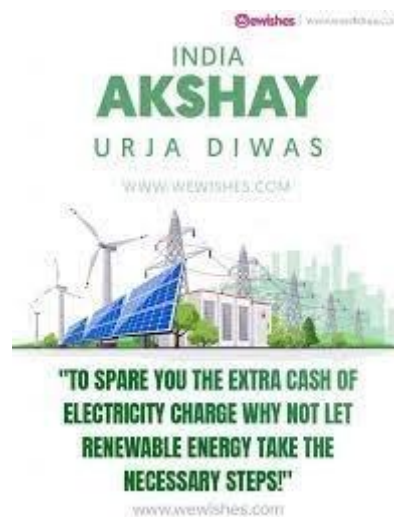
Key Facts:

- Year 2021, is the 77th birth anniversary of former Prime Minister Rajiv Gandhi.
- The Indian National Congress instituted Rajiv Gandhi Sadbhavana Award in 1992, a year after his death.
- Every year this day is celebrated in the memory of the late Rajiv Gandhi who was the youngest Prime Minister of India at the age of 40 years.
- In lieu of paying tribute to his vision for India, on this occasion

contributions to society betterments are made.

About Rajiv Gandhi:

- Rajiv Gandhi became the youngest Prime Minister of India at an age of 40 years after the assassination of his mother Indra Gandhi and served from 1984-89.
- He came up with a National Education Policy in 1986 to modernize the education system.
- He founded Jawahar Navodaya Vidyalaya System where he provided free residential education to rural sections from classes 6 to 12.
- He always had a dream of a developed nation for which he did many deeds including the National Education Policy in 1986, reduced Licence Raj, and included Panchayati Raj.
- For remembering his dreams, his social and economic work for taking the nation towards development, Sadbhavana Diwas came into existence.



Akshay Urja Diwas 2021: Akshay Urja Diwas (Renewable Energy Day) is observed every year on 20 August every year in India.

Highlights:

- This day is observed to raise awareness about the developments and adoption of renewable energy in India.
- The Government of India (GoI) is aware of the importance of development or renewable energy sources to provide the state with a sustainable amount of energy.
- It is significant to promote awareness about renewable resources among people who are ignorant about the subject.
- Later on, during the upcoming years, the events were organized in Nagpur, Hyderabad, Panchkula, Haryana.

Key Points:

- The Akshay Urja Day was initiated by the Indian Ministry for New & Renewable Energy Sources in 2004.
- Energy such as Biogas, Solar Energy, Wind energy, hydroelectrical power is a few examples of Akshay Urja.
- The main motive of Akshaya urja Diwas is to make people aware that they have to think about renewable energy (Akshaya Urja) apart from traditional energy.

History of Indian Akshay Urja Day:

- Renewable Energy Day or Indian Akshay Urja Day was established in 2004 to support renewable energy development programs and promote its use instead of traditional sources of energy.
- The 20th of August was chosen as it marks the birthday anniversary of Rajiv Gandhi, former Prime Minister of India.
- The very first event relating to Akshay Urja Diwas was organized in New Delhi.
- In 2004, the Prime Minister released a commemorative stamp, and 12,000 schoolchildren formed a human chain to promote renewable energy.

International

Taliban Takeover: Afghanistan, the mountainous landlocked country at the crossroads of Central and South Asia, has witnessed a disastrous Taliban takeover.

Key Details:

- Afghan President Ashraf Ghani, on 15th August 2021 after fleeing the country had stated that the Taliban had won.
- The militants entered Kabul, sealing a nationwide military victory in just 10 days which is nearly 20 years after they were ousted from power by a US-led invasion.
- He will shortly tender his resignation, as the government has surrendered to the Taliban forces, which entered Kabul and sought the unconditional surrender of the central government.
- A new interim government has been announced, which is likely to be headed by Ali Ahmad Jalali, a US-based academic.
- Nations such as the US, UK, Germany and Canada are using their troops to evacuate their nationals from Afghanistan.
- American diplomats were flown by helicopter to the airport from their embassy in the fortified Wazir Akbar Khan district.
- The insurgents' imminent takeover triggered fear and panic in Kabul among residents fearful of the group's hardline brand of Islam, which it imposed during its 1996-2001 rule.
- According to the latest updates, all the provincial capitals such as Zaranj, Sheberghan, SarePul, Kunduz, Taloqan, Aybak, PuleKhumri, Faizabad, Ghazni, Firus Koh, QalaeNaw, Kandahar, Lashkar Gah, Herat, PuleAlam, MazariSharif, Jalalabad, and Maidan Wardak are now under Taliban control.

Additional Info:

- **Taliban leader Abdul Ghani Baradar is likely to be the new President of Afghanistan.**
- **He is the cofounder of the Taliban in Afghanistan.**

Who are the Taliban?

- The Taliban is a Deobandi Islamist movement.
- It is led by young Islamic scholars who are dedicated to the religious purification of the country and the creation of an emirate.
- Mawlawi Hibatullah Akhundzada is reportedly the leader of the Taliban since 2016.

Afghanistan:

- Afghanistan, officially the Islamic Republic of Afghanistan, is a landlocked country in Asia.
- It is bordered by Pakistan to the east and south; Iran to the west; Turkmenistan, Uzbekistan, and Tajikistan to the north; and China to the northeast.
- Its Capital is Kabul.
- The currency used here is Afghan afghani.



Zambia Election: Zambia's opposition leader Hakainde Hichilema, on August 16, 2021 won the country's presidential election with a

landslide victory over incumbent President Edgar Lungu, stated the Electoral Commission of Zambia.

Key Details:

- Zambia's Electoral Commission reported that he got more than 2.8 million votes to President Edgar Lungu's 1.8 million votes, achieving one of the biggest electoral wins in Zambia's history.
- This marks the third shift of power from a ruling party to the opposition since Zambia's independence from Britain in 1964.
- Hichilema will become Zambia's seventh president since the reintroduction of multiparty democracy in 1991 by founding president, the late Kenneth Kaunda, who had ruled the country as a oneparty state for more than two decades.

About Hakainde Hichilema:

- 59 Year old Hakainde Hichilema was born into humble beginnings in the southern district of Monze.
- He managed to get a scholarship to the University of Zambia, and later graduated with an MBA degree from the University of Birmingham in the UK.
- He went on to become one of Zambia's richest men, with business interests in finance, ranching, property, healthcare and tourism.
- He is also a member of the opposition party United Party for National Development in Zambia.
- He was appointed as the party's new president after the death of Anderson Mazoka in 2006.
- Hichilema has been presented with the Africa Freedom Award by the

Friedrich Naumann Foundation for Freedom in October 2017.

Zambia Crisis:

- Hakainde faces dire challenges in reviving the country's democratic and economic landscape.
- Zambia is in dire financial straights, and it became the continent's first pandemicera sovereign default in November after failing to keep up with its international debt payments.
- Zambia's economic debt is a major challenge.
- Under Lungu's leadership, Zambia's debt jumped from 36 per cent to 110 per cent of GDP.
- Among other issues are corruption, executive dominance, and increased violent extortionary by cadres under the Patriotic Front.

About Zambia:

- Zambia, officially the Republic of Zambia is a landlocked country at the crossroads of Central, Southern and East Africa.
- Its neighbors are the Democratic Republic of the Congo to the north, Tanzania to the northeast, Malawi to the east, Mozambique to the southeast, Zimbabwe and Botswana to the south, Namibia to the southwest, and Angola to the west.
- The capital city of Zambia is Lusaka, located in the southcentral part of Zambia.
- The currency used here is Zambian kwacha.

Note: Apart from its iconic Victoria Falls, the country has a lot of natural water resources compared to other southern African nations.



Remote Sensing Satellite Data Sharing:

BRICS (Brazil, Russia, India, China and South Africa), on August 18, 2021, signed an agreement for cooperation in remote sensing satellite data sharing, according to Indian Space Research Organization (ISRO).

Highlights:

- The BRICS agreement was signed under India's Chairmanship of the bloc.
- Secretary (Consular, Passport, Visa & Overseas Indian Affairs) & India's BRICS Sherpa, Ministry of External Affairs, Government of India, Sanjay Bhattacharyya, was present on the occasion.
- The Director General of Russia's State Space Corporation Roscosmos, Dmitry Rogozin, signed the agreement along with ISRO Chairman and Secretary in Department of Space, K Sivan, CNSA Administrator Zhang Kejian, CEO of South African National Space Agency, Valanathan Munsami and Brazilian Space Agency President Carlos Augusto Teixeira de Moura.

Significance:

- The deal will enable building a virtual constellation of specified remote sensing satellites of BRICS space agencies and their respective ground stations will receive the data.
- It will promote cooperation and use space data and applications for development and social objectives

outlined in SDGs, providing benefit to citizens.

- It will contribute in strengthening multilateral cooperation among BRICS space agencies in meeting the challenges faced by mankind, such as global climate change, major disasters and environmental protection.

About BRICS:

- It is the acronym coined for an association of five major emerging national economies which are Brazil, Russia, India, China and South Africa.
- Originally the first four were grouped as "BRIC", before the induction of South Africa in 2010.
- The BRICS members are known for their significant influence on regional affairs.
- All are also the members of G20. Since 2009, the BRICS nations have met annually at formal summits. BRICS headquarter is situated at Shanghai, China.
- BRICS members are known for their influence in regional affairs.



Malaysian PM Muhyiddin Yassin: The Prime Minister of Malaysia, Muhyiddin Yassin, resigned and his government collapsed on August 15, 2021.

Key Points:

- He resigned after failing to get majority support just 17 months in office.
- His tumultuous period in office came to an end after his allies withdrew support making him the shortest-serving premier in the history of Malaysia.
- The event has thrown a country into fresh political turmoil as Malaysia battles a serious COVID19 outbreak.
- The National Palace of Malaysia confirmed that the Monarch, Sultan Abdullah Sultan Ahmad Shah has accepted Yassin's resignation.
- The Palace in a statement informed that Muhyiddin will serve as a caretaker Prime Minister until a replacement is found.
- The monarch is not yet in the favour of polls due to the outbreak.

Malaysia's Political background:

- In 1957, after the independence from the British, the country was ruled for over six decades by a coalition that was dominated by Malaysia's ethnic Malay Muslim majority.
- However, corruption scandal, increasingly authoritarian rule, and the unpopular race-based policies prompted the voters to boot the coalition and its leader Najib out of power in 2018.
- The victory of Mahathir's opposition alliance had fuelled hopes for a new era, but it collapsed amid the bitter infighting.

About Malaysia:

- It is a Southeast Asian country occupying parts of the Malay Peninsula and the island of Borneo.
- The capital of Malaysia is Kuala Lumpur.

- The currency used here is Malaysian ringgit.



New Cybersecurity MultiDonor Trust Fund:

The World Bank has launched a new 'Cybersecurity MultiDonor Trust Fund', to better rollout cybersecurity development agenda in a systematic manner.

Key Details:

- The new fund has been developed as an associated trust fund under the broader Digital Development Partnership (DDP) umbrella program.
- The World Bank, in order to launch the fund, it has partnered with four countries, namely Estonia, Japan, Germany, and the Netherlands.

Aim:

- The main aim of this new fund is to provide comprehensive cybersecurity capacity development, including the development of global knowledge, country assessments, technical assistance, capacity building, and training, underpinned with necessary investments in infrastructure and technology.

About World Bank:

- The World Bank is an international financial institution that provides loans and grants to the governments of

poorer countries for the purpose of pursuing capital projects.

- It comprises two institutions which are the International Bank for Reconstruction and Development, and the International Development Association.
- It is headquartered in Washington, D.C., United States.
- It was founded on July 1944 by John Maynard Keynes and Harry Dexter White.
- Its main aim is providing financing, advice, and research to developing nations to aid their economic advancement.
- The bank predominantly acts as an organization that attempts to fight poverty by offering developmental assistance to middle and low-income countries.
- The current President of World Bank is David Malpass.



World Humanitarian Day 2021: World Humanitarian Day (WHD) is commemorated annually on August 19, 2021 to honour those who are working for a humanitarian cause across the world.

Highlights:

- The day is observed to pay tribute to humanitarian personnel and those workers who lost or risked their lives while doing humanitarian service.
- In 2021 we are celebrating the 12th WHD.

Theme:

- The theme of World Humanitarian Day is decided every year based on particular humanitarian crisis to raise awareness about it around the world.
- The theme for 2021 WHD is #TheHumanRace: a global challenge for climate action in solidarity with people who need it the most.
- The theme aims to put the needs of the most climate-vulnerable people front and centre at the UN climate summit (COP26).

Significance:

- World Humanitarian Day 2021 seeks to highlight the immediate consequences of the climate emergency for the world's most vulnerable people and ensure that their voices are heard and their needs are taken up as top agenda at the UN Climate Change Conference (COP26) in November 2021.

History:

- World Humanitarian Day was designated by the United Nations in memory of the August 19, 2003 bomb attack on the Canal Hotel in Baghdad, Iraq, which killed 22 people including the Special Representative of the Secretary-General to Iraq, Sergio Vieira de Mello.
- World Humanitarian Day was commemorated for the first time on 19 August 2009, after it was formally

recognized by the United Nations General Assembly in 2009.

Note: Sérgio Vieira de Mello was a Brazilian United Nations diplomat who worked on several UN humanitarian and political programs for over 34 years.



SAGO: World Health Organization (WHO) has created a new advisory group named, The International Scientific Advisory Group for Origins of Novel Pathogens, or SAGO.

Key Details:

- The function of SAGO will be to systematically study the emergence of future emerging pathogens with pandemic potential, and advise the development in this regard to WHO.
- WHO has made an open call for nominations to SAGO from the member countries, thus providing a transparent foundation for the new scientific advisory group.
- The group will also work towards finding the origin of SARSCoV2 virus.

About WHO:

- WHO is an acronym for World Health Organization?
- WHO was created on 7 April 1948 by member states of the United Nations (UN) as a specialized agency with a

broad mandate for international public health.

- It is headquartered in Geneva, Switzerland. The main objective of WHO is "the attainment by all peoples of the highest possible standard of health."
- It plays an essential role in the global governance of health and disease.
- Its mission is to improve people's lives, to reduce the burdens of disease and poverty, and to provide access to responsive health care for all people.
- The WHO is governed by two decisionmaking bodies, the World Health Assembly and the Executive Board.
- The current Directorgeneral of WHO is Tedros Adhanom.

India Polity



Woman CJI: The Supreme Court Collegium headed by Chief Justice of India (CJI) N V Ramana has recommended nine names, including three women judges for appointment as judges in the top court.

Note: The collegium is a highpowered appointment panel led by the Chief Justice of India and comprises four senior judges of the top court. At present, it is headed by CJI N.V. Ramana and has justices U.U. Lalit, A.M. Khanwilkar, D.Y. Chandrachud and L.N. Rao as its members.

Key Details:

- The three women judges recommended by the SC Collegium are Justice B V Nagarathna of Karnataka HC, Justice Hima Kohli of Telangana HC, and Justice Bela M Trivedi of Gujarat HC.
- However, all three are likely to have relatively short tenures.
- If the recommendations are accepted, three more judges could be added to the line of succession for the CJI's post — till mid2028 — including what could be the first woman CJI.
- At present there is only one woman judge, Justice Indira Banerjee, who is due to retire on 8 November 2022.
- Besides these three names, the Collegium has also recommended Karnataka High Court Chief Justice A S Oka, Telangana High Court Chief Justice Hima Kohli, Sikkim High Court Chief Justice J K Maheshwari, and Justices M M

Sundresh (Madras High Court), C T Ravikumar (Kerala High Court) and Bela M Trivedi (Gujarat High Court) for appointment as judges to the apex court.

- With the retirement of Justice R F Nariman on August 12, the strength of judges in the top court had come down to 25 as against the sanctioned strength of 34, including the CJI.
- No appointment has been made after the superannuation of the then CJI Ranjan Gogoi on March 19, 2019.

About Justice B V Nagarathna of Karnataka HC:

- Justice B V Nagarathna of Karnataka High Court could become the next and first woman Chief Justice of India (CJI).
- She is currently a Judge in the Karnataka High Court.
- She began as a lawyer in 1987 in Bengaluru.
- She practiced in constitutional law and commercial law including administrative and public law, arbitration and conciliation, land and rent laws, insurance law, family law, conveyancing & drafting of contracts and agreements, etc.
- In February 2008, she got appointed as an additional judge in the Karnataka High Court. She, in 2010, became a permanent judge.
- In 2012, she ruled that regulation of electronic media is needed thereby emphasizing curbing sensationalism of news through

‘Breaking News’, ‘Flash News’, or any other way of sensationalized presentations.

- In 2019, she ruled that a temple employee will be entitled to gratuity benefits under the Karnataka Hindu Religious Institutions and Charitable Endowment Act and not under the Payments of Gratuity Act deeming that a temple is not a ‘commercial establishment’.

About Justice Hima Kohli of Telangana HC:

- Justice Kohli is the only women judge to head a high court as its Chief Justice.
- She presently heads the Telangana High Court and was earlier with the Delhi High Court.
- She was sworn in as the Chief Justice of Telangana HC on January 7, 2021.
- In 2006, Justice Kohli was appointed as an Additional Judge on the Delhi High Court.
- In 2007, she was made a permanent Judge on the Delhi HC.
- She had enrolled with the Bar Council of Delhi in 1984.
- She has served as a legal advisor to many Delhi and Central government bodies such as the National Cooperative Development Corporation, the National Agricultural Cooperative Marketing Federation of India, and the Delhi Pollution Control Committee.
- In 2020, a judicial committee formed to monitor Delhi

Government’s response during the COVID19 pandemic was led by Justice Kohli.

About Justice Bela M Trivedi of Gujarat HC

- Justice Bela Trivedi has been serving as a Judge of the Gujarat High Court since February 9, 2016.
- Earlier from February 2011 to June 2011, Justice Trivedi served as the Additional Judge of the Gujarat HC. Before getting transferred to Gujarat HC, Justice Trivedi was serving as an Additional Judge of the Rajasthan High Court.
- She has been a member of the General Council of Gujarat National Law University.



Credentials of Envoys: President Ram Nath Kovind today accepted credentials from of Holy See, Federal Republic of Nigeria, Republic of Austria and Republic of Korea today (August 18, 2021) in a virtual ceremony.

Key Details:

Those who presented their credentials were:

1. **H.E. Mrs. Katharina Wieser, Ambassador of the Republic of Austria.**

2. **H.E. Mr. Chang Jaebok, Ambassador of the Republic of Korea.**
3. **H.E. Archbishop Leopoldo Girelli, Apostolic Nuncio of the Holy See.**
4. **H.E. Mr. Ahmed Sule, High Commissioner of the Federal Republic of Nigeria.**

- Speaking on the occasion, the President congratulated the envoys on their appointment and conveyed his good wishes to them for a successful tenure in India.
- India enjoyed close ties with all the four countries and shared a common vision of peace and prosperity.
- President Kovind added that India's engagement at the United Nations and other multilateral fora have resulted in mutually beneficial partnership.
- India remains committed to a just and equitable global order, keeping in mind interests of the developing countries and underrepresented.
- Ambassadors/High Commissioners conveyed good wishes to the Hon'ble President on behalf of their leaderships and reiterated the commitment of their leaders to work closely to strengthen their ties with India.



Institute of Economic Growth (IEG): N.K. Singh who is the 15th Finance Commission Chairperson has been elected as the president

of the Institute of Economic Growth (IEG) Society.

Key Highlights:

- N.K. Singh will be succeeding former Prime Minister Dr. Manmohan Singh after he stepped down from the post earlier in August 2021.
- Singh was recommended by Dr. Manmohan Singh had for the General Assembly of the IEG to consider for Presidency of the Society.
- Dr. Manmohan Singh has served as the President of IEG since 1992.
- At present, Tarun Das, former Director General, Confederation of Indian Industry (CII) is the Chairman of, Board of Governors, and Professor Ajit Mishra is the Director of IEG.

About N K Singh:

- N K Singh is an Indian economist, administrator, academician, and policymaker. He is currently the Chairman of the 15th Finance Commission.
- Prior to this, he has been the Chairman of the Fiscal Responsibility and Budget Management Review Committee (FRBM).
- He has also been a member of the Rajya Sabha from 2008 to 2014 during which he contributed significantly to several Parliamentary Standing Committees such as the Committee on Human Resource Development, the Committee on Foreign Affairs, and the Public Accounts Committee.
- He was not only a distinguished member of the Indian Administrative Services (IAS) in his home cadre in Bihar, where he held posts such as the Industrial Development Commissioner and Deputy Chairman, Bihar Planning Board but he also has vast international experience through interactions with multilateral organizations such as the World Bank, OECD, IMF, and ADB.

Awards:

- He has been awarded the "Order of the Rising Sun – Gold, and Silver" in 2016 by the Emperor of Japan for his work as First Minister, Economic, and Commercial, Indian Embassy, Japan (1981–85).

About Institute of Economic Growth (IEG):

- The Institute of Economic Growth (IEG), is an autonomous body and civil service training institute under the Government of India (GoI).
- IEG was founded in 1952 by the renowned economist, V. K. R. V. Rao.
- This institute was established for advanced research on economic and social development. It is widely regarded as a centre of excellence in the field.

- He was appointed the governor of Andhra Pradesh in 1984.
- After elections in Punjab, in the wake of the Longowal/Rajiv accord between the prime minister and the Akali Dal president, Sharma was made the governor of Punjab in 1985.
- He then became the eighth vicepresident of India and exofficio Chairman of Rajya Sabha, serving from 1987 – 1992.
- He was the ninth President of India, serving from 1992 to 1997.



Shankar Dayal Sharma: The President of India, Ram Nath Kovind, recently paid floral tributes to Shankar Dayal Sharma, former President of India, on his birth anniversary at Rashtrapati Bhavan on August 19, 2021.

About Shankar Dayal Sharma:

- Shankar Dayal Sharma (1918 – 1999) was a member of Indian National Congress (INC).
- He served as the Chief Minister (1952–1956) of Bhopal State.
- He served as the Cabinet Minister (1956–1967), holding the portfolios of Education, Law, Public Works, Industry and Commerce, National Resources and Separate Revenue.
- He again served as the Union Minister for Communications from 1974 to 1977.

Persons in News



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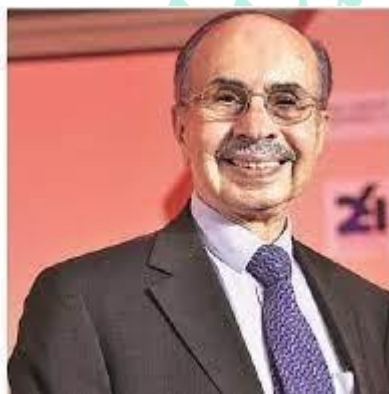
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Adi Godrej: Renowned industrialist Adi Godrej will step down as Chairman of Godrej Industries Ltd (GIL) on October 1, 2021.

Highlights:

- His younger brother, Nadir Godrej, currently the GIL Managing Director, will succeed him,
- Nadir Godrej is currently the Godrej Industries Limited MD.
- However, Adi Godrej will continue to serve as the Chairman of Godrej Group.

About Adi Godrej:

- Adi Godrej is an alumnus of the Sloan School of Management at MIT.
- He has served as the head of several Indian trade associations and industrial bodies.

- The 79yearold veteran industrialist has been the Chairman of the Board of the Indian School of Business and the president of the Confederation of Indian Industry in the past.
- He has also received several awards throughout his illustrious career, including the Padma Bhushan in 2013, the Rajiv Gandhi Award in 2002 and The American India Foundation (AIF) Leadership in Philanthropy Award in 2010.

About GIL:

- Godrej Industries (GIL) is the holding company of the Godrej group.
- GIL was founded in 1963.
- It is headquartered in Maharashtra, India.

Obituary:



Maki Kaji: He is the Godfather of Sudoku.

He passed away at the age of 69, due to bile duct cancer, on August 17, 2021.

Who was Maki Kaji?

- Maki Kaji was the president of Nikoli Co. Ltd.
- It is a Japanese puzzle manufacturer.
- He was popularly called as “the father of Sudoku” as he played a key role in popularizing this number game.

- He also invented other puzzle games including Masyu.
- He recently (July 2021) resigned as head of Nikoli, before his death.

Background:

- He was born in in Sapporo, Hokkaido on October 8, 1951.
- His father was an engineer at a telecom company while his mother was an employer of a kimono shop.
- He did his schooling from Shakujii High School in Sapporo.
- Later he studied literature at Keio University, but dropped out in his first year.
- After several jobs such as being a roadie, a waiter and a construction worker, he lastly started a publishing business.

About Nikoli:

- Nikoli was a quarterly puzzle magazine by Kaji.
- This magazine was named after a race horse that had won Guineas Stakes race in Ireland.
- Later he founded the company with same name.
- Nikoli magazine was the company’s main product.

About Sudoku:

- Sudoku is a logicbased, combinatorial numberplacement puzzle.
- In classic sudoku, the objective is to fill a 9×9 grid with digits so that each column, each row, and each of the nine 3×3 subgrids that compose the grid contain all of the digits from 1 to 9.
- Puzzle setter provides a partially completed grid for which a wellposed puzzle has a single solution.

Awards:



National Intellectual Property Awards 2020:

Minister of Commerce and Industry, Consumer Affairs & Food & Public Distribution and Textiles Shri Piyush Goyal today conferred the National Intellectual Property Awards 2020 to the winners at an event.

About the award:

- The award is conferred annually by Office of Controller General of Patents, Designs and Trade Marks (CGPDTM), Dept for Promotion of Industry and Internal Trade (DIPT), Ministry of Commerce and Industry.
- This prestigious award is awarded to individuals, institution, organizations, enterprises, police units and other legal entities for IP creation, commercialization and enforcement.

About the event:

- While addressing the award function, Shri Goyal congratulated all the winners & hoped that they would continue to do such exemplary work in future also.
- He said that these awards were truly inclusive with contributions from varied sectors i.e. from Academia to Startups.
- Shri Goyal also said that the key achievements of his Ministry includes
 - Granting of 28,391 patents in 2020/21 as compared to 4,227

grants during 2013/14 (572% growth).

- Reduction in Time of patent examination from 72 months in Dec 2016 to 1224 months in Dec 2020
- 2 lakh trademark registrations in 4 years (2016/2020) in comparison to 11 lakh during 75 years (1940/2015).
- India's ranking improved in Global Innovation Index to 48th in 2020, (+33 ranks from 81st in 2015/16).
- On this occasion, Shri Goyal made following announcements
 - 80% fee reduction filing for IPRs to all Recognized Educational Institution (Govt/Aided/Pvt) irrespective of whether such institute is in India or outside India.
 - Total fee (Filing + publication + Renewal fee) for an Institute is ~Rs. 4,24,500/ now, this will be reduced to Rs. 84,900/ , The fees among the top Patent Offices worldwide.
 - Office of CGPDTM (IP office) will impart training & awareness to 10 Lakh students in this Azadi ka Amrit Mahotsav (15th Aug, 2021 to 15 Aug, 2022).

Places in news



Separate Farm Budget: For the first time in the history of Tamil Nadu Legislative Assembly, the Tamil Nadu Minister for Agriculture and Farmer's Welfare MRK Pannarselvam on August 14, 2021 presented the budget fulfilling its poll promise.

Highlights:

- With this Tamil Nadu has become the third state to present a separate agricultural budget.
- The budget by the Tamil Nadu Government exclusively featured agricultural schemes for the overall development of the farm sector, including one for farm growth and selfsufficiency in the villages.
- The views of the farmers and the experts were sought and the budget was prepared on the basis of their views.
- This was the first time that a separate budget on agriculture was presented in Tamil Nadu.

Key details:

- During the fiscal year 202122, Rs. 34,220.65 crores have been provided for the agriculture and related departments such as fisheries, husbandry, irrigation, rural development, dairy development, sericulture, and the forest.
- A sum of Rs 4,508.23 crore has been allocated by the government to the

staterun electricity entity, the Tamil Nadu Generation and Distribution Corporation for providing free of cost electricity to farm pump sets.

- In order to bring prosperity to the farmers in the Cauvery delta region, the government has proposed to declare the area an agroindustrial corridor.
- The region was declared a protected agricultural zone by the previous AIADMK government.
- In the region, pulses, rice, coconut, bananas are produced throughout the year.
- To increase the income of the farmers (depending on rainfed farming), the CM's Dry Land Development will be implemented in three lakh hectares.

Other schemes introduced in the budget by TN Government:

Kalaigharinar Anaithu Grama Orunginaintha Velaan Valarchi Thittam:

- DMK government in Tamil Nadu under their new agricultural budget has also introduced a scheme with a total outlay of Rs. 1,245.45 crores.
- It will be implemented to ensure the overall agricultural development and selfsufficiency in all villages of the states.
- The scheme has been named after the former CM of Tamil Nadu M Karunanidhi (Kalaigharinar Anaithu Grama Orunginaintha Velaan Valarchi Thittam).
- It will be implemented in a total of 2,500 village panchayats in 202122.
- Out of the 12,524 villages in the state, each year, one-fifth of them will be identified and the scheme will be implemented in all of the panchayats areas in five years.

Organic farming development scheme:

- The Tamil Nadu government will implement the 'Organic Farming Development Scheme' at a cost of Rs. 33.03 crores to promote organic farming.
- Inputs for organic farming will be made available in Agricultural Extension Centers and among the several measures that have been proposed under the scheme.
- Farms will be certified as organic.

Background:

- Andhra Pradesh and Karnataka were the only states that presented their own agricultural budget.
- The tradition of having an exclusive Budget for agriculture was started by Karnataka in 2011, and was followed by the undivided Andhra Pradesh state in 2013.
- Both aimed to give greater focus to the sector.

About Tamil Nadu:

- It is located in the extreme south of the subcontinent. It is bounded by the Indian Ocean to the east and south and by the states of Kerala to the west, Karnataka (formerly Mysore) to the northwest, and Andhra Pradesh to the north.
- It was formerly the Madras Presidency of British India but was renamed Madras (State) after independence in 1947.
- Madras (State) was again renamed Tamil Nadu in 1968. Its Capital is Chennai.
- The Governor and Chief Minister of Tamil Nadu are Banwarilal Purohit and M. K. Stalin respectively.



Smart Health Cards: Odisha Chief Minister Naveen Patnaik, on August 20, 2021, launched Smart Health Cards which will help families get treatment up to ₹ 5 lakh per annum.

Highlights:

- The cards have been announced under the Biju Swasthya Kalyan Yojana (BSKY).
- The card will be given to the beneficiaries phase-wise.
- Beneficiaries of the national and State food security schemes, Annapurna and Antyodaya yojanas, will get it.
- He had announced them after hoisting the National Flag on the occasion of 75th Independence Day on August 15, 2021.

Key Points of BSKY cards:

- The Biju Swasthya Kalyan Yojana (BSKY) cards seeks to cover 3.5 crore people of the state out of a total population of 4.3 crores.
- The initiative aims to transform the health service delivery system of not only the state but also create history in the health sector of the Country.
- The BSKY has been redesigned in a way that the health cards will work as debit cards for the beneficiaries.
- Under the BSKY, women members of the family can get treatment up to ₹ 10 lakh in a year and other family

members will get the benefit up to Rs 5 lakh each.

- With this card, people can avail themselves of quality healthcare service in about 200 hospital chains in the country, including Odisha.
- It is a nofrill system, so a person will simply go to a hospital with the card and get all the treatments without any hassle.
- The Smart Health Cards will work like debit cards for a certain amount.
- It is a first of its kind service in the country.
- The initiative is expected to benefit about 3.5 crore people and 96 lakh families in a phased manner.

About Odisha:

- Odisha also formerly Orissa, is an Indian state located on the eastern coast of India.
- It neighbours the states of West Bengal and Jharkhand to the north, Chhattisgarh to the west and Andhra Pradesh to the south.
- It is an eastern Indian state on the Bay of Bengal.
- It is known for its tribal cultures and its many ancient Hindu temples.
- The Jagannath Temple in Puri is a very sacred and religious temple of Hindus.
- The capital of Odisha is Bhubaneswar.
- The Governor and the Chief Minister of Odisha are Ganeshi Lal and Naveen Patnaik respectively.



Harigarh: The Zila Panchayat Parishad of Aligarh passed a resolution on August 16, 2021 seeking to rename Aligarh as Harigarh.

Highlights:

- The proposal was passed unanimously in the first meeting of the panchayat without any opposition with 50 out of 72 members in attendance.
- It would now be forwarded to the state government for approval.
- If it gets passed, it will add to a long list of places that have been renamed in UP under Yogi Adityanath.
- The most prominent being the renaming of Allahabad to Prayagraj, a few months before the Kumbh Mela in January 2019.

Note: In Aligarh, the district panchayat is headed by Vijay Singh, who is related to former Uttar Pradesh chief minister Kalyan Singh's son Rajveer Singh Raju.

Background:

- The proposal to rename Aligarh to Harigarh was first presented to the panchayat by the Kshatriya Mahasabha and later supported by elected block panchayat leaders Kehri Singh and Umesh Yadav.
- The Zila panchayat also cleared another proposal to rename the Dhanipur airstrip in Aligarh to the Kalyan Singh airstrip.

Note: Kalyan Singh was a resident of Aligarh and former chief minister of Uttar Pradesh.

- Many organizations had appealed to the UP government earlier asking it to change Aligarh's name.

Renaming of other places in UP:

The Uttar Pradesh (UP) government has already changed the name of several places such as

- ❖ Faizabad to Ayodhya
- ❖ Allahabad to Prayagraj
- ❖ Mughalsarai to Deen Dayal Upadhyaya Nagar

Uttar Pradesh Chief Minister Yogi Adityanath had indicated in November 2019 that the government would like to keep up with renaming places across the state.

He said that where this is a need, the government will take the steps required.

About Uttar Pradesh:

- ❖ Uttar Pradesh is a state in northern India.
- ❖ It was created on 1 April 1937 as the United Provinces of Agra and Oudh during British rule, and was renamed Uttar Pradesh in 1950.
- ❖ Its Capital city is Lucknow.
- ❖ The Chief Minister and the Governor of Uttar Pradesh are Yogi Adityanath and Anandiben Patel respectively.



Chhattisgarh New districts: The Chief Minister of Chhattisgarh Bhupesh Baghel recently announced the creation of four new districts and 18 new tehsils in the state.

- ❖ This announcement was made by him while addressing a public gathering here on the occasion of 75th Independence Day.

Key Points:

- ❖ The four new districts are:
 1. **Mohla Manpur**
 2. **SarangarhBilaigarh**
 3. **Shakti**
 4. **Manendragarh**
- ❖ With the creation of four new districts, the total numbers of administrative districts in the state have reached 32.
- ❖ In addition, in every district headquarters and Municipal Corporation, a park will be developed exclusively for women, which will be known as the '**Minimata Udyan**'.

Note: The park has been named after 'Minimata', the first woman MP from Chhattisgarh elected in 1952, who devoted her life toward the empowerment of women and the betterment of society.

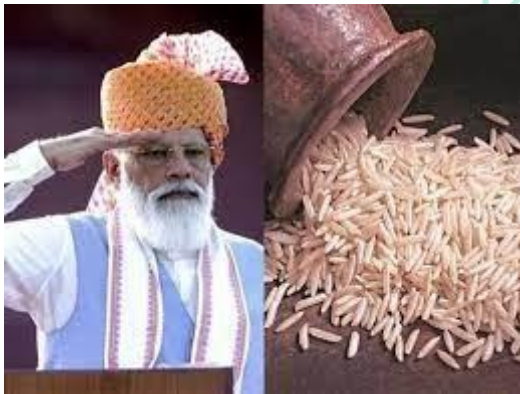
- ❖ He also ended the age limit for admission in undergraduate and postgraduate courses in colleges.

- ❖ Furthermore, he also announced the 'Mukhyamantri Affordable Medicine Scheme' to provide medicines at concessional rates for the people of the state.

About Chhattisgarh:

- ❖ Chhattisgarh is a heavily forested state in central India known for its temples and waterfalls.
- ❖ It is one of the fastest developing states in India. The state was formed on 1st November 2000 by partitioning ten Chhattisgarhi and six Gond speaking southeastern districts of Madhya Pradesh. The capital city of Chhattisgarh is Raipur.
- ❖ The current Chief Minister and Governor of Chhattisgarh are Bhupesh Baghel and Anusuiya Uikey respectively.

India Policy



Fortification of Rice: Prime Minister Narendra Modi announced fortification of rice distributed under various government schemes including Public Distribution System (PDS) and Mid Day Meal scheme by 2024.

- This announcement was made by him while addressing the nation on 75th Independence Day.

Key Points:

- As per the announcement, rice being distributed through all government schemes will be fortified by 2024.
- This decision was taken in order to address the problem of malnutrition and lack of essential nutrients in children and women living in poor conditions as it poses a major obstacle towards their development.
- Micronutrient deficiencies or 'hidden hunger' also continue to pose significant public health problems in Indian populations.

Significance of fortified rice in India:

- Fortification of rice in India is significant in countering malnutrition because, government distributes more than 300 lakh tonnes of rice under schemes covered under National Food Security Act (NFSA), 2013.
- Fortified rice is a cost effective strategy to increase mineral and vitamin content in diets.
- For 2021-22, approximately 328 lakh tonnes of rice allocated by the Centre is being distributed through schemes under the National Food Security Act such as Mid Day Meals (MDM), Integrated Child Development Scheme (ICDS), and Targeted Public Distribution System (PDS).

Note: India produces over one fifth of the world's rice. The country is also the largest consumer of rice, accounting for 6.8 kilograms per month as per capita rice consumption.

What is food fortification?

- Food fortification is the simplest and sustainable public health strategies that address the challenge of micronutrient deficiencies.

- It is a cost effective, scientifically proven, and globally recognised approach.
- It also helps in easily reaching to wider & vulnerable populations by means of existing food delivery systems.

What is the Fortification of rice?

- The Food Safety and Standards Authority of India (FSSAI) defines the fortification as “deliberately increasing the content of essential micronutrients in a food so as to improve the nutritional quality of food and to provide public health benefit with minimal risk to health.”
- According to the FSSAI norms, 1 kg fortified rice shall contain iron (28mg 42.5mg), folic acid (75 125 microgram) and Vitamin B 12 (0.75 1.25 microgram).
- In addition, rice may also be fortified with micronutrients, singly or in combination, at the level– zinc (10mg 15mg), Vitamin A (500 750 microgram RE), Vitamin B1 (1mg 1.5mg), Vitamin B2 (1.25mg 1.75mg), Vitamin B3 (12.5mg 20mg) and Vitamin B6 (1.5mg 2.5mg) per Kg.

NFHS 4 report:

- According to National Family Health Survey report, India has the largest burden of iron deficiency and anaemia worldwide.
- About 59% of children and 50% of pregnant women are anaemic in India.
- Child and maternal malnutrition accounts for 15% of India’s total disease burden.



Draft Electricity Rules, 2021: The Ministry of Power has circulated the “Draft Electricity (promoting renewable energy through Green Energy Open Access) Rules, 2021”.

Key Points:

- These rules are proposed for purchase and consumption of green energy including the energy from Waste to Energy plants.
- The draft rules have the following subheads within which details are provided:
 - a. **Renewable Purchase Obligation (RPO);**
 - b. **Green energy open access;**
 - c. **Nodal Agencies;**
 - d. **Procedure for grant of green energy open access;**
 - e. **Banking; and**
 - f. **Cross subsidy surcharge.**
- These draft rules with regard to tariff proposes that the tariff for the Green Energy shall be determined by the Appropriate Commission, which may comprise of the average pooled power purchase cost of the renewable energy, cross subsidy charges (if any) and service charges covering all prudent cost of the distribution licensee for providing the green energy.”
- As per the draft rules “Green hydrogen” is the hydrogen produced using electricity from the renewable sources.
- The obligated entity including the Industries can also meet their

Renewable Purchase Obligation by purchasing green hydrogen.

- The quantum of green hydrogen would be computed by considering the equivalence to the Green hydrogen produced from one MWh of electricity from the renewable sources or its multiple.
- The norms shall be notified by the Central Commission.
- The Appropriate Commission shall put in place regulations in accordance with this Rule to provide Green Energy Open Access to consumers who are willing to consume the Green energy.
- All applications for open access of Green Energy shall be granted within a maximum of 15 days.
- The rules says that only Consumers who have contracted demand/sanctioned load of hundred kW and above shall be eligible to take power through green energy open access.
- There shall be no limit of supply of power for the captive consumers taking power under green energy open access.
- Provided further that reasonable conditions such as the minimum number of time blocks for which the consumer shall not change the quantum of power consumed through open access may be imposed so as to avoid high variation in demand to be met by the distribution licensee.”

About MNRE:

- It is an acronym for the Ministry of Power & Ministry of New and Renewable Energy.
- MNRE is the nodal Ministry of the Government of India in New Delhi, for all matters relating to new and renewable energy.

- The ministry was established as the Ministry of Non Conventional Energy Sources in 1992. It started functioning independently with effect from 2nd July, 1992.
- Earlier it was known as the Ministry of Energy sources.
- Electricity is a concurrent subject at Entry 38 in List III of the seventh Schedule of the Constitution of India.
- It is mainly responsible for research and development, intellectual property protection, and international cooperation, promotion, and coordination in renewable energy sources such as wind power, small hydro, biogas, and solar power.
- The current Minister of MNRE R. K. Singh, a Minister of State (Independent Charge).



Student Entrepreneurship Program 3.0:

The third series of the ‘Student Entrepreneurship Program’ (SEP 3.0) for the young innovators of Atal Tinkering Labs (ATL) has been launched in India by the Atal Innovation Mission (AIM) NITI Aayog in collaboration with La Fondation Dassault Systemes.

Key Points:

- The theme of SEP 3.0 is based on the ‘Made in 3D Seed the Future Entrepreneurs Program’.

- The theme of SEP 3.0 was conceptualized and rolled out in France by La Main à la Pate Foundation and La Fondation Dassault Systèmes Europe in 2017.
- As part of this program, a team from each school (6 students and a teacher) will be allocated seed funding towards creating their own start up, design and prototype their innovation using 3D printing, prepare marketing campaign, define product pricing and create expansion strategy.
- Through this program, team will get the real feel of 'How a startup works!'
- Startup of each school will participate in a playful competition at the end of the programme and present their marketing campaign before experts from industry and academia.

Key features of SEO 3.0 Program:

- As a part of the program, a total of 50 teams from 26 states are selected.
- These teams include the top 20 teams of (Atal Tinkering Lab) ATL Marathon 2019, 10 teams from Aspirational Districts, 10 teams selected by Dassault, and 10 teams from Jammu & Kashmir, Ladakh, and Northeast
- Each team comprises 6 students and a teacher.
- Teams will work towards creating their own start up, design and prototype their innovation using 3D printing, prepare marketing campaigns, define product pricing and create expansion strategy.
- Seed funding will be allocated for their ventures.

Significance:

- It will allow student innovators to work in association with Dassault

volunteers and help them in gaining the following:

- **Mentor support**
 - **Prototyping and testing support**
 - **End User feedback,**
 - **Intellectual Property registration and Patenting of ideas,**
 - **Manufacturing support**
 - **Launch of the product in the market.**
- It will help to the develop Innovation mindset and exposure to start up culture.
 - The school students and teachers will have a unique opportunity to interact and collaborate with French schools and French students for cultural and technical interactions.
 - The programme will also provide opportunity to school children to develop an entrepreneurial and inventive mind set, as well as suitable exposure through activities based learning, exploration and challenges.

What is SEP?

- Student Entrepreneurship Program (SEP) is a joint programme of AIM and La Fondation Dassault Systems in India.
- SEP falls in line with the vision and mission of aspirational district program that it has given a new hope to students who were looking forward for such opportunities.
- SEP 1.0 began in January 2019. It allowed student innovators to work closely with Dell volunteers.
- SEP 2.0 was launched in 2020. Again the major industrial partner was Dell Technologies.



TAPAS: Ministry of Social Justice & Empowerment has launched an online portal named TAPAS (Training for Augmenting Productivity and Services).

About TAPAS:

- TAPAS has been launched to provide filmed lectures/courses and e study material in the field of social defence.
- It is the initiative of the National Institute of Social Defence (NISD), Ministry of Social Justice and Empowerment.
- The course can be taken up by anyone and is free of cost.
- Currently, there are 5 courses under TAPAS. They are:

1. **Drug (Substance) Abuse Prevention,**
2. **Geriatric/Elderly Care,**
3. **Care and Management of Dementia,**
4. **Transgender Issues and**
5. **A comprehensive course on Social Defence Issues.**

Objectives of TAPAS:

- TAPAS seeks to provide access to lectures by subject experts, study material and more, but in a manner that it supplements the physical classroom without compromising on the quality of teaching.
- The main objective of introducing the course modules is to impart training

and enhance the knowledge and skills for the capacity building of the participants.

- It can be taken up by anyone who wishes to enhance his or her knowledge on the topics and there is no fee for joining.

Science and Technology



MoU between India and USA: The Union Cabinet chaired by Shri Narendra Modi, on 18th august 2021, approved a pact between India and the United States on cooperation in the field of geology.

The approval was given for the signing the Memorandum of Understanding (MoU) between Geological Survey of India (GSI), Ministry of Mines, the Government of the Republic of India, and the Florida International University (FIU) board of trustees on behalf of its Department of Earth and Environment, College of Arts, Sciences and Education, United States of America on cooperation in field of Geology.

Key Details:

- The identified area of cooperation between the two Participants will be as follows:
 - 1) Development of the geological knowledge, research regarding geologic and tectonic environment of post collisions magmatism in India

Asia collisional margin, geologic history and tectonics of the Eastern Himalayan Syntaxis.

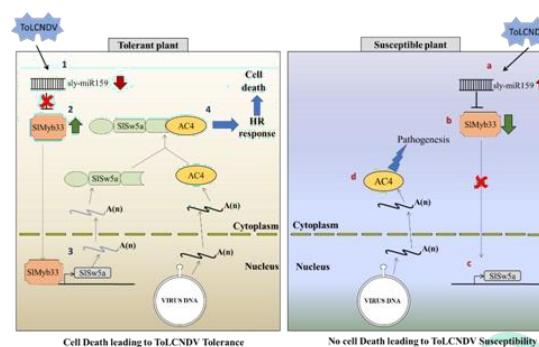
- 2) Developing cooperative projects in the fields of regional geological, geochemical, petrological and multi isotopic studies related to the evolution of post collisional magmatic belts (Ladakh Plutons).
- 3) Exchange of information on technology and geoscientific data.
- 4) The cooperation will also be for the exchange of information on technology and geoscientific data and other areas of mutual interest to be decided upon by the parties.

Benefits:

- The MoU will provide an institutional mechanism between GSI and the FIU on cooperation in the field of Geology.

About GSI:

- The Geological Survey of India (GSI) is a scientific agency of India.
- It was founded in 1851.
- It is a Government of India (GoI) Ministry of Mines organization.
- It is one of the oldest of such organizations in the world and the second oldest survey in India after Survey of India (founded in 1767), for conducting geological surveys and studies of India.
- It is also the prime provider of basic earth science information to government, industry and general public, as well as the official participant in steel, coal, metals, cement, power industries and international geoscientific forums.



Tomato leaf curl New Delhi virus

(ToLCNDV): Scientists of the National Institute of Plant Genomics Research (NIPGR) have unraveled an effective defense strategy deployed by a resistant tomato cultivar against Tomato leaf curl New Delhi virus.

Key Points:

- ❖ Tomato leaf curl New Delhi virus (ToLCNDV) infection causes severe losses in tomato yield worldwide.
- ❖ Lack of information on resistance (R) genes against ToLCNDV has considerably retarded the pace of crop improvement against this rapidly spreading pathogen.
- ❖ Several attempts have been made to identify antiviral genes against ToLCNDV and related viruses.
- ❖ Scientists from DBT Autonomous Institution, National Institute of Plant Genomics Research (NIPGR) report an effective defense strategy deployed by a resistant tomato cultivar against ToLCNDV.
- ❖ It employs Sw5a (R gene) that recognizes AC4 protein (viral effector) of ToLCNDV to restrict virus spread.
- ❖ These findings could be translated into development of resistance in susceptible cultivars of tomato through modern breeding or molecular approaches.

About Tomato leaf curl New Delhi virus (ToLCNDV):

- ❖ Tomato leaf curl New Delhi virus (ToLCNDV) is a bipartite, single stranded DNA virus transmitted by the whitefly, *Bemisia tabaci*.
- ❖ It was first described on tomatoes in India in 1995 (initially as ToLCV India).
- ❖ ToLCNDV was initially found on *Solanum lycopersicum* (tomato), and then on other Solanaceae such as *Solanum melongena* (aubergine), chili pepper (*Capsicum* spp.) and *Solanum tuberosum* (potato).
- ❖ Following its discovery in India, other Asian countries also reported the occurrence of ToLCNDV on a rather wide range of crops.
- ❖ ToLCNDV was first detected in Europe in 2012, affecting zucchini squash crops in Spain, with subsequent detections in Tunisia, Italy and Morocco.

ToLCNDV a Threat:

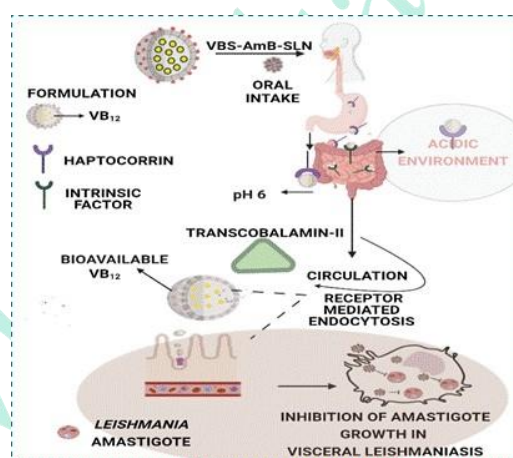
- ❖ ToLCNDV is responsible for severe outbreaks of disease in cucurbit crops in the Mediterranean basin and represents a serious threat to economically important solanaceous crops in the region.

About NIPGR:

- ❖ The National Institute of Plant Genome Research (NIPGR) (formerly known as National Centre for Plant Genome Research)
- ❖ Research) is an autonomous institution aided by the Department of Biotechnology, Government of India (GoI).
- ❖ The Institute's establishment coincides with the 50th anniversary of India's

independence as well as the birth anniversary of Prof. (Dr.) J. C. Bose.

- ❖ The formal announcement was made on November 30th 1997.
- ❖ The Institute started to function in the year 1998 with the mandate to undertake, promote and co ordinate research, train workers and to serve as information resource in identified aspects of plant genomics to build a frontline institution.



Visceral Leishmaniasis: Indian researchers have developed a non invasive, easy to administer, cost effective, and patient compliant potential therapeutic strategy against Visceral Leishmaniasis.

Key Highlights:

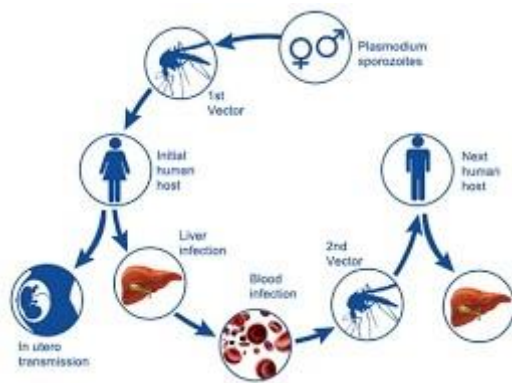
- ❖ A team led by Dr. Shyam Lal from the Institute of Nano Science and Technology (INST), an autonomous institute of the Department of Science and Technology (DST), Government of India (GoI) has developed a smart and intelligent nanocarrier.
- ❖ This nanocarrier has been developed utilizing the natural intrinsic Vitamin B12 pathway present in human body that can mitigate stability challenges and drug associated toxicity.

- ❖ The research was supported under the DST SERB Early Career Research Award and published in Materials Science & Engineering C'.
- ❖ Their strategy based on nano carrier based oral drugs coated with Vitamin B12 enhanced oral bioavailability and efficacy of the therapy by more than 90%.

About Visceral Leishmaniasis:

Visceral Leishmaniasis (VL) is a complex infectious disease transmitted by the bite of female Phlebotomine sandflies.

It is a neglected tropical disease that affects millions annually, making it the second most common parasitic killer after malaria.



World Mosquito Day: The World Mosquito Day is observed on 20 August annually across the globe.

Why is World Mosquito Day observed?

The day is observed for the following reasons:

- To raise awareness about the causes of malaria and how it can be prevented.
- To highlight the efforts of healthcare officials, NGOs, and others in fighting diseases caused by malaria.
- This day is a global commemoration of Sir Ronald Ross' discovery in 1897

that female Anopheles mosquitoes transmit malaria between humans.

- On this day, every year, awareness is created around diseases caused by mosquitoes.

Note:

- The method of transmission begins with introducing the parasite into the human's blood through the bite of a mosquito.
- There are several different mosquitoes that act as vectors for different diseases.
- Aedes mosquitoes cause chikungunya, dengue fever, yellow fever, lymphatic filariasis, rift valley fever, and zika.
- Anopheles causes malaria, lymphatic filariasis (in Africa).
- This transmission of diseases from animals to humans is a process called **Zoonosis**.

Theme of 2021:

- This year amid the coronavirus pandemic, the theme of World Mosquito Day 2021 is "Reaching the zero malaria target".

History:

- On 20th August 1897, Sir Ronald Ross discovered that Anopheles mosquitoes were responsible for the transmission of the malaria parasite.
- This discovery by the British doctor brought a significant impact on the health industry, ensuring humans are safeguarded or prevented by all means.
- To mark this breakthrough discovery in the fight against malaria, 20 August was established and observed to celebrate the discovery of the link

between mosquitoes, humans, and malaria.

About Malaria:

- Malaria is a preventable and treatable infectious disease transmitted by mosquitoes.
- However, it is a life threatening disease if left untreated.
- It's typically transmitted through the bite of an infected Anopheles mosquito.
- Infected mosquitoes carry the Plasmodium parasite.
- When this mosquito bites a human, the parasite is released into their bloodstream.

What causes malaria?

There are four kinds of malaria parasites that can infect humans:

1. Plasmodium vivax
2. P. ovale
3. P. malariae
4. P. falciparum

P. falciparum causes a more severe form of the disease and those who contract this form of malaria have a higher risk of death. An infected mother can also pass the disease to her baby at birth. This is known as congenital malaria.

Malaria is transmitted by blood, so it can also be transmitted through:

1. An organ transplant
2. A transfusion
3. Use of shared needles or syringes

Symptoms of Malaria:

The symptoms of malaria typically develop within 10 days to 4 weeks following the infection. In some cases, symptoms may not develop for several months. Some malarial

parasites can enter the body but will be dormant for long periods of time.

Common symptoms of malaria include:

- Shaking chills that can range from moderate to severe
- High fever
- Profuse sweating
- Headache
- Nausea
- Vomiting
- Abdominal pain
- Diarrhea
- Anemia
- Muscle pain
- Convulsions
- Coma
- Bloody stools

Diagnoses of Malaria:

- A malaria blood test is done using a microscope to examine the blood for signs of the malaria parasite* or via malaria Rapid Diagnostic Tests that permit reliable detection of malaria infections particularly in remote areas with limited access to good quality microscopy services.

Treatment:

- Medication is used for malaria treatment, with Artemisinin Combination Therapy being the recommended first line treatment.

Significance:

- Malaria is typically found in tropical and subtropical climates where the parasites can live.
- Malaria kills more than one million people each year.
- Most of the affected are in sub Saharan Africa, where malaria is the leading cause of death for children under five.

- Among the many nations, India too has become a favourable breeding place for many mosquito species making it the hotspot for diseases like dengue, yellow fever, malaria, and others.
- Malaria is a global emergency that affects mostly poor women and children, malaria perpetuates a vicious cycle of poverty in the developing world.

Sports

SPORTS:



Lord's Test (IND vs ENG): India beat England by 151 runs to win the second Test and take a 1 0 lead in the five match series here on 16th August 2021.

Key Highlights:

- Chasing 272, England was bowled out for 120 in 51.5 overs with skipper Joe Root top scoring with 33.
- Mohammed Shami (56*) and Jasprit Bumrah's mind blowing 89 run 9th wicket combination turned the tide back in India's favour from a position when the hosts appeared to be favourites to win.
- India declared on 298 8 just after lunch to set England 272 to win in 60 overs. It was a victory target the hosts never intended to chase, but one they couldn't defend either.
- After a rain affected tie at Trent Bridge, India now leads the five match series 1 0.
- The third Test at Headingley in Leeds starts on August 25.

Note: Virat Kohli is now the 4th most successful captain in Test history with 37 wins and the only third Indian captain to win a Test at Lord's after Kapil Dev & MS Dhoni.

About Lords:

- Lord's: Lord's Cricket Ground, commonly known as Lord's, is a cricket venue in St John's Wood, London.
- It was established in 1814.
- Known as the 'home of cricket', Lord's is the most famous cricket ground in the world and is home to the world's oldest sporting museum.
- It is named after its founder, Thomas Lord.
- It is owned by Marylebone Cricket Club (MCC) and is the home of Middlesex County Cricket Club, the England and Wales Cricket Board (ECB), the European Cricket Council (ECC) and, until August 2005, the International Cricket Council (ICC).
- **Note: The first test was played between England and Australia on 21–23 July 1884.**



U 20 World Athletics Championships:

The Indian mixed 4X400m relay team bagged bronze medal in the U 20 World Athletics Championships in Nairobi on 18th August 2021.

Key Highlights:

- Indian quartet of Bharat S, Priya Mohan, Summy and Kapil clocked 3:20.60 seconds while the Nigerian mixed 4x400m relay team won the gold, and Poland secured the silver.
- India had entered the final as the second best team overall with a championship record timing of 3:23.36s in the heat races held in the morning.
- The record was, however, short lived as the athletes from Nigeria improved it by finishing their race in heat 2 with a timing of 3:21.66s.

Note:

- The World Athletics U20 Championships is taking place from 17 to 22 August 2021 at the Nyayo Sports Complex in Nairobi, Kenya.
- Many major countries are not participating such as the USA, Great Britain, Germany, Australia, China, Japan, New Zealand or Norway, etc.

About World Athletics U20 Championships:

- The World Athletics U20 Championships is a biennial world championship for the sport of athletics organized by the World Athletics. It is contested by athletes in the under 20 athletics age category 19 years old or younger on 31 December in the year of the competition.
- The competition was launched as the IAAF World Junior Championships in Athletics in 1986 and renamed to IAAF World U20 Championships in November 2015.
- The current name was adapted with the name change of the sport's governing body in 2019.



World Athletics U20 Championships:

The 2021 edition of the World Athletics U20 Championships started from August 18, 2021 in Nairobi, Kenya.

Highlights:

- The tournament will continue till 22 August at the Nyayo Sports Complex.

- The impact of Covid on teams travelling and logistics of moving vital equipment around the world have proven to be a challenge, the governing body said in a release.
- The event was originally scheduled for 2020. The World U20 Championships were held from 17 to 22 August, 2021.

Participation from Indian Side:

- Javelin Thrower Kunwar Ajai Raj Singh Rana and Long Jumper Shaili Singh will lead the Indian challenge in the World Athletics U20 Championships.
- India has had a champion at the U20 Athletics World Championships in each of the last two editions.
- Neeraj Chopra threw the javelin longer than any man in his age group in 2016 for his first major international breakthrough while Hima Das clinched gold medal in the women's 400m in Tampere in 2018.

The 2021 World Athletics U20 Championships, also known as the World Junior Championships, is an international athletics competition for athletes qualifying as juniors (born no earlier than 1 January 2002)



2021 Spilimbergo Open Chess

Tournament: A 15 year old young Indian Grandmaster Raunak Sadhwani has won the 19th Spilimbergo Open chess tournament in Italy.

Highlights:

- The fourth seeded Sadhwani, who hails from Nagpur, remained undefeated in the tournament, with seven points from nine rounds, in which claimed five wins and four draws.
- In the ninth and final round, Sadhwani and Italian GM Pier Luigi Basso finished level on seven points, but the Indian was declared the winner on the basis of a better tie break score.

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