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A. GS1 Related

Category: GEOGRAPHY

1. Maharashtra stares at severe water crisis

What's in the news?

- With the arrival of the monsoon getting delayed, Maharashtra's dams are left with only 6.61% of the total capacity of water.

A Look at Specifics:

- It is important to note that except for the Konkan division, water availability in the remaining five divisions has dropped to single digit.
- Also, the Aurangabad division which covers Marathwada is the worst affected, with only 0.53% of its total capacity.
- According to data from the Water Resources Department, the Amaravati division has 6.38% of its capacity compared to 11.67% in the corresponding period last year (2018).
- In the Nagpur division, the availability is 5.68% as against 11.56% in 2018.
- The Nasik and the Pune divisions are left with 4.98% and 6.2% water respectively compared to 14.98% and 19.61% last year (2018).
- The Konkan region however has 25.41% water in its dams against 34.13% last year.
- Eight out of nine major dam projects in the Aurangabad division are left with no water as of now.
- Correspondingly, the number of tankers deployed across the State has increased to 6,597 — 6,382 privately owned and 215 government owned — from 6,443 in just a week between June 3 to June 10. Last year, in the same week, 1,777 tankers were deployed.
- As per data from the Water Supply and Sanitation department, 5,243 villages and 11,293 hamlets are being supplied water using tankers.

Concluding Remarks:

- In a related move, the State government has decided to finalise the detailed project report for interlinking dams.
- Chief Minister Devendra Fadnavis said the dams would be interconnected with pipelines and a supply network would be created across the region.
- The plan, under consideration for the last few years, will be implemented with the help of the newly formed Jal Shakti Ministry at the Centre. "We are working to develop a Marathwada water grid. Five detailed project reports are ready and work on the final one is on. We are going to connect all dams in Marathwada," the CM said in Aurangabad recently.
- The number of cattle in 1,591 fodder camps across the State is 10,35,438 with the majority being in Beed, Solapur and Ahmednagar.
- Questions have been raised over the extraordinary large number in Beed and Ahmednagar district and an inquiry has been ordered to check whether there are any irregularities.

B. GS2 Related

Category: INTERNATIONAL RELATIONS

1. Bhutan throws up pay wall amid surge of Indian tourists

What's in the news?

- Although for centuries, parents of newborn children in the Thimphu valley have visited the **Changangkha Lhakhang** (temple) that rises above the Bhutanese capital, bringing their babies as young as four or five days old to be blessed by its deity.
- But, a surge of tourist inflows into Bhutan this year (2019) has left parents and pilgrims jostling for space in the temple's small inner sanctum.
- As a matter of fact, the crowds have sparked a major debate across the country that could mean tougher regulations for tourists from the region, especially India.
- A guard outside the temple remarked, "It was suffocating for the mothers who were trying to get blessings for their children". He further went on to add that "They could barely say their prayers and they were very upset".
- On June 7th, 2019, the Tourism Council announced it was shutting the temple to all tourists for the three months, or peak season. The notice, printed on a board outside the temple, says the closure was in the "interest of the safety of the tourists", and was done so as to allow "important religious events" to be conducted inside.

A Note on the Entrance fees being charged:

- When the doors of Changangkha Lhakhang re-open to tourists, they will be charged 300 Ngultrums (₹300) as entrance fees, the government has decided.
- As a matter of fact, other monasteries and temples in the country, known for its deep Buddhist religiosity, are quickly following suit.
- It is important to note that the measures are part of an entire list being compiled by the Tourism Council of Bhutan (TCB) in response to the large numbers of "unregulated" tourists now making a beeline for the Himalayan Kingdom.
- As a matter of fact, this Himalayan Kingdom was once called the "**Last Shangri-La**" for its remoteness and pristine environment.
- For decades, Bhutan's government promoted an exclusive brand of "high value, low volume/ impact" tourism, that brought in only a few tourists willing to pay well for luxury hotel brands, rather than 'backpackers' and tourists looking for a cheap holiday.
- It is important to note that Bhutan charges a \$250 (₹17,500) mandatory cover-charge per day for all tourists except those from India, Bangladesh and the Maldives.

- Indians, especially those driving in directly from West Bengal through the border town of Phuentsholing, don't need visas to Bhutan and account for most of the **“unregulated”**
- In 2017, these tourists made up more than 2,00,000 of the approximately 2,70,000 tourist arrivals, a surge that the government says the country is unprepared for.

Fears of friction:

- “Indian visitors are very welcome in Bhutan, but if our infrastructure is not able to cater to them, or if our tourism industry is unable to entertain the guests well then that is not good for them either. We wouldn't want such a situation to impinge upon the Indo-Bhutan relationship,” Bhutan's Prime Minister Dr. Lotay Tshering is reported to have said.
- “The increasing numbers of tourist arrivals are to our advantage economically, but our biggest worry is that there should be no friction between our visitors and our Bhutanese people,” Dr. Tshering had further added.
- Making the crisis more acute is the fact that more than a 100 new hotels that cater to budget tourists are coming up in the main tourist towns of Paro, Thimphu and Bumthang, and most are being built with loans from banks that won't be repaid unless the number of tourists steadily increases.
- According to Garab Dorji, the Chairman of the Guides Association of Bhutan, a tour guide himself, **this is leading to many hotels undercutting each other in a bid to raise occupancy levels, dropping rates to as low as ₹1,000 a night.**
- **Officials say the hotel construction boom could also cause a housing crunch for residents and add to water shortages.**

Tourists being indifferent to culture:

- “The tourists they attract unfortunately, are not interested in preserving Bhutan's culture or environment,” says Mr. Dorji, who describes arguments with **tourists who refuse to follow Bhutan's strict dress code in Dzongs (forts) and Lhakhangs, play loud music, and leave litter in public areas.**
- According to Mr. Dorji and other tourism industry insiders, **the problems with the regional tourists are now driving away the dollar-paying high-end European, Japanese and even Indian tourist groups, who seek a less crowded experience.**
- “I know at least one very famous international travel agency that has announced it will not bring tours to Bhutan after 2020 because of the mass tourism,” he said.

Concluding Remarks:

- As a result, the government is looking at a series of measures to balance the increasing numbers of tourists with regulations to control their behaviour.
- Tourists from India (and Bangladesh and the Maldives) could be asked to pay a “Sustainable Development Fee” of ₹500 on arrival.
- Contrary to many other countries seeking to attract more and more tourists, the Tourism Council of Bhutan (TCB) is also scaling down its targets from a plan for 5,00,000 tourists in 2023, to less than 4,00,000, reported local paper The Bhutanese, as part of efforts to tackle Bhutan’s problem of plenty.

2. Targeting tankers in the Gulf

Editorial Analysis:

- The recent attack on two oil tankers in the Gulf of Oman, which connects the Arabian Sea with the Strait of Hormuz, has raised tensions between the U.S. and Iran.
- As a matter of fact, within hours of Thursday’s (13th, June 2019) attack, the U.S. blamed Iran.
- The U.S. Central Command also released a video footage that Washington claimed showed men on an Iranian boat removing a mine from one of the tankers.

Why is Strait of Hormuz important?

- The Gulf lies between Iran and the Arabian Peninsula.
- Besides Iran and Saudi Arabia, Oman, the UAE, Qatar, Bahrain, Kuwait and Iraq also share the Gulf coastline.
- As all these countries are energy-rich. Further, the Gulf has naturally emerged as a major trade route.
- The Strait of Hormuz is also a choke-point between the Gulf and the open ocean.
- With Iran on its northern coast and the UAE and an Omani enclave on the south, the Strait, at its narrowest point, has a width of 34 km.
- A third of crude oil exports transported via ships pass through the Strait, which makes it the world’s most important oil artery.

A Note on the last ‘Tanker War’:

- In the 1980s, when Iran and Iraq were locked in a protracted conflict, both sides targeted each other’s energy vessels in the Gulf and on the Strait of Hormuz.
- Iraq started the ‘Tanker War’ by targeting ships carrying Iranian fuel in 1981.
- Three years later, Iran started attacking vessels carrying Iraqi fuel, turning the Gulf waters into a war zone.
- According to a report by the U.S. Naval Institute, in total, 340 ships were attacked

and more than 30 million tonnes of shipping damaged between 1981 and 1987.

- This also caused over 400 seaman deaths.
- Among the ships severely damaged was the USS Samuel B. Roberts of the U.S. Navy.

What's next?

- Experts opine that with ships again coming under attack in the Gulf region, memories of the 'Tanker War' are being revived.
- If Iran is actually behind the recent attacks, it may be playing a risky game, demonstrating what it can do in the event of a war.
- If Tehran is not behind the attacks, some other powers are using the Gulf trade lanes to stoke further tensions.
- Either way, the weaponisation of the Strait of Hormuz is a dangerous game.
- In the 1980s, the 'Tanker War' was largely a war of economic attrition.
- Also, the conflict was between Iran and Iraq, two relatively similar powers. This time, there are other risks. Given the existing tensions, more attacks on shipping vessels could trigger an all-out war.
- Further, this time, the conflict is between the U.S. and Iran. The scope of a direct war will be much bigger than what it was in the 1980s.

3. 'Maldives should not try balancing ties with India and China'

What's in the news?

- According to Mohamed Nasheed, Speaker and former President, the Maldives should not try to balance relations with India and China.

Remarks made by former President Mohamed Nasheed:

- "In my personal view, the Maldives shouldn't even try to do that. Those who think it is possible to balance ties with these two powers are being naïve."
- "This is not to say we should be hostile with China," Mr. Nasheed said. "We will be happy to maintain cultural ties with China. But we can't afford to have defence cooperation. Development or economic partnership too will be hard if China doesn't change its modus operandi."
- A vocal critic of China-backed development initiatives during the previous Yameen administration, **Nasheed has in the past sought an audit of the ongoing projects in the Maldives.**
- His comments come a week after Prime Minister Narendra Modi visited the island nation, on his first visit abroad after being re-elected to office.
- Describing Mr. Modi's recent visit "very productive and positive", Mr. Nasheed said it

showed **“that India really values the relationship”**.

‘Solidarity visit’:

- Maldivian Vice-President Faisal Naseem, Mr. Nasheed, some Ministers and about 65 parliamentarians are on a “solidarity visit” to Sri Lanka, nearly two months after the Easter terror attacks. T
- he leaders called on Prime Minister Ranil Wickremesinghe and Speaker Karu Jayasuriya among others.
- In a “symbolic gesture”, the contingent flew Sri Lankan airlines, the state carrier, and all members of the visiting team are staying at Hotel Cinnamon Grand, one of the three hotels that were bombed on April 21st, 2019.
- Describing terror as the “single biggest issue” facing nation states, Mr. Nasheed sought collective action in the region in combating the threat.
- Asked about the government’s initiatives to tackle extremism, amid reports of dozens of Maldivians joining jihadist wars abroad, he said: **“We know who they are, and where they are. The government and security forces have a good grip on the situation.”**
- Observing that a few in the Maldives were drawn to a radical version of Islam, he said: **“President Solih has been able to engage with religious-minded people on this issue.”**

4. Iran seeks ‘positive signals’ on n-deal

What’s in the news?

- Iran will continue scaling back compliance with a nuclear deal unless other signatories to the pact show “positive signals”, the Iranian President recently said.
- Iran stopped complying in May, 2019 with some commitments in the 2015 nuclear deal that was agreed with global powers, after the U.S. unilaterally withdrew from the accord in 2018 and ratcheted up sanctions on Tehran.
- “Obviously, Iran cannot stick to this agreement unilaterally,” President Hassan Rouhani told Russian, Chinese and other Asian leaders at a conference in Tajikistan.
- “It is necessary that all the sides of this agreement contribute to restoring it,” he said, adding that Iran needed to see “positive signals” from other signatories to the pact, which include Russia, China, Britain, France and Germany.

Position taken by Russia:

- Russian President Vladimir Putin said that Moscow would adhere to the agreement and urged other signatories to follow suit.

- “We believe that the only sensible decision is for all deal participants to honour commitments,” Mr. Putin told the conference.
- France and other European signatories to the nuclear deal have said they wanted to save the accord, but many of their companies have cancelled deals with Tehran, under pressure from the U.S.

5. U.S. allows Iraq to import Iranian gas

What's in the news?

- The U.S. has allowed Iraq to import Iranian gas for its power grid for another three months by extending a waiver to sanctions. However, the U.S. insists that they seek alternative sources.
- Iraq has had several extensions to the waiver first granted last year (2018) after Washington reimposed sanctions on Tehran's oil sector forbidding countries from purchasing Iranian energy.
- “An additional 120-day waiver was granted to allow Iraq to continue to pay for electricity imports from Iran,” the U.S. State Department said in an emailed statement.
- An Iraqi government source said the extension was given during a phone call between Prime Minister Adel Abdul Mahdi and U.S. Secretary of State Mike Pompeo.
- It is important to note that Iraq relies heavily on Iranian gas to feed several power stations, importing roughly 1.5 billion standard cubic feet per day via pipelines in the south and east.

Category: POLITY AND GOVERNANCE

1. Doctors stir: Home Ministry sends advisory to West Bengal

What's in the news?

- As the stand-off between the West Bengal government and the junior doctors of the State-run hospitals continued for the sixth consecutive day on the 15th of June, 2019 (Saturday), **the Union Home Ministry sought an urgent report from the State government on the strike and issued an advisory on the issue.**
- The Union Home Ministry has sought a report from the West Bengal government **on growing incidents of political violence in the State and issued an advisory that the “unabated violence” over the years was a matter of**

deep concern.

What did the advisory say?

- “This Ministry is in receipt of a number of representations from doctors and medical associations from different parts of country for their security in view of the ongoing strike by doctors in West Bengal. It is requested that a detailed report be sent urgently on the ongoing strike by the doctors,” the advisory said.
- It is important to note that although Chief Minister Mamata Banerjee claimed her government had accepted “all demands of the protesting doctors”, the protesting junior doctors persisted with their demand that the Chief Minister visit the Nil Ratan Sircar Medical College and Hospital (NRSMCH).

Note on recent developments:

- Healthcare services in Delhi as well remained partially hit for the second consecutive day on 15th June, 2019 (Saturday) with many government and private hospitals, along with clinics and nursing homes, joining the protest in solidarity with their counterparts in Kolkata.
- The Indian Medical Association (IMA) stated that **violence against doctors is unacceptable and needs to be condemned**. “The medical fraternity is very disturbed and concerned about the rising incidents of physical violence and assault on doctors and their staff,” it stated.
- Former IMA chief K.K. Aggarwal is reported to have said that **“The Centre had constituted an Inter-Ministerial Committee, which had promised to enact a central Act for violence against doctors. But, sadly, this is yet to see the light of day. It is time for the medical fraternity to unite and stand firm till the government brings in a Bill to curb violence against doctors, in the coming Parliament session.”**
- The Union Home Ministry, which issued a similar advisory a week ago on the deteriorating law and order situation, said that **the political violence in the State had claimed the lives of 160 persons in the past four years**.
- The ruling Trinamool in the State has been engaged in a tense political stand-off with the Centre and the Bharatiya Janta Party (BJP), which has emerged as its principal political rival in West Bengal.
- The Ministry said it had received reports that the number of incidents of political violence in West Bengal had increased from 509 in 2016 to 1,035 in 2018. “As many as 773 incidents have already occurred in 2019 till date,” an official said on condition of anonymity.
- “Correspondingly, the death toll rose from 36 in 2016 to 96 in 2018, while 26 deaths have already taken place in 2019 till date,” the official added.

Note on 'Failure of State':

- In its advisory, the Ministry said, "... the continued trend of political violence from 2016 through 2019, as evident from the above figures, is **indicative of the failure on the part of the law enforcement machinery of the State to maintain the rule of law and to inspire a sense of security among the people. Government of India is seriously concerned over the prevalent situation in West Bengal.**"
- The methodology for collating the report on political violence in the State was, however, not shared by the Ministry. It was also not known if such data was maintained for other States.
- "It is requested that a report may be sent to this Ministry on the steps taken by the State government and its law enforcement machinery to investigate the incidents of violence to bring the culprits to book as also the measures taken to contain and curb violence," the Ministry added in the advisory.

2. Hong Kong suspends extradition Bill

What's in the news?

- Hong Kong leader Carrie Lam on 15th June, 2019 (Saturday) indefinitely delayed a proposed law that would have allowed extraditions to mainland China.
- This development is in dramatic retreat after anger over the Bill triggered the city's biggest and most violent street protests in decades.
- **The Bill, which would have covered Hong Kong's 7 million residents as well as foreign and Chinese nationals there, was seen by many as a threat to the rule of law in the former British colony.**
- Around a million people marched through Hong Kong recently to oppose the Bill, according to organisers of the protest.

What did Hong Kong leader Carrie Lam declare?

- "After repeated internal deliberations over the last two days, I announce that the government has decided to suspend the legislative amendment exercise, restart our communication with all sectors of society, do more explanation work and listen to different views of society," Ms. Lam said.

What did the Chinese Government Say?

- China's government said on 15th June, 2019 (Saturday) that it supported the decision of Hong Kong's leader to suspend an unpopular Bill that would allow extraditions to

China and which sparked a week of protests.

- Chinese Foreign Ministry spokesman Geng Shuang called the decision an attempt to “listen more widely to the views of the community and restore calm to the community as soon as possible”.
- “We support, respect and understand this decision,” Geng Shuang said in a statement, hours after Hong Kong Chief Executive Carrie Lam announced the Bill’s suspension.

United in opposition:

- It is important to note that opposition to the Beijing-backed Bill united an unusually wide cross-section of Hong Kong. Critics feared that the proposed law would subject people to China’s notoriously opaque and politicised courts and it was seen as the latest move by Beijing to weaken freedoms promised to the former British colony when it was handed back over to China in 1997.
- “The rights and freedoms enjoyed by Hong Kong residents are fully protected in accordance with the law. The facts are obvious to all,” the Chinese Foreign Ministry statement said.
- “Maintaining Hong Kong’s prosperity and stability is not only in the interests of China, but also in the interests of all countries in the world.”
- A separate statement by the Chinese central government agency that handles Hong Kong-related affairs said **the extradition Bill was “necessary and justified” to plug what it called loopholes in current laws.**
- It said China continues to support the extradition Bill and “pays close attention” to public opposition to the legislation.
- The extradition Bill deliberations started in February, 2019 and Ms. Lam had pushed to have it passed by July, 2019.
- However, the protests changed the equation. Cracks began to appear on Friday (14th June, 2019) in the support base for the Bill with several pro-Beijing politicians and a senior adviser to Ms. Lam saying discussion of the Bill should be postponed for the time being.

Concluding Remarks:

- The U.S. consulate in Hong Kong welcomed the move and urged “great care and taking into account the views of the local and international community should the Hong Kong government pursue any amendments to its extradition laws, particularly as they relate to mainland China”.

3. CM pitches for statehood at NITI Aayog meeting

- Delhi Chief Minister Arvind Kejriwal raised the pitch for full statehood to Delhi at a meeting of NITI Aayog.
- He also **sought the Centre's cooperation for natural storage of water in the Yamuna floodplains apart from seeking a bigger share in central taxes, said sources in the government.**

What did the Delhi Chief Minister say?

- Kejriwal reportedly said that the **“Delhi government wants the Centre's cooperation in its mega project for natural storage of water”**.
- He also submitted studies, including one from IIT-Delhi, which showed that natural storage during a single monsoon would be sufficient to end water shortage in Delhi for two years.
- **“The Chief Minister also said that Delhi should be given full statehood, which he said had been promised for decades but denied by successive Central governments. He also submitted that Delhi does not get its fair share in central taxes,”** a source said. The CM is reported to have said that States get 42% share in central taxes whereas Delhi gets **“a paltry ₹325 crore”**.

4. Kumaraswamy meets Modi, seeks funds for drought relief

What's in the news?

- Karnataka Chief Minister H.D. Kumaraswamy called on Prime Minister Narendra Modi and sought Central assistance for the State to combat the severe drought **following a 45% deficit in rainfall.**
- During kharif 2018–19, 100 taluks were declared drought-affected. **The estimated loss owing to kharif drought was about ₹16,660 crore.**
- Further, **a memorandum seeking financial assistance of ₹2,434 crore from the National Disaster Response Fund was submitted to the Centre.** However, only ₹949 crore was released from the NDRF for drought relief in 72 severely affected taluks.
- During rabi 2018–19, 156 taluks were declared as drought-affected. The estimated loss during rabi to agricultural and horticultural crops was ₹11,384 crore. Financial assistance of ₹2,064 crore under the NDRF had been sought for crop loss in the rabi season.
- Kumaraswamy said the **input subsidy amount had been directly credited to**

the bank accounts of farmers through Aadhaar-enabled payment service.

- He also called upon Union Finance Minister Nirmala Sitharaman and other Union Ministers and sought their support for the State.
- **Kumaraswamy and four Congress Chief Ministers also met the former Prime Minister Manmohan Singh to discuss issues of their respective States.**

C. GS3 Related

Category: INDIAN ECONOMY

1. Want to make India a \$5 trillion economy by 2024, says PM

What's in the news?

- Prime Minister Narendra Modi told the Chief Ministers gathered for the NITI Aayog's fifth Governing Council meeting recently that **each state must aim to at least double its economy if the country is to achieve the target of a \$5 trillion economy by 2024.**
- Responding to concerns from the States, he announced the setting up of a high-level task force on structural reforms in the farm sector, as well as a potential revision of disaster relief fund norms.
- He went on to add that "The goal to make India a \$5 trillion economy by 2024 is challenging, but can surely be achieved."
- For this, the States should recognise their core competence and aim to increase their economy by 2 to 2.5 times, working towards raising GDP targets right from the district level, he said.
- He added that the common man's purchasing power would increase as a result. He also **urged the States to focus on their potential to grow exports.**
- The meeting was attended by the Chief Ministers of all States barring four — Punjab, Himachal Pradesh and West Bengal, Telangana, according to NITI Aayog Vice-Chairman Rajiv Kumar.
- To transform the agri-economy, Mr. Modi said the high-powered committee for agriculture reforms "would include some Chief Ministers and take a holistic approach to the subject."

Remarks Made by NITI Aayog Vice-Chairman Rajiv Kumar:

- Speaking to journalists after the meeting, Mr. Kumar said **the reforms would cover logistics and supply chains, produce marketing, food processing and value addition, and are likely to involve changes to the Essential Commodities Act, 1955 and the Agriculture Produce Marketing Act.**
- Kumar also mentioned Uttar Pradesh and Haryana as two of the States who wanted changes to allow more freedom in the movement of agricultural goods. The task force's members, mandate and timeline would be detailed in a few days, he said, adding that its report would be expected in two to three months.
- Drought relief and rainwater harvesting were top agenda items at the meeting, and a number of States raised concerns about disaster management norms.
- Kumar went on to mention that **“with large parts of the country reeling under drought and the summer monsoon forecast less than 100%, it was decided to review and revise the guidelines for National and State disaster response funds in consultation with the ministries of Home Affairs and Agriculture.”**

Perspective on Left wing extremism:

- The Prime Minister emphasised that the battle against left wing extremism (LWE), now in a “decisive phase” was being fought on two levels: firmly dealing with the violence, even as development proceeds in a fast-paced and balanced manner in the aspirational districts.
- Lastly, “The geographical area of influence of LWE has shrunk and the number of perpetrators of violence has declined significantly,” said the statement, adding that Mr. Modi promised the Centre would continue to provide assistance to the states in order to completely eradicate this issue over the next ten years.

Category: ENVIRONMENT AND ECOLOGY

1. Eastern Himalayas, a treasure trove of Balsams, yields 20 new species

Analysis:

- There are about 230 species of **Balsams** found in India and majority of them are found in the eastern Himalayas and Western Ghats.
- These species need proper conservation initiatives as they are highly vulnerable, especially to climate change.
- They are mostly found in stream margins, moist roadsides, near waterfalls and wet forests.

A Closer Perspective:

- It is important to note that between 2010 and 2019, botanists and taxonomists working on Impatiens — which is a group of plants commonly known as Balsams or jewel-weeds — discovered 23 new species from the eastern Himalayas.
- **Consisting of both annual and perennial herbs, balsams are succulent plants with high endemism.** Because of their bright beautiful flowers, these group of plants are of prized horticultural significance.

Recently published book by the Botanical Survey of India:

- The details of the new species, including several new records, have been highlighted in the book, recently published by the **Botanical Survey of India**.
- Authored by Rajib Gogoi and Souravjyoti Borah and other BSI scientists, the book presents 83 species, one variety, one naturalised species and two cultivated species of Balsams.
- Running over 200 pages, the publication provides a pictorial guide which can help ordinary people identify these group of plants.
- Of the 83 species described, 45 are from Arunachal Pradesh, 24 from Sikkim and 16 species common to both states.
- Gogoi, who heads the Sikkim Himalayan Regional Centre of BSI and is behind most of these discoveries, said that **the study on Impatiens was started by botanists like A. P. de Candolle William Roxburgh in the early 19th century.** Later, one of the most renowned botanists of all times, **J.D. Hooker, worked on Indian and southeast Asian Impatiens from 1901-1911.**

Overcoming challenges:

- It is also interesting to know how these scientists overcame difficulties in identifying these beautiful groups of plants.
- It is important to note that prior to 2010, specimens of Impatiens that had potential of being identified as new species would be collected but the dried up specimens looked identical to the species discovered earlier and their effort yielded no results.
- Other than high endemism, what sets Impatiens apart is their sensitivity to climate change.

Few observations made by Mr. Gogoi:

- “After a few failed attempts, we understood where the problem lay and decided that the plants should be dissected in the field before being taken to the herbarium,” Mr. Gogoi said.
- “Most of the species of Impatiens cannot endure persistent drought or extended exposure to direct sunlight. As a result Impatiens species are typically confined to

stream margins, moist roadsides, waterside boulders, near waterfalls and wet forests,” Mr. Borah said.

- Scientists and botanists behind the publication said the discovery of these new species was not enough. **“What is required is further research to create different hybrids with an adaptability to thrive in hot climate”**, Gogoi said.

Category: SCIENCE AND TECHNOLOGY

1. Novel selenium-graphene catalyst for fuel cells

What's in the news?

- It is important to note that modern energy technology, for example fuel cells which are used commercially in hydrogen fuel-based cars, require good catalysts that are efficient as well as cost-effective.
- Now, a multi-institutional team from India has developed a selenium-graphene-based catalyst which is more efficient, costs less and also remains stable for longer than the usual platinum based catalysts.
- The institutes involved in the work are:
 1. Tata Institute of Fundamental Research, Hyderabad (TIFR-H),
 2. University of Hyderabad and
 3. Indian Institute of Science Education and Research (IISER) Thiruvananthapuram.

The research has been published in the journal ACS: Applied Energy Materials.

- Normally, fuel cells use expensive platinum-like elements.
- These expensive metal-based technologies perform excellently for initial few cycles, but then get degraded in performance due to many reasons.
- As a result, there is a need to change this part of the fuel cell routinely.
- The oxygen reduction reaction is a key step in the functioning of the fuel cell.
- Graphene by itself is a “poor” catalyst of this reaction. In the sense that it involves reduction of oxygen in two steps, each of which consume two electrons. This is not very useful either for fuel cells or metal-air batteries.
- Platinum is often used to catalyse this reaction. As a substitute, the group developed the catalyst with selenium and graphene.
- **Graphene modified with selenium atoms in very low amounts can perform like platinum in a demonstrated reaction.**
- As a matter of fact, **while neither selenium nor graphene can do the trick by themselves, the combination works efficiently.**

- When you do the right chemistry together with small amount of selenium with high amount of carbon containing graphene, you end up with a very useful catalyst, which is very cheap too.

Poisoning-resistant:

- Methanol fuel cells, a common form of fuel cell used, suffer from a “poisoning” effect.
- This is a part of the process where the methanol reaches the negative electrode and coats it, so that the electrode becomes ineffective after some cycles.
- This is especially problematic when expensive catalysts like platinum are used, as they often are. The scientists found that the catalyst they have developed has a high tolerance [to poisoning] while platinum got affected.
- The concept of single-atom catalyst – that category into which this catalyst falls – is not new. But earlier concepts had used heavy metals such as platinum, palladium and gold. Using selenium is a novel idea mooted by this group.
- Such direct water converting oxygen reduction reaction catalyst has enormous applications in other fields too, such as metal-air battery.
- It is ongoing research for the development of high energy density devices in batteries. This will be far better than the existing lithium ion-based battery.

D. GS4 Related

Nothing here for today!!!

E. Editorials

Category: POLITY AND GOVERNANCE

1. Why does Assam need more Foreigners Tribunals?

What's in the news?

- Foreigners Tribunals, unique to Assam, are in the news as the final list of the National Register of Citizens (NRC) is to be published by July 31, 2019 on the directions of the Supreme Court.
- The Registrar General & Census Commissioner, India, under the Union Home Ministry, published the final draft list of the NRC on July 30, 2018 to segregate Indian citizens living in Assam from those who had illegally entered the State from

Bangladesh after March 25, 1971.

- Nearly 40 lakh people were excluded from the final draft.
- In the course of the year, 36 lakh people filed claims against the exclusion; the remaining four lakh did not apply.
- To give a proper hearing to those excluded from the final list and to handle the influx of applications, the Ministry of Home Affairs sanctioned 1,000 additional tribunals.
- Of these, 400 will come up in the next one month before the final publication of the list.

How many tribunals are there?

- Assam at present has 100 Foreigners Tribunals across the State.
- According to the State's Home Department, there were initially 11 Illegal Migrants (Determination) Tribunals (IMDT).
- These were converted to tribunals after the Supreme Court scrapped the Illegal Migrants (Determination by Tribunals) Act, 1983 in 2005. The State government established another 21 tribunals that year.
- Four more were added in 2009 and the remaining 64 were established in 2014 for disposal of cases that were piling up in the tribunals.

Who runs the tribunals?

- Each tribunal is like a quasi-judicial set-up.
- It's headed by a member appointed under the Foreigners Tribunal Act, 1941 and Foreigners (Tribunal) Order, 1984 as in the guidelines issued by the government from time to time.
- It is important to note that a member can be a retired judicial officer of the Assam Judicial Service, a retired civil servant not below the rank of Secretary and Additional Secretary with judicial experience, or a practising advocate not below the age of 35 years and with at least seven years of practice.
- The member is also required to have a fair knowledge of the official languages of Assam (Assamese, Bengali, Bodo and English) and the State's historical background giving rise to the foreigners' issue.
- An advertisement by the Gauhati High Court on June 10, 2019 for preparing a panel of 221 tribunal members says the appointment of each member for a year may be extended on "need basis" subject to their attainment of 67 years.
- A retired judge or civil servant appointed as a tribunal member is entitled to a pay package similar to what he or she drew at the time of superannuation besides allowances; the current salary for an advocate is ₹85,000 per month plus allowances.

The Year 2005: a watershed year?

- Cases of suspected foreigners used to be handled by the IMDTs under the IMDT Act

that the Indira Gandhi government passed in 1983 during the peak of the Assam agitation seeking ejection of people staying illegally in the State.

- The system changed after the Supreme Court struck down the IMDT Act in July 2005 after hearing a petition by the present Assam Chief Minister Sarbananda Sonowal, who was an Asom Gana Parishad leader then.
- The IMDT Act — applicable only in Assam while the detection of foreigners was done under the Foreigners Act, 1946 elsewhere in India — was said to provide special protection against undue harassment to the ‘minorities’ affected by the Assam Agitation.
- The burden of proving citizenship or otherwise under the IMDT Act rested on the accuser living within a 3 km radius of the accused and the police, and not on the accused as required by the Foreigners Act.
- **It is important to note that the Supreme Court, while scrapping the IMDT Act in 2005, echoed the indigenous organisations and the Assam government’s observation that the Act “has created the biggest hurdle and is the main impediment or barrier in the identification and deportation of illegal migrants”.**

Note on how do the tribunals work?

- The Assam Police Border Organisation, a wing of the State police tasked with detecting foreigners, readies the cases for the tribunals to decide who is a foreigner and who is not.
- The government allegedly gives the border police a monthly target to detect people of suspect citizenship and these cases are referred to the tribunals.
- Several judgments have been contested with Gautam Soren, a tribunal member in central Assam’s Morigaon district observing in August 2017 that foreigners’ cases “have assumed the form of industry as each and every person involved” have been “trying to mint money by any means”.
- The Morigaon tribunal also noted that the “unfair practices involved turn Indians into foreigners and foreigners into Indians on the basis of fake or duplicate documents.”
- Recently, the All Assam Minority Students’ Union said the border police and tribunals were “foreigner-making factories” and “officials have orders to harass the religious and linguistic minorities”.

What is the amended Foreigners (Tribunals) Amendment Order, 2019 that has replaced the 1964 one?

- The Ministry of Home Affairs amended the Foreigners (Tribunals) Order, 1964 which empowers district magistrates in all States and Union Territories to set up tribunals. Earlier, such powers to constitute tribunals was vested with the Central government alone.

- The Ministry clarified that the amendment laid down the modalities for the tribunals in case of appeals made by persons not satisfied with the outcome of claims and objections filed against the NRC.
- The Ministry said the amendment also provides for reference by district magistrates to the tribunal for its opinion as to whether the appellant is a “foreigner” or not.
- “Since the Foreigners Tribunals have been established only in Assam and in no other State of the country, this amendment is going to be relevant only to Assam at present,” the Ministry has said.
- The amended order also empowers individuals to approach the tribunals. Earlier, only the State administration could move the tribunal against an illegal foreigner. It also says that the final order of the tribunal shall be given within a period of “one hundred and twenty days (four months from the date of production of the records”.

Category: INTERNATIONAL RELATIONS

1. Protests in Hong Kong

What's in the news?

- An extradition bill Hong Kong authorities had proposed triggered one of the largest protests in the city's history, escalating tensions between its pro-Beijing ruling elite and a defiant civil society.
- Recently, hundreds of thousands of people assembled at the city's legislative council where lawmakers were supposed to debate the bill, leading to violent clashes between protesters and security personnel.
- Police fired tear gas and rubber bullets to disperse the crowd, which threw bricks and other objects in return.
- Following the unrest, lawmakers delayed the discussion, finally suspending the bill indefinitely.

Editorial Analysis:

What is the extradition bill?

- Hong Kong has seen several protests since it was handed over to China by the British colonialists in 1997.
- In 2003, then Chief Executive Tung Chee-hwa's attempt to pass stringent security legislation, which Beijing had pushed for, was successfully resisted by tens of thousands of protesters.
- In 2014, the city saw weeks-long protests against proposed changes in the electoral system, which came to be known as the **Umbrella Movement**.

- In the latest protest, the trigger has been the extradition bill which, if passed, would have allowed the city government to extradite any suspect to places with which Hong Kong does not have extradition accords.
- When Hong Kong's extradition agreements were finalised, mainland China and Taiwan were left out because those regions had fundamentally different criminal justice systems from that of the city.
- **This “loophole”, according to the Hong Kong government, allows suspected criminals to avoid trial elsewhere by taking refuge in the city.**
- Hong Kong's current leader, Chief Executive Carrie Lam has said the bill would close the loophole so that suspects wanted elsewhere, including in mainland China, could be extradited.
- To argue that the law is urgently required, she cited the case of a Hong Kong man who is facing charges in Taiwan for murdering his girlfriend. The extradition plan applies to 37 crimes, including murder, sexual offences, abduction, drug peddling and corruption, with retroactive effect.
- The Chief Executive can decide on extradition requests on a case-by-case basis which would then be reviewed by the city's courts.

Why is there opposition to the bill?

- Civil society groups and Hong Kong's pro-democracy activists say the bill will allow mainland China to deepen its influence in Hong Kong.
- The relationship between China and Hong Kong is anything but smooth.
- When Hong Kong was handed over to China in 1997 by Britain, both sides agreed that the city would remain a semi autonomous region under the Basic Law, its mini-Constitution, for 50 years.

What does the Basic Law Provide?

- The Basic Law provides people in Hong Kong more political freedoms than their counterparts in mainland China.
- There is a relatively free press, an unregulated Internet and a less-controlled judiciary in Hong Kong. Also, mainland authorities are not allowed to operate directly in Hong Kong.
- But Beijing has increasingly tried to exert its influence on the city in recent years, raising concerns of the city's pro-democracy groups which are largely Beijing-sceptics.
- **There have been instances of China critics being abducted from Hong Kong with the city government doing nothing to resist such actions.**
- Furthermore, the Hong Kong government itself has shown growing authoritarian tendencies in recent years.
- There have been instances of lawmakers being disqualified, activists banned from running for office, a political party prohibited and a foreign journalist expelled.

- So civil society groups are fighting two odds — growing instances of Beijing’s meddling in Hong Kong’s affairs and rising authoritarian traits of the city’s rulers.
- They say the bill is another blow against the rights those in Hong Kong currently enjoy, noting that it would empower the city government to send critics of Beijing to the mainland where the criminal justice system is tightly controlled by the establishment.
- It will practically break the existing legal barriers between Hong Kong and mainland China that are guaranteed under the “One Country Two Systems” model, say the protesters.

What is next?

- Lam had initially said she would not back off despite the protests.
- Evidently, she had the backing of Beijing as well.
- Two members of the Politburo Standing Committee of the Communist Party of China had publicly endorsed the bill, unlike in the past when Communist Party officials restrained themselves from commenting on the city’s internal matters.
- But the protests, in which at least a million people, or one in seven residents of the city, participated, seem to have shaken the local government.
- After the recent protests, there were calls for Ms. Lam to step down with critics slamming her for the heavy force used against the protesters.
- The protesters even called for a fresh sit-in if the government did not withdraw the bill.
- **Amid rising pressure, Ms. Lam said that she was suspending the Bill indefinitely, handing a major victory to the protesters. While the government’s U-turn could calm tensions for now, the crisis has exposed, once again, the growing distrust between the city’s pro-Beijing authorities and its civil society.**

F. Tidbits

Nothing here for today!!!

G. Prelims Facts

Nothing here for today!!!

H. UPSC Prelims Practise Questions

Q1. Consider the following statements:

1. Strait of Hormuz is a choke-point between the Gulf and the open ocean. With Iran on its northern coast and the UAE and an Omani enclave on the south, the Strait, at its narrowest point, has a width of 34 km.
2. A third of crude oil exports transported via ships pass through the Strait, which makes it the world's most important oil artery.

Which of the given statement/s is/are correct?

- a) 1 Only
- b) 2 Only
- c) Both 1 and 2
- d) Neither 1 nor 2

[su_dropcap]See[/su_dropcap][su_spoiler title="Answer"]

Answer: c

Explanation:

- Strait of Hormuz is a choke-point between the Gulf and the open ocean. With Iran on its northern coast and the UAE and an Omani enclave on the south, the Strait, at its narrowest point, has a width of 34 km.
- A third of crude oil exports transported via ships pass through the Strait, which makes it the world's most important oil artery.[/su_spoiler]

Q2. Consider the following statements, regarding "Balsams":

1. Consisting of both annual and perennial herbs, balsams are succulent plants with high endemism.
2. Because of their bright beautiful flowers, these groups of plants are of prized horticultural significance.

Which among the above statements is/are incorrect?

- a) 1 Only
- b) 2 Only
- c) Both 1 and 2
- d) Neither 1 nor 2

[su_dropcap]See[/su_dropcap][su_spoiler title="Answer"]

Answer: d

Explanation:

Consisting of both annual and perennial herbs, balsams are succulent plants with high endemism. Because of

their bright beautiful flowers, these groups of plants are of prized horticultural significance. [/su_spoiler]

Q3. Consider the following statements:

1. A fuel cell is a device that converts chemical potential energy (energy stored in molecular bonds) into electrical energy.
2. Fuel cells which are used commercially in hydrogen fuel-based cars, require good catalysts that are efficient as well as cost-effective.

Which of the given statement/s is/are correct?

- a) 1 Only
- b) 2 Only
- c) Both 1 and 2
- d) Netither 1 nor 2

[su_dropcap]See[/su_dropcap][su_spoiler title="Answer"]

Answer: c

Explanation:

- A fuel cell is a device that converts chemical potential energy (energy stored in molecular bonds) into electrical energy.
- Fuel cells which are used commercially in hydrogen fuel-based cars, require good catalysts that are efficient as well as cost-effective.
- Normally, fuel cells use expensive platinum-like elements.
- These expensive metal-based technologies perform excellently for initial few cycles, but then get degraded in performance due to many reasons.
- As a result, there is a need to change this part of the fuel cell routinely.
- The oxygen reduction reaction is a key step in the functioning of the fuel cell.[/su_spoiler]

Q4. Which of the following countries has been referred to as the "Last Shangri-La"?

- (a) Bhutan
- (b) Nepal
- (c) China
- (d) Japan

[su_dropcap]See[/su_dropcap][su_spoiler title="Answer"]

Answer: a

Explanation:

Bhutan has been referred to as the "Last Shangri-La".[/su_spoiler]

I. UPSC Mains Practise Questions

1. The recent flood of 'unregulated' tourists has prompted measures from pristine Himalayan kingdom of Bhutan. Examine the threats that tourism poses to some of India's ecologically sensitive regions and suggest measures that can be employed to mitigate the same. (10 Marks, 250 Words)
2. The NITI Ayog has come under criticism recently. There have been opinions voiced against it stating that it has not been able to act as a substitute of the erstwhile Planning Commission. Critically examine. (15 Marks, 250 Words)