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AUGUST 2018

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**AUGUST 1**

## **General Studies-01**

### **Biggest king penguin colony shrinks by 90%**

**News:** The planet's largest colony of king penguins has declined by nearly 90% in three decades, researchers have warned.

#### **Beyond News**

- The last time scientists set foot on France's remote Ile aux Cochons roughly half way between the tip of Africa and Antarctica the island was blanketed by two million of the flightless birds, which stand about a metre tall.
  - But recent satellite images show the population has collapsed, with barely 2,00,000 remaining, according to a study. While adults will set to sea for days at a time foraging for food, the species does not migrate.
  - It is unexpected, and particularly significant since this colony represented nearly one third of the king penguins in the world.
  - Climate change may play a role. In 1997, a particularly strong El Nino weather event warmed the southern Indian Ocean, temporarily pushing the fish and squid on which king penguins depend south, beyond their foraging range.
  - "This resulted in population decline and poor breeding success" for all the king penguin colonies in the region.
  - El Nino's are cyclical events that occur every two to seven years. But they can be amplified by global warming, which itself produces many of the same results, albeit on a longer timescale.
  - Migration is not an option because there are no other suitable islands within striking range.
  - Other factors may be contributing to the decline of the Ile aux Cochon colony, including overcrowding.
  - The larger the population, the fiercer the competition between individuals.
  - The repercussions of lack of food are thus amplified and can trigger an unprecedented rapid and drastic drop in numbers.
- 
- But this so-called "density-dependent effect" can also be made worse by climate change.
- Another possible culprit is **avian cholera**, which has affected seabirds on nearby Marion and Amsterdam Islands, including some king penguins.

## India's population growth rate is overestimated: study

**News:** India's population growth rate is highly overestimated by existing models, say scientists, suggest that accounting for the diversity and differences in the levels of education among people can help arrive at more accurate projections.

### Beyond News

- Accurate population projections could help India and its workforce catch up to more developed Asian countries with higher GDP per capita, researchers suggest.
- By 2025, India is expected to surpass China as the world's most populous country due to higher fertility rates and a younger population.
- To account for the diversity between different areas of India, researchers designed a study that pioneered a five-dimensional model of India's population differences that include rural or urban place of residence, state, age, sex, and level of education.
- The model was then used to show the population projection changes within scenarios that combine different levels of these factors.
- For example, a much higher population projection results from a model that combines data from individual states as compared to the overall national projection, since states with higher fertility rates eventually add up to a higher national population projection.
- If the projection is carried out while only explicitly accounting for age and sex, influential factors like higher education, associated with decreased fertility, are left out. Thus, a projection based on today's much higher fertility rate of uneducated and rural women predicts a drastically larger population in the future.
- Depending on the dimensions considered, when fertility, mortality, education and migration rates are frozen at the 2011 levels, stratification by education, states, or residence can result in population projections that span a huge range from 1.6 to 3.1 billion.
- Where these rates change according to plausible model predictions, the population peaks between 1.65 to around 1.8 billion.

The difference between projections shows the importance of deciding which demographic measures to include in a projection model.

## Unusual heat waves will become the norm: experts

**News:** Intense heat waves like the one which fuelled Greece's deadly wildfires are set to become increasingly frequent around the world due to climate change, experts warn.

### Beyond News

- Record high temperatures have been registered across the Northern Hemisphere in recent weeks, from Norway to Japan.
- Sweltering summers are the norm in Greece, where at least 82 people have been killed in the country's worst ever forest fires.
- But in Northern Europe the recent heatwave is exceptional, and the **World Meteorological Organisation** (WMO) predicts temperatures will continue to beat the seasonal average from Ireland to Scandinavia and the Baltic countries until early August.

- This has been the hottest July for at least 250 years in Sweden, where indigenous Sami reindeer herders have been among those worst hit by an unprecedented drought as well as devastating wildfires.
- Each individual event is very difficult to attribute directly to human activity.
- But the soaring temperatures of recent weeks are consistent with what they expect as a result of climate change caused by greenhouse gas emissions, according to deputy secretary-general of the WMO.
- A study concluded that global warming was solely responsible for worldwide record temperatures recorded in 2016 as well as an extreme heatwave in Asia.
- The Intergovernmental Panel on Climate Change, a UN panel of experts, warned in a 2012 report that its models forecast increasingly intense episodes of extreme weather in the coming decades. Even if the world manages to limit temperature increases to two degrees Celsius above pre-industrial levels as agreed in the 2015 Paris climate agreement, experts predict worse droughts, heatwaves, floods and hurricanes, and across wider stretches of territory.

## General Studies-02

### SC/ST Act: Cabinet clears Bill to restore provisions

**News:** The Union Cabinet gave its nod to a Bill to restore the original provisions of a law on atrocities against Dalits and tribals, acceding to a key demand of Dalit groups ahead of their call for a 'Bharat Bandh' on August 9, a top government source said.

#### **Beyond News:**

- The Bill to restore the original provisions of Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act will be brought in Parliament.
- The Supreme Court in a ruling in March had introduced safeguards which, Dalit leaders and organisations said, diluted the Act and rendered it toothless.

### UAE launches amnesty scheme for overstayers

**News:** The UAE launched a landmark three-month visa amnesty programme that will benefit hundreds of illegal foreign workers, **including Indians, who are overstaying their permits.**

#### **Beyond News**

- The programme allows the workers to leave the country without paying penalty and also gives them six months to find a job.
- The **UAE is home to 2.8 million Indian expatriates**, the largest expatriate community in the country.
- The government did not release specific numbers, but said thousands of people, primarily labourers from countries like India, Bangladesh, Sri Lanka, Pakistan, Nepal and the Philippines, will benefit from the the amnesty scheme.



- As per Federal Authority for Identity and Citizenship (ICA), the entity responsible for entry and residence of foreigners in the UAE, visa violators before August 1, 2018 will be able to rectify their status legally during the amnesty period, which will end on October 31.
- Those who have been blacklisted and those who have legal cases against them are not eligible for amnesty.
- This is the **third such amnesty announced by the UAE** government in just over a decade, media reports said. Overstaying residents have the option of exiting the country without facing punishment. Alternatively, they can also rectify their status by getting a new sponsored, valid visa.

## General Studies-03

### RBI hikes repo rates by 25 basis points

**News:** The six-member monetary policy committee (MPC) of the Reserve Bank of India (RBI) has **decided to increase the repo rate by 25 basis points to 6.5% due to inflation concerns.**

#### **Beyond News**

- Repurchase rate or the repo rate is the rate at which the RBI lends money to commercial banks in the event of any shortfall of funds. Reverse repo the rate at which the RBI borrows money from commercial banks within the country is adjusted to 6.25 per cent.
- Five members of the MPC voted for the rate hike. While raising the key policy rates, the RBI, however, has maintained the neutral policy stance.
- According to the RBI, inflation outlook is likely to be shaped by several factors, including the government's decision to increase the minimum support price (MSP) for kharif crops.
- The RBI has projected the inflation at 4.6 per cent in Q2, 4.8% in H2 of 2018-19 and 5.0% in Q1 of 2019-20 "with risks evenly balanced".
- The MPC reiterates its commitment to achieving the medium-term target for headline inflation of 4 per cent on a durable basis, the RBI said.

### GI logo, tagline launched

**News;** Commerce and Industry Minister launched a **logo and tagline for Geographical Indications (GI)** to increase awareness about intellectual property rights (IPRs) in the country.

#### **Beyond News**

- A **GI product** is primarily an agricultural, natural or a manufactured product (handicraft and industrial goods) originating from a definite geographical territory.
- Darjeeling Tea, Tirupati Laddu, Kangra Paintings, Nagpur Orange and Kashmir Pashmina are among the registered GIs in India.
- Commerce and Industry Minister said the initiative would help promote awareness and importance of GI products.
- The Ministry had launched a contest for designing a logo and tagline for GIs.



**AUGUST 2**

## **General Studies-02**

### **Meghalaya tribal lineage bill turns heat on children of mixed marriages**

**News:** The **Meghalaya State Commission for Protection of Child Rights (MSCPCR)** has asked the State police's cybercrime cell to take action against people who target children of mixed marriages in the wake of a lineage bill that seeks to prevent **Khasi tribal** women from marrying men of non-Khasi communities.

#### **Beyond News**

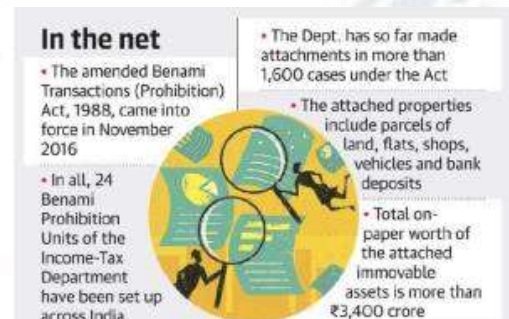
- MSCPCR chairperson has written to the cell's special superintendent of police pointing out that certain individuals and or groups have resorted to defaming minors of mixed marriages.
- The commission has taken exception to hate messages and trolling of such children, MSCPCR chairperson told from State capital Shillong.
- The commission, which had taken cognisance of such cases, asked the police to ensure punitive steps taken act as a deterrent for others.
- The Khasi Hills Autonomous District Council (KHADC) had approved a social custom bill, which if approved by the State Governor, will strip a Khasi-woman of her Scheduled Tribe status and associated privileges if she marries a non-Khasi man. The bill also seeks to mark the children of such women as non-Khasis and thus ineligible for land and other rights.
- The three principal tribes of Meghalaya Khasi, Garo and Jaintia are matrilineal. But local governance follows a patriarchal system, and men calling the shots politically have often objected to women marrying outside the tribe, specifically non-tribal people, allegedly letting them gain control of land and other resources by default.
- The amendment bill would also apply to a Khasi woman who marries a man from any other tribe besides non-tribal communities.
- The KHADC, however, said it could also bring Khasi men within the ambit of the bill to prevent them from marrying non-Khasi women.

### **Benami Act: Centre yet to form special courts**

**News:** The prosecution of accused persons in almost 100 confirmed cases instituted under the **Benami Transactions (Prohibition) Act** has scuttled as the Special Courts meant for the purpose have not yet been set up across the country.

#### **Beyond News**

- Assets worth more than ₹5,000 crore have been attached by the Income-Tax Department under the law.
- The Act provides that the Central government, in consultation with the Chief Justice of the



- respective High Courts, will establish Special Courts through notification.
- Such courts are to be constituted to ensure that the trials are conducted “as expeditiously as possible”.
- Every endeavour shall be made by the Special Court to conclude the trial within six months from the date of filing of the complaint, says the Act.
- An official said, the required Special Courts have not been set up yet. Therefore, despite the fact that investigations in almost 100 cases have been completed by the I-T Department in different States, including confirmation of attachment of properties by the Adjudicating Authority, the prosecution of accused persons has not started.

### General Studies-03

#### Flood situation worsens in Assam, death toll rises to 41

**News:** Three people drowned in as many districts on as the flood situation in Assam worsened affecting eight of the State’s 33 districts.

#### **Beyond News**

- The death toll since May when the first wave of floods hit Assam has risen to 41 with landslides caused by heavy rainfall having claimed the lives of three people.
- Officials of the Assam State Disaster Management Authority (ASDMA) said a person each drowned in Dhemaji, Udalguri and Golaghat districts. These and five other districts have been affected by flash floods and the rising waters of the Brahmaputra and four of its tributaries.
- About 1 lakh people have been affected by the second wave of floods.
- Eastern Assam’s Golaghat is the worst-affected district with 54,135 people displaced followed by Sivasagar (17,905) and Lakhimpur (14,052).
- Golaghat and Sivasagar district authorities have set up 99 relief camps that are currently housing 20,869 people.
- The officials said crops on 5,056.35 hectares has been destroyed across the eight districts.
- Apart from inundation, erosion has been a major problem. At least 68 houses have been destroyed by rivers such as Jia Bharali and Panchnoi in Sonitpur, Udalguri and Barpeta districts.



#### Everyday plastics emit greenhouse gases: study

**News:** Plastic used in everyday objects from bottles to packaging emit greenhouse gases when exposed to sunlight, according to a study, as global concern about its impact on the world’s oceans grows.

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**Findings:** Plastic pollution has come under increased scrutiny from environmentalists as the scale of the problem has become clear this year it emerged that a giant island made up of plastic waste in the Pacific Ocean was far larger than thought.



- Now scientists have discovered that commonly used plastics also generate the potent greenhouse gas methane as well as ethylene as they age, adding to the global tally of planet-warming emissions.
- Methane emissions, mainly caused by burning fossil fuels, are a major driver of global warming, putting them in the crosshairs of the global fight against climate change.
- More than nine billion tons of plastic has been produced since 1950 with most of it discarded in landfills or the environment, previous research has found. Scientists have repeatedly linked exposure to some plastic chemicals, such as bisphenol A (BPA), to health risks.
- The so-called garbage patch of plastic floating in the Pacific holds as much as 16 times more debris than was previously thought, posing a significant threat to the food chain .

### 95% of lemur population facing extinction: conservationists

**News:** Ninety-five percent of the world's lemur population is “on the brink of extinction,” making them the most endangered primates on Earth, a leading conservation group said.

#### **Beyond News**

- The arboreal primates with pointed snouts and typically long tails are **found only in Madagascar**, where rainforest destruction, unregulated agriculture, logging and mining have been ruinous for lemurs, the International Union for the Conservation of Nature (IUCN) said.
- “This is, without a doubt, the highest percentage of threat for any large group of mammals and for any large group of vertebrates.
- Out of a total of 111 lemur species and subspecies, 105 are under threat, as it released its first update on the lemur population since 2012.
- Among the most concerning trends is an “increase in the level of hunting of lemurs taking place, including larger-scale commercial hunting.”
- One of the species identified as “critically endangered” is the northern sportive lemur, of which there are thought to be only 50 individuals left, IUCN said.
- Lemurs are to Madagascar what giant pandas are to China they are the goose that laid the golden egg, attracting tourists and **nature**
- Madagascar is one of the most biodiverse nations in the world. IUCN said it was launching “a major action plan for lemur conservation,” to help preserve the endangered primates.





## TRAI's nod for sale of 5G spectrum

**News:** The **Telecom Regulatory Authority of India (TRAI)** recommended the auction of spectrum for offering 5G services for the first time in the country at a pan-India reserve price of about Rs. 492 crore per MHz.

### **Beyond News**

- In its recommendations, released, the regulator has also called for over 43% reduction in the reserve prices of 700 MHz band spectrum sought-after for high speed services.
- It had no takers in the 2016 auctions due to high pricing. The recommended pan-India reserve price for 700 Mhz now is Rs. 6,538 crore per MHz as opposed to Rs. 11,500 crore last time.
- Recommending that the entire available spectrum be put to auction in the forthcoming sale, the regulator suggested that “it may not be prudent to either delay the auction or hold back the spectrum.” Based on these recommendations submitted to the government, the base prices and timing for the next round of auctions will be finalised. The last auction for spectrum was held in October 2016, wherein around 60% spectrum remained unsold, with the government garnering over Rs. 65,000 crore.
- Since then, the industry has witnessed strong consolidation, with only three main players – Bharti Airtel, Vodafone-Idea and Reliance Jio, left in the field.

## Population of endangered blackbuck rises

**News:** Population of the endangered blackbuck in Odisha's Ganjam district has increased by 276 in the last three years, a Forest department official.



### **Beyond News**

- The population of the rare species, locally called **Krushnasara murga or bali harina**, is 4,082 as against 3,806 in 2015. In 2011 the number of blackbucks in the district was 2,194, the official said.
- Blackbucks, which were sighted in **Balukhand-Konark wildlife sanctuary** in Puri district till 2012-13, have vanished from that area. This time, not a single blackbuck was sighted there during the census, the official said.
- **Improvement of habitats and protection given by local people and forest staff are the reasons for the increase in population.**
- The blackbucks of Balipadara-Bhetanai area in the district have been protected religiously by the local people for several generations.
- The people of the area believe that the sighting of the blackbucks in paddy fields is the harbinger of bumper harvest, said president of Blackbuck Protection Committee (Ganjam).
- The villagers do not kill the animals even if they stray into fields and eat their crops.

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**AUGUST 3**

## **General Studies-01**

### **Assam begins deleting foreigners from NRC list.**

**News:** District officials in **Assam** have begun work to delete the names of 'declared foreigners' whose names had been included in the complete draft of the updated National Register of Citizens (NRC) that was published on July 30.

#### **Beyond News**

- In central Assam's Morigaon district, officials have identified some 200 people declared foreigners by various Foreigners' Tribunals or facing cases related to their doubtful citizenship.
- Assam has 100 such tribunals where people of suspect nationality are required to prove they are Indians.
- These 200 belong to 39 families scattered across the district. Some of them are declared foreigners while some others are suspected illegal immigrants with cases pending.
- The police in central Assam's Hojai district too have filed charge-sheets against 91 people who had submitted fake documents while applying for NRC.
- The civil administration had filed 24 cases against such people when the NRC first draft was being published. These papers were found to be forged.
- NRC Assam's State Coordinator Prateek Hajela had on July 2 submitted before the Supreme Court that some 1.5 lakh would be deleted from the first draft due to various anomalies. The first draft, published on December 31, 2017, had the names of 1.9 crore of a total 3.29 applicants.

The 1.5 lakh included 65,694 cases of "family tree mismatch" while 48,456 cases were of married women who had submitted doubtful panchayat certificates. Another 19,783 were left out because of data entry errors.

### **Record high greenhouse gas emissions in 2017: Report**

**News:** **Greenhouse gas emissions climbed to all-time highs in 2017**, a year in which climate change caused scorching temperatures worldwide and ice to melt at record levels in the Arctic, according to a report.

#### **Beyond News**

- The annual global average carbon dioxide (CO<sub>2</sub>) concentration at Earth's surface last year was 405 parts per million, 2.2 ppm more than in 2016 and the "highest in the modern atmospheric measurement record", the report said.
- Some gases have the ability to absorb infrared radiation and trap heat in the Earth's atmosphere. These gases are known as greenhouse gases. A few greenhouse gases are carbon dioxide, nitrous oxide, methane and fluorinated gases.
- When sunlight reaches our planet, some of the heat is captured on the surface, while the rest is radiated back into space.

- It is very important for the Earth to have the right amount of greenhouses gases in its atmosphere; otherwise it would be very cold or very hot, making the planet uninhabitable.
- For example, as we burn more fossil fuels, a larger amount of carbon dioxide and methane gets emitted into the Earth's atmosphere. These gases form a thick blanket in the atmosphere and traps a large amount of heat. This results in the Earth's temperature to rise and leads to global warming.

## General Studies-02

### WHO thumbs up for Swachh Bharat's rural component

**News:** It is estimated that the **Swachh Bharat Mission Gramin (SBM-G)** will result in preventing more than three lakh deaths due to diarrhoea and protein-energy malnutrition between 2014-October 2019, notes a World Health Organisation (WHO) report released.

#### **Beyond News**

- The progress report on potential health impact from increased sanitation coverage through the SBM-G, conducted by the WHO for the Ministry of Drinking Water and Sanitation, said India's rural sanitation coverage escalated to 89.07% till August 2.
- The report notes that under the SBM-G, 19 States and Union Territories were declared Open Defecation Free (ODF) and 7.9 crore toilets were built, while 421 districts were declared ODF. Also, more than 4.9 lakh villages in the country were declared ODF.
- The WHO study showed that before the initiation of SBM-G, unsafe sanitation caused 199 million cases of diarrhoea annually and that by 2019, the initiative aims to achieve 100% sanitation coverage.

The report further estimated that 14 million Disability Adjusted Life Years (DALYs) can be avoided between 2014 and 2019. WHO estimation of health impacts is based on comparative risk assessment (CRA) methods.

### Sushma Swaraj meets Kazakhstan counterpart, discusses ways to deepen cooperation

**News:** External Affairs Minister held a comprehensive discussion with her **Kazakhstan** counterpart Kairat Abdrakhmanov on **deepening cooperation in areas like trade, energy and defence and security**.

#### **Beyond News**

- External Affairs Minister is on a three-nation tour to Kazakhstan, Kyrgyzstan and Uzbekistan **as part of India's efforts to boost strategic partnership with the resource-rich nations**.
- The two leaders held a comprehensive discussion on deepening cooperation in trade and investment,



defence and security, energy, Information and Communications Technology, pharma, capacity building and culture.

## General Studies-03

### Beware the SMS on I-T refunds!

**News:** Cyber-crime agencies are investigating a new pan-India, cyber crime racket, involving a fraudulent message purportedly from the Income-Tax Department.

#### Beyond News

- Officials said the seemingly innocuous message has the potential to trigger a host of cyber-crimes, including data theft and banking frauds.
- According to cyber-crime officials, the racket was first discovered roughly a month ago, as the first deadline for filing IT returns was nearing, when people started getting text messages, supposedly from the IT department. The message tells the targets that their “income tax refund” has been approved and includes a random bank account number, and ends by saying that if the account number mentioned is incorrect, the target should visit the link in the message and “update their bank account details”.
- Just entering these details opens up a wide range of possibilities for fraudsters. The fraudsters get the target’s login ID and password for the I-T department website, through which they can divert the I-T refund to their own accounts, with the targets’ knowledge. They can also change the target’s cell phone number in the I-T department’s records, so that they do not receive text message notifications about the changes, officials said.
- Using the same details, fraudsters can call up unsuspecting citizens posing as I-T officials and cheat them out of money by convincing them that there have been ‘irregularities’ in their I-T returns and they need to pay fines. This scam does not even need to be perpetrated by the original scamsters. They can simply sell the data in bulk to gangs involved in such activities, which happens quite often on the dark net.
- Last year, a similar scam was busted by the Thane police, where Indians accused were cheating citizens of the U.S. by posing as officials of the Internal Revenue Service.

#### Modus operandi

- A month ago, the racket was discovered when people began getting text messages, purportedly from the Income Tax department
- The message tells the targets that their ‘I-T refund’ has been approved and includes a random bank account number

- As the account number is deliberately mentioned wrong, the person clicks the link, which takes him to a malicious web page

- The text message says that if the account number mentioned is incorrect, the person should visit the link in the message and update his/her bank account details



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## Supersonic interceptor missile successfully test fired

**News:** India successfully test fired an indigenously-developed supersonic interceptor missile from a test range off the Odisha coast to validate “some improved features”, defence sources said.

### **Beyond News**

- The state-of-the-art missile was test fired from a canister, engaging a simulated target at low altitude, the sources said.
- The interceptor, an advanced air defence missile which is yet to get a formal name, was positioned at launchpad-4 of the Integrated Test Range on Dr Abdul Kalam Island and roared on its trajectory to hit the target mid-air on sea surface, the sources said.
- Developed as part of efforts to have a multi-layer ballistic missile defence system, it is capable of destroying incoming hostile ballistic missiles.

## Drones in agri, urban development, policing

**News:** Karnataka has joined the ranks of States using Unmanned Aerial System (UAS), or drones, in governance. The State launched a pilot project to use drones in agriculture, urban development and policing.

### **Beyond News**

- Demonstrative application projects using drones would be taken up in Kasaba hobli of Haveri district to conduct a survey of the extent of crops, their health status and yield in 200 square kilometres. The operations would be carried out in three months during the crop life-cycle in the present kharif season.
- In Bantwal town of Dakshina Kannada district, a survey of 60 sq. km. would be carried out through drones to prepare a detailed base map to provide inputs for evolving a master plan for the town.
- The third application of drones would be in policing in Bengaluru.
- Karnataka Science & Technology Promotion Society (KSTePS) will implement the pilot projects in co-ordination with the other departments concerned.
- Agriculture Minister said the government is particularly interested in using drones for a Statewide survey of crops and land-holding to get accurate data.

**AUGUST 4**

## General Studies-02

## India to impose delayed tariffs on some U.S. goods in September

**News:** India said that **delayed higher tariffs against some goods imported from the United States will go into force on September 18.**

## Beyond News

- New Delhi, incensed by Washington's refusal to exempt it from new tariffs, decided in June to raise import tax from August 4 on some U.S. products, including almonds, walnuts and apples, and later delayed the move.
- Officials from New Delhi and Washington, including U.S. Secretary of State Mike Pompeo and Defense Secretary Jim Mattis, are scheduled to hold a series of meetings including strategic talks with their Indian counterparts in September.
- Trade differences between India and the United States have been rising since President Donald Trump took office. Bilateral trade rose to \$115 billion in 2016, but the Trump administration wants to reduce its \$31 billion deficit with India, and is pressing New Delhi to ease trade barriers.
- India, the world's biggest buyer of U.S. almonds, in June decided to raise import duties on the commodity by 20 %, joining the European Union and China in retaliating against Trump's tariff hikes on steel and aluminium.
- It had also planned to impose a 120 % duty on the import of walnuts in the strongest action yet against the United States.
- India has proposed to buy petroleum products from the U.S. to help narrow the trade deficit. The United States has also emerged as a top arms supplier to India and U.S. companies are bidding for military aircraft deals worth billions of dollars.

## [N.Korea has not stopped nuclear, missile program : confidential U.N. report](#)

**News:** North Korea has not stopped its nuclear and missile programs in violation of United Nations sanctions, according to a confidential U.N. report seen by Reuters.

## Beyond News

- The six-month report by independent experts monitoring the implementation of U.N. sanctions was submitted to the Security Council North Korea sanctions committee late.
- The North Korean mission to the United Nations did not respond to a request for comment on the report.
- The U.N report said North Korea is cooperating militarily with Syria and has been trying to sell weapons to Yemen's Houthis.
- Pyongyang also violated a textile ban by exporting more than \$100 million in goods between October 2017 and March 2018 to China, Ghana, India, Mexico, Sri Lanka, Thailand, Turkey and Uruguay, the report said.
- The report comes as Russia and China suggest the Security Council discuss easing sanctions after U.S.



President Donald Trump and North Korean leader Kim Jong Un met for the first time in June and Mr. Kim pledged to work toward denuclearization.

- The United States and other council members have said there must be strict enforcement of sanctions until Pyongyang acts.
- The U.N. experts said illicit ship-to-ship transfers of petroleum products in international waters had “increased in scope, scale and sophistication.” They said a key North Korean technique was to turn off a ship’s tracking system, but that they were also physically disguising ships and using smaller vessels.
- The Security Council has unanimously sanctioned North Korea since 2006 in a bid to choke off funding for Pyongyang’s nuclear and ballistic missile programs, banning exports including coal, iron, lead, textiles and seafood, and capping imports of crude oil and refined petroleum products.
- North Korean technicians engaged in ballistic missile and other banned activities have visited Syria in 2011, 2016 and 2017.

### General Studies-03

#### ‘Night traffic a threat to Bandipur reserve forest’

**News:** If the national highway from Gundlupet in Karnataka to Sultan Bathery in Kerala were to be opened to night traffic, it could prove catastrophic to the wildlife in the Sigur plateau and in the Nilgiris, as the road would pass through the Bandipur Tiger Reserve, conservationists have warned.

#### **Beyond News**

- The 34.6-km stretch that skirts the Nilgiris district, through Kerala and Karnataka, will be re-designed to mitigate the effect night traffic has on wildlife.
- Underpasses will be created to allow wildlife to get across unhindered between different sections of the “most crucial landscape, hosting the world’s largest population of elephants and tigers.”
  - However, the proposed fencing along many sections of the road will lead to fragmentation of the elephant and tiger populations in the region, hugely affecting not only the biodiversity of Muthanga Wildlife Sanctuary and the Bandipur Tiger Reserve, but also the wildlife throughout the entire region, including the Mudumalai Tiger Reserve. The fencing will cut off access for the animals from one forest region to the other.
  - The region has the highest population of Asiatic elephants, estimated between 6,000 and 10,000, and also around 600 tigers. The road will divide the population of tigers and elephants, thus greatly reducing the evolutionary potential of these populations.
  - This is the most important, and last remaining place anywhere on earth where the forests are contiguous for two iconic species of wildlife to thrive in, and there needs to be a groundswell of opposition to the proposal.

- As wildlife would become hemmed in to different parts of what are currently contiguous forest ranges in the Nilgiri Biosphere Reserve (NBR) in Kerala, Karnataka and Tamil Nadu, the chances for an increase in human-animal conflicts are high.
- For instance, if elephants from Mudumalai are unable to make their way across into Bandipur and into Wayanad, there is potential for more of them entering human habitations surrounding Mudumalai, like Gudalur. If the proposal gets the green signal, it will have a tremendous impact on wildlife across the region.
- A top forest official from the Nilgiris said the ban on night traffic through the Mudumalai Tiger Reserve would continue.

### **TRAI calls for zero telecom equipment imports by 2022**

**News:** Suggesting that **India aim at net zero imports of telecommunications equipment by 2022**, the **Telecom Regulatory Authority of India (TRAI)** recommended the setting up of a ₹1,000 crore fund for promoting research and innovation in the sector.

#### **Beyond News**

- The recommendations, TRAI said, aimed at enabling Indian telecom equipment manufacturing sector to transition from an import-dependent sector to a global hub of indigenous manufacturing.
- The import of telecom instruments was far greater than the export of such items, TRAI said.
- As per available data, the export of telecom instruments stood at \$1,201.7 million in 2017-18 while imports totalled \$21,847.92 million.
- The regulator has suggested that the progress of indigenous telecommunication equipment manufacturing be monitored by Department of Telecommunications (DoT).
- A dedicated unit in DoT should be made responsible for the facilitation and monitoring of telecommunication equipment design, development, and manufacturing in the country.
- To address security concerns, TRAI had suggested that the telecom service providers be incentivised for deploying indigenous telecom products “beyond the quantities to be mandated” under the preferential market access policy.
- On setting up the fund, For promoting research, innovation, standardisation, design, testing, certification and manufacturing indigenous telecom equipment, Telecom Research and Development Fund (TRDF), with initial corpus of ₹1,000 crore, should be created.
- Subsequently, setting up of Telecom Entrepreneurship Promotion Fund(TEPF) and Telecom Manufacturing Promotion Fund(TMPF) should also be considered.



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## J&K Governor seeks Navy's assistance to save Dal Lake

**News:** Alarmed over the rapid shrinking of the Dal Lake, Jammu and Kashmir Governor approached Navy chief Sunil Lanba seeking help to save the water body, a major tourist attraction of the State.

### Beyond News

- Governor spoke to Admiral Lanba, “seeking his help in identifying experts who could undertake a benchmark survey of the Dal Lake and the Wular Lake.”
- Chairman and managing director of the Dredging Corporation of India (DCI), and retired vice-admiral S.K. Jha, in their latest [but separate] assessments conducted had reported that the size of the Dal Lake had come down from 22 sq.km. to about 10 sq.km. The report cautioned that the water quality of the lake had deteriorated due to intense pollution caused by untreated sewage and solid waste released into the water body.
- Encroachments of water channels and clogging have diminished the circulation and inflows into the lake, leading to the extensive growth of hyacinth.
- It added that the depth of the lake had come down at many places and its total capacity had gone down to 40%.
- The continuing night soil discharge from the 800 to 900 houseboats is causing extreme pollution.
- The Raj Bhawan spokesperson said Governor had asked the Navy chief for a comprehensive bathymetric survey (measuring depth and mapping underwater features) of the Dal-Nageen water body to establish a benchmark database for deciding on the extent of dredging that needs to be carried out.
- The Governor has appointed the Dredging Corporation as the nodal consulting agency to formulate a plan for dredging parts of the land masses in the interiors of the lake. The possibility of installing holding tanks and bio-digesters to make sure that houseboats do not discharge sewage will also be examined.



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**AUGUST 5 & 6**

## **General Studies-01**

### **Neolithic site discovered in Kurnool district**

**News:** A unique Neolithic site has been found at Nagaruru in Kurnool district in Andhra Pradesh, which has the potential to open newer areas of research on ancient man's settled life.

#### **Beyond News**

- After the Palaeolithic and Mesolithic periods, marked respectively by hunting and gathering food, the Neolithic man led a settled life by producing food. Archaeologist, found traces of Neolithic culture at Nagaruru village in Aspari mandal, located 11 km south of Adoni (Yadava Avani), one of the historical towns in Kurnool district.
- As the earliest discovery of Neolithic tools in South India was made by Meadows Taylor in 1842 in Lingasugur in Raichur district of Karnataka, the adjoining Kurnool district of Andhra Pradesh is also believed to be one of the richest prehistoric zones, deserving enough attention on early man's activities.
- The Neolithic man used polished stone axes, which are the salient features of the age. Neolithic people settled on tops of granitoid hills or on levelled terraces on hillsides or in the valleys.
- The Nagaruru site also reveals the nature of Neolithic occupations, as it is located at the granite foothills of Thimmappa Mettalu on the banks of the brook 'Eedulavanka.' The researchers, visited this unknown site and collected various stone tools, claimed to date back to 2900 BC – 1000 BC. The tools include polished triangular axes of sizes measuring 8.2 cm to 15.8 cm in length, axe celts, adzes, chisels, rubbing/mill stones, grinding trough, terracota beads and stoneware marbles.
- These stone tools were made of dolerite intrusions and granite stone. The pottery shreds also collected here is predominantly handmade red, black, buff brown ware, red slipped ware and black slipped ware. Bones and animal teeth were also collected.
- Iron stones and slag in the site, which show cultural continuity from Neolithic to Megalithic culture/iron age culture (B.C. 1000 – B.C. 300), were also observed.
- One Telugu inscription belonged to the early medieval period also found in the nearby Someswara Swamy temple is yet to be studied.



- This way, this site is believed to be a good example of cultural continuity from prehistoric period to protohistoric and historical periods.

## **India not on track to meet 2030 targets of reducing child mortality**

**News:** Almost half of the districts in India are not on track to reduce the mortality rates of newborns and meet the target set under the Sustainable Development Goals for 2030, a study has found.

### **Findings**

- India still has the world's highest number of deaths among children under five and newborns, around 1.1 million per year.
- The study, is the first to evaluate neonatal and under-five mortality at a district level in India, as well as a state level.
- Under the World Health Organization's Sustainable Development Goal 3 (SDG3), all countries should aim to reduce neonatal mortality to 12 deaths per 1,000 live births per year, and under-five mortality to a maximum of 25.
- Researchers used data from the National Family Health Survey, a survey of the full birth history of women aged 15-49, carried out most recently in 2015-16, and used the data from the previous round conducted in 2005-06 to model future trends.
- They found that the various measures employed in India have cut the number of deaths of under-fives by around half in in the past 23 years, from 109 deaths per 1,000 live births in 1990 to around 50 in 2013, but this is still double the target.
- The number of neonatal deaths remains around 2.4 times higher than the target, at around 29 deaths per 1,000 live births. The picture, however, is very complex.
- The vast majority of the worst performing states on mortality rates are in the poorer states of north-central and eastern India, although there are some high-risk districts in richer, more developed states such as Andhra Pradesh and Gujarat.
- There is also some variation between genders. The female neonatal mortality rate is below that of males, which is expected as this is the global trend. However, this is not the case with under-five mortality, indicating gender discrimination.
- Much of the variation is likely due to socioeconomic and geographic disparities. District-level female literacy rates vary from 24-89 per cent while urbanisation ranges from 0-100 per cent.
- There are also large differences in the implementation of mortality reduction schemes and the accessibility and availability of healthcare.
- It is important to note that India experienced the highest reduction in mortality rate in the period 2005-2016. Therefore, to achieve the SDG-related mortality goals at the district level, it needs to intervene more rigorously than ever.

## General Studies-02

### Lok Sabha passes amendments to SC/ST Act

**News:** The Lok Sabha passed the **Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Amendment Bill, 2018**, to bypass the recent ruling of the Supreme Court laying down procedures for arrests under the Act. The Bill will now go to the Upper House.

#### **Beyond News**

- The Bill inserts section 18A (1) (a) in the 1989 Act, that says a “preliminary enquiry shall not be required for registration of an FIR against any person.” The Bill also inserts Section 18A (1) (b), which says “the investigating officer shall not require approval for the arrest, if necessary, of any person against whom an accusation of having committed an offence under this Act has been made and no procedure, other than that provided under this Act or the Code, shall apply.”
- The Bill’s Statement of Objects and Reasons says that under the CrPC, the decision to arrest a person is taken by the investigating officer and there was no requirement for approval.
- The Bill also goes back to the original SC/ST (PoA) Bill, doing away with the provision of anticipatory bail the Supreme Court ruling had permitted.
- The provision of section 438 of the Code shall not apply to a case under this Act, notwithstanding any judgment or order or direction of any Court, says section 18A (2) of the Bill.
- Section 438 of the CrPC deals with direction for grant of bail to a person apprehending arrest.
- The Supreme Court had on March 20, 2018, introduced protective provisions in the SC/ST (PoA) Act, 1989, to permit anticipatory bail despite a section of the Act denying it and laying down a preliminary enquiry by police before any action is taken. It had also laid down that the permission of the appointing authority would be required to arrest a public servant and that of an SSP for the arrest of a person who is not a public servant.

### Sushma in Kyrgyzstan to boost ties

**News:** External Affairs Minister held talks with her Kyrgyzstan counterpart, Erlan Abdyldaev, on **deepening cooperation in trade, energy, defence, security and other areas**.

#### **Beyond News**

- External Affairs Minister arrived at Issyk Kul in eastern Kyrgyzstan on a two-day visit after wrapping up her tour of Kazakhstan.
- Taking steps to tap the huge potential that exists between our two countries! EAM Sushma Swaraj and Kyrgyzstan Foreign Minister Abdyldaev discussed **opportunities**

for cooperation in fields of trade and investment, defence and security, IT, health, HRD, tourism and joint film production.

- Swaraj has interacted with Mr. Abdyldaev on a number of occasions, including on the margins of the UN General Assembly in New York.
- The Minister is on a three-nation tour of Kazakhstan, Kyrgyzstan and Uzbekistan as part of India's efforts to boost strategic partnership with the resource-rich Central Asian nations.
- India and Kyrgyzstan share multi-dimensional relations including political, parliamentary, defence, science and technology and health.

## **Andhra Pradesh is the front-runner in energy efficiency measures**

**News:** Andhra Pradesh has emerged the “front-runner” in the field of energy efficiency according to the States’ Energy Efficiency Preparedness Index (SEEPI) released by the Bureau of Energy Efficiency (BEE) and NITI Aayog.

### **Beyond News**

- The World Bank has already ranked A.P. No. 1 in Energy Efficiency Implementation Readiness, according to an official release.
- In the first edition of SEEPI, Andhra Pradesh is followed by Kerala, Punjab, Rajasthan, and Maharashtra.
- The BEE’s assessment is based on the State’s adoption of energy efficiency and energy savings measures and other key parameters.
- Andhra Pradesh is ahead of other States in the race to the top by performing exceedingly well on the energy efficiency front in municipalities and agriculture in demand-side management and domestic/buildings sector.

## **E-tattoos to help monitor health**

**News:** Chinese scientists have developed **skin-like electronic tattoos, that can be used to monitor health parameters such as blood pressure and body temperature in real time.**

### **Beyond News**

- The graphene-based electronic tattoo, developed by scientists, can be easily transferred onto various surfaces such as the human skin, leaves and silk. Graphene, a super thin material with excellent flexibility and conductivity, is an ideal material for electronic skin, researchers said.
- It could also be attached to masks and throats to measure body signals such as breathing, heartbeat and voice.

## General Studies-03

### Launch of India's second moon mission postponed

**News:** The launch of India's second mission to the moon, Chandrayaan-2, may be delayed till January 2019, according to a top official.

#### **Beyond News**

- The postponement comes in the wake of the Indian Space Research Organisation (ISRO) facing quick setbacks.
- Earlier this year, the ISRO had launched GSAT-6A, a military communication satellite, but lost communication with it. Following this, the ISRO also recalled the launch of GSAT-11 from Kourou, French Guiana, for additional technical checks. Last September, the PSLV- C39 mission, carrying the IRNSS-1H navigation satellite, failed after the heat shield refused to open and release the satellite.
- The ISRO is treading a cautious path after these two setbacks as Chandrayaan-2 is one of the crucial launches for the space agency, particularly after Chandrayaan-1 and Mangalyaan (Mars Orbiter Mission).
- It is also ISRO's first mission to land on any celestial body.
- Chandrayaan-2 will be ISRO's first time attempt to land a rover, on the Moon. The rover, costing nearly Rs. 800 crore, will be made to land near the yet-unexplored south pole of the moon.

### Man-animal conflict to be listed as disaster under SDRF by UP govt

**News:** In possibly the first-of-its-kind move, the Uttar Pradesh government has given its in-principle approval to bring **man-animal conflict under listed disasters in the State Disaster Response Fund.**

- The move will enable faster relief, creating awareness, ensuring police support in areas when such conflicts are reported, and proper guidelines to handle situations when wild animals venture in human in-habitation.



**AUGUST 7**

## General Studies-02

### CAG pulls up Centre for favoring Boeing in P-8I aircraft deal

**News:** The Controller and Auditor General (CAG) pulled up the **Defence** Ministry for changing the parameters of the deal in the procurement of **P-8I Long Range maritime Reconnaissance Anti-Submarine Warfare (LRMRASW)** aircraft.

## Beyond News

- In a report presented in the Parliament the CAG noted that Boeing is yet to fulfil the offset obligations as part of the contract for the deal signed in 2011.
- Two companies, Boeing, USA and EADS CASA, Spain were found technically compliant among the five bids that were received.
- The commercial bid of Boeing was ₹8,700 crore, whereas, the other firm EADS CASA had quoted ₹7,776 crore which also included product support for two years.
- Boeing was awarded the contract in January 2009 at a cost of ₹10,773 crore and the aircraft were delivered between May 2013 and October 2015 with warranty of two years post-delivery. In July 2016, India exercised the options clause for four more aircraft at a cost of \$1 billion.
- Further, the critical role equipment offered by Boeing were not fully meeting the needs of the Indian Navy, the report said and noted, Owing to capability limitations of radars installed onboard, the aircraft is not able to achieve the envisaged coverage area requirements.
- For Anti-Submarine Warfare (ASW), the Naval Staff Quality Requirements (NSQR) had envisaged the procurement of torpedoes and certain bombs as the ammunition.
- However, the contract for procurement of the Bombs had not yet been concluded, the CAG observed and said that reasons for non-procurement of the bombs were yet to be intimated by the Navy as on September 2017.
- In addition, offset obligations to the tune of \$640.26 million to be fulfilled by Boeing within seven years (August 2016), had not been fulfilled till date, the report added.

## Govt extends e-visa facility for citizens of 165 countries

**News:** Seeking to promote tourism, the Indian government has extended e-visa facility for citizens of 165 countries at 25 airports and five seaports, the Lok Sabha was informed.

## Beyond News

- Tourism Minister also said the government has launched the 'Incredible India 2.0' campaign, marking a shift from generic promotions to market-specific promotional plans. A 24X7 toll free multilingual tourist helpline has also been put in place.
- Minister said while development and promotion of tourism is primarily the responsibility of state government, the Union Tourism Ministry provides central financial assistance to states and UTs to organise fairs, festivals and tourism-related events.

## New Bill promises fair trade at fish harbours

**News:** The **fish auction Bill**, aimed at modernising the primitive mode of auctioning at fishing harbours in the State, is expected to curtail exploitation by middlemen and provide unadulterated fish to consumers.

## Beyond News

- The Kerala Fish Auction, Marketing, and Quality Control Bill, approved by the State Cabinet recently, proposes to regulate the operation of fish-landing centres, fishing harbours, and markets under a professional management system. It will ensure the safety of seafood.
- Fisheries Department officials say the Bill is part of the government's continuing efforts to free traditional harbours from the domination of middlemen who are blamed partly for the perpetual indebtedness of the fishing community.
- A transparent auctioning system under a new committee headed by the District Collector will be a major feature of the Bill.
- Though the Bill has been approved by the Cabinet, its detailed provisions are yet to be made available to the district units of the Fisheries Department or Matsyafed.
- As per the preliminary details, the conventional auctioneers will have to end their traditional type of auctioning at the harbours and secure prior permission for at least three years to pursue the business.
- They will be asked to submit an application to a designated officer for clearing the application and allot a specific place for carrying out business.
- Also, one of the major changes going to be effected in the business is the opportunity for ordinary buyers to take part in the bulk- or small-quantity auctioning of fish. Now, local buyers are hardly encouraged to take part in the auctioning process manned by a few middlemen at harbours.
- Many a time, only cheaply priced varieties reach the auction hall as middlemen carry out the trade of superior varieties for third parties even before unloading the fish at the harbours.
- The Food Safety Department squads too are keen on the implementation of the Bill as it will largely restrain the trade of adulterated fish at the beginning point itself and ensure better access for the common buyer to have quality fish.



## General Studies-03

### NASA's Curiosity rover completes six years on Mars

**News:** NASA's Curiosity rover a mission that has spotted evidence of liquid water as well as potential signs life and habitability on Mars has **completed six years on the red planet.**





## Beyond News

- The Mars Science Laboratory mission's Curiosity rover landed on the red planet's Gale Crater on August 6 2012, using a series of complicated landing manoeuvres never before attempted. Curiosity's mission is to determine whether the red planet ever was, or is, habitable to microbial life.
- The rover, which is about the size of a car, is equipped with 17 cameras and a robotic arm containing a suite of specialised laboratory-like tools and instruments.
- The specialised landing sequence, which employed a giant parachute, a jet-controlled descent vehicle and a bungee-like apparatus called a "sky crane," was devised because tested landing techniques used during previous rover missions could not safely accommodate the much larger and heavier rover.
- The Curiosity rover is currently experiencing a global storm that has been raging in Mars for weeks. In 2013, the Curiosity rover found that ancient Mars had the right chemistry to support living microbes.
- The rover discovered evidence of sulphur, nitrogen, oxygen, phosphorus and carbon key ingredients necessary for life in the powder sample drilled from the "Sheepbed" mudstone in Yellowknife Bay. The sample collected by the rover also revealed clay minerals and not too much salt, which suggests fresh, possibly drinkable water once flowed there.
- Shortly after, smooth and rounded rocks were found by Curiosity, indicating that a steady knee-deep stream of water once flowed on the red planet. In 2014, the rover detected a background level of atmospheric methane and observed a ten-fold increase in methane over a two-month period.
- The finding generated a lot of interest as methane can be produced by living organisms or by chemical reactions between rock and water, for example.
- In 2015, organic molecules the building blocks of life were discovered on Mars after a long search by the Sample Analysis at Mars instrument in a powdered rock sample from the "Sheepbed" mudstone in "Yellowknife Bay." The finding shows that raw ingredients existed for life to get started there at one time.

## Wildlife census begins at Sathyamangalam reserve

**News:** The **biannual six-day wildlife monitoring exercise, using the Android-based mobile application**, began at Sathyamangalam Tiger Reserve (STR).

### Sathyamangalam Tiger Reserve

- Sathyamangalam Wildlife Sanctuary and Tiger Reserve is a protected area and tiger reserve along the Western Ghats in the Erode District of the Indian state of Tamil Nadu. First declared as a wildlife sanctuary in 2008 and enlarged in 2011, it covers a forest area of 1,411.6 km<sup>2</sup> (545.0 sq mi) and is the largest wildlife sanctuary in Tamil Nadu.

- In 2013, it became the fourth tiger reserve as a part of Project Tiger in the state of Tamil Nadu.

### Beyond News

- Under Phase IV monitoring of tiger reserves by the National Tiger Conservation Authority (NTCA), the pre-monsoon survey is being carried out between June and July, while the post-monsoon survey will be held in December– January.
- During the exercise personnel will monitor carnivore signs, co-predators, pug marks, large herbivore signs, tree bark peelings and direct sighting. Though Monitoring System for Tigers – Intensive Protection and Ecological Status (M-STriPES) app was introduced during the last post-monsoon survey, data sheets were also used. But this time, only the app is being used to record data.
- Over 300 personnel, including field staff, anti-poaching watchers, and WWF team members, began the survey in the 1.41 lakh hectare reserve, which spreads across seven ranges.
- They recorded the sightings and pug marks, took photographs and uploaded the data online in the GPS-enabled app. Officials said that personnel have to cover 48 beats in the two divisions of Sathyamangalam and Hassanur- Sathyamangalam, Bhavani Sagar, Talamalai, Thukkanaikkenpalayam, Hassanur, Talavadi and Germalam ranges.
- On the last day, the collected data will be sent to the NTCA for processing after which the number of tigers, leopards and other wild animals at the STR will be known.

**AUGUST 8**

### General Studies-01

#### Earth risks heading towards irreversible ‘hothouse’ state

**News:** The planet urgently needs to transition to a green economy because **fossil fuel pollution risks pushing the Earth into a lasting and dangerous “hothouse” state**, researchers warned on Monday.

#### Beyond News

- If polar ice continues to melt, forests are slashed and greenhouse gases rise to new highs as they currently do each year the Earth will pass a tipping point.
- Crossing that threshold “guarantees a climate 4-5 Celsius (7-9 Fahrenheit) higher than pre-industrial times, and sea levels that are 10 to 60 meters (30-200 feet) higher than today,” cautioned scientists in the Proceedings of the National Academy of Sciences.



- Yet even if humans stopped emitting greenhouse gases, the current warming trend could trigger other Earth system processes, called feedbacks, driving even more warming.
- These include permafrost thaw, deforestation, loss of northern hemisphere snow cover, sea ice and polar ice sheets.
- The scientists also examined conditions the Earth has seen in the distant past, such as the Pliocene period five million years ago, when CO<sub>2</sub> was at 400 ppm like today.
- During the Cretaceous period, the era of the dinosaurs some 100 million years ago, CO<sub>2</sub> levels were even higher at 1,000 ppm, largely due to volcanic activity.

## General Studies-02

### Delhi High Court decriminalises begging in the national capital

**News:** The Delhi High Court decriminalised begging in the national capital, saying provisions penalising the act were unconstitutional and deserved to be struck down.

#### **Beyond News**

- A bench said the inevitable consequence of this decision would be that prosecution under the Bombay Prevention of Begging Act, against persons alleged to have committed the offence of begging, would be liable to be struck down.
- The court said the Delhi government was at liberty to bring in alternative legislation to curb any racket of forced begging after undertaking an empirical examination on the sociological and economic aspect of the matter.
- The bench said the provision which treats begging as an offence or deals with ancillary issues like power of officers to deal with this offence, as extended to Delhi, “are unconstitutional and are struck down”.
- The court made it clear that the provisions of the Act, which do not directly or indirectly criminalise begging or relate to the offence of begging, are not required to be struck down and are maintained.
- The law prescribes a penalty of more than three years of jail in case of first conviction for begging and the person can be ordered to be detained for 10 years in subsequent conviction.
- Currently, there is no central law on begging and destitution and most states have adopted the Bombay Prevention of Begging Act, 1959, which criminalises begging, or have modelled their laws on it.

### Government asks citizens not to use plastic national flags

**News:** Ahead of Independence Day, the Centre has urged all citizens not to use national flag made up of plastic and asked states and Union Territories to ensure strict compliance of the flag code.

## Beyond News

- In an advisory to states and Union territories, the Home Ministry said the national flag represents hopes and aspirations of the people of India and hence should occupy a position of honour.
- The ministry said it has been brought to its notice that during important events, the national flag made of plastic is used in place of paper flags.
- Since plastic flags are not biodegradable like paper flags, these do not get decomposed for a long time and ensuring appropriate disposal of national flag made of plastic commensurate with the dignity of the flag, is a practical problem, the advisory said
- As per Section 2 of 'The Prevention of insults to National Honour Act, 1971' Whoever in any public place or in any other place within public view burns, mutilates, defaces, defiles, disfigures, destroys, tramples upon or otherwise shows disrespect to or brings into contempt (whether by words, either spoken or written, or by acts) the Indian National Flag or any part thereof, shall be punished with imprisonment for a term which may extend to three years, or with fine, or with both.
- The advisory said on important national, cultural and sports events, flags made of paper only are to be used by public in terms of the provisions of the 'Flag Code of India, 2002' and such paper flags are not to be discarded or thrown on the ground after the event.
- Such flags are to be disposed of, in private, consistent with the dignity of the flag. Wide publicity for not using the national flag made of plastic should be made along with its advertisement in the electronic and print media
- There is universal affection and respect for and loyalty to the national flag. Yet, a perceptible lack of awareness is often noticed amongst people as well as organisations and agencies of the government in regard to laws, practices and conventions that apply to 'display of the national flag', the advisory said.

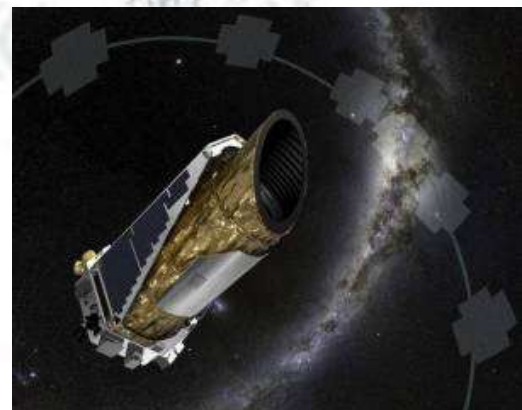
## General Studies-03

### Forty-five new exoplanets discovered

**News:** Scientists have discovered a trove of forty-four planets in solar systems beyond our own in one go, dwarfing the usual number of confirmations from extrasolar surveys.

#### Beyond News

- The findings will improve existing models of solar systems, and may help researchers investigate exoplanet atmospheres.
- Novel techniques developed to validate the find could accelerate the confirmation of more extrasolar planet candidates.



- Astronomers pooled data from NASA's Kepler and the ESA's Gaia space telescopes. They confirmed existence of these 44 exoplanets and described various details about them.
- A portion of the findings yield some surprising characteristics.
- These contribute to a small but growing list of "ultrashort-period" planets, suggesting that they could be more common than previously believed.
- Scientists hope to understand what kinds of planets might be out there, but can only draw valid conclusions if there are enough planets for robust statistical analysis.
- The addition of a large number of new planets, therefore, leads directly to a better theoretical understanding of solar system formation, researchers said.
- The planets also provide good targets for detailed individual studies to yield measurements of planetary composition, interior structure and atmospheres – in particular, the 18 planets in several multi-planet systems.
- The investigation of other solar systems can help us understand how planets and even our own solar system formed.

### **GI tag for Chirala weaves soon: CM**

**News:** After the Tirupati laddu and Banganapalle mango, the **handloom products of Chirala weavers**, who have made a mark with their expertise in making eco-friendly fabric, will shortly get the **Geographic Indication tag**.

#### **Chirala handlooms**

- Chirala handlooms are well known for its designs. Chirala handlooms are made with cotton or this hand woven silk saree from Chirala is having contrast border and hand butta designs in the body woven with golden zari cotton and silk mix. The count used in weaving gives the softness and hardness of the fabric.

#### **Beyond News**

- Andhra Pradesh Chief Minister revealed this after an interaction with a group of weavers, who displayed a variety of products, including the traditional sari and dress material, at an expo to mark the National Handloom Day.
- Chief Minister announced a hike in the government subsidy for house-cum-workshed to weavers from the present ₹1.50 lakh to ₹2.50 lakh, 100 units of power free of cost to weaver households, and a silk yarn depot in Chirala, a long-pending demand of the weavers.

### **Chinese astronomers discover lithium rich giant star**

**News:** Chinese astronomers have **discovered the most lithium-rich giant star ever known, which could shed new light on the evolution of the universe**.

#### **Beyond News**

- With 3,000 times more lithium than a normal star, it was found in the direction of Ophiuchus, on the north side of the galactic disk, at a distance of 4,500 light years from Earth, reports Xinhua news agency.

- The star has a mass almost 1.5 times our sun.

## **AUGUST 9**

### **General Studies-01**

#### **Andhra Pradesh's Savara tribal art gasps for survival**

**News:** The Savara tribal art Edisinge that once flourished in the Eastern Ghats, is on the verge of extinction owing to the change in the religious profile and lifestyle of the community.

#### **Beyond News**

- Until 2011, the number of Edisinge artists was below 15 in Srikakulam district, home to the Savara tribe in Andhra Pradesh, with a population of above 1.05 lakh.
- They started the Savara Art Society in 2011 to revive our art as some of the surviving artists are too old to practise it, Savara Raju of Addakulaguda hamlet told.
- Raju, inherited the art from his father China Sumburu, trained a batch of 30 youths of their tribe through the SAS, but barely three are now actively practising it.
- The tribe's association with nature and wildlife is vividly depicted through drawings on mud walls by using vermillion, rice powder and charcoal. The lifestyle, modes of agriculture, hunting, festivals and life in the forest are the prime themes. The art works are replaced by new ones once in two or five years.
- Kothuru-based NGO Sanjeevani on Savara tribal issues in Srikakulam district. The Seetampeta Integrated Tribal Development Authority has also been striving to revive it in many ways. The Edisinge artists have been given projects by the Indian Railways and the Visakhapatnam Urban Development Authority with the twin objectives of promoting the art and giving youth of the tribe a chance to earn their livelihood.



### **General Studies-02**

#### **Instant triple talaq Bill: Cabinet approves inclusion of provision of bail**

**News:** The Union Cabinet on approved the inclusion of provision of granting bail to men found guilty of giving instant triple talaq to their wives in the Muslim Women Protection of Rights on Marriage Bill, sources in the government said.

## Beyond News

- Giving instant triple talaq will continue to be illegal and void and will attract a jail term of three years for the husband.
- The Bill was cleared by Lok Sabha and is pending in the Rajya Sabha where the government lacks numbers.
- Provision of bail had been one of the demands of the Opposition.
- Under the amendments cleared, the magistrate would have powers to grant bail, the sources said.
- The proposed law would only be applicable to instant triple talaq or 'talaq-e-biddat' and it would give power to the victim to approach a magistrate seeking "subsistence allowance" for herself and minor children.
- A woman can also seek the custody of her minor children from the magistrate, who will take a final call on the issue.

## SC asks TN to seal 11 resorts on Nilgiris elephant corridor within 48 hrs

**News:** The Supreme Court directed the Tamil Nadu government to seal or close down within 48 hours 11 resorts and hotels constructed on the elephant corridor of Nilgiris in violation of law.



## Beyond News

- A Bench directed the owners of the other resorts and hotels located in the area to place their documents of approval before the Collector within 24 hours.
- The apex court said the Collector will verify the documents and if he arrives at the conclusion that a resort or hotel has been constructed without prior approval, the same should also be closed down within 48 hours.
- The Bench, said elephants were our "national heritage" and expressed displeasure as to how constructions had come up on the elephant corridor of Nilgiris.
- The counsel had also told the court that around 18,000 elephants came to Tamil Nadu during the monsoon season and the court should direct that the power connection to these resorts and hotels be snapped.
- The apex court had earlier said it was "extremely unfortunate" that several states had not responded to two communications sent by the Centre on the issue of elephant corridors to curb incidents of human-animal conflict and reduce animal fatalities.
- The Centre had told the court that a committee was formed to consider the suggestions, including making corridors across the country for the safe passage of elephants and other endangered animals.

- The apex court had stressed on the need to have elephant corridors across the country to reduce animal fatalities due to accidents and other reasons and asked the Centre to come up with some “workable solution” in this regard.
- The Centre had told the court that there were 27 “critical” elephant corridors in 22 states, but despite the top court’s directions, 13 of those states had not responded to the government on the matter.

### General Studies-03

#### Kerala rains, Shutter of Cheruthoni dam opened after 26 years; death toll rises to 22

**News:** Unrelenting rains in Kerala have caused rising water levels, landslips and flooding across the Kerala State in the last few days.

#### **Beyond News**

- Heavy rain and landslips in the eastern hill areas of the district bordering Karnataka forced many families to move to nearby safer places as they are in danger of being inundated by flooding in the Iritty river and its tributary that form the upstream of the Valapattanam and Kuppam rivers.
- At least 22 people have died in Kerala due to heavy rains and landslides, the Home Ministry said.
- Four teams of the National Disaster Response Force (NDRF), comprising 45 personnel each, have left Chennai for Kerala to assist the rescue and relief operations.
- An Inter-Ministerial Central Team of the Central government is also visiting flood-affected areas in Kerala, while Army troops are being mobilised from Bengaluru for deployment in the rain-battered southern State.
- Water levels rise in various dams and reach almost their maximum capacity.
- One shutter of the Cheruthoni dam in Idukki has been opened to ease the pressure of water on the Idukki hydel reservoir. This has been done after a gap of 26 years.



#### Mouse deer reintroduction into wild successful: zoo

**News:** The first batch of mouse deer released by the Nehru Zoological Park into the wild habitat are adapting well as evidenced through the camera traps, and more animals will be released shortly, a press statement from the zoo said.

- Nehru Zoological Park is a zoo located near Mir Alam Tank in Hyderabad, Telangana, India. It is one of the most visited destinations in Hyderabad.



## Beyond News

- The zoo had released eight mouse deer from the soft release site inside Amrabad forest area, into the wild, in first phase of the project. Buoyed by the response, the authorities are hopeful of successful reintroduction of all the 300 deer bred in zoo, into the wild.
- The conservation breeding in the zoo began in 2010 with two males and four females. Funded and monitored by the Central Zoo Authority, New Delhi. the number has grown to 300. The guidelines and protocol of CZA have been strictly followed while taking up the conservation breeding.
- Genetic profiling of these animals was done by LaCONES, whereby suitable animals were identified for release into natural forest.
- Once the conservation breeding is successful, it was decided to enter into the second phase of conservation, which was introduction into the natural habitats. For this, a total of 28 animals were first released phase-wise into the two-acre mouse deer rehabilitation and soft release facility at Pichakuntla Cheruvu, Amrabad forest area, Achampet, Nagarkurnool district, before eight among them were released into wild, the note said.
- The IUCN (International Union for Conservation of Nature) guidelines for reintroduction of the wild animals are being followed while taking up the release into the soft release facility and further release into the wild, it said.

## NGT directs closure of UP industrial units polluting rivers

**News:** The **National Green Tribunal (NGT)** directed closure and registration of cases against 124 industrial units in western Uttar Pradesh that have been found polluting the Kali, the Krishna and the Hindon.

## Beyond News

- A Bench directed the District Magistrates of six districts to submit an action plan for providing potable water to the villagers.
- Observing that people have a fundamental right to clean air and water, the green panel, further, directed the State government to seal handpumps that are discharging contaminated water.
- Authorities have also been asked to formulate health benefit schemes for residents who are suffering from ailments caused after using the polluted water.
- The directions came while the tribunal was hearing a plea filed by non-government organisation Doaba Paryavaran Samiti, which alleged the consumption of polluted water had led to serious health hazards among children as well.
- Earlier, the green panel had directed inspection of 316 industries that were allegedly polluting the rivers.
- The tribunal had also rapped the Uttar Pradesh Jal Nigam for non-compliance with orders passed in 2015, that had directed sealing of handpumps releasing contaminated groundwater.

## Flood alert issued along Cauvery; boating suspended at Ranganathittu

**News:** A flood alert has been sounded along the Cauvery in the district as the river is swelling with around 20,000 cusecs of water, subsequent to the discharge from the upstream Krishnaraja Sagar (KRS) reservoir.

### **Krishnaraja Sagar**

- The dam was built across river Cauvery in 1924. It is the main source of water for the districts of Mysore. The water is used for irrigation in Mysore and Mandya and it is the main source of drinking water for all of Mysore, Mandya and almost the whole of Bengaluru city, the capital of the state of Karnataka.

### **Beyond News**

- The inflow into the KRS has significantly increased as heavy-to-heavy rains have been lashing the catchments in Kodagu district since past two days.
- The KRS is at maximum storage capacity and the department has increased the outflow quantum.
- The Irrigation Department has asked the residents of low-lying areas to move to safer places with their cattle.
- The Forest Department has been instructed to suspend boating rides at Ranganathittu bird sanctuary in Karnataka, while the Police/Revenue departments will be alerting people in low-lying areas along the river, said senior officials.
- But entry to the sanctuary is open to the public. Visitors can enjoy the scenic bird sanctuary and swollen Cauvery from the watch tower and walkways, Forest officials said.

**AUGUST 10**

## **General Studies-02**

### **Maldives seeks scaling back of Indian presence as it woos China**

**News:** The Maldives wants India to withdraw military helicopters and personnel posted there following the expiry of an agreement in June, its envoy said, the latest snub to New Delhi by President Abdulla Yameen's China-backed government.

### **Beyond News**

- **India and China are going head to head in the Maldives**, the Indian Ocean island chain where Beijing is building roads, bridges and a bigger airport, **upstaging India** which has been the country's prime provider of military and civilian aid for decades.

- India has opposed Yameen’s crackdown on political rivals and the imposition of an emergency this year and some of the president’s rivals have called on New Delhi for military intervention, creating worries in the Maldivian government.
- The tensions are impacting aid programmes such as security assistance that New Delhi has given to smaller countries in the region to help them protect exclusive economic zones, carry out surveys and combat piracy.
- India and the Maldives are still conducting joint patrols in the islands’ exclusive economic zone every month. The Maldives, 400 km (250 miles) to the southwest of India, is close to the world’s busiest shipping lanes, between China and the Middle East.
- Along with the helicopters, India had stationed around 50 military personnel, including pilots and maintenance crew, and their visas had expired. But New Delhi has not yet withdrawn them from the island chain.
- India has been demanding that Yameen free political rivals including former President Abdul Gayoom and Supreme Court justices. It also criticised Yameen’s decision to hold elections in September saying the rule of law should be restored before embarking on such an exercise.
- China, which opened an embassy in the Maldives in 2011, has rapidly built ties with the tropical island chain as part of its Belt and Road Initiative. It says it is opposed to any country interfering in the internal affairs of the Maldives.
- Providing helicopters and patrol boats and satellite assistance to countries such as the Maldives, Mauritius and the Seychelles has been part of India’s naval diplomacy to retain influence in the Indian Ocean.
- But in recent years China has moved in, building ports and roads backed by loans. In the Maldives, Beijing Urban Construction Group Company Limited took over a project to expand the airport servicing the capital Male, after the government cancelled a \$511 million deal with India’s GMR Infrastructure.

### **General Studies-03**

#### **Widening elephant corridors via compensatory afforestation**

**News:** In a move that could augur well for the future of elephants, the Forest Department in Karnataka is set to procure large swathes of revenue land abutting identified elephant corridors to facilitate their free movement at critical links along the established migratory path.

#### **Beyond News**

- The focus area will be around the **M. Hills Wildlife Sanctuary** and the **Biligiriranga Tiger Reserve**, where companies will purchase private land and transfer it to the Forest Department.



- It was being promoted under the compensatory afforestation scheme in which industries allotted land, anywhere in the State, have to compensate for it by procuring private land abutting forest boundaries.
- The thrust is on procuring land abutting forest corridors to ease wildlife migration and **reduce human-animal conflict** on the fringes.
- About 125 acres of land at Badarayanahalli have already been procured by a private firm and the process of transferring it to the Department is on.
- In all, nearly 1000 acres have been identified for procurement in the long run.
- The Edayarahalli-Doddasampige corridor is also set for expansion for which the authorities have planned to procure 150 acres of land.
- The corridor connects the Biligiri Rangaswamy Temple and MM Hills wildlife sanctuaries and is at present around 1.5 km in length. They plan to extend it by another 500 metres and widen the existing corridor to 2 km.
- Of the 150 acres proposed, around 100 acres will be on the MM Hills side close to Budipadaga village.
- Incidentally, an NGO, Wildlife Trust of India, procured nearly 25 acres of land from farmers and handed it over to the State government to secure the **Edayarahalli-Doddasampige corridor** some years ago and the same was poised for expansion.
- The bulk of the proposed acquisition will be in Chamarajanagar district which is home to Bandipur, BRT Tiger Reserve, MM Hills Wildlife Sanctuary and Cauvery Wildlife Sanctuary, which support nearly 3,000 elephants and the **land acquisition will widen their migratory path and ease their movement.**

### [Rajnath assures Kerala CM all help to deal with the floods](#)

**News:** The Centre assured the Kerala government of all possible help in rescue and relief operations in the wake of rains and floods, which so far have claimed 26 lives in the State.

#### **Beyond News**

- The assurance was given by Home Minister to Kerala Chief Minister during a telephonic conversation.
- Spoke to Kerala CM and discussed the prevailing flood situation in the state. Home Minister have assured all possible assistance from the Centre to the state government. The relief and rescue ops are going on. MHA is closely monitoring the flood situation.
- The South-West monsoon has been vigorous over Kerala, resulting in heavy rains in various parts of the state for the last two days.

### [Indian telescope spots distant radio galaxy](#)

**News:** Astronomers have used an Indian telescope to discover the most distant radio galaxy ever known, located at a distance of 12 billion light-years.



## Beyond News

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- The galaxy, from a time when the universe was only 7% of its current age was found using the **Giant Metrewave Radio Telescope (GMRT)** in Pune.
- **GMRT is an array of thirty fully steerable parabolic radio telescopes of 45-metre diameter.** It is operated by the National Centre for Radio Astrophysics.
- The distance to this galaxy was determined using the Gemini North telescope in Hawaii and the Large Binocular Telescope in Arizona.

## Radio galaxy

- Radio galaxies are very rare objects in the universe. They are colossal galaxies with a supermassive black hole in their centre that actively accretes gas and dust from its surroundings.
- This activity initiates the launch of high-energy jet streams, which are capable of accelerating charged particles around the supermassive black hole to almost the speed of light.
- The discovery of such galaxies at extremely large distances is important for our understanding of the formation and evolution of galaxies.

## UAE top source of inward remittances in 2016-17: RBI

**News:** The **United Arab Emirates (UAE)** has emerged as the top source of inward remittances, while Kerala has received the maximum funds sent from abroad, according to the Reserve Bank of India's survey of inward remittances for 2016-17.

## Beyond News

- UAE's share in total remittances was 26.9%, followed by the United States (22.9%), Saudi Arabia (11.6%), Qatar (6.5%) and Kuwait (5.5%).
- According to the survey, 82% of the total remittances received by India originated from eight countries UAE, the U.S., Saudi Arabia, Qatar, Kuwait, Oman, the United Kingdom and Malaysia.
- Among destinations, Kerala has the highest share with 19%, followed by Maharashtra (16.7%), Karnataka (15%), Tamil Nadu (8%) and Delhi (5.9%).
- Kerala, Maharashtra, Karnataka and Tamil Nadu together received 58.7% of total remittances.
- More than half of remittances received by Indian residents were used for family maintenance, i.e., consumption (59.2%), followed by deposits in banks (20%) and investments in landed property and shares (8.3%), the survey said.
- The rupee drawing arrangement (RDA) is the most popular channel of remittances which accounts for 75.2% of remittances, followed by SWIFT (19.5%), direct transfers (3.4%) and cheques and drafts (1.9%).

- Private banks got the lions share in total remittances with 74.1%, while public sector banks share was 17.3% and the remaining with foreign banks.

## **AUGUST 11**

### **General Studies-02**

#### **Indian envoy in Pakistan meets Imran Khan**

**News:** Pakistan is likely to boost its role in **SAARC** under the Imran Khan government which will assume charge soon. An indication on this came at the **first meeting between the newly elected leader of Pakistan** Tehreek-e-Insaf (PTI) and Ajay Bisaria, **Indian High Commissioner**.

#### **Beyond News**

- They expressed the hope that the SAARC Summit would be held soon in Islamabad.
- The Indian High Commissioner said post the phone call from Prime Minister Narendra Modi to Mr. Khan, there was a new optimism in India that relations would move forward positively.
- The summit-level meeting of the group had been uncertain since bilateral ties between India and Pakistan created a hurdle. An official source said Indian participation in the summit would ensure a visit by Prime Minister to Pakistan.
- Bilateral issues such as Kashmir were discussed at meeting.
- A press statement issued by the Indian High Commission said Mr. Bisaria raised the need to stop cross-border terrorism.

#### **Ahead of pro-Khalistan rally, U.K. bats for right to protest**

**News:** Citizens in the United Kingdom have the right to peaceful protest, said the spokesperson of the U.K. High Commission to India. The response from the U.K. authorities came a day after India said the **pro-Khalistan rally planned in London aims to undermine the country's territorial integrity**.

#### **Beyond News**

- The spokesperson said the British police had all necessary powers to deal with any concerns regarding the rally.
- People in the U.K. have a right to protest and to demonstrate their views, provided they act within the law. Should a protest contravene the law, the police have comprehensive powers to deal with activities that spread hate or deliberately raise tensions through violence or public disorder. This does not negate the right to peaceful protest," said a U.K. diplomatic source.
- The Ministry of External Affairs said the proposed rally, which will be held three days before Independence Day celebrations in India, is being organised by separatists.

- The London rally is expected to push the **idea of an online referendum in 2020 largely among the diaspora Sikhs seeking the creation of the free state of Khalistan**. A large protest was organised by the Anti-Terrorist Front outside the U.K. High Commission against the rally.

## General Studies-03

### Khangchendzonga Biosphere Reserve enters UNESCO list

**News:** The Khangchendzonga Biosphere Reserve (KBR) of Sikkim, the **highest biosphere reserve in the country** that includes the **third highest mountain peak in the world**, Kanchenjunga (8,586 m), has been included in the **UNESCO's World Network of Biosphere Reserve (WHBR)**.

#### **Beyond News**

- The decision was taken at the International Coordinating Council of Man and Biosphere Reserve Programme, UNESCO, in its 30th Session held at Palembang, Indonesia, last month, a press release by Ministry of Environment and Forest and Climate Change said.
  - With the inclusion of the KBR, one of the highest ecosystems in the world, reaching elevations of 1,220 m to 8,586 m above sea level, the number of biosphere reserves from the country included in World Network of Biosphere Reserves has increased to 11.
  - The last biosphere reserve to be included was the Agasthyamalai Biosphere Reserve in Kerala in 2016. The **Nilgiri Biosphere Reserve was the first reserve from the country** to be included in the WNBR. India has 18 biospheres reserves, of which 11 have been included in the WNBR.
  - Inclusion of the KBR in the UNESCO list will boost the unique ecosystem of Sikkim on two counts: collaborative research and tourism.
  - This development will boost international research collaboration relating to flora, fauna and ecosystem of the KBR.
- 
- The Khangchendzonga National Park (KNP), which comprises the core area of the KBR, was inscribed as **India's first "Mixed World Heritage Site"** on July 17, 2016. Eighty six per cent of the core lies in the Alpine zone and the remaining portions are located in the Himalayan wet temperate and sub tropical moist deciduous forest.
  - The Khangchendzonga Biosphere Reserve is one of the world's 34 biodiversity hotspots that has good species diversity with high levels of endemism, with many mountains, peaks, lakes, caves, rocks, stupas (shrines) and hot springs.

- According to the Sikkim Forest Department, there are 4,500 species of flowering plants in the KBR, including 424 medicinal plants and 36 rhododendrons, 60 species of primulas and 11 varieties of oaks .
- The biosphere reserve has also listed 362 species of ferns. Over 118 species of the large number of medicinal plants are found in Dzongu Valley in north Sikkim.
- Many species protected under the Wildlife Protection Act have their home in the KBR. This includes the Red Panda, Snow Leopard, Himalayan Black Bear and herbivores species of Musk deer, Great Tibetan Sheep, Blue Sheep, Boral and Barking Deer. Over 500 species and sub-species of birds, including high-altitude pheasants Monal Pheasants, Tragopan Pheasants and Blood Pheasants (the State Bird) are also found in the reserve.

### Praise for India's green initiatives

**News:** The UN's environment chief has lauded India's efforts to meet its energy needs through solar and curb use of plastics but said that countries still need to do lot more to protect the planet.

### **Beyond News**

- **UN Environment Programme (UNEP)** Executive Director said 2017 is the first year in human history when more electricity was generated globally from the sun, than oil, gas and coal combined.
- In an interview with UN News, he said southern India now has “the first all-solar airport in the world“.
- Some of India's southern states were experiencing “the most rapid economic development anywhere in the world – based on solar energy”.
- The **Cochin International Airport in Kerala is the first ever fully solar powered airport**. Cochin International Airport Limited (CIAL), the company which owns and operates the airport, became power neutral in August 2015 with the commissioning of its 12 megawatt peak (MWp) solar power plant. It scaled up the installed capacity to 30 MWp by April 2018.
- By September 2018, the solar capacity at CIAL is expected to be increased to 40 MWp, with a power potential of 60 million units per annum, according to information on the CIAL website.
- In the United States, “there are five times more jobs in solar, than in coal”.
- China had recently prohibited all trading in ivory; very important because it stops the market for those killing elephants in Africa.
- Indonesia has reduced deforestation across its peatlands by close to 90 per cent. Peat is partially decayed, dead vegetation, which stores enormous amounts of carbon and, among other things, soaks up water – helping to mitigate flooding – during wet season and releases water during dry season.



## Coastal villages to soon vie for UNESCO tag

**News:** In the coming years, **Indian coastal villages may be able to shed their 'vulnerable' tags in exchange for 'tsunami-ready' designation**, bestowed upon them by the United Nations.

### **Beyond News**

- A **national-level board that aims to prepare India's coastal communities to face tsunamis met for the first time**, since its constitution two months ago, at the Indian National Centre for Ocean Information Services (INCOIS). The board resolved to write to governments of coastal States seeking recommendations for villages at risk. The recommendations would kick-off a pilot project under the hazard preparedness programme.
- These are the first steps being taken as part the Indian Ocean Tsunami Ready programme that was instituted under the aegis of UNESCO, said, the Director of INCOIS.
- The United Nations Educational, Scientific and Cultural Organisation devised a programme to promote tsunami hazard preparedness among coastal communities by assessing preparedness and recognising with the '**Tsunami-Ready**' tag.
- Guidelines for the programme were framed in September 2017. The 2004 Indian Ocean tsunami prompted setting up of early warning systems for the region which are now successfully producing alerts, preparing communities to survive tsunamis was the need of the hour.
- In India, the national board, comprising representatives from INCOIS, **disaster management agencies**, coastal States and the Ministry of Home Affairs, would help villages meet 11 criteria of tsunami preparedness before designating them tsunami-ready.
- Villages deemed ready by the national board would then get to apply at the international level to UNESCO for the tag.
- The INCOIS conducted a national-level workshop to prepare the Army, navy, coast guard and representatives from nine coastal States on Tsunami Standard Operating Procedure in view of an upcoming tsunami mock exercise in the Indian Ocean region on September 4 and 5.

## New software to fill gaps in recording deaths

**News:** In 2011, only 67% of an estimated 8.5 million deaths in India were registered. Although the number of registrations increased to 76% (of an estimated 8.1 million deaths) in 2016, the proportion of medically certified deaths is only 22%, as per the Registrar General of India's report on Medical Certification of Cause of Death (MCCD), 2015.

### **Beyond News**

- These figures indicate the huge gap between deaths registered and deaths medically certified.

- medically certified, the National Centre for Disease Informatics and Research under the Indian Council of Medical Research (NCDIR-ICMR) has developed an **electronic mortality (e-Mor) software**.
- It is largely observed that medical practitioners record the mode of dying or the immediate cause rather than the underlying /antecedent cause that led to death. At present, the information is largely incomplete and inaccurate.
- According to the World Health Statistics 2018 released by the World Health Organisation Organisation (WHO) for Monitoring Health for the Sustainable Development Goals, the completeness and quality of cause of death information is only 10%.
- **The e-Mor software** is for strengthening cause of death reporting systems in hospitals and improve death audits with use of appropriate tools for classifying deaths (International Classification of Diseases-10). This can bridge the gap and lead to better death statistics and surveillance in India.
- The software has been put to use in eight hospitals in the northeastern States.
- This e-mortality software will have a larger impact on research and public health.

### NGT forms panel for Natural Conservation Zones

**News:** The **National Green Tribunal (NGT)** has constituted a committee to ascertain whether sub-regional plans for protection of Natural Conservation Zones (NCZs) are in consonance with the regional plans prepared by the National Capital Planning Board.

#### **Beyond News**

- A Bench has directed the Ministry of Environment, Forests and Climate Change to be the nodal agency and hold a meeting within 30 days.
- Since it is stated on behalf of Haryana that its report will be submitted within one month, the said report may be taken into account. Similar reports may also be furnished by the other States.
- The Secretaries of Urban Development Departments of the States will be responsible for submitting sub-regional plans. The matter may thereafter be finalised as far as possible within three months.
- The committee will comprise officials from the Environment Ministry, Ministry of Housing and Urban Affairs, Central Pollution Control Board, National Remote Sensing Centre, Indian Space Research Organisation and officials from the State governments of Uttar Pradesh, Rajasthan, Haryana and Delhi.

**AUGUST 12 & 13**

### General Studies-02

#### Indian aid to SAARC nations dips

**News:** India's financial assistance to SAARC neighbors declined considerably in the past five years, a reply by the government in Parliament this week showed.

## Beyond News

- The figures were revealed in the Lok Sabha in reply to a question on whether India had completed projects committed to countries in the neighbourhood.
- Minister of State for External Affairs submitted a chart of India's grant assistance, which have fallen from Rs. 5,928.6 crore in 2013-14 to Rs. 3,483.6 crore in 2017-18 for Afghanistan, Bangladesh, Bhutan, the Maldives, Nepal and Sri Lanka combined.

## Tribal people allowed to collect forest produce

**News:** Following talks with the Forest Department, tribal residents of Germalam in Tamil Nadu were allowed to collect forest produce.

## Beyond News

- Hundreds of people reside in the hamlets located in the forest areas including Kottamalam, Vaithyanathapuram, Suzilkarai, Kadatti, Germalam, Gethasal and Ganakarai that **comes under the Sathyamangalam Tiger Reserve (STR)**.
- Their main source of livelihood was collecting forest produce such as honey, gooseberry and selling it.
- However, in the last few months they were denied permission to enter the forest area and collect the produce. The tribal people said that their livelihood was completely affected and announced that they would stage a protest in front of the forest office in Germalam.
- Officials held talks with representatives of tribal associations where they explained how their livelihood was affected by the ban.

Officials said that the tribals would once again be permitted to enter the forest to collect the produce.

## Centre comes to Kerala's aid

**News:** Union Home Minister Rajnath Singh conducted an aerial survey of flood-ravaged Kerala and announced an immediate relief of Rs. 100 crore as the State braced for another spell of heavy rain after a fresh low pressure area developed in the Bay of Bengal.

## Beyond News

- State authorities said the death toll in the recent monsoon rain rose to 38 and more than 1,00,000 people had been shifted to 1,026 relief camps.
- The Union Minister's announcement of aid came as the first response to the State's plea for Rs. 1,220 crore from the National Disaster Response Fund. The Centre had earlier sanctioned Rs. 80 crore and another Rs. 18.24 crore assistance to the State.
- Singh called the flood situation serious and unprecedented in the history of the State.

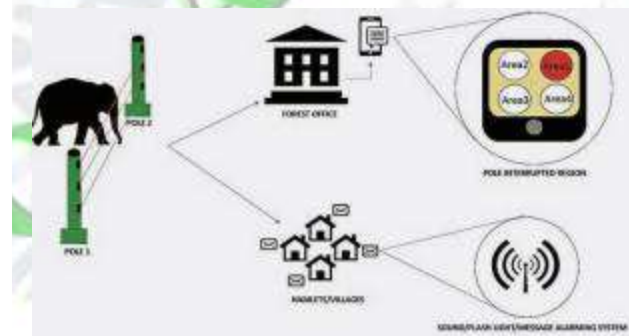
## General Studies-03

### Start-up develops optical fencing to tackle human-elephant conflict

**News:** When six fresh engineering graduates from different educational institutions joined to form a start-up based in Coimbatore, they wanted to address an issue that is a cause of worry in the rural parts of the district **human-elephant conflict**.

#### **Beyond News**

- They came out with a novel and **cheap alternative for electric fencing, a widely used method to ward off wild elephants in forest boundaries**.
- The start-up Spihood Synergy Pvt. Ltd. has developed an **Optical Fencing** technology that can be used as an early warning system by detecting elephant intrusion.
- Optical Fencing works with the help of a network of poles that are linked together with radio frequency network and laser beams. Any breach of the laser beams, fixed in varied heights to detect movement of elephant between two poles, will be communicated through the radio network to the operator.
- The operator – who can view the breaching in computer, tablet or mobile phone – can generate alarm and issue warning messages to mobile phones.
- Two poles can be fixed at a maximum distance of 100 m between them. The poles have a number of transmitters and receivers creating an Optical Fence around a given area.
- The poles can also generate buzzing of honey bees, a known natural remedy to scare elephants.



### Rescue, rehabilitation centre for marauding monkeys

**News:** The monkey rescue and rehabilitation centre, proposed to be established by the Telangana State government as a pilot project of its kind, is likely to be completed by October-end. Based on its success, more such projects would be taken up in areas facing human-monkey conflict in the State.

#### **Beyond News**

- The centre is proposed at Chincholi village near Nirmal in Adilabad district, where five acres of land has been allocated for the purpose.
- **The need for the centre** was felt after several complaints were made to the authorities about

**No more monkeying around**

- The centre to be established on five acres of land
- This is to control their population and keep their menace in check
- The centre to have a veterinary clinic, operation theatre, and a feeding room
- Monkeys to be captured and sterilised, before being released into the wild
- ₹2.21 crore sanctioned for the centre
- Four large enclosures with a capacity to hold 50 monkeys each to be set up
- ₹1.56 crore for establishment expenditure and ₹65 lakh for recurring expenditure for the first year

The image shows a group of monkeys, including a large brown one and several smaller ones, behind a wire-mesh fence. They appear to be in a confined space, likely a part of the proposed rescue and rehabilitation centre.

marauding groups of simians, that were destroying crops, entering homes and stealing food. Two species, Rhesus and Bonnet monkeys, were blamed for destruction of crops such as millets, cereals and groundnut.

- Once the centre is established, monkeys would be **captured and sterilised**, before releasing them into the wild, in order to control their population and keep their menace in check.
- Before the decision to establish the centre, a study was taken up of similar centres in Himachal Pradesh, which too suffered the primate attacks. Himachal Pradesh has administered sterilisation to more than 1.5 lakh monkeys so far through the centre.
- The government has sanctioned Rs. 2.21 crore for the centre, of which Rs. 1.56 crore would be the establishment expenditure and Rs. 65 lakh would be the recurring expenditure for the first year.
- The expenditure would be met from the afforestation fund meant for Haritha Haram programme, as per the government order.

### **IGIB team finds a new target to reverse iron overload disease**

**News:** Using zebrafish, researchers have successfully discovered a pathway that regulates **hepcidin hormone**. The hepcidin hormone, released by the liver, is a central regulator of iron in the body. Dysregulation of the hormone leads to anaemia on one hand and excess iron accumulation in organs such as liver and heart leading to multi-organ failure.

#### **Beyond News**

- Hemochromatosis is a rare hereditary disease that is characterised by iron accumulation or overload in various tissues. The symptoms are non-specific and hence difficult to diagnose. Current options only manage the disease by removing excess iron.
- Mutations in about six genes are known to cause reduction in hepcidin hormone production thereby causing excess iron accumulation. But for the study, the research team created a disease model in zebrafish by mutating one of these genes (TFR2). Mutations in the TFR2 gene cause a severe form of the disease.
- The zebrafish with the mutant gene showed excess iron accumulation in organs, quite similar to what is seen in humans.
- In the conventional drug discovery approach, the target protein and even the pathway are already known and molecules that would either inhibit or overproduce the target protein are screened for. But the researchers adopted a different approach for this study.
- Since the researchers knew hepcidin production is regulated by many signalling pathways, they selected 80 compounds that specifically target signalling pathways in zebrafish. Of the 80 compounds tested, eight were found to induce the production of hepcidin hormone in the fish.
- One of these compounds is a blocker of NFκB signalling pathway. This pathway was not known to be important in hepcidin regulation in the liver.
- This is the first time that researchers have been able to identify and tell that the NFκB pathway regulates liver hepcidin production.

- When the pathway in the zebrafish model of Hemochromatosis was inhibited using the four compounds, the hepcidin production was restored and iron overload was reduced, thus reducing the severity of the disease.

## Forty-five new exoplanets discovered

**News:** Scientists have **discovered a trove of forty-four planets** in solar systems beyond our own in one go, dwarfing the usual number of confirmations from extrasolar surveys.

### Beyond News

- The findings will improve existing models of solar systems, and may help researchers investigate exoplanet atmospheres.
- Astronomers pooled data from NASA's Kepler and the ESA's Gaia space telescopes. They confirmed existence of these 44 exoplanets and described various details about them
- A portion of the findings yield some surprising characteristics.
- Four of the planets orbit their host stars in less than 24 hours.
- These contribute to a small but growing list of "ultrashort-period" planets, suggesting that they could be more common than previously believed.

## NASA launches probe to 'touch' Sun

**News:** NASA launched a \$1.5 billion spacecraft toward the Sun on a historic mission to protect the earth by unveiling the mysteries of dangerous solar storms.

### Beyond News

- The unmanned spacecraft's mission is to get closer than any human-made object ever to the centre of our solar system, plunging into the Sun's atmosphere, known as the corona, during a seven-year mission.
- The probe is guarded by an ultra-powerful heat shield that can endure unprecedented levels of heat, and radiation.
- NASA has billed the mission as the first spacecraft to "touch the Sun."
- In reality, it should come within 3.83 million miles of the Sun's surface, close enough to study the curious phenomenon of the solar wind and the Sun's atmosphere, known as the corona, which is 300 times hotter than its surface. The car-sized probe will give scientists a better understanding of solar wind and geomagnetic storms that risk wreaking chaos on the earth by knocking out the power grid.
- Knowing more about the **solar wind and space storms** will also help protect future deep space explorers as they journey toward the Moon or Mars. The spacecraft is protected from melting during its close shave with the Sun by a heat shield just 4.5 inches thick.
- The sunlight is expected to heat the shield to around 1,371 degrees Celsius. Yet the inside of the



spacecraft should stay at just 29 degree Celsius. The probe is set to make 24 passes through the corona collecting data.

- The spacecraft is the only NASA probe in history to be named after a living person 91-year-old solar physicist Eugene Parker, who first described the solar wind in 1958.

**AUGUST 14**

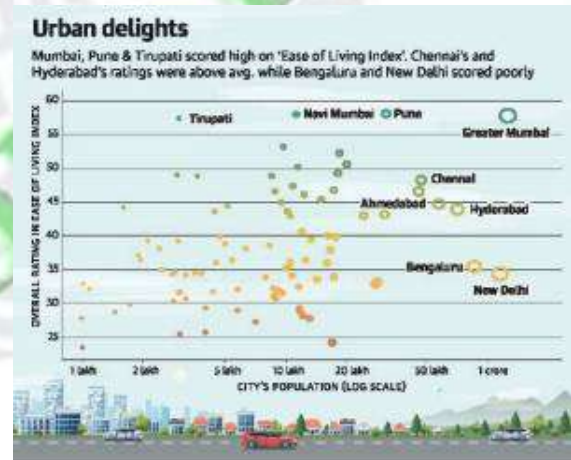
## **General Studies-01**

### **Pune tops Ease of Living index; Patna ranked lowest of 111 cities**

**News:** Three cities in Maharashtra Pune, Navi Mumbai and Greater Mumbai top the first Ease of Living Index brought out by the Union Ministry of Housing and Urban Affairs.

#### **Beyond News**

- The national capital, New Delhi, is ranked 65 among 111 cities, while Chennai is in 14th place. Kolkata did not participate in the survey.
- A city's ranking reflects its ability to provide data, as well as its actual performance on four different parameters institutions or governance, social indicators, economic indicators and physical infrastructure.
- Senior Ministry officials told that cities which were unable or unwilling to provide data received low scores.
- New Delhi has a score of "zero" on indicators regarding inclusive housing and mixed land use and compactness, and a score of just 0.12 on economy and employment.
- This does not mean that the capital actually performs so poorly on these indicators, according to members of the consortium which carried out the survey and produced the Index for the government. Instead, it probably means that the NDMC and the three Municipal Corporations which govern the city simply failed to provide any data on those indicators.
- A consortium member admitted that it was a challenge to collect some of this information from data-starved urban local bodies.
- Particular complications were seen in indicators such as health where local governments did not have access to data from private hospitals. The consortium assisted cities in plugging the data gap with regard to certain indicators.



- The other cities in the top 10 include Tirupati, Chandigarh, Thane, Raipur, Indore, Vijayawada and Bhopal. The three cities at the bottom of the rankings are Rampur, Kohima and Patna.

## **Amazon droughts reducing forest's CO<sub>2</sub> absorption: NASA**

**News:** A single season of drought in the Amazon rainforest can reduce its capacity to absorb carbon dioxide for years after the rains return, a NASA study has found.

### **Beyond News**

- The study, is the first to quantify the long-term legacy of drought in Amazon, the largest tropical forest on Earth.
- Researchers used satellite data to map tree damage and mortality caused by a severe drought in 2005. In years of normal weather, the undisturbed forest can be a natural carbon “sink,” absorbing more carbon dioxide from the atmosphere than it puts back into it.
- Starting with the drought year of 2005 and running through 2008 the last year of available data the Amazon basin lost an average of 270 million metric tonnes per year of carbon, with no sign of regaining its function as a carbon sink. Scientists estimate that it absorbs as much as one-tenth of human fossil fuel emissions during photosynthesis.
- If droughts continue to occur with the frequency and severity of the last three events in 2005, 2010 and 2015, the Amazon could eventually change from a rainforest to a dry tropical forest. That would reduce the forest’s carbon absorption capacity and its biological diversity.
- Even if trees eventually survive defoliation, this damages their capacity to absorb carbon while under stress. Observers on the ground also notice that droughts tend to disproportionately kill tall trees first. Without adequate rainfall, these giants can not pump water more than 100 feet up from their roots to their leaves. They die from dehydration and eventually fall to the ground, leaving gaps in the forest canopy far overhead.
- However, any observer on the ground can monitor only a tiny part of the forest. There are only about hundred plots used for research and a few tower sites for long-term monitoring of the Amazon forests.
- The research team used high-resolution maps derived from the Geoscience Laser Altimeter System aboard the Ice, Cloud, and land Elevation Satellite (ICESat). These data reveal changes in canopy structure, including leaf damage and gaps.





- The researchers found that following drought, fallen trees, defoliation and canopy damage produced a significant loss in canopy height. The most severely impacted region declined an average of about 0.88 metres in the year after the drought, they said.

## General Studies-02

### U.K. anti-immigration lobby slams Indian IT firms

**News:** A lobbying group, which pushes for greater curbs on Britain's **immigration** regime, has accused multinational IT companies, "typically based in India", of exploiting a "gaping" loophole in Britain's immigration system, and has called for the system to be overhauled.

#### **Beyond News**

- In a report published, Migration Watch said a small number of multinational IT companies were exploiting a system intended to post senior executives to and from the U.K. to bring "thousands of migrant workers to fulfil contracts with private and public sector organisations".
- This is known as third-party contracting and usually involves an international IT company, typically based in India, obtaining a contract to deliver a project or support services to a U.K. entity and then staffing it with workers from the company's home country.
- Though part of the Tier 2 visa category, intra-company transfers (ICTs) are not subject to a cap, and have over time represented an increasing share of the Tier 2 work visas, the lobby group said. About 58,000 of 94,000 Tier 2 work permits issued in 2017 were via the ICT route, the group said. It accused the companies of undercutting British competitors and "reducing" opportunities for British IT professionals to work and develop skills.
- Britain's immigration regime has become an increasingly contentious area: while those on the Right have pressed for tougher restrictions, industry and others have expressed concerns that even the existing system could threaten Britain's ability to remain open to business and talent at a time when it is particularly important for the country.
- Last week, the Confederation of British Industry published a report calling for the government to scrap immigration targets, to help encourage investment and help foster better trade relations.
- The government has given no indication that it would push for a tightening of the ICT regime. It pointed to changes brought in 2017 that included increasing the minimum salary requirement, and ensuring workers left the U.K. after five years unless they earned more than £120,000, which it said were made to ensure that workers domestic workers would not be undercut.

## Blue stickers for petrol, CNG; orange for diesel

**News:** The Supreme Court agreed to a proposal of the Ministry of Road Transport and Highways (MoRTH) to have hologram-based coloured stickers on vehicles to indicate the nature of the fuel used in them.

### **Beyond News**

- The MoRTH told a Bench that hologram-based sticker of light blue colour will be used for petrol and CNG-run vehicles while similar sticker of orange colour would be placed on diesel vehicles.
- The date of registration of the vehicle would also be printed on these stickers, the Ministry told the court.
- The Bench, asked the Ministry to implement the use of coloured stickers on vehicles plying in Delhi-National Capital Region (NCR) by September 30.
- The Supreme Court also asked Additional Solicitor General, who was representing the MoRTH, to consider having green number plates for electric and hybrid vehicles.

## Launch of health scheme likely

**News:** Prime Minister is likely to announce the launch of the **Ayushman Bharat-National Health Protection Scheme (AB-NHPS)**, which aims to provide a medical coverage of ₹5 lakh a family every year.

### **Beyond News**

- The scheme, estimated to benefit more than 10 crore poor families, will be implemented on a pilot basis in select States. The nationwide rollout will be in September-end.
- A senior health official said the scheme will target poor, deprived rural families and identified occupational category of urban workers' families. While Punjab, Kerala, Maharashtra, Karnataka and Delhi are yet to come on board, Odisha has refused to be part of the scheme.
- Currently, 22 States have preferred to run the scheme on a "trust model".
- The Centre has allocated about ₹10,000 crore for the project, which is claimed to be the world's largest government-funded healthcare insurance programme.
- It is yet to release its share of the funds to the participating States.



## General Studies-03

### Measures in place to check hacking of govt. websites

**News:** The Telangana State government has initiated steps to streamline uploading data and other operational procedures on a host of websites of different departments.

## Beyond News

- The measures are the result of Irrigation Department's website [telangana.gov.in](http://telangana.gov.in) being hacked. The official website, maintained by the Centre for Good Governance, was found hacked when unauthorised files were uploaded in the circulars and proceedings section of the website. The uploaded files included .php ones and some unauthorised images stating "Dracula is here".
- The department stopped all access to the website and it was set aside for two days with a message that the website was under maintenance. Subsequently, the CGG advised the Irrigation Department to adopt **Hyper Text Transfer Protocol Secure (HTTPS)** certificate to the website as one of the solutions.
- Later, all unauthorised uploaded files were deleted from the database.
- The department sent one-time password to the mobile number and e-mail id of the employee at Engineer-in-Chief's office as a security measure for logging in the system to upload files and proceedings.
- IT Department officials said **steps have been initiated to streamline data uploading process into government-operated websites**. Though there were standard operating procedures that the departments followed, the fact that these websites were scattered across multiple data centres gave scope for hacking.
- The department has decided to put in place a mechanism where learning from such experiences would be shared by the departments concerned to avoid recurrence of such events.



**Streamlining operations**

- Unauthorised files uploaded in circulars and proceedings section of the website
- All access to the website stopped by the government
- Irrigation Department advised by CGG to adopt Hyper Text Transfer Protocol Secure certificate to the website as one of the solutions
- Circulars, proceedings and other information being uploaded on the website by one of the administrative employees of Engineer-in-Chief's office

## Mahadayi Tribunal recommends 'Cauvery-like board' to manage river water sharing

**News:** The **Mahadayi Water Tribunal** has recommended that a board, called the **Mahadayi Water Management Authority**, be constituted on the lines of the Cauvery Management Board to ensure the river's water is equitably used by Karnataka, Goa and Maharashtra, according to a statement from the Union Water Resources Ministry.

## Beyond News

- In its verdict that was submitted to the Ministry, the Mahadayi tribunal has allowed Karnataka to use 5.4 tmcft of river water for drinking, irrigation and dam storage purposes.
- Maharashtra has been allowed to use 1.33 tmcft and Goa, a maximum of 24 tmcft for 59 projects provided they adhere to certain ground rules. This will be over and above Goa's existing utilisation of 9 tmcft. It has rejected demands by Karnataka to divert nearly 12 tmcft for hydroelectric projects
- The Tribunal, has stated that demands by Goa, Maharashtra and Karnataka for future use of the Mahadayi waters aren't "fully justified" as there were "severe" loopholes in the way the States had calculated their future demands.
- The recommendations made by the Tribunal, ought to be adhered to until August 2048.

## India raises terror, UNSC reforms with UNGA president

**News:** Ahead of the convening of the 73rd session of the U.N. General Assembly, India has indicated that the campaign against global terrorism will be on top of its U.N. agenda.

### **Beyond News**

- External Affairs Minister conveyed India's concerns regarding the issue to the visiting U.N.GA president María Fernanda Espinosa Garcés, who maintained that there is not yet a consensus among the member-states about the definition of terrorism.
- The External Affairs Minister emphasised the need for U.N. Security Council (UNSC) reforms, especially continuation of the Inter-Governmental Negotiations, as well as early finalisation of the Comprehensive Convention on International Terrorism.
- In an interaction at the Indian Council of World Affairs (ICWA), U.N.GA president said India's demand for expansion of the U.N.SC featured in the discussion with the Prime Minister and indicated that she would try to build consensus among all U.N. member-states regarding issues such as expansion of the UNSC and counter-terrorism.
- N.GA president said she will appoint two co-facilitators to help her address reform issues.
- The U.N. is currently in the process of implementing reform process on fronts such as peace and security, development and management reforms and better coordination among the principal organs of the U.N.
- The visit also provided Indian decision makers to inform the U.N. official about India's continued commitment on South-South cooperation.

**AUGUST 15**

## **General Studies-02**

## India rejects U.K.'s DNA test plan for finding illegal migrants' nationality

**News:** India has rejected a proposal of the United Kingdom to use DNA sampling to establish the nationality of illegal migrants living there, citing "privacy issues".

### **Beyond News**

- Although a Memorandum of Understanding (MoU) on return of illegal migrants was initiated, after the due approval of the Union Cabinet in January, by Minister of State for Home while leading a delegation to the U.K the same month, India refused to sign the final pact during the visit of Prime Minister Narendra Modi to England in April.



- As per the original MoU, security agencies in India were to verify the antecedents of illegal migrants without documents in the U.K. within 72 days and those with documents within 15 days. If no report was given within the stipulated time frame, the illegal migrant would be deported automatically.
- The agreement was put on indefinite hold after National Security Adviser conveyed that the 15-day limit was unworkable.
- In one of the meetings, the U.K. authorities suggested that the nationality of document-less illegal migrants suspected to be Indians could be established by matching DNA samples of their family members living here.
- They raised objections, saying this was a breach of privacy and unethical. How do we know that the document-less person is an Indian, said a senior Home Ministry official who attended the meeting.
- According to the British government's estimates, there are around 1,00,000 Indians overstaying their visa in the U.K.
- India has contested this, saying that as per their estimate, the number will not be more than 2,000.
- Post April, at least two high-level delegations from the U.K. have raised the issue with India.
- During her first visit to India on November 7, 2016, British Prime Minister Theresa May said the U.K. would consider an improved visa deal "if at the same time they can step up the speed and volume of returns of Indians with no right to remain in the U.K."

### **Imran govt for peace with India: Pakistan High Commissioner**

**News:** The incoming leadership of Pakistan led by former cricketer Imran Khan will give priority to peace between Islamabad and its neighbours, High Commissioner of Pakistan said while celebrating the country's Independence Day.

#### **Beyond News**

- The statement recounted Pakistan's sacrifice to **fight against terrorism**.
- The envoy said the recent phone call by Prime Minister Narendra Modi to Mr. Imran Khan was a "positive development."

### **General Studies-03**

### **Protest against genetically modified food**

**News:** Numerous persons and organisations under the banner '**India For Safe Food**' met the **Karnataka** Food Safety Commissioner demanding the removal of unapproved genetically modified food from the market.

#### **Beyond News**

- Recently, a study by the Centre for Science and Environment (CSE) found that 32% of the 65 tested food products comprised GM materials. These were being sold without any control from health and food regulators.

- Those in the India for Safe Food had approached the Food Safety and Standards Authority of India (FSSAI) for action, and receiving little response, they approached the State government's body.
- **GM foods** are known to cause various health problems, as per numerous scientific studies. This includes allergies, organ damage, adverse impacts on growth and development, reproductive health problems, immune system disorders and even cancerous growth. This could also be because of the deadly chemicals that get used in GM crop production, including glyphosate and glufosinate, said IFSF in a statement.

### 'Massive Army reform under way'

**News:** In a first ever exercise after Independence, the Ministry of Defence in consultation with the Indian Army has decided to reform the Indian Army in a planned manner.

#### **Beyond News**

- This **restructuring is aimed at enhancing the combat capability of the Army in a manner** that the officers, Junior Commissioned Officers (JCO) and Other Ranks (OR) will be used for improving the operational preparedness, the Defence Minister said.
- Defence Minister said the first phase of the reforms involved redeployment and restructuring of approximately 57,000 posts of officers, JCOs, ORs and civilians.
- The major reforms include optimisation of signals establishments, restructuring of repair echelons, redeployment of ordnance echelons, better utilisation of supply and transport echelons and animal transport units besides closure of military Farms and Army postal establishments in peace locations.
- Assuring that there shall be no shortcoming in providing all dues and facilities to soldiers, Defence Minister said that in line with the recommendations of the 7th Pay Commission, the Ministry has taken "the decision to pay uniform allowance" and clarity has been brought in with respect to "what is covered within the ambit of the allowance and what clothing items will be provided by the government."
- Defence Minister also stated that to ensure faster decision making, for day-to-day requirements of the troops or ammunition, greater powers have been delegated to the service headquarters and other lower functionaries.

### 'Tracking groundwater pollutants in real-time'

**News:** Scientists have developed a low-cost method to monitor groundwater pollutants in real-time, and **help reduce potential health risks.**

#### **Beyond News**

- Groundwater contamination is increasingly recognised as a widespread environmental problem.
- The most important course of action often involves long-term monitoring.
- Conventional methods of monitoring involve taking water samples every year or every quarter and analysing them in the lab.
- New methodology allows continuous monitoring in situ using proxy measurements, so we can track plume movement in real time.

- The researchers said that analysis of the autonomous in situ data can be rapidly analysed remotely using machine learning methods.
- **It can act as an early warning system** and sudden changes in contaminant levels can be detected.
- These changes may indicate a need for more or less intervention in terms of the remediation strategy, ideally leading to improved as well as more cost-effective cleanup.
- The new approach starts with sensors to track water quality variables that have been determined to be reliable indicators of contaminant levels
- The researchers tracked levels of tritium and uranium-238 in the groundwater at the Savannah River site, a former nuclear weapons production site in South Carolina in the U.S. They measured the acidity (or pH) levels and specific conductance (a measure of electrical conductance).
- These variables were determined to be reliable indicators for tritium and uranium-238 concentrations.
- The data from the multiple sensors were then fed into a Kalman filter to estimate contaminant concentrations.
- A Kalman filter is not a physical filter but rather a mathematical algorithm that can integrate mixed time-series data to make estimates. It is used in various fields, such as traffic prediction and remote sensing. Using historical data from the Savannah River Site, the researchers found that The method provided reliable information about plume over last 20 years.

### Advantages

- This indicates that the new approach holds significant promise as a long-term monitoring strategy for rapidly assessing a contaminant's plume stability.
- Another advantage over conventional approaches is that it can reduce the frequency of manual groundwater sampling and lab analysis, and thus reduce the monitoring cost.

**AUGUST 16**

### **General Studies-01**

#### **Laziness led to extinction of Homo erectus**

**News:** Laziness, paired with an inability to adapt to a changing climate, may have wiped out the Homo erectus, an extinct species of primitive humans, a study has found.

#### **Beyond News**

- An archaeological excavation of ancient human populations in the Arabian Peninsula during the Early Stone Age, found that Homo erectus used 'least-effort strategies' for tool making and collecting resources.

- This was evident in the way the species made their stone tools and collected resources.
- To make their stone tools they would use whatever rocks they could find lying around their camp, which were mostly of comparatively low quality to what later stone tool makers used.
- At the site they looked at there was a big rocky outcrop of quality stone just a short distance away up a small hill. But rather than walk up the hill they would just use whatever bits had rolled down and were lying at the bottom.
- This is in contrast to the stone tool makers of later periods, including early Homo sapiens and Neanderthals, who were climbing mountains to find good quality stone and transporting it over long distances.

### Goa to digitise all historical records

**News:** Goa's archives, considered to be one of the oldest in Asia, will now be digitised under the Centre's 'Smart City Mission'.

#### **Beyond News**

- The archives a collection of lakhs of historical documents and records providing information about the coastal state and its people are presently housed in a **Portuguese-era** building in the state capital Panaji.
- People fear for the safety of these records due to the dilapidated condition of the building, Sardesai said.
- Also, photo-copying these ancient inscriptions and descriptions is considered a retrograde practice that should be replaced by digitization.
- A proposal has been mooted to take up digitisation of archives under the Panaji Smart City Mission, an initiative of the Union government.
- The government has given an in-principle nod to the proposal.
- Goa has several records in its archives dating back to the time when the state was under the Portuguese rule.
- The state was liberated from the 450-year-old colonial rule in 1961.

### General Studies-02

### Creamy layer cannot be applied to deny quota benefits in promotions to SC/ST govt employees, Centre tells SC

**News:** The Centre told the **Supreme Court** that the creamy layer concept cannot be applied to deny benefits of quota in promotions to government employees of SC/ST community as the stigma of caste and backwardness is still attached to them.

#### **Beyond News**

- Attorney General told a five-judge Constitution Bench that there is no judgment which says that affluent people of the SC/ST community can be denied quota benefits by applying creamy layer concept.



- Attorney General was responding to a question whether the creamy layer concept can be applied to exclude persons who have come up to ensure that the backward among the SC/ST communities can reap the benefits of quota.
- The top law officer said that even if some people of the community have come up, the stigma of caste and backwardness is still attached to them.
- Attorney General also said that the question of excluding certain class of SC/ST has to be decided by the President and the Parliament, and this exercise is not open to judiciary.
- He termed the discriminatory caste system as a misfortune of the country.
- Advancing of arguments is still continuing.
- Earlier on August 3, the apex court had asked the Centre as to why States have not come forward with any quantifiable data to decide the inadequacy of representation of Scheduled Castes and Scheduled Tribes in government services even 12 years after its verdict on the 'creamy layer'.
- The apex court on July 11 refused to pass any interim order against its 2006 verdict and said that a five-judge Bench would first see whether it needs to be examined by a seven-judge Bench or not.
- The M. Nagaraj verdict of 2006 had held that the 'creamy layer' concept cannot be applied to the Scheduled Castes and Scheduled Tribes for promotions in government jobs, like two earlier verdicts of 1992 Indra Sawhney and others versus Union of India (popularly called Mandal Commission verdict) and 2005 E V Chinnaiyah versus State of Andhra Pradesh which had dealt with creamy layer in Other Backward Classes category.
- It had reiterated that the ceiling-limit of 50%, the concept of the creamy layer and the compelling reasons like backwardness, inadequacy of representation and overall administrative efficiency were all constitutional requirements, without which the structure of equality of opportunity in Article 16 would collapse.

## India, China Armies meet in Ladakh

**News:** Amid continuing transgression by China at Demchok in eastern Ladakh, the Armies of India and China held a ceremonial Border Personal Meeting to mark India's Independence Day.

### **Beyond News**

- The meeting was held at Chushul-Moldo and Daulat Beg Oldie. The Indian delegations were led by Brigadier V.K. Purohit and Colonel Anil Kumar Sharma, and the Chinese delegations by Senior Colonel Wang Jun Xian and Lieutenant Colonel Li Ming Ju.
- However, not far from the venues, a stand-off has been going on in Demchok since early July when Chinese troops intruded 300 metres into Indian territory and pitched tents.



- Official sources said a group of Chinese soldiers entered the area, in the garb of nomads, and pitched five tents. However, four tents were removed within days, after India opened discussions between border commanders under the existing mechanisms.
- One tent is still there, and the discussions are continuing, an official source said. The incident comes a year after the 73-days stand-off at the Doklam trijunction.
- Transgressions are common along the unsettled Line of Actual Control.
- The two countries have instituted several mechanisms to resolve such issues.
- However, according to government figures, the number of transgressions by the People's Liberation Army into Indian territory has gone up from 272 in 2016 to 426 in 2017.

### Police App reunites lost child with family

**News:** A six-year-old boy, missing for the past two years, was reunited with his family after he was identified by **Telangana Police's newly launched facial recognition application.**

#### **Beyond News**

- Officials said a missing report was filed in Meerpet Police Station of Rachkonda Commoissionarate and the boy was staying in Kutumbam Children Home in Dundigal since December 2017 till the authorities found him.
- Sub-Inspector used the facial recognition application developed by Intelligence Department and linked the child in shelter home with the missing report.
- They are also in the process of getting the database of all missing children across the country with an aim to trace them, officials said.
- The special drive is being carried out to register all the children in shelter homes to trace out the missing children across the State.

### General Studies-03

### With human space flight, India to push frontiers

**News:** Gaganyaan, the human space flight Programme green-flagged and set for 2022 by Prime Minister, is highly doable, Chairman of the Indian Space Research Organisation said soon after it was announced.

#### **Beyond News**

- R. Lalithambika, a specialist in advanced launcher technologies, will helm the project as Director of the Human Space Flight Project.

#### **2022: India's space odyssey**

What is the Human Space Flight Project all about?

- In 2022, 3 Indian astronauts, mostly flight test pilots from the IAF, will circle earth for seven days from a distance of 300-400 km

- They will travel in a 7,000-kg crew capsule. A GSLV-MkIII launch vehicle will lift them to their orbit

- The flight will take off from a refurbished launchpad at Sriharikota

- The entire project could cost roughly between ₹7,000 to 9,000 crore



#### **ALSO PROPOSED**

- Food, suits and other life systems for crew

- Astronaut selection & training

- Two unmanned trials, the first in two years

- A new command & tracking centre at ISTRAC, Bengaluru

- Improved launchpad at SDSC, Sriharikota

- The mission is estimated at ₹9000 crore. Most of the critical technologies and hardware required for the project are ready or have been demonstrated by its centres. ISRO would now stitch them up into a complete project and present a comprehensive project report to get a formal approval of the government.
- They will now speed up the paper work and submit a project report for formal approval. They may immediately need around ₹ 2,000 crore for enhancing infrastructure and technologies at two or three centres and we will be asking for this amount.
- When it achieves the mission, India would be the fourth nation to circle Earth after the Soviets, the Americans and the Chinese. In 1984, India's first astronaut Wing Commander (retd.) Rakesh Sharma orbited Earth as part of a Soviet mission.
- ISRO revealed the first germ of an HSP in November 2004 and got incremental funds for supporting projects over the next few years. It could not go ahead mainly because the GSLV MarkIII vehicle was not ready until last year. ISRO has also met most of its regular needs.
- The most critical elements of the human mission are the Environment Control and Life Support Systems that make the crew capsule liveable and the flight safe for the astronauts. Food and hygiene are other aspects. These technologies are getting ready while space suits are being developed at ISRO.
- Facilities are being added or upgraded at a few centres that work on the HSP. The spacecraft will be monitored 24/7 from the ISRO Telemetry Tracking and Command Centre in Peenya. A new dedicated control centre for HSP would be set up at ISTRAC. It must be tracked globally through ISRO stations or of other countries.
- The launchpad at the Sriharikota spaceport, the Satish Dhawan Space Centre, would be enhanced for the human mission. The Space Applications Centre which makes electronic devices and instruments for ISRO missions will also get refurbished.
- Much of the work related to ramping up of infrastructure and supply of hardware would be outsourced to industry in a major way and academia would be involved.

**AUGUST 17**

## **General Studies-02**

### **Will honour ceasefire if Pakistan curbs infiltration: India**

**News:** The Indian Army will "abide by its commitment" to uphold the ceasefire understanding of 2003 if the Pakistan Army



“initiates positive steps to control infiltration and abetment of terrorism” in J&K, Pakistan was told.

### Beyond News

- This was conveyed during a conversation between the Directors General of Military Operations (DGMOs) over the established hotline, which was held on Pakistan’s request.
- The Pakistan DGMO made an assurance that Pakistan Army would take prompt action against move of inimical elements in proximity to the **Line of Control** and respond to information shared by the Indian side, thereby facilitating conduct of anti-terrorist operations.
- The Pakistan DGMO expressed satisfaction on the measures being taken along the LoC by troops to maintain peace and tranquillity. Over the last two months, there has been a sharp reduction in the quantum of ceasefire violations.
- Indian DGMO conveyed to his Pakistani counterpart that infiltration has increased in the north areas of Pir Panjal mountain ranges and stressed that Pakistan must initiate steps to prevent it, the statement added.

### India’s oil import bill to jump by \$26 billion

**News:** India’s crude oil import bill is likely to jump by about \$26 billion in 2018-19 as rupee dropping to a record low has made buying of oil from overseas costlier, government officials said.

### Beyond News

- Besides, the rupee hitting a record low of 70.32 to a U.S. dollar in the opening deal will also lead to an increase in the retail selling price of petrol, diesel and cooking gas (LPG).
- India, which imports more than 80% of its oil needs, spent \$87.7 billion (₹5.65 lakh crore) on importing 220.43 million tonne (MT) of crude oil in 2017-18. For 2018-19, the imports are pegged at almost 227 MT.
- The rupee has been among the worst performing currencies in Asia, witnessing an 8.6% slump this year.
- Fanned by a higher oil import bill, India’s trade deficit, or the gap between exports and imports, in July widened to \$18 billion, the most in more than five years.
- Trade shortfall puts pressure on the current account deficit (CAD), a key vulnerability for the economy.
- Rupee depreciation will result in higher earnings for exporters as well as domestic oil producers like Oil and Natural Gas Corp (ONGC) who bill refiners in U.S. dollar terms.
- Prices of petrol and diesel were increased by 6 paise a litre each to ₹77.20 and ₹68.78, respectively in Delhi. Rates are the highest in two months.
- Fuel prices in Delhi are the cheapest in all metros and most state capitals due to lower sales tax or VAT.
- If oil prices continue at these levels and rupee at 70 a dollar, retail rates should go up by 50-60 paise a litre.

## General Studies-03

### Massive rescue operation underway in Kerala

**News:** A massive operation to rescue thousands of marooned citizens in three **flood-hit districts** in Kerala commenced at daybreak.



#### **Beyond News**

- Volunteers from far and near joined hands with personnel from the armed forces, National Disaster Response Force and State government agencies to reach food to stranded communities and rescue them in boats.
- As many as 23 helicopters of the Air Force and Navy and boats were also pressed into service from early morning.
- The breakdown of communication services and power lines hampered efforts to locate and zero-in on people in the worst affected areas.
- More than 100 people were killed in different rain-related incidents over the last 48 hours.
- With the strong currents in the Periyar and Chalakudy rivers making it difficult to operate boats, rescue teams sought the help of helicopters to drop food supplies and airlift flood victims to safety.
- Residents in the downstream areas of the Cheruthoni dam were put on high alert after the water level in the Idukki reservoir neared the 2403 ft mark.

### Toxic algal bloom plagues Florida's Gulf Coast

**News:** Red tide, a naturally occurring toxic algae bloom that can be harmful to people with respiratory problems has spread throughout the Gulf of **Mexico**, drifting in the water since it began in October.

#### **Beyond News**

- Red tide happens due to the presence of nutrients in the water and an organism called a dinoflagellate.
- Stretching about 240 kilometers, it's affecting communities from Naples in the south to Anna Maria Island in the north and appears to be moving northward. **The algae turns the water toxic for marine life**, and in recent weeks beachgoers have been horrified to find turtles, large fish like goliath grouper and even manatees wash up dead.
- In places like Longboat Key, more than 5 tons of dead fish have been removed from beaches. This week, nine dead dolphins were found in Sarasota County, and marine biologists are investigating whether the deaths are related to red tide.



- More than 450 stranded and dead sea turtles have been recovered in four affected counties this year, and the institute estimates that 250 to 300 died from red tide poisoning. In Bradenton Beach, the stench was impossible to ignore.

**AUGUST 18**

## **General Studies-02**

### **Kerala floods: Resolve the calamity with ‘humaneness, focus, requisite efficiency’, says SC**

**News:** Chief Justice of India Dipak Misra reached out to the people of **Kerala** whose lives have been swept away by the floods while urging the Centre and the Kerala government to resolve the calamity with “humaneness, focus and requisite efficiency”.

#### **Beyond News:**

- This is a crisis and we want everyone to wake up to the situation, Chief Justice observed orally.
- The Bench, however refrained from interfering with the ongoing work of the Centre and the Kerala government to **contain the natural disaster and save lives**. The Supreme Court commended the Kerala government for its “immense efforts” to rescue people trapped in floods.

#### **Supreme Court for lower storage at Mullaperiyar:**

- The Supreme Court suggested that the disaster management sub-committee, the National Crisis Management Committee (NCMC) and the supervisory panel monitoring the Mullaperiyar dam in the flood-hit Kerala hold meetings to explore ways to reduce the water level in the reservoir to 139 feet.
- It said that every step should be taken to give advance warning to the people in the downstream areas before water is released.
- Kerala should follow the instructions issued by the NCMC on rescue and rehabilitation, while Tamil Nadu should “scrupulously” comply with any instruction to bring down the level of the dam.
- Soon after a review meeting at the Southern Naval Command in Kochi to discuss the devastating floods in Kerala, Prime Minister Narendra Modi **announced an interim relief of ₹ 500 crore** against a demand of ₹ 2,000 crore made by the State government.
- This is apart from the Central assistance of ₹ 100 crore announced earlier.
- Prime Minister also announced an ex-gratia of ₹ 2 lakh each to the kin of the deceased and ₹ 50,000 each to those seriously injured in the floods, both taken from the **Prime Minister’s National Relief Fund**.
- While Prime Minister was originally slated to do an aerial survey of the devastation before the review meeting, inclement weather conditions forced the survey to be suspended. However, he made a short aerial sortie along the Aluva-Thrissur stretch after the meeting was over.

- Prime Minister asked insurance companies to hold special camps for assessment and timely release of compensation to the affected families and beneficiaries under the social security schemes. Directions have also been issued for early clearance of claims under Fasal Bima Yojana to agriculturists, the Prime Minister's Office said.
- Prime Minister asked the National Highways Authority of India (NHAI) to repair main damaged national highways on priority. The Central public sector units such as the NTPC and PGCIL have been directed to render all possible assistance to the State government in restoring power lines. Villagers, whose kutcha (unplastered) houses have been destroyed would be provided Pradhan Mantri Awas Yojana-Gramin (PMAY-G) houses on priority irrespective of their priority in the Permanent Wait List of the PMAY-G.

### **SC asks Delhi Lieutenant Governor to take effort to clear garbage**

**News:** The Supreme Court asked the Lieutenant Governor (LG) of **Delhi** to make a collaborative effort with the help of civil society and resident welfare associations to clear Delhi of its garbage.

#### **Beyond News**

- A three-judge Bench turned to the LG after, in a previous hearing, voicing its exasperation at how garbage is dumped outside the homes of underprivileged families.
- The Bench, in a short order, asked the LG to look into all the aspects of solid waste management and “not rush into taking a decision”. Instead, the effort should be for an in-depth consideration of the problem which has dogged Delhi for decades.
- The court emphasised that the deliberations, including the cleaning up of landfill sites at Ghazipur, Okhla and Bhalswa, should be “collaborative” with equal say to civil society and residents.
- A recent affidavit filed by the Lieutenant Governor's office said Delhi is struggling to contain its daily waste generation. The LG produced statistics to show the Supreme Court that lack of land to establish new landfill sites have choked the Capital, which produces 10,200 Tonnes Per Day (TPD) of municipal solid waste.



### **General Studies-03**

#### **JNCASR: A new, robust form of gold**

**News:** Researchers from Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), Bengaluru, have **developed a new type of gold in the form of very small crystals microcrystallites.**

## Beyond News

- The microcrystal gold has been found to be nobler than gold it do not dissolve in mercury and Aqua regia (a mixture of nitric acid and hydrochloric acid), and showed the least interaction with copper.
- The microcrystallites were synthesised by decomposing an organic complex containing gold and other ions under controlled conditions. The newly formed microcrystallites, about 3 micrometre in length were found to be of a different crystal structure. Normal gold has a (face-centered) cubic structure, while the new ones exhibit deformed cubic structure tetragonal and orthorhombic cells.
- The researchers then examined copper growth on these gold crystals when subjected to plating without the use of electrodes. Electron microscopy images revealed that thick copper got deposited on normal gold within minutes, while no detectable copper was seen on the central portion of the new crystals even after an hour.
- The researchers then investigated the stability of the gold microcrystallites using corrosive agents like mercury and Aqua regia. While normal gold disappeared in a matter of minutes when immersed in mercury and also in aqua regia, the gold crystallites remained intact. Microscopy imaging showed that the surface was undamaged.
- All these properties make **new crystallites an ideal candidate for catalytic purposes**. Gold in itself is not a catalyst but the new gold microcrystallites have very active surfaces. Compared with other catalysts like palladium and ruthenium, gold is cheaper and it can also be easily recovered.

## Drinking water project comes to the aid of 7,000 families

**News:** A drinking water project, expected to benefit residents of 34 habitations at Semmankuppam and Poovalai villages in Parangipettai block in Tamil Nadu, was inaugurated.

## Beyond News

- The project to **provide protected drinking water to over 7,000 families in the habitations** was funded by the U.S.-based Missouri Tamil Sangam, Carolina, Minnesota and Wisconsin Tamil Sangangal, and Abdul Kalam Vision India Movement and Aum Education Seva Trust.
- According to a release, a study undertaken by Abdul Kalam Vision India Movement in the coastal hamlets of Cuddalore district in 2016 revealed that the groundwater was unfit for consumption.
- The total dissolved solids (TDS) value in Semmankuppam and Poovalai area's groundwater was found to be 4,500 (mg/l) while the acceptable limit was 50 (mg/l).
- The study found that the continuous consumption of groundwater with high presence of TDS had resulted in local residents being affected with bone disorders, hepatitis and skin diseases.



## Meghalayan farms are also bird habitats

**News:** Agricultural landscapes near protected areas are important habitats for wildlife in some regions. Now, researchers have proved this to be true in Meghalaya with the finding that wooded cultivated areas support multiple bird groups that play various roles from insect controllers to fruit-eating seed dispersers in the ecosystem.

- There are more than 100 bird species in the cultivated areas.

### Findings

- While several of India's natural ecosystems including forests are now 'Protected Areas' (PAs), there are many patches that fall outside PA-limits but also support wildlife. Meghalaya's Nongkhylllem Wildlife Sanctuary and reserve forest are surrounded by community-managed forests and wooded betel leaf farms. A recent study found out how important these wooded areas are for birds.
- The researchers studied how different groups (guilds) of birds including nectar drinkers like sunbirds and insectivores such as drongos use these two habitats and the different woodland vegetation found there. They find that areas outside the protected areas were used by all guilds of birds, suggesting that these areas maintained a functional bird community.
- Studying the presence of such birds in these areas, the team examined the effects of vegetation structure trees and shrubs on the use of sites by different guilds of birds. They find that tree cover did not matter because most of these areas are highly wooded; shrub cover and bamboo influenced use of wooded areas by birds.
- The team also studied species richness in these areas. Surprisingly, **agricultural woodlands supported more bird species than the protected areas did**: bird species richness was higher in the wooded areas than in the protected areas due to increased number of generalist birds.
- But that does not mean protected areas are not important; some specialised species are still dependent on them. Birds including large woodpeckers were not spotted as much in farmlands.
- Wooded agricultural areas are important supplementary bird habitats.
- **A lot of forests are at risk in Meghalaya** because they are being converted into permanent open cultivation; encouraging regenerating forest areas or crops that require tree cover would be important.
- This well-designed study reinforces that at the landscape level, we can maximise the number of species we conserve by not just protecting natural habitats but also by ensuring the persistence of wooded areas (like regenerating forest) between protected areas.

**AUGUST 19 & 20**

## **General Studies-02**

### **Dropout rate soaring after school mergers in tribal belts**

**News:** The flawed policy of the NITI Aayog and the Human Resource Development Ministry to close public schools that have low enrolment rate or single teachers in **tribal districts** is leading to a huge spike in dropout rates.

#### **Beyond News**

- A national convention organised by the Adivasi Adhikar Rashtriya Manch, the Students' Federation of India and the Centre for Adivasi Research and Development which saw participation from Adivasi students, parents and teachers raised this and many other issues that have been leading to exclusion of tribal people from education.
- Research by the Centre for Adivasi Research and Development has revealed that following the NITI Aayog recommendations in Jharkhand, 1,300 primary and middle schools were merged or closed and the government was targeting another 4,600 schools this year.
- In Karnataka, both government and aided schools located within 1 km from other schools and having low enrolments will be merged with the nearest schools. This is expected to result in the merger of 28,847 schools with 8,530 nearest ones.
- In 2014, the Rajasthan government merged 17,000 of the 80,000 government schools in the State into the other schools. Another 4,000 schools are planned to be merged in the near future.
- Odisha has identified 4,200 schools that have under 10 students each for merger or closure. Rayagada district alone has witnessed closure of 121 government schools, followed by 90 schools in Kandhamal. The two districts have more than 60% tribal and Dalit population.
- The Right to Education Act promises neighbourhood schools.

## **General Studies-03**

### **India building new fighter jet**

**News:** The **Advanced Medium Combat Aircraft** (AMCA), India's next indigenous fighter, is expected to make its first flight by 2032. Development work on the jet is under way.

#### **Beyond News**

- There are two major ways of making a military platform stealthier. One is geometric stealth and other is material stealth. In geometric stealth, the shape of the aircraft is

designed at such angles so as to deflect away maximum radar waves thereby minimising its radar cross section.

- In material stealth, radar-absorbing materials are used in making the aircraft which will absorb the radio waves thus reducing the radar footprint. The AMCA will initially be based on geometric stealth, they can look at material stealth at a later stage.
- The Indian Air Force has given land to the Defence Research and Development Organisation to set up facilities for the project.
- The plan is to build on the capabilities and expertise developed during the development of the light combat aircraft (LCA) and produce a medium fifth generation fighter aircraft.
- Apart from the technologies developed from the LCA project, the new fighter programme is important as technologies coming in through that will flow into the AMCA project.
- The aircraft will be powered by the same GE-414 engine on the LCA Mk-2 variant which is in the design phase.
- A GE-414 produces 98kN thrust compared to 84kN thrust of the GE-404 engine which is on the LCA Mk1.
- At Aero India 2016, DRDO officials had stated that the basic design configuration has been frozen after wind tunnel testing and there are three critical technologies that need to be developed , stealth, thrust vectoring and super cruise.
- This is India's only fifth generation aircraft programme following the decision not to go ahead with the fifth generation project with Russia.

### **In rhino country, a division to boost conservation efficiency**

**News:** In about a week's time, an entire forest division in Assam will start moving 160 km northeast. The one-horned rhino of the **Kaziranga National Park (KNP)** is the reason for this "long march".

- Assam's Environment and Forest Department issued a notification saying the KNP had been split into two divisions the existing Eastern Assam Wildlife and the new Biswanath Wildlife for "intensive wildlife management".

### **Beyond News**

- The Brahmaputra separates the two divisions straddling a total area of 1,030 sq.km. Kaziranga had an area of only 232 sq.m when it began its journey as a proposed reserve forest on June 1, 1905.
- The creation of the Biswanath Wildlife Division, with headquarters at Biswanath Chariali in northeastern Assam, will entail relocating the Central Assam Afforestation Division at Hojai 160 km away. In fact, the afforestation division has been renamed a wildlife division.



- All these years, the KNP was being administered by the Eastern Assam Wildlife Division with headquarters at Bokakhat on the southern bank of the Brahmaputra. This division was formed in 1966, two years before the State government designated Kaziranga a national park, though it was given the official status in 1974.
- The Eastern Assam Wildlife Division had five ranges Eastern or Agratoli, Kaziranga or Kohora, Western or Bagori, Burapahar and Northern until the split. All except the Northern Range are on the southern bank of the Brahmaputra. Now, the Northern Range, with an area of 401 sq.km, has been upgraded to the Biswanath Wildlife Division with four ranges of its own Eastern or Gamiri, Central or Biswanath Ghat, Western or Nagshankar and Crime Investigation Range.
- The KNP, a UNESCO World Heritage Site since 1985, currently has a staff strength of nearly 1,300. Wildlife officials estimate that the park would require at least 3,000 men if they were to be deployed in eight-hour shifts.
- Between 2015 and February this year, 74 rhinos fell to poachers in Assam. Many of these rhinos were from the KNP, though there have been fewer cases of poaching since 2017.
- According to the last rhino census in March, the KNP has an estimated 2,413 rhinos. The park also has 57% of the world's wild water buffalo population, one of the largest groups of Asian elephants and 21 Royal Bengal tigers per 100 sq.km arguably the highest striped cat density.

## Indigenous weapon systems tested

**News:** The Ministry of Defence announced that the indigenously designed SAAW (Smart Anti Airfield Weapon) guided bombs were successfully flight tested from Indian Air Force's Jaguar aircraft at the Chandan range in Rajasthan.

### Beyond News

- In the Pokhran range, another indigenously developed helicopter-launched anti-tank guided missile, 'Helina', was successfully tested.
- The **Defence Research and Development Organisation's** (DRDO) Research Centre Imarat (RCI) has been extensively involved in the development of both the weapons, one for the IAF and the other for the Indian Army.
- Defence sources said targets were hit with high precision.

## Half of farm households indebted: NABARD study

**News:** More than half the agricultural households in the country have outstanding debt, and their average outstanding debt is almost as high as the average annual income of all agricultural households, according to a recent survey by the **National Bank for Agriculture and Rural Development (NABARD)**.

### Mapping farm debt

Among other things, the NABARD survey measured incidence of indebtedness (IOI), the proportion of households reporting outstanding debt.



• Incidence of indebtedness as per the survey is **52.3%** for agricultural households and **42.8%** for non-agricultural households. All India IOI taking all rural households together is **47.4%**.

• Average amount of outstanding debt (AOD) for indebted agricultural households is ₹1,04,502.

• Outstanding debt for indebted non-agricultural households is ₹76,731. Overall extent of indebtedness taking all households combined is ₹91,407.

• 43.5% agricultural households reported to have borrowed any money from some source or the other.

• 50.4% of agricultural households borrowed from institutional sources alone.

• 30.3% borrowed from only informal sources and 9.2% of agricultural households borrowed from both sources.

• 56.7% of non-agricultural households and 58.6% of all households borrowed from institutional sources.

SOURCE: NABARD SURVEY REFERENCE YEAR 2015-16

## Findings

- The NABARD All India Rural Financial Inclusion Survey 2016-17 covered a sample of 1.88 lakh people from 40,327 rural households. Only 48% of these are defined as agricultural households, which have at least one member self-employed in agriculture and which received more than ₹5,000 as value of produce from agricultural activities over the past year, whether they possessed any land or not.
- NABARD found that 52.5% of the agricultural households had an outstanding loan on the date of the survey, and thus were considered indebted. For non-agricultural households in rural India, that figure was 10 percentage points lower, at only 42.8%.
- Agricultural households reporting any outstanding debt also had a higher debt liability compared with non-agricultural ones.
- The average debt of an indebted agricultural household stood at ₹1,04,602 in comparison to ₹76,731 for indebted non-agricultural households.
- According to the survey, the average annual income of an agricultural household is ₹1.07 lakh. That is barely ₹2,500 more than the average outstanding debt of indebted farm households.
- The survey found that only 10.5% of agricultural households were found to have a valid Kisan Credit Card at the time of the survey. **The scheme aims to give farmers credit from the banks with a simplified and flexible single-window procedure.** Households who had the card utilised 66% of the sanctioned credit limit, the report said.
- The biggest reason for taking loans among agricultural households was capital expenditure for agricultural purposes, with a quarter of all loans taken for this purpose.
- While 19% of loans were taken for meeting running expenses for agricultural purposes, another 19% were taken for sundry domestic needs. Loans for housing and medical expenses stood at 11% and 12%, respectively.
- The southern States of Telangana (79%), Andhra Pradesh (77%), and Karnataka (74%) showed the highest levels of indebtedness among agricultural households, followed by Arunachal Pradesh (69%), Manipur (61%), Tamil Nadu (60%), Kerala (56%), and Odisha (54%).

## U.S. tech giants plan to fight India's data localisation plans

**News:** S. technology giants plan to intensify lobbying efforts against stringent Indian data localisation requirements, which they say will undermine their growth ambitions in India.

### Beyond News

- S. trade groups, representing companies such as Amazon, American Express and Microsoft, have opposed India's push to store data locally. That push comes amid rising global efforts to protect user data but is one that could hit planned investments by the firms in the Indian market, where the companies currently have limited data storage.
- The issue could further undermine already strained economic relations between India and the United States.

- Technology executives and trade groups have discussed approaching Prime Minister's office to appraise him of their worries. Separately, the industry is considering pitching the issue as a trade concern, including at the India-U.S. talks in September in New Delhi, according to two sources familiar with the matter.
- Though a final decision hasn't been made, the deliberations come while the United States and India are locked in a dispute over U.S. tariff increases and on the Indian policy of capping prices of medical devices, which hurts American pharmaceutical companies.
- Stricter localisation norms would help India get easier access to data when conducting investigations, but critics say it could lead to increased government demands for data access.
- Technology firms worry the mandate would hurt their planned investments by raising costs related to setting up new local data centres.
- Greater use of digital platforms in India for shopping or social networking have made it a lucrative market for technology companies, but **a rising number of data breaches have pushed New Delhi to develop strong data protection rules.**
- The main government committee on data privacy last month proposed a draft law, recommending restrictions on data flows and proposing that all "critical personal data" should be processed only within the country.
- It would be left to the government to define what qualifies as such data.

**AUGUST 21**

## **General Studies-02**

### **BIMSTEC envoys bat for FTA**

**News:** BIMSTEC suffers from a "lack of visibility" in the region, said the envoys of seven member countries who form the "Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation.

- They also called for the speedy conclusion of a Free Trade Agreement within the group **comprising Bangladesh, Bhutan, India, Nepal, Sri Lanka, Myanmar and Thailand.**

### **BIMSTEC**

- The **Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC)** is an international organisation of seven nations of South Asia and South East Asia, housing 1.5 billion people and having a combined gross domestic product of \$2.5 trillion (2014). The BIMSTEC member states— Bangladesh, India, Myanmar, Sri Lanka, Thailand, Bhutan, and Nepal—are among the countries dependent on the Bay of Bengal.

## Beyond News

- Prime Minister Narendra Modi will join a summit of leaders from BIMSTEC countries in Kathmandu and hold bilateral talks with most of them, including Bangladesh Prime Minister and Nepal Prime Minister. At an event organised by business chamber FICCI just ahead of the summit, envoys of BIMSTEC countries said the FTA should be the top priority for them.
- It is really disappointing that they are yet to finalise and conclude the FTA which was negotiated in 2004. They need to expedite the BIMSTEC FTA to boost our intra-regional trade from its present level of 7% to 21%.
- The visibility of BIMSTEC needs to be enhanced in a region where already a few other regional cooperation groups like ASEAN, SAARC, SASEC are in place.
- Even for the framework (2004) it took seven years. It is easy to negotiate an FTA between two countries. India and Sri Lanka have it. But when seven countries are involved maybe it is not so easy.
- Others added that at present the negotiations of the 16-nation Regional Comprehensive Economic Partnership (RCEP), due to be completed by the end of 2018, were taking precedence.
- The envoys also spoke about the need for the upcoming summit to promote **security issues including “terrorism and violent extremism”** in the region.
- Terrorism is the most significant threat in the Bay of Bengal region as well as South East Asia and we call for more cooperation amongst the member states on this issue, said Myanmar Ambassador.

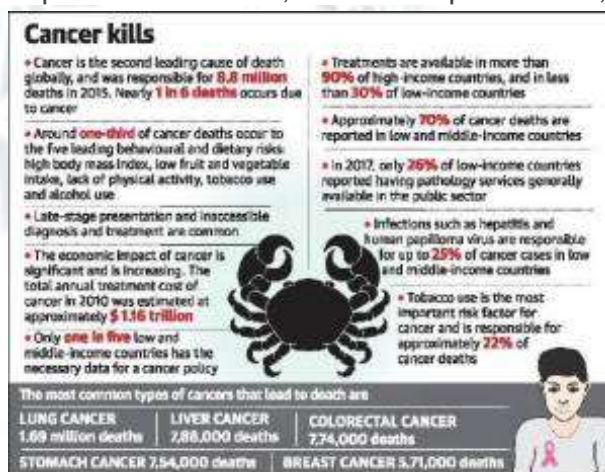
Thailand’s Ambassador pointed out that the India-Myanmar-Thailand Trilateral Highway had not been completed, which is crucial to trade movement between the countries.

## WHO highlights ways to reduce cancer risk

**News:** With cancer emerging as the second leading cause of death globally, the World Health Organization (WHO) has listed ways to reduce cancer risk.

### Ways to reduce cancer risk

- It advised not to consume any form of tobacco, to make one’s home smoke-free, to enjoy a healthy diet, to vaccinate children against Hepatitis B and HPV, to use sun protections, to be physically active, to limit alcohol intake and take part in organised screening programmes, adding that breastfeeding reduces a mother’s cancer risk.
- The WHO said consumption of tobacco and alcohol, unhealthy diet, and physical inactivity are major factors that increases cancer risk worldwide and are also the four shared risk factors for other non-communicable diseases.



- Some chronic infections are risk factors for cancer and have major relevance in low and middle-income countries. Approximately 15% of cancers diagnosed in 2012 were attributed to carcinogenic infections, including Helicobacter pylori, Human papillomavirus (HPV), Hepatitis B virus, Hepatitis C virus, and Epstein-Barr virus. Hepatitis B and C viruses and some types of HPV increase the risk for liver and cervical cancer, respectively.
- Infection with HIV substantially increases the risk of cancers such as cervical cancer, the WHO said.
- Cancer is the uncontrolled multiplication of cells. Cancer can spread from where it started to another part of the body. The original cancer is called the primary tumour. The cancer in another part of the body is called metastatic or secondary cancer. Metastatic cancer has the same type of cancer cells as the primary cancer. The term metastatic cancer is usually used to describe solid tumours that have spread to another part of the body.
- Doctors have warned that prevalence of cancer cases are on the rise in India.
- The Indian Council of Medical Research stated that approximately 12 to 13 lakh new cases of cancer are being diagnosed every year along with an existing 25 to 30 lakh cancer cases at any given time in India.
- Majority of cancer cases are diagnosed in the early stages in developed countries, including Europe and the U.S.A.

### In a letter to Imran, Modi says India looks for meaningful engagement with Pakistan

**News::** Prime Minister Narendra Modi has sent a letter to his newly-elected Pakistani counterpart Imran Khan, **conveying that New Delhi was looking for constructive and meaningful engagement with Islamabad.**

#### **Beyond News:**

- Prime Minister noted that **India was committed to peaceful neighbourly ties with Pakistan**, official sources said, quoting from the letter.
- The Prime Minister also stressed the need to work for a terror-free South Asia.
- Khan was sworn in as Pakistan's 22nd Prime Minister .

### General Studies-03

#### Saving the red panda

**News:** A **red panda** (*Ailurus fulgens*), also called the **lesser panda** or the **red bear-cat**. This cute mammal lives in the eastern Himalayas. Sadly, the red panda is listed under Schedule I of the Wildlife (Protection) Act and categorised as an endangered species on the IUCN Red List. But now, the Himalayan people have come together to protect the animal.





## Beyond News

- In Arunachal Pradesh, more than 60% of forest land (roughly 30,000 sq km) belongs to local communities and is governed by traditional laws. Unless the people come forward to protect the red panda, conservation efforts by the government will fail.
- A habitat for this creature has been earmarked in Arunachal Pradesh, with 114 sq km in West Kameng district. It will be declared a “community-conserved area”. The area shares its western boundary with Shaktem wildlife sanctuary in Bhutan.
- The community-conserved area is Mandala-Phudung-Khellong, situated at a height of 4,000 metres above sea level. Signboards of the community-conserved area will be installed at different locations. A red-panda management committee will be formed.
- Wildlife conservation would get a big boost with this movement. Besides red panda, tragopan is also found in those Himalayan foothills with a population of nearly 3,000 people.
- Arunachal Pradesh has seven community-conserved areas spread over 1,500 square km. WWF-India introduced the concept of community-conserved areas in 2004. The 2018 draft National Forest Policy highlighted community forests in the Northeast and called for its mapping and defined boundaries. The policy says these forests would be treated as a mosaic of community forest management landscapes and mapped, having well-defined, digitised boundaries.

## NDRF aid only for severe calamities

**News:** The Union government has declared the Kerala floods a “calamity of severe nature”.

### National Disaster Response Fund (NDRF):

- According to the National Disaster Management Policy, the State governments have to provide disaster relief from their respective State Disaster Response Funds (SDRFs), and only for a “calamity of severe nature”, will additional assistance be provided from the National Disaster Response Fund (NDRF).
- There is, however, no provision in the law or rules for the government to designate a disaster as a “national calamity”.
- Minister of State for Home Kiren Rijiju informed Parliament recently that the guidelines of the NDRF and the SDRFs did not contemplate declaring a disaster a national calamity.
- The **NDRF is funded through a National Calamity Contingent Duty** levied on pan masala, chewing tobacco and cigarettes, and with budgetary provisions as and when needed. A provision exists to encourage any person or institution to make a contribution to the NDRF.
- The 14th Finance Commission recommended changes to this structure once the cess was discontinued or subsumed within the Goods and Services Tax. However, the government, instead, decided to continue with the National Calamity Contingent Duty even in the GST regime. The SDRF corpus is contributed by the Union government and the respective State governments in a 75:25 ratio for general category States and 90:10 for Special Category States.

- The allocation of the SDRF for each State is done by the Finance Commission, and the Centre contributes its specified share each financial year. The Central share of SDRF is released in two equal instalments, in June and then in December.
- The Union government has maintained a steady flow of funds to the NDRF each year, ranging from Rs. 5,690 crore in 2015-16 to a budgeted amount of Rs. 2,500 crore for the current financial year. In addition, the Centre has also been contributing to the SDRFs every year, amounting to Rs. 8,374.95 crore in 2016-17 and Rs. 7,281.76 crore in 2017-18.
- In 2017-18, up to December 27, 2017, the Union government released NDRF funds to nine States Arunachal Pradesh, Bihar, Himachal Pradesh, Karnataka, Kerala, Nagaland, Rajasthan, Tamil Nadu, and Telangana, over and above its contributions to their respective SDRFs. The recipient of the highest amount was Karnataka, which got Rs. 913 crore that year.
- For specific calamities, the Centre released Rs. 1,365.67 crore for the Chennai floods of 2015 and Rs. 218.76 crore after Cyclone Vardah in 2016. Andhra Pradesh received Rs. 400 crore and Rs. 230 crore after Hudud ravaged Visakhapatnam.

### Water level in the Godavari increasing steadily

**News:** With the water level in the Godavari increasing steadily, the revenue and the police officials of the East and the West Godavari districts in Andhra Pradesh were on high alert and shifted their attention to relocating the residents of low-lying areas to safer places, restoring the road traffic and power supply in the vulnerable places.



#### **Beyond News**

- The water level was 14.3 feet at the Dowleswaram barrage, prompting the officials to retain the second warning level. In all, 13.71 lakh cusecs was discharged into the Bay of Bengal from the barrage. Movement of vehicular traffic was suspended on the barrage since the morning.
- In the absence of mechanised boats, residents in the low-lying areas and island villages faced severe hardship during the day.
- Home Minister toured the agency area, where a good number of tribal villages and hamlets were cut off. Roads including the highways were marooned and there was no transportation to reach the remote places. Relief camps were arranged with medical facilities.
- In all, 43 villages in 19 mandals of E. Godavari district were affected and 2,982 people were shifted to the 19 relief camps in the agency area and the Konaseema region. **Three NDRF and SDRF teams each aided by two battalions of the APSP were on the job of rescuing the flood-affected.**
- In West Godavari district, the historic Baineru bridge at Jangareddigudem and the Jalleru bridge collapsed due to the floods.

## 'Blast fishing' thrives in Libya's chaos

**News:** Fishermen using **dynamite to maximise** their catch, regardless of the damage they are causing to marine life.

### Beyond News

- Dynamite fishing, or “blast fishing”, has flourished with impunity since Libya’s 2011 uprising that left the country awash with weapons and explosives.
- Even anonymous videos are posted online of sea water being propelled high into the sky and dozens of dazed or dead fish left behind on the surface.
- Some marine biologists, fishermen and fishmongers, and even religious leaders have tried to speak out against blast fishing but to no avail.
- Using dynamite to catch fish “depletes the fish stock in the sea.”

**AUGUST 22**

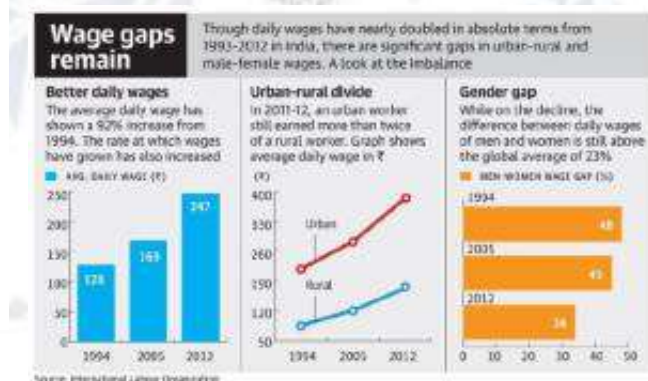
## General Studies-01

### ILO report flags wage inequality in India

**News:** Real average daily wages in India almost doubled in the first two decades after economic reforms, but **low pay and wage inequality remains a serious challenge to inclusive growth**, the International Labour Organization warned in its India Wage Report.

#### Findings:

- The ILO has called for stronger implementation of minimum wage laws and strengthening of the frameworks for collective bargaining by workers. This is essential to combat persistent low pay in some sectors and to bridge the wage gaps between rural and urban, male and female, and regular and casual workers.
- Overall, in 2009-10, a third of all of wage workers were paid less than the national minimum wage, which is merely indicative and not legally binding. That includes 41% of all casual workers and 15% of salaried workers.
- In 2011-12, the average wage in India was about ₹247 rupees a day, almost double the 1993-94 figure of ₹128. However, average labour productivity (as measured by GDP per worker) increased more rapidly than real average wages.
- Thus, India’s labour share or the proportion of national income which goes into labour compensation, as opposed to capital or landowners has declined.



- The rise in average wages was more rapid in rural areas, and for casual workers. However, these groups started at such a low base that a yawning wage gap still remains. Thus, the average wage of casual workers who make 62% of the earning population was only ₹143 a day.
- Daily wages in urban areas (₹384) also remain more than twice as high as those in rural areas (₹175), the report said. Regional disparities in average wages have actually increased over time, with wages rising more rapidly in high-wage States than in low-wage ones.
- The gender wage gap decreased from 48% in 1993-94 to 34% in 2011-12, but still remains high by international standards. And of all worker groups, the average wages of casual rural female workers was the lowest, at just ₹104 a day.

## General Studies-02

### SC moots steps to clean up politics

**News:** The **Supreme Court** proposed to make political parties accountable for criminalising politics by welcoming in “crooks” who may later win elections on party ticket and grab power.

#### **Beyond News**

- The five-judge Constitution Bench, suggested it could direct the Election Commission to insist that parties get new members to declare in an affidavit their criminal antecedents and publish them so that the “entire country knows how many criminals there are in a party.” The court demonstrated that the **EC could de-register a party or withdraw its symbol if it refused to comply.**
- The suggestion was made by the Bench in a bid to prevent criminals from entering politics or later contesting elections to become parliamentarians, State legislators and Ministers. The court is hearing a batch of petitions to ban persons charged with heinous criminal charges from contesting elections.
- The law, presently, bars only convicted persons from fighting elections or continuing as law makers. A person is presumed innocent until proven guilty in a court of law.
- The suggestion from the Bench faced stiff opposition from the government. Attorney-General said the court’s proposal amounted to disqualifying a prospective candidate.
- The Bench has been steadfast during the past days that it cannot legislate and change the written law.
- The Bench, based its proposal on the power of the Election Commission to conduct an election and register/de-register **political parties under Article 324 of the Constitution and Section 29A of the Representation of the People Act of 1951**, respectively.
- The court invoked The Election Symbols (Reservation and Allotment) Order of 1968 to clothe the Commission with the power to withdraw a reserved party symbol.
- Chief Justice pointed to how Section 29A requires a political party to swear to uphold the principles of socialism, secularism, democracy, sovereignty, unity and integrity of India.

### ‘Opening up trade with India priority for the U.S.’

**News:** Opening up trade with India is a key priority of the Trump administration, a senior official of the U.S. State Department has said.

## Beyond News

- Briefing reporters on the administration's Asia-Pacific policy, Principal Deputy Assistant Secretary for South and Central Asian Affairs, Alice G. Wells the highest ranking official for the region also welcomed Pakistan Prime Minister Imran Khan's statement in support of peace in South Asia.
- Principal Deputy Assistant Secretary for South and Central Asian Affairs will be participating in the Indian Ocean Conference in Vietnam's capital Hanoi on August 27-28, organised by think tank India Foundation.
- **Delegates from 43 countries, including China, India, Singapore, Australia and Vietnam, are scheduled to participate in the event.**
- This annual conference hosted by the India Foundation and partners in Singapore, Sri Lanka, and Bangladesh has become an important touchpoint for nations bordering the Indian Ocean, and it showcases India's rising leadership role in the region.
- With respect to Indo-American cooperation, they see trade with India and opening up trade with India as a key strategic objective for this administration, the official said, pointing out that bilateral trade is now at about \$126 billion, an increase of more than \$10 billion from last year.
- Talking on the progress of the Trump administration's new South Asia policy, the official said that, Pakistan obviously has a critical role to play in the stabilisation of Afghanistan.

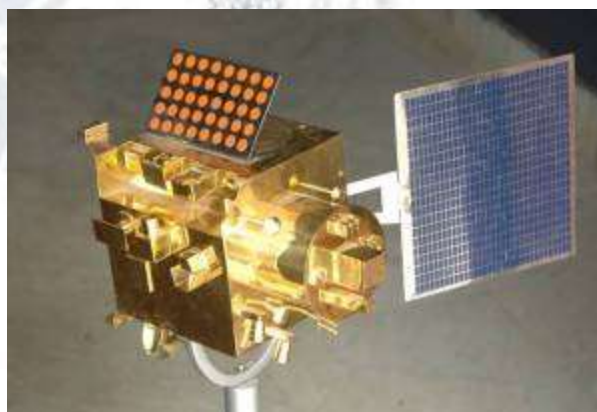
## General Studies-03

### Chandrayaan-1 data confirms presence of ice on Moon: NASA

**News:** Scientists have found frozen water deposits in the darkest and coldest parts of the Moon's polar regions using data from the Chandrayaan-1 spacecraft that was launched by India 10 years ago, NASA said.

## Beyond News

- With enough ice sitting at the surface within the top few millimetres water would possibly be accessible as a resource for future expeditions to explore and even stay on the Moon, and potentially easier to access than the water detected beneath the Moon's surface.
- The ice deposits are patchily distributed and could possibly be ancient, according to the study.
- At the southern pole, most of the ice is concentrated at lunar craters, while the northern pole's ice is more widely, but sparsely spread.
- Scientists used data from **NASA's Moon Mineralogy Mapper (M3)** instrument to identify three specific signatures that definitively prove there is water ice at the surface of the Moon.



- **M3, aboard the Chandrayaan-1 spacecraft, launched in 2008 by the Indian Space Research Organisation (ISRO),** was uniquely equipped to confirm the presence of solid ice on the Moon.
- It collected data that not only picked up the reflective properties we would expect from ice, but was also able to directly measure the distinctive way its molecules absorb infrared light, so it can differentiate between liquid water or vapour and solid ice.
- Most of the new-found water ice lies in the shadows of craters near the poles, where the warmest temperatures never reach above minus 156 degrees Celsius.
- Due to the very small tilt of the Moon's rotation axis, sunlight never reaches these regions.
- Previous observations indirectly found possible signs of surface ice at the lunar south pole, but these could have been explained by other phenomena, such as unusually reflective lunar soil.
- Learning more about this ice, how it got there, and how it interacts with the larger lunar environment will be a key mission focus for NASA and commercial partners, as humans endeavour to return to and explore the Moon.

### **First galaxies discovered**

**News:** A Mexican astrophysicist has identified some of the **first galaxies in our universe** together with a team of researchers.

#### **Beyond News**

- The National Autonomous University of Mexico said that the newly-identified galaxies are: Segue-1, Bootes I, Tucana II and Ursa Mayor I. All were formed more than 13 billion years ago.
- The Mexican scientist Carlos Frenk Mora is one of the world's best known astronomers for his theories on dark matter and its role in the formation of galaxies.
- His discovery backs a current evolutionary model of the universe, called the Lambda Cold Dark Matter Theory, which maintains that the elementary particles that make up dark matter drive cosmic evolution.
- The most weak galaxies near the Milky Way were considered unworthy subject for study by scientists a decade ago, but new researches have revealed treasures for us to learn about the primitive universe.



### **Centre rules out total ban on firecrackers**

**News:** The **Centre ruled out a national ban on firecrackers** and suggested the production of "green crackers", community cracker bursting in major cities and a freeze on the production of series crackers or larisas alternative measures to curb pollution during Diwali.

**Beyond News:** The Centre told the Supreme Court that crackers could even be burst in areas pre-designated by the State governments.

- The Supreme Court was hearing a bunch of applications seeking a complete nationwide ban on the use, manufacture, licensing, sale, resale or distribution of firecrackers and sparklers of any kind in a bid to combat pollution on an emergency basis.
- The Centre suggested working together with institutions like the Council for Scientific and Industrial Research, National Environment Engineering Research Institute, Petroleum and Explosives Safety Organisation (PESO), Central Pollution Control Board (CPCB) **to deal with Diwali pollution.**
- It suggested setting up of Raw Material Characterisation Facilities to check the presence of high contents of unburned material, partially combusted material or poor quality of raw material in gun powder in firecrackers.
- The Centre proposed use of “**reduced emission firecrackers or improved firecrackers**”. These are “low emission sound and light emitting functional crackers with PM reduction by 30-35% and significant reduction in nitrogen oxide and sulphur dioxide due to in-situ water generation as dust suppressant and low cost due usage of low cost oxidants”.
- The government said PESO could be approached to ensure that fireworks with permitted chemicals and decibel levels are used. PESO could run tests for banned ones like lithium, arsenic, antimony, lead, mercury.
- CPCB and respective state pollution control boards shall carry out short-term monitoring in their cities for 14 days (commencing from seven days prior to Diwali and ending seven days after Diwali for parameters namely Aluminium, Barium, Iron apart from regulatory parameters against short term ambient air quality proposed by CPCB with regard to bursting of firecrackers.
- The Supreme Court is hearing a bunch of applications seeking a complete nationwide ban on the use, manufacture, licensing, sale, resale or distribution of firecrackers and sparklers of any kind in a bid to combat pollution on an emergency basis.

**AUGUST 23**

## **General Studies-02**

### **Quad countries discuss ocean security**

**News:** The Quad grouping is one of the many avenues for interaction among India, Australia, Japan and the US and should not be seen in an exclusive context, a senior Japanese diplomat said .

#### **Beyond News**

- Senior Japanese diplomat was speaking at the launch of a report on the policy recommendations on Indian Ocean security by four think tanks from the Quad countries at the Vivekananda International Foundation (VIF).
- The other think tanks which include Australia National University, Sasakawa Peace Foundation, Japan and Sasakawa Peace Foundation, USA, along with VIF formed the Quadripartite Commission on Indian Ocean Regional Security, which put out a series of 20 policy recommendations for stability in the Indian Ocean Region (IOR).

- The report calls for maintaining the momentum of high-level consultations among the Quad countries with the aim of “free and open Indo-Pacific region” and progressively move it to a political level.
- Australia, Japan, India and the US should work with countries in the IOR to help maintain independent security and economic policies by supporting high-quality alternatives to unilateral Chinese investments and political alignment with Chinese regional objectives, one of the recommendations.
- Another recommendation is that the four countries should work to oppose “the establishment of permanent Chinese military bases” in the IOR. This should include demonstrating to China that its security needs can be met “through cooperation and consultation with other nations” and without the recourse to a “disruptive unilateral military presence.”
- In 2017, on the sidelines of the East Asia Summit in Manila, the Quad countries held discussions on reviving the decade-old grouping which is seen by China as an attempt to contain it.

### India, Pakistan armies exchange sweets on LoC in Poonch on Id

**News:** The armies of India and **Pakistan** exchanged sweets on the occasion of the Id-ul-Azha along **Line of Control (LoC)** in **Poonch** district of **Jammu and Kashmir**.

#### **Beyond News**

- Indian and Pakistan army exchanged sweets on the occasion of Eid-al-Adha at Chakan Da Bagh Crossing point along the LoC in Poonch.
- Sweet exchange was proposed by Pakistan Army on hotline.
- Compliments were exchanged in an atmosphere of bonhomie and festivity.
- The sweets exchange is a gesture appreciated by both countries and is expected to go a long way in promoting peace, harmony and compassion in the true spirit of the festival.



### General Studies-03

### NASA tracks the rain behind Kerala floods

**News:** The **National Aeronautics and Space Administration** (NASA) has released a video created using satellite data that provide an estimate of the intense rainfall over India in the past week and show the spread of the resulting severe flooding in Kerala and parts of Karnataka.





## Beyond News

- Rainfall accumulations from August 13 to 20 show two bands of heavy rain across India, NASA said in a statement.
- The first band appears much broader and extends across the northern part of the peninsula with weekly rainfall totals ranging from over 5 inches towards the western half of the peninsula to as much as 14 inches over parts of the eastern half towards the Bay of Bengal. The first band is associated with the general monsoon circulation.
- The second band appears more concentrated and intense and is closely aligned with the southwest coast of India and the Western Ghats where onshore flow was enhanced by an area of low pressure embedded within the general monsoon. Weekly rainfall totals in this band are generally over 10 inches with embedded areas exceeding 16 inches. The maximum estimated value from the data in this band is 18.5 inches, NASA said.
- **Another contributing factor to the heavy rain along the southwest coast of India is the Western Ghats.** The Western Ghats, with many peaks over 2,000 metres, are well positioned to enhance rainfall along the west coast of India as they intercept the moisture laden air being drawn in off the warm waters of the northern Indian Ocean and Arabian Sea as part of the southwest monsoon circulation.
- The Integrated Multi-satellite Retrievals for GPM is used to estimate precipitation from a combination of passive microwave sensors, including microwave sensor and infrared data.
- The data are generated every half an hour, thereby allowing scientists to track rainfall across the globe almost in real time. GPM is the Global Precipitation Measurement mission core satellite. GPM is a joint mission between NASA and the Japan Aerospace Agency, JAXA.

## Govt. will meet Kerala's needs through domestic efforts: MEA

**News:** India has said a polite 'no' to offers of foreign assistance to the Kerala flood victims.

The Ministry of External Affairs (MEA) in a statement said India will rely on domestic resources for the State's ongoing flood relief efforts.



## Beyond News

- In line with the existing policy, the Government is committed to meeting the requirements for relief and rehabilitation through domestic efforts.
- It was the first time, since the floods struck Kerala, that the MEA clearly indicated India's preference for domestic resources over foreign assistance.
- The spokesperson, however, indicated that certain foreign entities other than governments were welcome to contribute to disaster relief, and said that, Contributions to the Prime Minister's Relief Fund and the Chief Minister's Relief Fund from NRIs, PIOs and international entities such as foundations would, however, be welcome.

- The formal declaration of India's official position on foreign aid for flood relief in Kerala came hours after the ambassador of Thailand revealed that India was not accepting foreign offers for help.
- The message from the Thai ambassador and the statement from the MEA spokesperson settled the debate over the reported offer from the government of UAE to help flood relief with ₹700 crore.
- The total volume of financial support from the entire Gulf region (including UAE) is calculated to be far greater than the ₹600 crore that the government of India has declared for Kerala so far.
- However, the official position is in accordance with the existing standpoint regarding foreign assistance which stems from the fact that India is "capable" of dealing with natural calamities.
- It is understood that 'as of now' India will continue to deal with natural calamities in the way it has dealt with such episodes in the last 15 years when a convention to avoid foreign aid was adopted in the backdrop of the Gujarat earthquake of 2001 and the tsunami of 2004.
- However, the Crown Prince of Abu Dhabi has stated that his country is providing support to Kerala through institutions.

### State Disaster Response Force on the anvil

**News:** The Telangana State government is actively examining a proposal for setting up a **dedicated State Disaster Response Force (SDRF) of its own for tackling the challenges posed by natural as well as man-made calamities.**

#### **Beyond News**

- The Revenue (Disaster Management) Department had prepared a detailed action plan for the constitution of SDRF and the proposal had been sent to the Finance and other departments concerned for their consent.
- To be planned with 523 strong team, the SDRF will have well-trained and equipped personnel drawn from the police and fire departments for its operations. The teams will also consist of doctors, paramedics and experts in engineering to reduce vulnerability to the natural/man-made calamities.
- Senior officials said the constitution of SDRF was necessitated as the government had to requisition the services of the National Disaster Response Force (NDRF) which is headquartered at Mangalagiri in Guntur district
- The full-fledged operation of SDRF, according to officials, is **expected to require around ₹700 crore investment** that would include recurring and non-recurring costs incurred on various counts. The major expenditure from the proposed corpus is expected to be on account of procurement of sophisticated equipment along with vehicles and positioning the latest technologies that can be used during the calamities.
- Meanwhile, the Disaster Management Department had evolved a detailed State disaster management plan encompassing various factors like preparedness and capacity building, hazard vulnerability, risk analysis, rehabilitation and reconstruction, and mainstreaming disaster risk reduction.

- The plan would cover calamities due to extreme weather conditions, heat wave, floods/urban flooding, industrial & chemical hazards, epidemics and even stampedes.
- The overall effort has been to ensure effective coordination between the different departments of the government, private sector and Central government departments like railways in the times of calamities.

**AUGUST 24**

## **General Studies-02**

### **India, China to improve military links**

**News:** India and China agreed to work towards full implementation of ongoing confidence-building measures (CBM) along the border as well as improve military to military interactions.

#### **Beyond News**

- This was agreed during bilateral consultations between Defence Minister Nirmala Sitharaman and visiting Chinese State Councillor and Defence Minister General Wei Fenghe.
- It was decided to expand the engagement between the Armed Forces relating to training, joint exercises and other professional interactions. Both sides also decided to work towards a new bilateral Memorandum of Understanding (MoU) on defence exchanges and cooperation to replace the MoU signed in 2006.
- The statement further added that in order to ensure peace and tranquility on the border, both Ministers agreed on greater interactions at the working level, including operationalisation of the hotline between the relevant departments of the Armed Forces.
- The two countries are also working on setting up additional Border Meeting Points (BPM) along the Line of Actual Control (LAC). **There are five BPM points along the Line of Actual Control (LAC) at Bum La and Kibithu in Arunachal Pradesh, Daulat Beg Oldi and Chushul in Ladakh, and Nathu La in Sikkim.** Another BPM was added earlier this month on the eve of Independence Day.
- The two armies are expected to resume the bilateral joint training exercise Hand-in-Hand this year.
- There was a suggestion from China for joint patrolling on the LAC. But it is not expected to move forward as India is not keen on it.



### **After UAE, Pakistan offers help to flood-hit Kerala**

**News:** Pakistan Prime Minister Imran Khan offered to help flood-hit Kerala. The Pakistani leader's comments came in the backdrop of **growing criticism of the Indian government's decision to decline foreign aid for flood relief and rehabilitation in the State.**

## Beyond News

- Islamabad’s statement came a day after India said it would depend on “domestic resources” for providing short and long term help in Kerala.
- In line with the existing policy, the government is committed to meeting the requirements for relief and rehabilitation through domestic efforts, the Ministry of External Affairs spokesperson said.
- It was understood that by ‘existing policy’, the MEA was indicating at the decision taken in 2004 to avoid foreign support in the context of the deadly tsunami that affected a large number of countries in the Indian Ocean region.
- However, India’s decision to decline aid from abroad drew criticism from veteran diplomats and officials who said that the Central government should have been more considerate regarding the offer of support from the Gulf countries, especially from the United Arab Emirates that has offered ₹700 crore.
- Some diplomats have however maintained that the issue of aid for Kerala should be resolved through internal consultation at the earliest to avoid any long term fallout.

## General Studies-03

### ESA satellite to improve weather forecast launched

**News:** The European Space Agency (ESA) has **successfully launched a satellite that will measure winds around the globe and help improve weather forecasting.**

## Beyond News

- The Earth Explorer Aeolus satellite was launched into polar orbit on a Vega rocket from Europe’s Spaceport in Kourou, French Guiana.
- Using revolutionary laser technology, Aeolus will play a key role in our quest to better understand the workings of our atmosphere, the space agency said.
- The mission is the fifth in the family of ESA’s Earth Explorers, which address the most urgent Earth-science questions of our time.
- Aeolus epitomises the essence of an Earth Explorer. It will fill a gap in our knowledge of how the planet functions and demonstrate how cutting-edge technology can be used in space.
- Aeolus carries the first instrument of its kind and uses a completely new approach to measuring the wind from space.
- Highlighted by the World Meteorological Organisation, the lack of direct global wind measurements is one of the major deficits in the Global Observing System.
- By filling this gap, Aeolus will give scientists the information they need to understand how wind, pressure, temperature and humidity are interlinked.

- This new mission will provide insight into how the wind influences the exchange of heat and moisture between Earth's surface and the atmosphere important aspects for understanding climate change.
- Aeolus carries one of the most sophisticated instruments ever to be put into orbit. The first of its kind, the Aladin instrument includes revolutionary laser technology to generate pulses of ultraviolet light that are beamed down into the atmosphere to profile the world's winds a completely new approach to measuring the wind from space.
- Its data will be used in air-quality models to improve forecasts of dust and other airborne particles that affect public health.

### Toxicological study to find cause of vulture deaths

**News:** In a scientific approach **to protecting critically endangered vulture population**, the Forest Department has decided to conduct toxicological analysis in the event of any vulture death reported in its habitats spread across the Nilgiris and parts of Sathyamangalam Tiger Reserve (STR) in Erode.

#### **Beyond News**

- The toxicological analysis of the carcass will be done at Salim Ali Center for Ornithology and Natural History at Anaikatti in Coimbatore.
- **Toxicological study** will help various stakeholders involved in vulture conservation identify the cause of death of the scavengers of the forests scientifically. This is highly essential as more than 90 % decline has been reported in their population in the last two decades.
- Of the nine vulture species found in the Indian subcontinent, four namely, Egyptian vulture (*Neophron percnopterus*), Red-headed vulture (*Sarcogyps scalvus*), White-backed vulture (*Gyps bengalensis*) and Long-billed vulture (*Gyps indicus*) are in the Nilgiris and in a small portion of the STR.
- Jagulikadavu and Siriyur in Segur range, which was recently annexed to Mudumalai Tiger Reserve (MTR), has one of the biggest colonies of White-backed vulture and Long-billed vulture in South India. As many as 68 nestings of the two species were recorded at these places in 2011 and the colony luckily remains protected without significant decline in population.
- Moyar valley is another prime habitat in the Nilgiris which has resident population of all the four species. As vultures stick to site fidelity, they build nest at the same location.
- Vultures get adequate amount of animal kills to scavenge in MTR as it has one of the largest population of tiger in the country. But deliberate poisoning of remains of the livestock killed by carnivores in forest peripheries, as a retaliation by the livestock owners, is a threat to the vulture population.
- Poisoning of a single carcass could kill several vultures at a stroke.
- A request has been sent to the State Government to set up a Vulture Monitoring and Research Centre in the Nilgiris based on resolutions passed at the workshop 'Securing Vulture Populations in India' held at Udhagamandalam in January this year.



## 'Security budgets of Indian companies have tripled'

**News:** Indian companies are investing more on **securing their data rather than pumping more money into technology** as they try to build comprehensive solutions to prevent hackers from attacking their network, said, regional director SAARC of A10 Networks.



### **Beyond News**

- Global spending on information security products and services will reach more than \$114 billion in 2018, an increase of 12.4% from last year, according to an August 16 report from Gartner.
- In 2019, the market is forecast to grow 8.7% to \$124 billion. Privacy concerns, persisting skills shortages and regulatory changes such as EU's Global Data Protection Regulation are the main drivers.
- A recent attack on Singapore Health Services (SingHealth) network compromised personal health records of 1.5 million patients in the island and reinforced the need to view sensitive data and IT systems as critical infrastructure. A10 Networks, a New York Stock Exchange-listed cybersecurity firm, providing networking and security solutions, is headquartered in San Jose.
- But, the problem they faced is that the day a product releases on the market, China makes a copy of the same and sells. They wanted to know the leak point. For this, when they dug deep to find out how this was happening, they realised that it was happening from inside the organisation itself.
- Someone in the company was leaking the information via email. They ended up plugging the issue. This is a threat, and these kinds of issues could happen to anyone. In this case, their exclusivity of having an invitation-based purchase was lost when copies started mushrooming in the market. These are ways in which organisations could lose their reputation.

## Hi-tech drones come to the aid of Japan's ageing farmers

**News:** The next generation farmhand in Japan's ageing rural heartland may be a drone.

### **Beyond News**

- For several months, developers and farmers in northeast Japan have been testing a new drone that can hover above paddy fields and **perform backbreaking tasks in a fraction of the time it takes for elderly farmers**.
- The drone can apply pesticides and fertilizer to a rice field in about 15 minutes a job that takes more than an hour by hand and requires farmers to lug around heavy tanks.
- The **Nile-T18** was developed by drone start-up Nileworks Inc and recently tested in collaboration with JA Miyagi Tome and trading house Sumitomo Corp.
- Their **aim is to ease the physical burden and improve productivity in rural areas battling decades of falling birth rates and migration to urban areas**.

**AUGUST 25**

## **General Studies-01**

### **Lane downgraded to tropical storm as downpours flood Hawaii's Big Island**

**News:** Hurricane Lane crept closer toward the heart of the Hawaiian islands as it weakened into a tropical storm while still drenching the Big Island with torrential rains and severe, widespread flooding, weather and civil defense officials said.

#### **Beyond News**

- Lane, with maximum sustained winds diminishing to near 70 mph (110 kph), was forecast to make its nearest approach to land just west of the island chain over the weekend, bringing tropical storm-force conditions to Maui and the state's most populous island, Oahu.
- Farther north, a tropical storm watch was posted for the island of Kauai.
- The biggest **immediate danger was posed by flooding and mudslides** that could grow worse the longer the storm lingers close to the U.S. Pacific island chain, soaking the landscape.
- Lane was downgraded to a **Category 2 hurricane, then to a Category 1, the lowest ranking on the five-step Saffir-Simpson scale, as it churned through the Pacific south of Oahu**, the National Weather Service said. It was downgraded again to a tropical storm shortly local time as its maximum sustained wind speeds fell below 74 mph.
- More than 2 feet (60 cm) of rain had fallen in a 36-hour period by on the Big Island's windward side, where the Weather Service reported "catastrophic flooding" and wind gusts peaking at 67 mph (108 kph). Eaton said some parts of the island had received nearly 3 feet of rain.
- Flash flooding and mudslides on the Big Island have also forced a number of road closures and Governor David Ige urged residents to avoid any unnecessary travel.

### **ASI plan for making Charminar encroachments-free**

**News:** The Archaeological Survey of India put up a strong case for clearing encroachments in and around Charminar for guaranteed protection of the 425-year-old heritage monument.

#### **Beyond News**

- ASI Superintending Archaeologist of Hyderabad Circle said the monument faces grave threat due to encroachments and ill-designed and executed civic engineering work near the site.
- Part of the temple abutting the site has now encroached into the minaret. They are unable to carry out any conservation work in a vast space in that area.

- The recent pedestrianisation project by Greater Hyderabad Municipal Corporation was carried out without consulting them. The pipelines have a number of joints due to curvature leaving scope for leakages.
- Part of the problem is there are no revenue maps to clearly define the boundaries of monuments. This problem is hampering ASI's work in almost all of the 3,668 monuments under its protection. They have British-era notifications, or as in Hyderabad, Nizam-era notifications, which name a monument but don't give a demarcation of the area in terms of extent and directions.

The ASI official listed out the difficulties faced by the organisation for carrying out repair and conservation work on Charminar.

## [Air pollution cuts Indian lifespan by 1.5 years](#)

**News:** Ambient air pollution shortens an average Indian's life by over 1.5 years, say scientists who suggest that better air quality could lead to a significant extension of human lifespan around the world.

### Findings

- Researchers said that if PM2.5 concentrations worldwide were limited to the World Health Organization's (WHO) air quality guideline concentration of 10 microgrammes per square cubic metre, the global life expectancy would be on average 0.59 year longer.
- The benefit of reaching the stringent target would be especially large in countries with the highest current levels of pollution, with approximately 0.8-1.4 years of additional survival in countries such as India, Pakistan, Bangladesh and China.
- **This is the first time data on air pollution and lifespan has been studied together** in order to examine the global variations to find out how they affect the overall life expectancy.
- The researchers looked at outdoor air pollution from particulate matter (PM) smaller than 2.5 microns. These fine particles can enter deep into the lungs, and breathing PM2.5 is associated with increased risk of heart attacks, strokes, respiratory diseases and cancer.
- 5 pollution comes from power plants, cars and trucks, fires, agriculture and industrial emissions.
- They found that the life expectancy impact of ambient PM2.5 is especially large in polluted countries such as Bangladesh (1.87 years), Egypt (1.85 years), Pakistan (1.56 years), Saudi Arabia (1.48 years), Nigeria (1.28 years), and China (1.25 years).
- India had a life expectancy impact of 1.53 years, according to the study.
- The team used data from the Global Burden of Disease Study to measure PM2.5 air pollution exposure and its consequences in 185 countries.
- They then quantified the national impact on life expectancy for each individual country as well as on a global scale.





## General Studies-02

### NITI Aayog to focus on health, education sectors

**News:** NITI Aayog has identified **three major sectors, health, education and children's health** as priority sectors for intervention, said NITI Aayog Vice-Chairperson.

#### **Beyond News**

- As per the Odisha Facts released on the occasion, anaemia among women and children is highest in ST and Christian population in the State.
- More than 50% of women across all caste and social groups, except for in Muslims, suffer from anaemia, in Odisha.
- Stating that the goal of 'Universalisation of Education' has been achieved, he said: It is time to assess the States on the quality parameter. NITI Aayog is preparing a mechanism to rank States on the basis of education quality achieved.
- Similarly, the Centre is planning to set up 1.5 lakh health and wellness centres across India as the existing primary health centres were not functioning properly.
- The new health centres would have tele-medicine facilities apart from other modern equipment, he added.
- The three-day-long Odisha Vikash Conclave-2018 got under way with hundreds of civil society members sharing best practices in the sector.

### Hindu Notes from

#### 'Re-seeding' Kerala and Kodagu

**News:** For many who are dependent on agriculture for their livelihood, it is going to be a start from scratch. A not-for-profit headquartered in Bengaluru is now offering to help farmers with the first steps.

#### **Beyond News**

- **Annadana Soil and Seed Savers Network**, which, among other things, conserves heritage seeds, plans to donate indigenous vegetable seeds to "bring back the diversity that has been lost in the devastating floods in Kerala and Kodagu".
- These species, were taken from the same places that they will be going back to and include ginger, turmeric, chilli, brinjal, tomato, gourds, and radish.
- Annadana has been conserving heritage seeds for 17 years. Each year, around 20,000 to 30,000 seeds are given to farmers.
- They participate in seed exchange and sharing sessions and we have varieties collected during our visits to Kerala. They plan to give these indigenous seeds to Kerala and connect them back with them.



After these floods, there is a need to revive the diversity that has been lost.

- With the full impact of the devastation yet to be known, making it difficult to know the number of farmers affected and the number of seeds required, the NGO intends to distribute the free seeds to farmers in Kerala and Kodagu through networks of farmers. It also plans to offer technical expertise as well in helping farmers regenerate their soil through its 'empowered farmers' who double as master trainers.

## ISRO telemedicine nodes for soldiers in high-altitude areas

**News:** In a major effort to improve emergency medical support to soldiers posted in high-altitude areas, especially Siachen, the Integrated Defence Staff of the Defence Ministry and the Indian Space Research Organisation (ISRO) signed a memorandum of understanding to set up telemedicine nodes in critical places across the country.

### Beyond News

- ISRO will establish 53 more nodes in the first phase over and above the existing 20, in various establishments of the Army, Navy and Air Force across the country.
- As part of this, in addition to a functioning node on the Siachen glacier, four more nodes are being established to enable medical consultation between soldiers deployed on the glacier and medical echelons in the rear.
- During winter months, many of the remote posts are cut off for several months because of adverse terrain and extreme weather, making emergency evacuation near impossible. Communication through satellite-enabled telemedicine nodes will be a paradigm shift in the delivery of lifesaving health care till the weather clears up and movement is possible.
- This joint initiative by ISRO and the Armed Forces Medical Services will transform the reach of telemedicine to soldiers, airmen and sailors in remote and isolated posts, the official added.

## Kolkata best megacity, Delhi worst in commute pollution: CSE

**News:** An analysis of 14 cities in India, including six mega cities and eight metropolises, on how they fare when it comes to pollution and energy consumption from urban commuting, places **Kolkata as the top-performing megacity.**

- Bhopal leads the list on the lowest overall emissions. Delhi and Hyderabad are the two cities that fare at the bottom of the table in terms of pollution and energy use.

### Findings

- **Air pollution** was a national crisis and road transport was the sector showing the highest increase in emission of greenhouse gases.
- Motorisation in India is explosive. Initially, it took 60 years (1951-2008) for India to cross the mark of 105 million registered vehicles.

### Exhausting fumes

A ranking of cities in terms of overall emissions and energy consumption



Space Jam: Vehicles jostling on the Howrah Bridge in Kolkata. ■ AFP

1. Bhopal
2. Vijayawada
3. Chandigarh
4. Lucknow
5. Kochi
6. Jaipur
7. Kolkata
8. Ahmedabad
9. Pune
10. Mumbai
11. Hyderabad
12. Bengaluru
13. Chennai
14. Delhi

- Thereafter, the same number of vehicles was added in a mere six years (2009-15).
- In the study, with an aggregate of toxic emissions from urban commuting practices, such as particulate matter and nitrogen oxides, the cities were ranked based on calculations of heat trapping (CO<sub>2</sub>).
  - The study **took two approaches to rank the cities**, one based on overall emission and energy consumption and the other on per person trip emissions and energy consumption.
  - Six megacities (Delhi, Mumbai, Kolkata, Chennai, Bangalore and Hyderabad) and eight metropolitan cities (Bhopal, Lucknow, Jaipur, Chandigarh, Ahmedabad, Pune, Kochi and Vijayawada) were evaluated.
  - In terms of overall emissions and energy consumption, Bhopal was followed by Vijayawada, Chandigarh and Jaipur. Kolkata, which comes in at the sixth place on overall emissions, won among the six megacities. In fact, smaller cities such as Ahmedabad and Pune ranked below Kolkata for overall emissions.
  - Delhi ranked at the bottom of the table for overall emission. Hyderabad, Bengaluru and Chennai fared a little better than Delhi.
  - According to the report, though metropolitan cities scored better than megacities due to lower population, lower travel volume and lower vehicle numbers, they were at risk due to a much higher share of personal vehicle trips.

### **Disaster management authority expanded**

**News:** Aiming at consolidating efforts by government agencies in the face of natural disasters, the State government has recently expanded the Tamil Nadu State Disaster Management Authority.

#### **Beyond News**

- The hitherto nine-member panel has been increased by two to include the Secretaries of the School and Higher Education Departments, according to a notification issued by the State government.
- **The Tamil Nadu State Disaster Management Authority** with the Chief Minister as its Chairperson also has Minister for Revenue and Disaster Management, Chief Secretary, Secretaries of Revenue and Disaster Management, Finance, Home, Higher Education, School Education, Commissioner of Revenue Administration as members.
- Two from the academics Director, Centre for Disaster Management and Mitigation of Anna University and the Head of the Department of Civil Engineering in the Indian Institute of Technology Madras are also members on the panel.
- The State Disaster Management Authority (SDMA) was constituted about a decade ago to take policy decisions and lay down guidelines for disaster management in the State. A State Executive Committee would also assist the SDMA and monitor disaster management activities on a regular basis.
- The SDMA approves the State Disaster Management Plan and District Disaster Management Plans in accordance with the guidelines laid down by the National Disaster Management Authority.

**AUGUST 26 & 27**

## **General Studies-02**

### **Wuhan spirit should spur ‘natural partner’ India to join Belt and Road initiative: China**

**News:** China called India its “natural partner” in the **Belt and Road Initiative (BRI)** and advocated better ties between New Delhi and Islamabad within the Eurasian framework.

#### **Beyond News**

- At a media conference on the BRI, China’s assistant minister of foreign affairs, threaded India and China’s deep bonds established during their far history with recent diplomatic initiatives, including the Wuhan summit in April between Prime Minister Narendra Modi and Chinese President Xi Jinping.
- The Chinese official stressed that, CPEC is an economic initiative. Implementing CPEC does not jeopardise China’s position on Kashmir.
- So far India has not formally endorsed BRI, and last year New Delhi did not participate in a summit of the grouping, leading to considerable consternation in Beijing.
- China’s assistant minister of foreign affairs cited India and China’s collaboration in the infrastructure arena through the Asian Infrastructure Investment Bank (AIIB) one of the pillars that also props BRI projects.
- Separately, the Chinese Foreign Ministry welcomed India and Pakistan’s joint participation in a Eurasian counterterrorism military exercise under the framework of the Shanghai Cooperation Organisation.
- Applauding participation of the two estranged neighbours in the exercise, Foreign Ministry spokesperson said ties between New Delhi and Islamabad were significant to the peace and development of the region and the whole world.

### **India, Pakistan to resume talks on Indus Waters Treaty in Lahore on Wednesday**

**News:** India and Pakistan will resume their talks on various aspects of the **Indus Waters Treaty** in Lahore, the first bilateral engagement since Prime Minister Imran Khan took office.

#### **Beyond News**

- India’s Indus Water Commissioner is expected to reach to begin the two-day discussions with his Pakistani counterpart, quoted a government official as saying.
- The last meeting of the Pakistan-India Permanent Indus Commission was held in New Delhi in March during which both the sides had shared details of the water flow and the quantum of water being used under the 1960 Indus Waters Treaty.

- The Pakistani side will reiterate its objections over two water storage and hydropower projects being built by India, during the two-day talks scheduled for August 29-30.
- The official said **Pakistan** would raise its concerns over 1000MW Pakal Dul and 48MW Lower Kalnai hydroelectric projects on the Chenab river.
- The official said that the two sides would also finalise the schedule of future meetings of the Permanent Indus Commission and visits of the teams of the Indus commissioners.
- The 1960 Indus Waters Treaty, brokered by the World Bank and signed by then prime minister Jawaharlal Nehru and Pakistan's president Ayub Khan, administers how the water of the Indus river and its tributaries that flow in both the countries will be utilised.
- Under the provisions of the Indus Waters Treaty 1960, waters of the eastern rivers Sutlej, Beas and Ravi had been allocated to India and the western rivers the Indus, Jhelum and Chenab to Pakistan, except for certain non-consumptive uses for India.

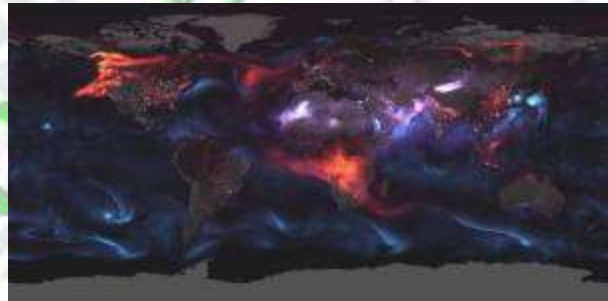
### General Studies-03

#### NASA shows aerosols around the world in one vibrant image

**News:** **Aerosols** are all around and are inhaling millions of them this very second. These **minute solid and liquid particles suspended in the atmosphere, include dust, smoke, pollen, soot and even volcanic ash.**

#### **Beyond News**

- Earth-observing satellites use the **Moderate Resolution Imaging Spectroradiometer (MODIS)** to measure the aerosol optical thickness from hundreds of kilometers above the Earth.
- These measurements are based on the fact that aerosols change the reflection and absorption of visible and infrared light in the atmosphere. NASA has now released a vivid image that shows the aerosol flow across the face of Earth. According to NASA, An optical thickness of less than 0.1 (palest yellow) indicates a crystal clear sky with maximum visibility, whereas a value of 1 (reddish brown) indicates very hazy conditions.
- The blue colour indicates sea salt aerosols, which are natural aerosols carried into the atmosphere and come from sea spray.
- The red denotes black carbon particles. Wildfires, emissions from industries and automobiles are the common source.
- Dust particles are marked in purple.
- According to NASA, On that day, huge plumes of smoke drifted over North America and Africa, three different tropical cyclones churned in the Pacific Ocean, and large clouds of dust blew over deserts in Africa and Asia.



#### BMRCL plans to buy land near Bhadra Tiger Reserve

**News:** Bangalore Metro Rail Corporation Ltd. (BMRCL) is planning to buy a 67-acre private plot near **Bhadra Tiger Reserve in lieu of forest land in Kadugodi**, which will be used to construct a depot under phase-II of Namma Metro.

## Beyond News

- BMRCL will be acquiring 45 acres of land in Kadugodi from the Forest Department. **As per the policy, it will have to purchase and hand over a plot of land of the same size for the Forest Department to carry out afforestation work.**
- According to BMRCL officials, the land near Bhadra Tiger Reserve was selected based on a suggestion by the department. The corporation recently purchased 29 acres of land from 14 property owners in Dandeli, at a cost of ₹3 lakh per acre.
- The department had identified an additional 15 acres in the area, but owing to various factors BMRCL could not acquire it.

## Human activity turning birds into pests

**News:** Human activity is increasingly tipping the ecological balance against birds, turning them to pests, suggests by a group of researchers.

### Findings

- Researchers from Telangana State Agricultural University observed unusual feeding of four species of birds on sorghum and sunflower when testing acoustic equipment to keep birds away.
- Unusual instance of Red-breasted Parakeet in Hyderabad feeding on sorghum was observed. Similarly, unusual instances of Great Tits, Indian Peafowl and Large Grey Babbler were observed to feed on sunflower heads, said researchers.
- They explained it was unusual because these four species are not on the list of 18 species, considered depredatory, known to feed on sorghum or sunflower.
- These birds feeding on sunflower and sorghum indicate that their natural sources of food are not easily available. Parakeets, for instance, are fruit-eaters. Without fruit trees around, they are bound to turn to crop.
- Birds like Peafowls and Babbler prefer sunflower seeds as a major diet and food source expansion. This is mainly due to **unsustainable levels of exploitation, non-availability of preferred food, habitat destruction and less predatory pressure, increasing new depredatory bird population and diminishing dependency on alternative food resources,**” the researchers concluded.
- As part of the project, the pest management team developed acoustic equipment that produces sound in frequency ranges that is disturbing to the birds and drives them away from the crop.
- The group is also working on non-fatal techniques to keep pests like wild boars away.



## NASA spacecraft approaches asteroid Bennu, snaps first pic

**News:** NASA spacecraft is closing in on an ancient asteroid, Bennu, for a sample of space dust that **could reveal clues to the start of life in the solar system.**

## Beyond News

- The spacecraft, **OSIRIS-REx** Origins, Spectral Interpretation, Resource Identification, Security-Regolith Explorer has even snapped its first, blurry picture of the cosmic body, which is about the size of a small mountain, about 500 meters in diameter.
- The spacecraft is designed to circle Bennu, and reach out with a robotic arm to “high-five” its surface, then return the sample it collects to Earth in 2023.
- The first images of Bennu were taken on August 17 at a distance of 2.3 million kilometers from the \$800 million spacecraft.
- Bennu was chosen from the some 500,000 asteroids in the solar system because it orbits close to Earth’s path around the sun, it is the right size for scientific study, and is one of the oldest asteroids known to NASA. Astronomers say it poses a slight risk a one in 2,700 chance of colliding with Earth in 2135.
- It is also a carbon-rich asteroid, the kind of cosmic body that may have delivered life-giving materials to Earth billions of years ago. The OSIRIS-REx mission is not the first to ever visit an asteroid and attempt a sample return Japan has done it before and Europe has managed to land on a comet. **It is the first asteroid-sample-return mission for NASA, and it aims to bring back the biggest sample ever, on the order of 60 grams.**

**AUGUST 28**

## General Studies-01

### Close watch on climate change

**News::**The Ministry of Earth Sciences (MoES) is considering a ₹79-crore proposal to study the impact of climate change on Kerala.

**Beyond News:**The project has been proposed by the National Institute of Science Communication and Information Resources (NISCAIR) under the Council of Scientific Industrial Research (CSIR).

- The project involves experts from various scientific institutions across the country. It consists of 25 work packages and covers all the aspects of climate change adaptations for Kerala.
- The ambitious project, spread over a period of three years, will **assess the impact of climate change on agriculture** (including plantation crops and spices); fisheries (marine and inland); industries; health; transport — vehicular and inland water transports; tourism; biodiversity; forestry; and landslips.
- It assumes significance in the wake of devastating floods that ravaged many parts of the State as the research initiative will specifically assess the dynamics of riverine discharge and saline water incursion under the climate change scenario.

#### Studying climate change

• Nodal institute to develop climate change adaptation programmes for islands and coastal ecosystems

• To assess the dynamics of riverine discharge and saline water incursion

• To demarcate vulnerable regions; develop a framework and decision support tool to assess climate change impact on livelihood and developmental processes

• Over 100 scientists from nearly 28 research agencies and institutes to be part of the initiative

- The experts will study the spatial and temporal changes in water resources (surface and groundwater quantity and quality).
- The Kerala project will analyse the trends in climatic elements, their spatial pattern and its relationship with extreme events such as El Nino, cyclones etc.
- It is part of the vulnerability assessment and development of adaptation strategies for climate change impact with special reference to coasts and island ecosystems of India project launched by CSIR-NISCAIR in 2015.
- Researchers associated with the project will assess the monsoonal variations and its impact, besides looking at the climate change scenario on the islets of Kerala.
- The **objective of the project was to develop a framework and decision support tool to assess the climate change impact on livelihood and developmental processes.**
- The study will look into suitable sectoral mitigation options under changing climate scenarios and assess the carbon sequestration potential of Kerala.

## **Millions in India may face nutritional deficiencies due to CO<sub>2</sub> rise: study**

**News:** Millions of Indians are at the risk of becoming nutrient deficient by 2050, as rising levels of carbon dioxide (CO<sub>2</sub>) are making staple crops such as rice and wheat less nutritious, according to a study.

### **Findings**

- Researchers found that rising CO<sub>2</sub> levels from human activity could result in 175 million people worldwide becoming zinc deficient and 122 million people becoming protein deficient by 2050.
- The study, also found that over one billion women and children could lose a large amount of their dietary iron intake, putting them at increased risk of anaemia and other diseases.
- It found that India would bear the greatest burden, with an estimated 50 million people becoming zinc deficient. As many as 38 million people in India are at the risk of becoming protein deficient, and 502 million women and children becoming vulnerable to diseases associated with iron deficiency, the researchers said.
- Other countries in South Asia, Southeast Asia, Africa, and the Middle East would also be significantly impacted, they said.
- Presently, over two billion people worldwide are estimated to be deficient in one or more nutrients. In general, humans tend to get a majority of key nutrients from plants: 63 % of dietary protein, 81 % of iron and 68 % of zinc comes from vegetal sources, researchers said.
- It has been shown that higher atmospheric levels of CO<sub>2</sub> result in less nutritious crop yields.
- Concentrations of protein, iron, and zinc are 3-17 % lower when crops are grown in environments where CO<sub>2</sub> concentrations are 550 parts per million (ppm) compared with crops grown under current atmospheric conditions, in which CO<sub>2</sub> levels are just above 400 ppm.



- Researchers created a unified set of assumptions across all nutrients and used more detailed age- and sex-specific food supply datasets to improve estimates of the impacts across 225 different foods.
- The researchers also emphasised that billions of people currently living with nutritional deficiencies would likely see their conditions worsen as a result of less nutritious crops.

## **General Studies-02**

### **Punjab Assembly passes Bill seeking life sentence for sacrilege of religious texts**

**News:** Punjab state Assembly unanimously passed Bills for an amendment to the Indian Penal Code (IPC) and Code of Criminal Procedure (CrPc) to make sacrilege of all religious texts punishable with life imprisonment.

#### **Beyond News**

- The Indian Penal Code (Punjab Amendment) Bill, 2018, which was passed has inserted Section 295AA to the IPC to provide that, “whoever causes injury, damage or sacrilege to Sri Guru Granth Sahib, Srimad Bhagwad Gita, Holy Quran and Holy Bible with the intention to hurt the religious feelings of the people, shall be punished with imprisonment for life.”
- The Bill further states “In the Indian Penal Code, 1860, in its application to the state of Punjab, in section 295, for the words “two years”, the words “ten years” shall be substituted.
- The Code of Criminal Procedure (Punjab Amendment) Bill, 2018 provides to insert section 295AA “injuring, causing any damage or sacrilege to Sri Guru Granth Sahib, Srimad Bhagwad Gita, Holy Quran and Holy Bible with an intention to hurt the religious feeling of the people.”
- The amendments would need the assent of the President. Under the existing Section 295A, punishment is for a maximum of three years imprisonment with or without fine.

### **Online registration of drones must from Dec. 1**

**News:** Drones, their operators and pilots will have to be mandatorily registered on aviation regulator DGCA's online portal, effective December 1.

#### **Beyond News**

- The use of remotely piloted aircraft, a kind of drone, is allowed for taking photographs, conducting surveys such as for laying of pipelines and agricultural purposes and surveillance, as per the regulations on remotely piloted aircraft system unveiled by the Ministry of Civil Aviation.
- The rules bar use of drones for delivery of items. They can be deployed for spraying of pesticides and delivery of relief material during a natural disaster only on a case-by-case basis.

- **Remotely piloted aircraft (RPA) have been divided into five categories;** nano (less than 250gm), micro (between 250 gm and 2kg), small (between 2 and 25 kg) and large (more than 150 kg).
- Users will have to go online to seek a unique identification number for each drone as well as an operator's permit licence.
- They will have to provide details of flight path to be undertaken for every flight. However, nano drones are exempt from all these pre-requisites.
- Operations are allowed in daylight and within the visual range or a range of 450 m. Wedding photographers are allowed to use micro drones during night, if they are taking pictures in an enclosed premises which is also well-lit.
- Drones are barred from being flown near airports, international border, coastline, Parliament, Secretariat complex in State capitals, military installations and eco sensitive zones.
- Small and large drones can fly up to a maximum height of 400 feet. Nano drones must not fly beyond 50 feet and micro drones must be within 200 feet from ground level.

### **Centre allows law enforcement agencies to hold banned currency notes**

**News:** The Centre has come to the rescue of law enforcement agencies like tax department and Enforcement Directorate, which are faced with a situation of holding confiscated currency notes beyond specified limits, by making changes in the law.

#### **Beyond News**

- A notification in this regard has been issued by the Ministry of Finance allowing agencies such as Central Board of Direct Taxes, Central Board of Indirect Taxes and Enforcement Directorate to hold banned currency notes.
- Under the **Specified Bank Notes (Cessation of Liabilities) Act, 2017**, banned currency notes beyond a certain limit could be held only by the Reserve Bank, its agencies, or other person authorised by it, and in pursuance of court order.
- An individual is not allowed to hold more than 10 banned notes. Besides, not more than 25 such notes could be kept for study, research or numismatics.
- According to the Finance Ministry's notification, law enforcement agencies had seized or confiscated the ₹ 500/1,000 notes on or before December 30, 2016 (the last day to exchange the banned notes) without specific directions from the court and need to deposit or exchange those on production of the documents authorising the seizure or confiscation.
- However, there is no provision in the Act to authorise such deposit of the specified bank notes seized or confiscated by the enforcement agencies.
- To deal with the difficulty, the government has come out with an order '**Specified Bank Notes (Cessation of Liabilities) Removal of Difficulties Order, 2018**' using its power under **Section 12 of the Act**.
- Now, besides others, the law enforcement agencies, such as the Central Board of Direct Taxes, Central Board of Indirect Taxes and Enforcement Directorate on production of the documents authorising such seizure or confiscation, as the case may be can hold the banned currency notes.

## General Studies-03

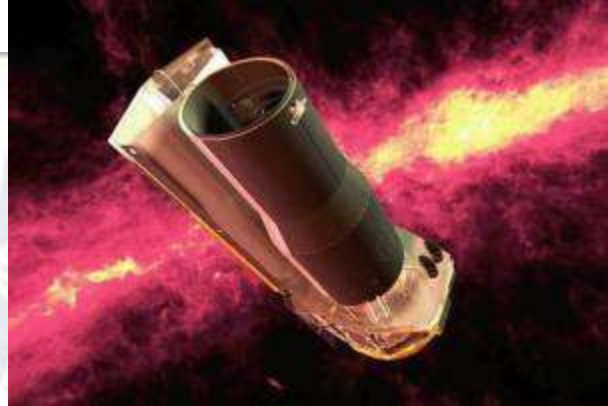
### NASA's Spitzer telescope completes 15 yrs in space

**News:** NASA's Spitzer Space Telescope, the youngest member of the "Great Observatory" programme, has **completed 15 years in space**.

#### **Beyond News**

- Launched into solar orbit on August 25, 2003, Spitzer was initially scheduled for a minimum 2.5-year primary mission. But the space telescope has lasted far beyond its expected lifetime, the US space agency said in a statement.
- Spitzer has logged over 106,000 hours of observation time in the past 15 years.
- It has illuminated some of the oldest galaxies in the universe, revealed a new ring around Saturn, and peered through shrouds of dust to study newborn stars and black holes.
- The space telescope also assisted in the discovery of planets beyond our solar system, including the detection of seven Earth-size planets orbiting the star TRAPPIST-1, among other accomplishments.
- Spitzer orbits the Sun in an Earth-trailing orbit (meaning it literally trails behind Earth as the planet orbits the Sun) and has continued to fall farther and farther behind Earth during its lifetime.

In 2016, Spitzer entered an extended mission dubbed "Spitzer Beyond". The spacecraft is currently scheduled to continue operations into November 2019, more than 10 years after entering its warm phase.



**AUGUST 29**

## General Studies-01

### NH 63 alignment changed to protect Neolithic site

**News:** Historians and archaeologists have finally had their way in their effort to protect the 'ash mound' **an important proof of the Neolithic period** located on National Highway 63, between Torangal and Kuditini, in Ballari district from a road project.

#### **Beyond News**

- Responding to the concerns of historians, the National Highways Authority of India (NHAI) and Gammon India, which is executing the four-laning of NH 63, have decided to realign the road to protect the archaeological site. They have also decided to fence the site, raise a garden and provide all facilities to make it a tourist attraction.
- The **ash mound, known as 'Budi dibba,'** according to archaeologist, is the largest among 300 sites known from the districts of Ballari, Chitradurga, Raichur, Kalaburagi,

Vijayapura and Bidar in Karnataka, and Mahbubnagar, Anantapur, and Kurnool in Andhra Pradesh. Protection of such sites is of tantamount importance as archaeologists from across the globe hope to visit the mound, especially those engaged in unravelling the agricultural way of life in India in that period.

- The site, which was found in the 1840s by Captain Newbold and Colin Mackenzie (the first Surveyor-General of British India), is one of the most important in southern India, and **represents the pastoral community settlements of 5,000 years ago**. It is associated with the neolithic period when hunter-gatherers became agriculturists and is the centre of a series of ash mounds located in the district.
- A year and a half ago, experts expressed concern over the threat to the Neolithic site with the four-laning of NH 63. As per the original design, the road was to pass through the ash mound.

## General Studies-02

### Nurturing peace, stability in Indian Ocean priority for India's foreign policy: Swaraj

**News:** Emphasising the economic importance of the Indian Ocean, External Affairs Minister has said that nurturing a climate of peace and stability in the region is a priority for India's foreign policy which is based on "inter-dependence rather than dominance".

#### **Beyond News**

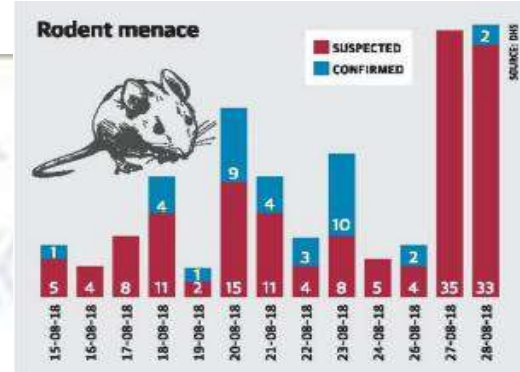
- Addressing the 3rd Indian Ocean Conference, External Affairs Minister said with the eastward shift of the engines of the global economy, the Indian Ocean is at the centre of the emerging "Age of Asia" and those who live in this region bear the primary responsibility for peace, stability and prosperity in the region.
- External Affairs Minister said the economic importance of the Indian Ocean and its vital role in the continued prosperity and development of the littoral nations is well established. PTI
- The **Indian Ocean Conference was initiated by India Foundation, an independent research centre based in New Delhi**. Along with its partners from Singapore, Sri Lanka and Bangladesh, this organisation holds the Indian Ocean Conference, which is an annual effort to bring together Heads of States/Governments, Ministers, thought leaders, scholars, diplomats, bureaucrats and practitioners from across the region.
- Since the Conference's launch in 2016, three editions of the meet have been hosted so far in 2016, 2017 and 2018 in Singapore, Sri Lanka and Vietnam respectively. All the three Conferences were supported by the Ministry of External Affairs of India, with Sushma Swaraj as its Vice-Chairperson.
- The theme for this year's meet was "Building Regional Architectures". It was inaugurated by Sushma Swaraj along with a few other dignitaries. Around 43 participant countries and over 28 ministers and officials spoke at the event.
- The key speakers included Sri Lankan Prime Minister, Deputy Prime Minister and Minister of Foreign Affairs Vietnam, and Minister of Foreign Affairs, Singapore.

## Doctors flag leptospirosis outbreak

**News:** Kerala could see more outbreaks of leptospirosis in the post-flood scenario, if the data available with the Health Department are any indication.

### **Beyond News**

- There is a possibility of more casualties due to communicable diseases during the rehabilitation period of any disaster even if an area is not prone to the diseases, a senior government doctor in community medicine told.
- Around half of the over 300 people who had sought treatment for suspected symptoms this month have tested positive for leptospirosis, according to Health Department sources.
- A bacterial disease affecting humans and animals, leptospirosis killed more people in Kerala than other communicable disease in the past eight years, except in 2012 and 2017, as per the data available with the department.
- A senior official with the Health Department said there was a possibility of undetected or under-detected cases too.
- The doctors may prescribe medicines for fever, which is one of the symptoms of leptospirosis. Such patients approach the government medical college hospital only after it affected their brain, liver or heart. When they die, the cause of death would be described as multiple organ dysfunction syndrome.
- However, post-floods, the department has directed doctors even in private hospitals and clinics to examine the possibility of leptospirosis in each fever case.
- Details such as the job of the patients and their native place were also being recorded.
- It is to find out if there was a chance of contact with contaminated water during the course of their job and if they belonged to flood-hit areas.



## General Studies-03

### 99.3% of demonetised currency returned: RBI

**News:** Over 99% of the ₹ 500 and ₹ 1000 that were withdrawn from circulation in November 2016 were returned, the Reserve Bank of India (RBI) said in its annual report, released.

### **Beyond News**

- According to the report, after verification and reconciliation, the total value of the ₹ 500 and ₹,1000 as on November 8, 2016, the day before note ban came into effect, was ₹15,417.93 lakh crore. The total value of the such notes returned from circulation was ₹15,310.73 lakh crore.

- According to the RBI data, the value of banknotes in circulation increased by 37.7% over the year to ₹18,037 lakh crore as at end-March 2018.
- With more ₹500 notes pumped into the system over the last one year, the share of ₹2,000 notes by value declined to 37.3% as on March 2018 as compared to 50.2% a year ago. The share of ₹ 500 note, in terms of value, increased from 22.5% to 42.9% during the same period.
- Post demonetisation, the RBI spent ₹7,965 crore in 2016-17 on printing new ₹500 and ₹2,000 and other denomination notes, more than double the ₹3,421 crore spent in the previous year.
- The demonetisation was hailed as a step that would curb black money, corruption and check counterfeit currency, but the RBI said, Counterfeit notes detected in SBNs decreased by 59.7 and 59.6 per cent in the denominations of ₹500 and ₹1,000, respectively.
- The RBI said that, Compared to the previous year, there was an increase of 35 per cent in counterfeit notes detected in the denomination of ₹100, while there was a noticeable increase of 154.3 per cent in counterfeit notes detected in the denomination of ₹50.

### Coffee, cow dung and man-animal conflict

**News:** Fluctuating coffee prices, lower demand for cow dung as manure and increasing foreign cattle varieties may be part of the changing local economy, fuelling man-carnivore conflict around Bandipur Tiger Reserve.

#### Findings

- Researchers looked at six primary villages in Gudlupet taluk of Chamarajanagar district, which borders the northern edge of the Bandipur Tiger Reserve. Previous research had shown that 15% of households in the economically-backward area had suffered livestock loss due to leopards and tigers. The average loss was around ₹2,190, a significant amount when considering that a majority of households earn less than ₹5,000 monthly.
- In the 1990s and early 2000s, rising coffee prices had seen many locals earn an income through sale of dung from their indigenous scrub cattle, which are bred in herds and allowed to graze in forests. One sack of dung brought the villagers around ₹40 per sack when sold to coffee planters.
- However, by the late 2000s, coffee prices stagnated, while the cost of labour shot by over three times in the State. Coffee planters interviewed as part of the study said during this time, they shifted to less labour-intensive synthetic fertilizer sprays instead of using cow dung.
- Hit by the decline and with curbs of grazing in forests, the population of scrub cattle declined, while the more-expensive hybrid cattle which yielded better milk was preferred. In Gundlupet, researchers note that between 2003-12, ownership of scrub cattle reduced by 40.6%, while, ownership of hybrid cattle increased by a staggering 85.5%. However,

considering that hybrid cattle was more expensive, villagers had fewer such cattle while the Scheduled Tribe community could not afford this shift.

- The loss of scrub cattle during grazing in forests was tolerated as, the loss of one of these cattle, did not have an economic impact while there was an understanding that carnivores would feed on them in forests. However, hybrid cattle, which can't be allowed to graze in forests and is kept in cow sheds in villages, is expensive. There was a perception that tigers preyed on this cattle in villages, breaking an "unwritten" contract that wild animals should prey on livestock in villages.
- Forest Department compensation, of around ₹10,000, does not cover the cost and livelihood loss of cows. Moreover, with little employment opportunity in the tourism sector, which hires an estimated 0.0002% of the employable population of Chamaraajanagar, these attacks were worsening cultural tolerance towards tigers, says the study.

### India's most polluted: 30% have no clean up plan

**News:** A good number of India's most polluted cities are not too keen to clean up their act, according to a list maintained by the Central Pollution Control Board (CPCB).

#### **Beyond News**

- Of the 102 cities singled out by the Centre for their alarming pollution levels, only 73 have submitted a plan of remedial action to the CPCB. Ahmedabad, Bengaluru, Nagpur and Jaipur are among the prominent cities that are yet to submit their plans.
- These so called '**non-attainment cities**' were among those marked out by the CPCB and asked as part of the **National Clean Air Campaign (NCAP) to implement 42 measures** aimed at mitigating air pollution.
- The directives to take remedial measures were initially issued to Delhi NCR, and subsequently to the State pollution control boards for implementation in other 'non-attainment' cities. The non-attainment cities are those that have fallen short of the **National Ambient Air Quality Standards (NAAQS)** for over five years. Union Environment Minister had said in April that the aim of pollution mitigation measures was to cut overall pollution in these cities by 35% in the next three years.
- Among other plans, the NCAP also envisions setting up 1,000 manual air-quality-monitoring stations (a 45% increase from the present number) and 268 automatic stations (triple the current 84).
- In May, the World Health Organisation (WHO) said that Delhi and Varanasi were among 14 Indian cities that figured in a global list of the 20 most polluted cities in terms of PM 2.5 levels.

### Software to aid during disasters

**News:** The government would soon launch a software **Tamil Nadu System for Multi-hazard Potential Impact Assessment and Emergency Response Planning, Alerting and Tracking (TNSMART)** to consolidate disaster management efforts in cluding preparedness, response, recovery and mitigation.

### Beyond News:

- The software would analyse geography-specific data of the disaster collected along with dynamic data from agencies, such as cyclone or flood prediction in a specific area to give alerts as to which areas need to be focussed on.

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## **General Studies-01**

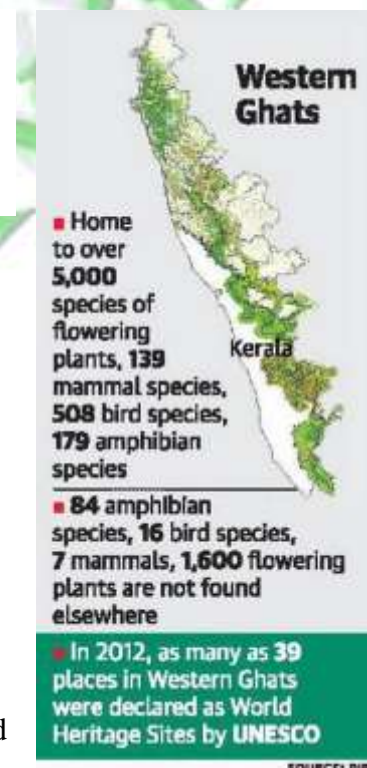
### **Floods imperil Western Ghats ecology**

**News:** The intense rainfall that unleashed widespread devastation throughout Kerala earlier this month could have extracted a **heavy toll on the rich biodiversity and ecology of the Western Ghats region**, according to experts.

### Beyond News

- The government has initiated steps for a rapid assessment of the biodiversity loss, prior to launching remedial measures for ecological restoration.
- The disaster is bound to have left a lasting impact on the ecologically sensitive Western Ghats.
- Everything from mammals to reptiles, amphibians, vegetation and microflora are likely to have been affected. It may take decades for the ecosystem to recover from the shock.
- Floods were likely to trigger a major shift in the diversity of flora, with invasive species taking over from endemic varieties. It could enhance the threat to Rare, Endangered and Threatened (RET) species, leaving them more vulnerable.

The protracted spell of heavy rain is also feared to trigger virulent fungal infections in trees and plants.



The department has joined hands with the Kerala University of Fisheries and Ocean Studies to assess the impact of the rain and floods on the aquatic system.

## **General Studies-02**

### **PM Modi arrives in Nepal to attend BIMSTEC Summit**

**News:** Prime Minister Narendra Modi arrived to attend the 4th BIMSTEC Summit that will **focus on enhancing regional connectivity and boosting trade**.



## Beyond News

- Prime Minister said that his participation in the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) summit in Kathmandu signals India's highest priority to its neighbourhood and a strong commitment to continue deepening ties with the "extended neighbourhood" in South-East Asia.
- Prime Minister will interact with the leaders of Bangladesh, Bhutan, Myanmar, Sri Lanka and Thailand on the margins of the summit whose theme is 'Towards a peaceful, prosperous and sustainable Bay of Bengal region'
- The Summit's theme, will enable the member-countries to shape a collective response to their common aspirations and challenges.
- The BIMSTEC is a regional grouping comprising Bangladesh, India, Myanmar, Sri Lanka, Thailand, Bhutan and Nepal. The grouping accounts for 22 % of the global population.

## Water discharge from China threatens to submerge Arunachal villages

**News:** High discharge of water from China, the highest in 50 years, is threatening to submerge at least 12 villages flanking river Siang in Arunachal Pradesh.

### Beyond News

- Deputy commissioner of Arunachal Pradesh's East Siang district, had issued an advisory warning the people of the 12 villages to be on alert because of the sudden surge in the Siang's water level. The villages are near district headquarters Pasighat, about 560 km northeast of Guwahati.
- Deputy commissioner cited a report received by New Delhi from the Chinese government saying the Yarlung Zangbo (Tsangpo) was swelling with an observed discharge of 9,020 cumec due to heavy rainfall in Tibet.
- But people in the 12 vulnerable villages in Mebo circle of East Siang district are worried. The Siang has already eroded 12 acres in Borguli village while at least 10 families of Seram village nearby have dismantled their houses and **shifted to a safer location.**
- Hydrological experts said the "unusually high" discharge indicates sudden release of water from man-made barriers or a natural dam that was formed due to landslides caused by major earthquakes in the Tibetan region of China in November 2017.
- Beijing later clarified that seepage through the blocked Tsangpo – upstream of Siang, which meets two other rivers to form the Brahmaputra in Assam downstream caused debris to flow down and result in turbidity of the Siang's water.
- A similar alert has been sounded in Assam's Dibrugarh district downstream of Siang. Dibrugarh deputy commissioner asked officials to be prepared for a possible water surge.



## Pentagon official cautions India over buying Russian arms

**News:** A top Pentagon official cautioned India that there are no guarantees for a special waiver from U.S. sanctions if it buys new weapons platforms from Russia.

### **Beyond News**

- Washington is alarmed at the prospect of India, an increasingly important US military ally and the world's top defense importer, buying new systems from Russia, including its S-400 long-range, surface-to-air missile system.
- **Under current US rules against Russia, developing countries could face sanctions if they transact with Russian defence or intelligence sectors.**
- Pentagon's Assistant Secretary of Defence for Asian and Pacific Security Affairs, said the waiver authority had created the impression Washington would insulate India "from any fallout from this legislation no matter what they do."
- The United States has in recent years pushed to forge closer diplomatic and military ties with India, a fellow democracy that it sees as key to countering China's growing regional ambitions.
- India has increasingly turned to the United States and France for arms purchases, but is still reliant on Russian hardware and expertise to maintain its existing arsenal.

## General Studies-03

## NASA set to launch space laser to track Earth's melting ice

**News:** NASA is set to launch the most advanced laser instrument of its kind in to the space next month, to measure the changes in the heights of Earth's polar ice in unprecedented detail.

### **Beyond News**

- **The Ice, Cloud and land Elevation Satellite-2 (ICESat-2)** will measure the average annual elevation change of land ice covering Greenland and Antarctica to within the width of a pencil, capturing 60,000 measurements every second.
- ICESat-2 represents a major technological leap in our ability to measure changes in ice height. Its Advanced Topographic Laser Altimeter System (ATLAS) measures height by timing how long it takes individual light photons to travel from the spacecraft to Earth and back.
- ATLAS will fire 10,000 times each second, sending hundreds of trillions of photons to the ground in six beams of green light. The roundtrip of individual laser photons from ICESat-2 to Earth's surface and back is timed to the billionth of a second to precisely measure elevation.
- As it circles Earth from pole to pole, ICESat-2 will measure ice heights along the same path in the Polar Regions four times a year, providing seasonal and annual monitoring of ice elevation changes. Beyond the poles, ICESat-2 will measure the height of ocean and land surfaces, including forests.

- ATLAS is designed to measure both the tops of trees and the ground below, which combined with existing datasets on forest extent will help researchers estimate the amount of carbon stored in the world's forests. Researchers also will investigate the height data collected on ocean waves, reservoir levels, and urban areas.

### Floating solar panels to be installed on dams

**News:** The Marathwada Statutory Development Corporation has come up with a plan to install solar panels in the backwater of two dams to generate electricity.

#### Beyond News

- Jayakwadi dam in Aurangabad and Ujani dam in Solapur will be the sites of the solar power generation project.
- Jayakwadi dam, built on the Godavari river, is a key source of water to the arid region, while Ujani dam, built on the Bhima river, is the State's largest dam in terms of water storage capacity.
- The corporation has held talks with private companies to find out if they are willing to invest in this project and operate such facilities.
- chairman of MSDC said such projects **would reduce the government's dependence on acquiring land, which is a long-drawn process, for setting up solar power plants.**

### Bees get hooked on harmful pesticide: study

**News:** Bumblebees acquire a taste for food laced with a pesticide known to harm them, according to a study suggesting the chemicals pose an even greater threat to pollinators than previously thought.

#### Findings

- In experiments, researchers showed that bees initially put off by sugar water containing neonicotinoids the most widely-used class of insecticide worldwide soon started seeking them out to the exclusion of untainted food.
- Neonicotinoids, earlier research has shown, disrupt the ability of bees to reproduce and lower their resistance to disease. Neonicotinoids target nerve receptors in insects much in the way nicotine the addictive ingredient in tobacco does in humans and other mammals.
- Unlike contact pesticides, which remain on the plant surface, neonicotinoids are absorbed by seeds and transported to leaves, flowers, roots, and stems as the plant grows.



- Several countries have banned forms of the insecticide, mainly due to its impact on Nature's little helpers.
- In recent years, fears have been growing over the declining health of bees globally, and the possible role of neonicotinoids. Pesticides have been blamed as a cause of colony collapse disorder, along with mites, viruses, and fungi, or some combination. The United Nations warned last year that 40 percent of invertebrate pollinators particularly bees and butterflies risk global extinction.

### **Cabinet clears ₹1,600-crore mission to map coasts**

**News:** India is set to get more disaster warning systems along its coasts. While it already has a tsunami warning system in place, the new systems will keep an eye out for "tsunamis and storm surges," according to an official release.

#### **Beyond News**

- The system is part of a programme called **O-SMART (Ocean Services, Technology, Observations, Resources Modelling and Science)** that is being piloted by the Union earth sciences ministry. It was cleared by the Cabinet Committee on Economic Affairs, at an outlay of ₹1,623 crore.
- O-SMART will provide economic benefits to a number of user communities in the coastal and ocean sectors, namely, fisheries, offshore industry, coastal States, defence, shipping, ports, etc.
- Other key missions under O-SMART include, according to the press release, strengthening of Ocean Observations and Modelling, strengthening of Ocean Services for fishermen, setting up marine observatories for monitoring marine pollution, setting up Ocean Thermal Energy Conversion Plant (OTEC) in Kavaratti, acquiring two coastal research vessels, continuation of ocean survey and exploration of minerals and living resources, technology development for Deep Ocean Mining and manned submersibles and the setting up six desalination plants in Lakshadweep.



**AUGUST 31**

### **General Studies-01**

#### **Women should get equal share of property gained after marriage upon divorce: Law panel**

**News:** There is need **to recognise the role of woman** in a household, and regardless of her financial contribution, she should get an equal part of the property gained after marriage upon divorce, the Law Commission suggested.

## Beyond News

- It said all personal and secular laws should be amended accordingly.
- However, it cautioned that at the same time, this principle did not automatically translate to an ‘absolute’ equal split of property at the end of the relationship, as in a number of cases such a yardstick may bring an “unfair burden” to one of the parties.
- It said all property acquired after marriage of either spouse be treated as a unit between the couple.
- It was often women who compromised on careers in order to support families and they also contributed to a major share of housework that was never calculated in monetary terms, the paper said.
- Society inadequately valued housework, it said, adding that for working women, child-bearing resulted in a career break that affected their employment in a way that it did not affect their husband’s career.
- It said this principle did not mean that inherited property would be included in this division “but its value can be taken in to account by the court for determining maintenance and alimony”.
- The paper suggested that the Hindu Marriage Act, 1955, the Special Marriage Act, 1954, the Parsi Marriage and Divorce Act, 1936 (for Christians) and the Dissolution of Muslim Marriages Act, 1939, be amended to reflect this change.
- The Special Marriage Act is described as a ‘secular law’ as inter-faith marriages are solemnised under it.
- Instead of a full-fledged report for a uniform civil code, the Commission preferred a consultation paper as it had little time at hand to bring out a comprehensive report.

## Trapped heat below Arctic surface could melt entire region’s ice: study

**News:** ‘Archived’ heat trapped below the surface of the Arctic has the potential to melt the entire region’s sea ice, scientists warn.

### Findings

- The study, shows that Arctic sea ice is not just threatened by the melting of ice around its edges.
- Warmer water that originated hundreds of miles away has penetrated deep into the interior of the Arctic, researchers found.
- The upper ocean in the Canadian Basin has seen a two-fold increase in heat content over the past 30 years, the researchers said.
- They traced the source to waters hundreds of miles to the south, where reduced sea ice has left the surface ocean more exposed to summer solar warming. In turn,



Arctic winds are driving the warmer water north, but below the surface waters.

- This means the effects of sea-ice loss are not limited to the ice-free regions themselves, but also lead to increased heat accumulation in the interior of the Arctic Ocean that can have climate effects well beyond the summer season.
- Presently this heat is trapped below the surface layer. Should it be mixed up to the surface, there is enough heat to entirely melt the sea-ice pack that covers this region for most of the year.

## General Studies-02

### For the first time, Census 2021 to collect data on OBCs

**News:** Census 2021 will for the first time collect data on Other Backward Classes (OBC), the Centre said.

#### Beyond News

- The decennial exercise will involve 25 lakh trained enumerators and the use of “maps/georeferencing at the time of house listing is also under consideration.”
- A senior Minister said the decision to count the OBCs in the next Census was **to get a correct perspective on the social status in the country.**
- The 2011 caste data collected as part of Socio Economic Caste Census (SECC) is yet to be released by the Centre. As per the National Commission for Backward Classes, there are 2,479 entries in the Central list of the OBCs.
- The 2011 Census collected information in 29 categories that included a separate column for Scheduled Caste/Scheduled Tribes. A senior Home Ministry official said the OBCs would also be an option in the column in 2021.
- It was emphasised that improvements in design and technological interventions be made so as to ensure that the Census data is finalised within three years after conducting of Census. At present it takes 7 to 8 years to release the complete data, the statement said.
- The enumerators will start “house listing” in 2020 and the headcount will begin from February 2021. It was also informed that nearly 25 lakh enumerators are trained and engaged for the gigantic exercise and accurate collection of data will be ensured in Census 2021.
- Home Minister also emphasised the need for improvement in Civil Registration System, especially on registration of birth and death in remote areas, and strengthening sample registration system for estimating the data namely, infant mortality rate, maternal mortality ratio and fertility rates.
- The Census Organisation was set up on an ad-hoc basis for each Census till the 1951 Census when the Census Act was enacted in 1948 to provide for the scheme of conducting population census with duties and responsibilities of census officers.



- Earlier, the Home Ministry issued notification that the data collected during 2021 Census would be stored electronically, also a first.

## **Root out terror: BIMSTEC**

**News:** Describing terrorism as a “great threat” to international peace and security, India and six other BIMSTEC nations called for identifying and holding accountable states and non-state entities that encourage, support or finance terrorism, provide sanctuaries to terrorists and falsely extol their virtues.

### **Beyond News**

- The BIMSTEC (Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation) is a regional grouping comprising India, Bangladesh, Myanmar, Sri Lanka, Thailand, Bhutan and Nepal.
- The Kathmandu Declaration issued at the end of the two-day fourth BIMSTEC summit, attended by Prime Minister, deplored terror attacks in all parts of the world, including in BIMSTEC countries, and stressed that there could be no justification for any act of terrorism.
- The unanimously adopted declaration said that, the fight against terrorism should target not only terrorists, terror organisations and networks but also identify and hold accountable states and non-state entities that encourage, support or finance terrorism, provide sanctuaries to terrorists and terror groups and falsely extol their virtues.
- The declaration did not name any specific country, but Pakistan is often accused by its neighbours, including India, of providing safe havens to terrorists.
- An MoU was signed on establishment of the BIMSTEC Grid Interconnection. The MoU provides for optimisation of using energy resources in the region and promotion of efficient & secure operation of power system.



## **India invites Pakistan experts to hydroelectric project sites in J&K**

**News:** India has invited Pakistan to visit sites of the Pakal Dul and Lower Kalnal hydroelectric projects on the Chenab.

### **Beyond News**

- India and Pakistan concluded the 115th meeting of the India-Pakistan Permanent Indus Commission (PIC) in Lahore. The Indian delegation was led by the Indian Commissioner for Indus Waters.

- As per the provisions of the Indus Waters Treaty 1960, technical discussions were held on implementation of various hydroelectric projects including Pakal Dul (1000 MW) and Lower Kalnai (48 MW) in Jammu and Kashmir.
- Both the countries agreed to undertake the Treaty-mandated tours of both the Indus Commissioners in the Indus basin on both sides. Deliberations were also held on further strengthening the role of the Permanent Indus Commission for matters under the Treaty.
- Though a routine affair, the talks in Lahore were the first bilateral engagement between India and Pakistan since Prime Minister Imran Khan took office.
- Under the provisions of the Treaty, waters of the eastern rivers Sutlej, Beas and Ravi had been allocated to India and the western rivers the Indus, Jhelum and Chenab to Pakistan, except for certain non-consumptive uses for India.

## General Studies-03

### The Nilgiri tahr climbs population charts

**News:** In a heartening development for conservationists, a recent census has revealed that the population of the **Nilgiri tahr (an endangered mountain goat)** at the **Mukurthi National Park** has grown by an impressive 18% in the last two years, from 480 to 568.

#### Beyond News

- Tamil Nadu Forest Department officials said that a count conducted in 2016 had put the population in the national park at around 480, but a revised count in 2017 pegged it at 438.
- The population estimation exercise, completed in May, was conducted jointly by the Forest Department and the Department of Zoology and Wildlife Biology, Government Arts College.
- Apart from the increase in numbers, the sex ratio, too, was encouraging.
- If that is the good news, the bad news is that the **population also faces several threats**. Researchers point to the continuing spread of invasive species of flora, such as wattle and pine, and exotic weeds like scotch broom (*Cystisus scoparius*) and gorse, which end up diminishing grazing land.
- The rise in the animals' population has led to a few herds migrating out of the national park, into the erstwhile Nilgiris South Forest Division.
- Forest Department was stepping up efforts to remove exotics, with wattle eliminated in over 125 hectares of Shola grasslands.



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