

# Week 2 Current Affairs Update

8<sup>th</sup>- 14<sup>th</sup> November 2020

## EVENTS

### NATIONAL

#### SCIENCE & TECHNOLOGY

#### ISRO LAUNCHED ALL WEATHER EARTH OBSERVATION SATELLITE



**Date:** 8th November 2020

India successfully launched its latest earth observation satellite EOS-01 and nine customer satellites on board its Polar rocket from the spaceport in Sriharikota.

#### **Key Points:**

- It was launched by ISRO on India's Polar Satellite Launch Vehicle PSLV-C49 from Satish Dhawan Space Centre, Sriharikota.
- PSLV-C49 is the 2nd flight of PSLV in 'DL' configuration (with 2 solid strap-on motors).
- EOS-01 is an earth observation satellite, intended for applications in agriculture, forestry and disaster management support.
- EOS-01 is a part of ISRO's RISAT (Radar Imaging Satellite) series of SAR (Synthetic Aperture Radar) satellites and originally named RISAT-2BR2 but was changed to EOS-1.
- The nine customer satellites from Lithuania (1), Luxembourg (4) and USA (4) were launched under a commercial arrangement with NewSpace India Limited (NSIL).

## INDIA MOBILE CONGRESS (IMC) 2020



**Date:** 9th November 2020

Fourth edition of the India Mobile Congress (IMC) was inaugurated recently. To be held virtually this year given the ongoing pandemic.

### **Key Points:**

- IMC is jointly organized by the Department of Telecommunications (DoT) and Cellular Operators Association of India (COAI).
- The event will see 50+ participating countries, 110+ Global Speakers, Start-ups over the three day programme.
- Theme: “Inclusive Innovation – Smart, Secure, Sustainable”
- IMC is considered the largest Digital Technology Forum in Asia for bringing together the industry, Government, academia, and other ecosystem players to discuss the latest industry technology trends around major themes such as 5G, Artificial Intelligence (AI), Internet of things (IoT) etc.

## **DEFENCE**

### **‘BULL STRIKE’ – A TRI-SERVICE EXERCISE**



**Date:** 8th November 2020

The ‘Bull Strike’, tri-service exercise was conducted at Teressa Island in Nicobar Group of Islands.

### **Key Points:**

- The exercise focussed on interoperability and synergy among three services – Army, Navy and Air Force to maximise combat potential.

- It was a three-day Tri-Service Combat Exercise conducted by Andaman and Nicobar Command (ANC).
- In the exercise, three service components of ANC, elements of Indian Army's Parachute Brigade, MARCOS (Marine Commando Force) and Special Forces took part.
- Training activities held in the exercise were:
  - (a) Combat free fall and paradrop from Advanced Airlifter C-130J "Super Hercules" by a company of Para Commando
  - (b) Action by MARCOS of Indian Navy
  - (c) Special Heli Borne Operations (SHBO) by Indian Army Ghatak platoons.
  - (d) Search and Rescue (SAR) operation and medical evacuation procedures.

### **KALVARI-CLASS SUBMARINE INS VAGIR**



**Date:** 13th November 2020

Indian Navy's fifth Kalvari-class Diesel Electric attack submarine INS Vagir was launched at Mazgaon Dock in Mumbai.

#### **Key Points:**

- Indian Naval Ship (INS) Vagir is the fifth among the six Kalvari-class submarines.
- The other vessels in the class are INS Kalvari, INS Khanderi, INS Karanj, INS Vela and INS Vagsheer.
- Of these Kalvari and Khanderi have been commissioned in 2017 and 2019.
- Vela and Karanj are undergoing sea trials and Vagsheer is under construction.
- The design of Kalvari class of submarines is based on Scorpene class of submarines.
- This class of submarines have Diesel Electric transmission systems.
- These are primarily attack submarines or 'hunter-killer' types which means they are designed to target and sink adversary naval vessels.

### **INDIA TEST FIRED QUICK REACTION SURFACE-TO-AIR MISSILE (QRSAM)**



**Date:** 15th November 2020

India conducted a successful test firing of all-weather Quick Reaction Surface-to-Air Missiles (QRSAM). It was test-fired from Chandipur Test Fire Range, off the Odisha coast.

### **Key Points:**

- The QRSAM is the canister-based system, having a range of 30km and is capable of striking aerial targets at a height of 15 km.
- It is propelled by a single stage solid propellant rocket motor.
- It is developed by DRDO, Bharat Dynamics and Bharat Electronics Limited using all indigenous subsystems.
- The QRSAM was launched from a mobile launcher capable of carrying 6 canisterised missiles.
- It achieved the major milestone by a direct hit on a Banshee Pilotless Target aircraft at medium range and medium altitude.

## **ECONOMY**

### **FIFTEENTH FINANCE COMMISSION**



**Date:** 8th November 2020

The Fifteenth Finance Commission led by Chairman N K Singh, submitted its Report to the President of India.

## Key Points:

- The Report will be available in the public domain once it is tabled in the Parliament by the Union Government.
- The Finance Commission was required to submit two reports. The first report, consisting of recommendations for the financial year 2020-21, was tabled in Parliament.
- The Commission was asked to give its recommendations on many unique and wide-ranging issues in its terms of reference.
- Apart from the vertical and horizontal tax devolution, local government grants, disaster management grant, the Commission was also asked to examine and recommend performance incentives for States in many areas like power sector, adoption of DBT, solid waste management etc.
- The Commission was also asked to examine whether a separate mechanism for funding of defence and internal security ought to be set up and if so how such a mechanism could be operationalised.

## PRODUCTION-LINKED INCENTIVE SCHEME



**Date:** 12th November 2020

The Union Cabinet has approved the Continuation and Revamping of the Scheme for Financial Support to Public-Private Partnership in Infrastructure Viability Gap Funding Scheme till 2024-25 with an outlay of Rs 8,100 crore.

## Key Points:

- This will help to promote and strengthen PPP (Public-Private Partnership) in the social and economic infrastructure domain.
- This financial support will allow proper operation and maintenance, efficient creation of assets and will make the socially essential projects commercially viable.
- This grant amount will help to develop water supply, wastewater treatment, Health and Education sectors.
- Also, the committee said that the centre will provide 30% of the total project cost while the state governments and sponsoring ministry will have to provide additional support of up to 30% of the total project cost.

## OPERATION GREENS – TOP TO TOTAL SCHEME



**Date:** 12th November 2020

Under Operation Greens (TOP to TOTAL) Scheme, 50% transportation subsidy is now made available for air transportation for 41 notified fruits and vegetables from North-Eastern and Himalayan States to any place in India.

### Key Points:

- Airlines will provide the transport subsidy directly to the supplier by way of charging only 50% of the actual contracted freight charges and will claim the balance 50% from MoFPI as subsidy.
- The scheme was approved and the amended Scheme Guidelines were notified in November 2020.
- All consignment of notified fruits and vegetables irrespective of quantity and price would be eligible for 50% freight subsidy.
- The transportation subsidy was earlier extended under Operation Greens Scheme for Kisan Rail Scheme in December.
- Railways charge only 50% of freight charges on the notified fruits and vegetables.

## SOCIAL

Creation of National Database for Unorganised Workers



**Date:** 11th November 2020

The Ministry of Finance has approved the creation of the National Database for Unorganised Workers (NDUW).

## Key Points:

- This is the first national database created for migrant workers and unorganised sector workers.
- It will be created with an aim to give a proper platform to the migrants so that it will become convenient and easy for the government to implement various programmes and schemes to this unorganised sector.
- The database will be developed by the Ministry of Labour and Employment by using Aadhaar Number in which migrant workers and unorganised sector workers will be enrolled.
- This database will help the government to implement schemes, job opportunities in order to maintain the economic life of migrant workers and unorganised sector workers on the proper track.

## ENVIRONMENT

Panna Tiger Reserve gets UNESCO's 'Biosphere Reserve' Status



**Date:** 11th November 2020

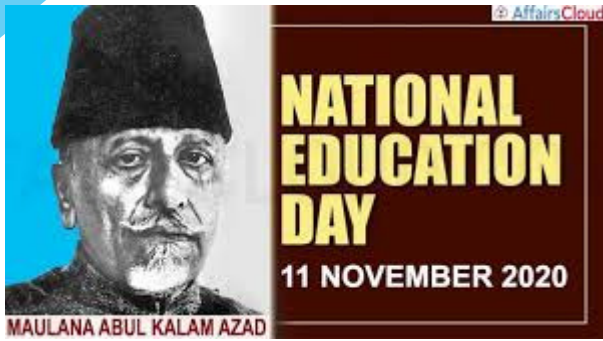
Madhya Pradesh's Panna National Park has been declared a UNESCO Biosphere Reserve.

## Key Points:

- Every year UNESCO appoints new biosphere reserves and removes others to promote the conservation of biodiversity, resolve the man-animal conflict at that site and allow sustainable use of natural resources.
- UNESCO's Man and the Biosphere Programme (MAB): The idea of the biosphere reserve was initiated by UNESCO in 1974 under the MAB with the objective of obtaining international cooperation for the conservation of the biospheres.
- The first of India's reserves to make it to UNESCO's list was Tamil Nadu's Nilgiri Biosphere Reserve in 2000.
- The Panna tiger reserve is situated in the Vindhya mountain range in the northern part of Madhya Pradesh. Ken river (a tributary of the Yamuna River) flows through the reserve.

## EDUCATION

### NATIONAL EDUCATION DAY



**Date:** 11th November 2020

The Union Minister of Education virtually inaugurated the National Education Day programme organised by IIT Bombay.

#### Key Points:

- National Education Day has been observed every year on 11th November, since 2008 to commemorate the birth anniversary of Maulana Abul Kalam Azad.
- In the event India's commitment to establish India as a global hub of education and to ensure high quality of education was reiterated through Study in India, Stay in India and Internationalization of Education.
- Study in India, Stay in India is an extension of the Study in India programme, a flagship project of the Government of India, launched in collaboration with the Ministry of Education, Ministry of External Affairs, Ministry of Home Affairs, and Ministry of Commerce and Industry in April 2018.
- Maulana Abul Kalam Azad was the first Union Education Minister of India. He was a freedom fighter, scholar and eminent educationist.

## HEALTHCARE

### MISSION COVID SURAKSHA



**Date:** 13th November 2020

Union Minister of Finance Nirmala Sitharaman launched the Mission COVID Suraksha.



## Key Points:

- For this mission, the GOI has inducted Rs 900 crores.
- The inducted amount will be utilized for the research and development of COVID-19 vaccines in India.
- The Mission COVID Suraksha is one of the parts of a stimulus package worth Rs 2.65 lakh crores.
- Also, FM made an announcement to induct Rs 10,000 crores for PM Garib Kalyan Rozgar Yojana with an aim to increase employment.

## INTERNATIONAL

## CONFERENCES & SUMMITS

### VIRTUAL GLOBAL INVESTOR ROUNDTABLE (VGIR) 2020 CONFERENCE



**Date:** 9th November 2020

The Virtual Global Investor Roundtable (VGIR) 2020 Conference was chaired by Prime Minister Narendra Modi.

## Key Points:

- The conference was organized by the Ministry of Finance in coordination with the National Investment and Infrastructure Fund.
- The conference was attended by 20 top institutional investors from the US, Europe, Canada, Korea, Japan, Middle East, Australia and Singapore.
- Aim of this conference was to attract investment to the country. So the conference allowed a discussion of dialogue between leading global institutional investors, Indian business leaders and the highest decision-makers of GOI and financial market regulators.
- The main focus of the discussion was on India's economic and investment outlook, structural reforms and vision of GOI to make India a USD 5 trillion economy.

## 20TH SCO COUNCIL OF HEADS OF STATE SUMMIT



**Date:** 12th November 2020

The 20th Summit of the SCO Council of Heads of State was held virtually.

### **Key Points:**

- The Indian delegation was led by PM Narendra Modi and it was chaired by Vladimir Putin, President of Russia.
- In the meet, PM Modi addressed that India being a non-permanent member of UNSC, beginning from 1st Jan 2021, will work by focusing on the theme of 'reformed multilateralism'.
- This will help to bring a positive impact to achieve desirable changes in global governance.
- He also highlighted that India will strengthen the connectivity and collaboration in SCO in its initiatives like International North-South Transport Corridor, Chabahar Port and Ashgabat Agreement.
- He also mentioned that India's pharma sector supported essential medical supply to more than 150 nations during COVID-19 pandemic.

## 17TH ASEAN-INDIA VIRTUAL SUMMIT



**Date:** 15th November 2020

The 17th ASEAN-India Summit was recently held virtually. Prime Minister Narendra Modi co-chaired the summit.

### **Key Points:**

- The summit was chaired by Prime Minister of Vietnam, Nguyen Xuan Phuc.

- Vietnam is the current chair of the Association of Southeast Asian Nations (ASEAN).
- At this summit, India declared a contribution of USD 1 million to Covid-19 ASEAN Response Fund.
- The overall focus of the summit was on tackling pandemic COVID-19, solve regional and international issues of common interest related to South China Sea and Terrorism
- During this summit, both dignitaries welcomed the adoption of new ASEAN-India Plan of Action for 2021-25

## INTERNATIONAL RELATIONS

### AUSTRALIA-INDIA WATER CENTRE



**Date:** 11th November 2020

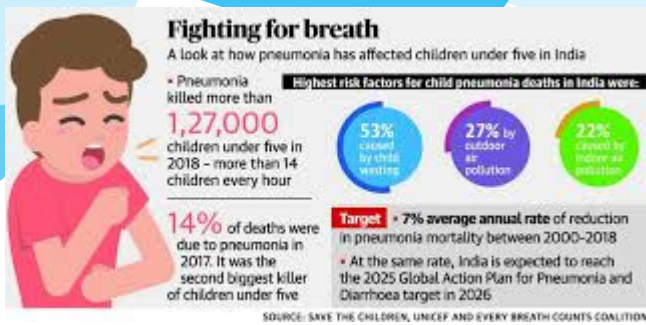
The Australia-India Water Centre was inaugurated virtually through a webinar held with a view of COVID-19 pandemic.

#### **Key Points:**

- The centre is an initiative of IIT Guwahati, University of Western Sydney of Australia and 21 other partners from India and Australia.
- The water centre is developed with an aim to enhance water security which is the critical challenge faced by both India and Australia.
- So both nations agreed to enhance cooperation in this sector in order to improve water management and sustainable economic development.
- The Australia-India Water Centre will allow the collaboration work in water research activities along with a joint Master's level programme in water future.
- This water centre will conduct programmes, training and workshops for students, staff and government agencies.

## REPORTS & INDICES

Pneumonia and Diarrhoea Progress Report



**Date:** 12th November 2020

Annual report by the International Vaccine Access Centre (IVAC) has highlighted that India has made significant progress in its vaccination coverage to prevent child pneumonia and diarrhoea deaths.

### Key Points:

- Although overall the world’s health systems are falling short of ensuring that children have access to prevention and treatment services, India has achieved the global target of 90% coverage for three of the five vaccines whose coverage is monitored in the report.
- These vaccines are Diphtheria, Pertussis and Tetanus (DPT) vaccine, Measles-containing-vaccine first dose, Haemophilus influenzae type B, pneumococcal conjugate vaccine (PCV), and rotavirus vaccine.
- India has also completed the “100-day agenda” — an unprecedented national scale-up of rotavirus vaccine. This landmark vaccine expansion will help protect 26 million children born each year against life-threatening cases of rotavirus diarrhoea.
- However, India failed to reach all four targets for treatment- breastfeeding, immunisation, care-seeking and antibiotics, oral rehydration solution (ORS), and zinc supplementation.



# PEOPLE

## NATIONAL

### AWARDS & HONOURS

#### S. HAREESH



**Date:** 10th November 2020

**Why in News:** Won the JCB Prize for Literature for 2020 for his novel Moustache.

#### Key Points:

- Malayalam writer S Hareesh has won the JCB Prize for Literature for 2020 for his novel Moustache. It is his debut novel.
- Novel 'Moustache' by S. Hareesh, translated from Malayalam by Jayasree Kalathil, was announced the winner of the ₹25-lakh JCB Prize for Literature recently.
- JCB Prize for Literature is an Indian literary award established in 2018.
- It is awarded annually with 25 lakh INR (38400 USD) prize to a distinguished work of fiction by an Indian writer working in English or translated fiction by an Indian writer.

#### RUSKIN BOND



**Date:** 11th November 2020

**Why in News:** Conferred with Tata Literature Lifetime Achievement Award 2020.

## Key Points:

- Ruskin Bond, one of India's most cherished authors, has been conferred the 11th Tata Literature Live! Lifetime Achievement Award for 2020, to recognise his very long literary life of almost seventy years.
- A Padma Shri & Padma Bhushan awardee, Bond has been recognised by the Indian Council of Child Education for his contribution to the growth of children's literature in India.
- Some of the popular books of Ruskin Bond are: The Room On The Roof, Angry River, The Blue Umbrella, Rusty, The Boy From The Hills, A Flight Of Pigeons etc.
- Apart from this, renowned poet, lyricist and screenwriter Javed Akhtar has been named as the Poet Laureate of the Tata Literature Live! The Mumbai LitFest 2020.

## OBITUARY

### SANCHAMAN LIMBOO



**Date:** 11th November 2020

Former Chief Minister of Sikkim Sanchaman Limboo passed away. He was 73.

## Key Points:

- Sanchaman Limboo served as the fourth Chief Minister of Sikkim.
- He became CM for a period of 6 months (179 days) between 17 June 1994 and 12 December 1994.
- He belongs to the Sikkim Sangram Parishad Party. He formed the congress government in 1994, following the merger of Sikkim Sangram Parishad Party with Indian National Congress.

## INTERNATIONAL

## APPOINTMENTS

### JOSEPH ROBINETTE BIDEN JR.



**Date:** 8th November 2020

**Why in News:** Elected as the 46th President of the United States.

**Key Points:**

- Joe Biden has defeated President Donald Trump to become the 46th president of the United States.
- He is from the Democratic Party, one of the two major contemporary political parties in the United States. Other being the Republican Party.
- His full name is Joseph Robinette Biden Jr. and has served as Vice President of the United States under Barack Obama from 2009 to 2017.
- Joe got 284 electoral college votes while Trump got 214 votes. Biden, 77, will also be the oldest president-elect in U.S. history.
- Kamala Harris will be the vice president and will be the first Indian-American woman to serve as Vice President of the USA.

**OBITUARY**

**KHALIFA BIN SALMAN AL KHALIFA**



**Date:** 12th November 2020

World's Longest Serving Bahrain PM Khalifa Bin Salman Al Khalifa passed away.

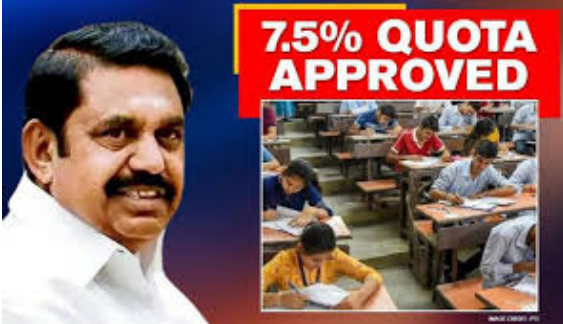
**Key Points:**

- World's longest serving Prime Minister Khalifa Bin Salman Al Khalifa, Bahrain PM, died at the age of 84.
- The al-Khalifa family has ruled the Kingdom since 1783.
- He held the post since Bahrain's independence in 1971.
- He led the nation's government for decades and survived the 2011 Arab Spring protests that demanded his removal over corruption allegations.



### POLITY & GOVERNANCE

#### TAMIL NADU NEET QUOTA

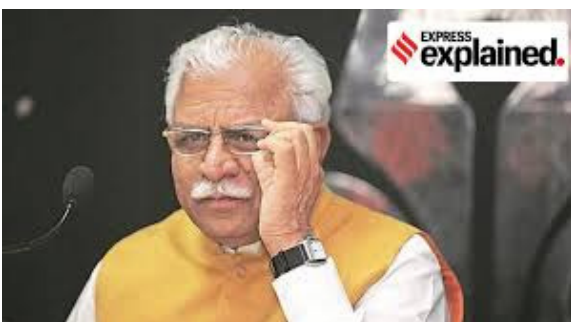


**Date:** 9th November 2020

#### Key Highlights:

- Tamil Nadu Governor gave his assent to a Bill that sought to reserve 7.5% seats in undergraduate medical admissions for government-school students who qualified NEET.
- The Tamil Nadu Assembly had passed a Bill on the quota in September this year.
- NEET-UG replaced the All India Pre Medical Test (AIPMT) and all individual MBBS exams conducted by states or colleges themselves in 2013.
- The NTA – National Testing Agency, the regulatory body for NEET UG Exam, conducts it every year in various parts of India in multiple languages.
- Among the States that were strident in their opposition to NEET (National Eligibility-cum-Entrance Test) was Tamil Nadu.
- One of the primary arguments that were made was that NEET would push certain categories of students out of the race for MBBS degrees, and its goal of providing equitable opportunities for all would be frustrated.

#### HARYANA TO RESERVE 75% PRIVATE JOBS





**Date:** 10th November 2020

**Key Highlights:**

- The Haryana State Employment of Local Candidates Bill, 2020 has been passed paving way for more employment opportunities for locals in the private sector.
- The employer may be penalised with fine upto Rs. 5 Lakh for not following provisions of this Act.
- Concerns expressed by experts: Haryana’s Bill may be in violation of Article 16. But, the Haryana government claims that while Article 16 talks about “public employment”, the Bill only pertains to “private sector employment”.
- Besides, it may not be in the interest of industry.
- There are apprehensions that if Haryana implements this kind of a reservation, other states will also follow the same and that shall result in a “complete chaos”.
- Previously, Andhra Pradesh’s decision of introducing 75% reservation for local candidates was challenged in the Andhra Pradesh High Court which observed that “it may be unconstitutional”.

**POLITY & GOVERNANCE**

**CONTEMPT OF COURT**



**Date:** 12th November 2020

**Key Highlights:**

- Kunal Kamra, a stand-up comedian, will face contempt of court charges for his tweets following the Supreme Court’s decision to grant interim bail to television anchor Arnab Goswami.
- According to the Contempt of Courts Act, 1971, contempt of court can either be civil contempt or criminal contempt.
- Civil contempt means wilful disobedience of any judgment, decree, direction, order, writ or other process of a court, or wilful breach of an undertaking given to a court.

- Criminal contempt is attracted by the publication (whether by words, spoken or written, or by signs, or by visible representations, or otherwise) of any matter or the doing of any other act whatsoever which:
- Scandalises or tends to scandalise, or lowers or tends to lower the authority of, any court; or
- Prejudices, or interferes or tends to interfere with, the due course of any judicial proceeding; or
- Interferes or tends to interfere with, or obstructs or tends to obstruct, the administration of justice in any other manner.
- As per the provisions of the Contempt of Courts Act, 1971: “In the case of a criminal contempt, the Supreme Court or the High Court may take action on its own motion or on a motion made by (a) the Advocate-General, or (b) any other person, with the consent in writing of the Advocate-General”.

## INTERNATIONAL

### INTERNATIONAL RELATIONS

#### ETHIOPIA IS ON THE BRINK OF A CIVIL WAR



**Date:** 9th November 2020

#### **Key Highlights:**

- Ethiopia is on the brink of a civil war. A domestic conflict is going on in the country's northern Tigray region.
- The structure of Ethiopia's federal system allows the country's ten regions significant autonomy. These regions also have their own parliaments, their own security forces, and the right to a referendum for independent rule.
- Eritrea may be hardest hit, due to its proximity to Tigray.
- If the violence and conflict spills outside Ethiopia's borders, it may potentially destabilize the Horn of Africa region.

- The US and China have several strategic military bases in that region, the closest being Djibouti. If these military bases were to be impacted by the disturbances in any way, it may cause foreign powers to get militarily involved in the region and the conflict.

## **PEACE DEAL BETWEEN ARMENIA AND AZERBAIJAN**



**Date:** 11th November 2020

### **Key Highlights:**

- Russia brokered a new peace deal between Armenia and Azerbaijan.
- The two countries have been in a military conflict for over six weeks over the disputed region of Nagorno-Karabakh in the South Caucasus.
- As per the new peace deal, both sides will now maintain positions in the areas that they currently hold.
- It means a significant gain for Azerbaijan as it has reclaimed over 15-20% of its lost territory during the recent conflict.
- Further, under this agreement, all military operations are suspended.
- Russian peacekeepers will be deployed along the line of contact in Nagorno-Karabakh and along the Lachin corridor that connects the region to Armenia.



# IDEAS

## NATIONAL

### ENVIRONMENT

#### 'PROJECT AIR CARE' – HARYANA



**Date:** 13th November 2020

#### Key Features:

- This project is launched with an aim to combat air pollution in Gurgaon.
- Under this project, 65 Wing Augmentation Air Purifying Units (WAYU) will be set up having high AQI (Air Quality Indices) which will help to improve the quality of air in Gurgaon.
- The air purifiers are developed by CSIR-NEERI and by IIT-Bombay.
- The 'Project Air Care' is the joint initiative of Gurgaon Metropolitan Development Authority (GMDA) and GSK.

### TRANSPORT

#### FASTAGS



**Date:** 10th November 2020

#### Key Features:

- The Ministry of Road Transport and Highways has issued a notification making FASTags mandatory for all four wheel vehicles from 1st January 2021.
- This will apply to old vehicles as well as M and N category of motor vehicles sold before 1st December, 2017.

- FASTag is an electronic toll collection system in India, operated by the National Highway Authority of India (NHAI).
- It employs Radio Frequency Identification (RFID) technology for making toll payments directly from the prepaid or savings account linked to it.

## HEALTHCARE

### JEEVAN SEVA APP



**Date:** 15th November 2020

#### Key Features:

- Delhi government launched 'Jeevan Seva App' to offer safe and timely transportation of Corona patients to the healthcare facilities and hospitals.
- For this initiative, the Government of Delhi partnered with EVERA, which is an EV cab facility.
- The app will allow the transport of not so critical coronavirus patients to and from their homes, hospitals or health care centers from any location in Delhi at free of cost and in a timely and safe manner.
- The cab service under this app is available for 24 hours.
- The EV cab which will be used for transportation will provide zero pollution and zero-emission transport facility.

## INTERNATIONAL

## SCIENCE & TECHNOLOGY

### THIRTY METER TELESCOPE



**Date:** 10th November 2020

**Key Features:**

- 2020 Physics Nobel Laureate Prof. Andrea Ghez had worked closely with Indian astronomers on the design of back-end instruments and possible science prospects of the Thirty Meter Telescope (TMT) project being installed at Maunakea in Hawaii.
- TMT project is an international partnership between CalTech, Universities of California, Canada, Japan, China, and India.
- “Thirty Metre” refers to the 30-metre diameter of the mirror, with 492 segments of glass pieced together.

## SPACE

### YARKOVSKY EFFECT



**Date:** 12th November 2020

**Key Features:**

- Asteroid Apophis may hit the Earth in 2068 due to a phenomenon called Yarkovsky effect.
- This effect has eventually accelerated the asteroid’s flow and also changed its path.
- According to a recent report, the sun can heat an asteroid in a non-uniform way, causing the space rock to radiate heat energy asymmetrically.
- This can cause a thrust or a tiny push in a certain direction, sometimes changing the path of the asteroid. This effect is called the Yarkovsky acceleration.
- Before the discovery of the Yarkovsky effect, the possibility of the collision was impossible.
- The detection of this effect acting on Apophis means that the 2068 impact scenario is still a possibility.

