

14 Apr 2019: UPSC Exam Comprehensive News Analysis

TABLE OF CONTENTS

- A. GS1 Related
- B. GS2 Related

POLITY AND GOVERNANCE

- 1. Naidu complains to CEC on 'large scale EVM malfunction'
- 2. Nizamabad may make it to the Guinness
- 3. 'Sex on false promise of marriage is rape'
- 4. 'A boost to true investigative journalism'

INTERNATIONAL RELATIONS

- 1. Oil import from Iran may be reduced as U.S. mulls waiver
- 2. China enlarges its circle in Europe
- 3. Need to demystify India for our investors: Belgian Minister
- C. GS3 Related

INDIAN ECONOMY

- 1. Anil Ambani firm got tax relief after Rafale deal: French paper
- 2. Stringent norms likely for medical devices
- 3. India becomes net steel importer, a first in 3 years
- 4. Monetary economics in emerging markets needs a rethink, says Das
- 5. India to launch coffee consumption drive

ENVIRONMENT AND ECOLOGY

- 1. What drives tiger dispersal
- 2. Mending hearts
- D. GS4 Related
- E. Editorials

GEOGRAPHY

1. Will the El Nino factor impact the monsoon?

SCIENCE AND TECHNOLOGY

- 1. Capturing the image of a black hole
- F. Tidbits
- G. Prelims Facts
- H. UPSC Prelims Practice Questions



I. UPSC Mains Practice Questions

A. GS1 Related

Nothing here for today!!!

B. GS2 Related

Category: POLITY AND GOVERNANCE

1. Naidu complains to CEC on 'large scale EVM malfunction'

What's in the news?

• Andhra Pradesh Chief Minister and Telugu Desam Party leader N. Chandrababu Naidu met Chief Election Commissioner Sunil Arora on 13th April, 2019, and submitted a memorandum complaining that a large number of EVMs 'malfunctioned' during polling conducted on 11th April, 2019.

A Closer Look:

- Naidu accused the Election Commission (EC) of working "according to the whims and fancies of the YSR Congress Party's candidates." At the meeting, Mr. Naidu raised the issue of transfer of officials and delays in voting.
- Official sources in the EC said the AP Director-General (Intelligence) was transferred on the basis of adverse information and the Chief Secretary was removed as he did not comply with its directives. On the delay in completing the voting, the EC said there was an increase of 26 lakh voters in the State.
- Talking to reporters, Mr. Naidu said, "The Government of India is interfering through the Election Commission. We had complained about EVMs earlier too. The Election Commission is an autonomous body, but it is working at the behest of [Prime Minister Narendra] Modi. Transfers of officers in Andhra Pradesh are unjustified."
- He demanded that the poll be countermanded at 618 booths where the process could not begin even many hours after the scheduled time.
- On this demand, the EC would take a decision after examining reports from the District Election Officers, EC sources said. Mr. Naidu also wanted a return to paper ballots.
- "Inadequate security arrangements at the booths emboldened criminal elements,
 which resulted in many law and order incidents, costing a man his life. Many polling
 booths were manned by just a home guard or volunteer," the memorandum to the
 Commission said.

2. Nizamabad may make it to the Guinness

Context:



• A unique election fought in Nizamabad Parliamentary constituency with 185 candidates has already attracted the attention of the entire country. Now, it is likely to make it to the Guinness World Records.

What makes it eligible for the Guinness?

- For the first time in the country since electronic voting machines (EVMs) were introduced in 1998, as many as 12 ballot units at each polling station were used.
- So far, the record was for the conduct of polling with four ballot units, which were the M2 models with a maximum of 64 names. Besides, over 7,000 EVMs — which is also a record — were pressed into service in the constituency comprising seven Assembly segments.

A Closer Look:

- Using M3 machines that can accommodate 384 names, the election was successfully conducted dispelling widespread doubts about the feasibility.
- Overcoming challenges at every step the district election machinery, under the guidance of the Election Commission, could complete the process peacefully winning accolades from all.
- The district administration led by Collector and District Election Officer M. Ram Mohan Rao made it possible through their relentless efforts. They heaved a sigh of relief only after all the EVMs, VVPATS and Control Units were shifted and stored in strong rooms.
- "This was all possible with the hard and concerted work, coordination and cooperation of all including the police. Even after everything was in order, we were literally on our toes till the polling concluded," said Mr. Rao

3. 'Sex on false promise of marriage is rape'

What's in the news?

The Honourable Supreme Court of India says rape offends woman's esteem, dignity.

Analysis- Looking at a Case in Point:

- The fact that the victim and her rapist have married other people and gone their separate ways will not erase the crime. The rapist would still have to answer for his crime, a Bench of Justices L. Nageswara Rao and M.R. Shah concluded in their recent judgment.
- The case concerns the rape of a woman by a government doctor in Chhattisgarh in 2013. The man had engaged in a physical relationship with her at his home on the promise of marrying her.
- At the time of the crime, he was already engaged to marry another woman. He later



broke his promise to the victim.

- On the basis of an FIR filed, the man was convicted of rape. The conviction was confirmed by the High Court. He was sentenced to 10 years of rigorous imprisonment. The apex court was appealed to.
- In his judgment for the Bench, Justice Shah observed that it was clear from the evidence that the man's intention was to cheat the victim. She would not have consented to the sexual act had he not promised her marriage. "It was a clear case of cheating and deception," the Supreme Court held.
- The court said such incidents were on the rise in modern society.
- "Rape is the most morally and physically reprehensible crime in a society, an assault on the body, mind and privacy of the victim. While a murderer destroys the physical frame of the victim, a rapist degrades and defiles the soul of a helpless female. Rape reduces a woman to an animal, as it shakes the very core of her life," Justice Shah wrote in the judgment.
- The court said rape is the "most hated crime". "It tantamounts to a serious blow to the supreme honour of a woman, and offends both her esteem and dignity," the judgment said.

Concluding Remarks:

- The mere fact that both the victim and her attacker have married separately and moved on does not erase the horror of what was committed on her. The rapist must face the consequences of the crime.
- The court, however, reduced his sentence to seven years' imprisonment.

4. 'A boost to true investigative journalism'

What's in the news?

- The Supreme Court's decision to dismiss claims of privilege made by the government and rely on Rafale documents published by The Hindu while considering review petitions is a rare acknowledgment of quality investigative journalism by the highest court of the country, former Chief Justice of India R.M. Lodha said on 13th April, 2019.
- "One has to understand that the Supreme Court had already given its final verdict upholding the Rafale deal on December 14," said Justice (retd) Lodha. "The court is now only examining the limited relief of review. Even then, the court found the documents published by The Hindu relevant and decided to examine the issue on the merits of these documents. The court has taken this step in larger public interest," he added.
- The former CJI said the April 10 judgment was a "boost for true investigative journalism and not the sensational kind".



Analysis:

- Former Chief Justice of India V.N. Khare said the Supreme Court had pegged the right to free speech over claims of privilege, confidentiality and sanction since 1981. The Rafale judgment was indeed the latest in a long line of Supreme Court decisions championing free speech.
- "Investigative journalism should bring out documents which serves larger public interest without jeopardising the security of the nation," Justice (retd) Khare said.
- "That the court would consider documents published in The Hindu while examining the review is itself a boost to investigative reportage," former Chief Justice of India K.G. Balakrishnan said.
- The Supreme Court has held that the government cannot practice 'absolutism' in withholding of information. In this context, the apex court has held that the Right to Information (RTI) Act confers on ordinary citizens the "priceless right" to demand information even in matters affecting national security and relations with a foreign state.
- Justice K.M. Joseph, in his separate judgment in the Rafale case, countered the government's position that publicising the Rafale documents had affected national security and India's relations with France. Justice Joseph said the RTI Act overawes the Official Secrets Act of 1923. His separate opinion points to Section 8 (2) of the RTI Act, which mandates that the government cannot refuse information if disclosure in public interest overshadows certain "protected interests".
- "The Parliament has appreciated that it may be necessary to pit one interest against another and to compare the relative harm and then decide either to disclose or to decline information... if higher public interest is established, it is the will of Parliament that the greater good should prevail though at the cost of lesser harm being still occasioned," Justice Joseph described the purpose of Section 8 (2).
- The judge described the provision as nothing short of a "legal revolution".
- However, secret information is not to be given for the mere asking. The RTI applicant must establish that withholding of such information produces greater harm than disclosing it.
- It is important to note that Section 8 (2) balances the list of exemptions to disclosure granted under Section 8 (1)(a) of the RTI Act. The latter section allows the government to refuse information, the disclosure of which would prejudicially affect the sovereignty and integrity of India, the security and strategic security and strategic scientific or economic interests of the state, relation with a foreign state or information leading to incitement of an offence.



Category: INTERNATIONAL RELATIONS

1. Oil import from Iran may be reduced as U.S. mulls waiver

Note to Students:

In this article the Generalised System of Preferences (GSP) is focused on. We have elaborated on this topic under the heading, "Larger Background", to give a deeper perspective.

The geopolitical pressures and implications of India reducing her oil imports from Iran have been discussed in the previous editorial analysis.

Larger Background:

- 1. The Generalised System of Preferences (GSP) is one of the oldest trade preference programmes in the world, and was designed to provide zero duties or preferential access for developing countries to advanced markets.
- 2. The U.S. GSP programme was established by the U.S. Trade Act of 1974, and promotes economic development by eliminating duties on thousands of products when imported from one of the 129 designated beneficiary countries and territories.
- 3. In April 2018, the Office of the United States Trade Representative (USTR) announced that it would review the GSP eligibility of India, Indonesia, and Kazakhstan. The proposed review for India was initiated in response to market access petitions filed by the U.S. dairy and medical device industries due to recent policy decisions in India, which were perceived as trade barriers.

Big impact:

- 1. For over 40 years, GSP has fulfilled its purpose of promoting economic growth in a large number of developing countries by allowing increased exports of eligible products.
- 2. This tremendous benefit to the global economy is a small aspect of the U.S. trade balance; for example, of the total \$2.4 trillion U.S. imports in 2017, only \$21.2 billion arrived via GSP, amounting to less than 1% of total U.S. imports.
- 3. Despite GSP's low significance in the U.S. trade balance, its benefits ultimately help U.S. consumers and exporters by contributing to lower pricing of final products.
- 4. Most of the 3,500 Indian products imported by the U.S. under the GSP are raw materials or important intermediaries of value chains.
- 5. In many cases, Indian exports are less-expensive, high-quality alternatives that reduce the costs of final products, thereby creating value that is subsequently exported the world over by U.S. companies or directly conveyed to the U.S. consumer.
- 6. Indeed, this enables the U.S. economy to be more globally competitive.

GSP should be continued:



- 1. Despite continued economic growth over the last two decades or so, India is a lower middle-income country.
- 2. GSP allows Indian exporters a certain competitive edge and furthers the development of the country's export base.
- 3. It also allows India to integrate with global value chains (GVC) and hence, with global markets.
- 4. These advantages provide opportunities for small enterprises and help in the overall livelihood creation endeavour in India.
- 5. Further, it is important to note that Indian exports to the U.S. under the GSP programme are mostly intermediaries, and are not in direct competition with U.S. producers ultimately, these goods benefit the U.S. economy. India's continued eligibility for GSP makes good economic sense given the low value, high-quality, and nature of its imports.
- 6. In addition to the economic perspective, the U.S. should consider continuing India's GSP eligibility as a gesture of goodwill that reaffirms its commitment to the mutually beneficial relationship between our two countries. The India-U.S. relationship has continued to grow stronger as India liberalises along a positive and steady trajectory.
- 7. India has made systematic efforts to reduce trade imbalance with the U.S. and has enhanced purchases of shale gas and civilian aircraft. Adhering to the rules-based international trading system, India is in the process of examining its export subsidies.
- 8. As per a CII survey, the U.S. remains a favoured destination for Indian companies which have invested \$18 billion in the U.S. and support as many as 1.13 lakh jobs.
- 9. Today, our two countries engage in countless areas of mutual cooperation, and a supportive stance in recognition of our greater goals and shared values would promise significant progress in the future. If viewed through a transactional prism, the broader strategic dimensions of the partnership could get blurred.
- 10.India and the U.S. will continue to intensify their economic relationship and interdependencies, and it is, therefore, critical to maintain the vision of the potential this partnership offers. The GSP remains a central aspect of the overall trade engagement and must remain available for Indian exporters keen to address the U.S. markets.

Analysis:

Far from the din of elections, Indian officials are working closely with U.S. officials to
ensure that two upcoming deadlines in early May, 2019, for the extension of the Iran
oil sanctions waiver, as well as the final decision on withdrawing India's preferential
Generalised System of Preferences (GSP) status, end positively for the government,
multiple sources in Delhi and Washington confirmed.

Lower quotas:



- While the decision on the GSP could be deferred until after elections, the discussions on the Iran oil sanctions waiver have indicated an extension is likely, with India allowed a lower quantity of oil imports from Iran.
- Recently, following discussions with U.S. Under Secretary for Terrorism and Financial Intelligence Sigal Mandelkar during his visit to discuss "U.S. nuclear-related sanctions on Iran and the global coalition to combat Iran's state support for terrorism," the Ministry of External Affairs (MEA) said both sides had been "continuously engaged" on the issue of India's oil imports from Iran since November, 2018.
- It is important to note that India, Turkey and China remain the only countries with significant imports.
- After initial defiance where it said it only recognised "UN sanctions, not unilateral sanctions", the Modi government has softened its stand in negotiations for the sanctions waiver from America.
- According to informed sources, the U.S. is considering an extension of the six-month waiver, but reducing the quantity of oil India can import from the previous allowance of nine million barrels a month.
- The deadline, for the announcement of the cancellation of U.S. preferential duties or GSP status, set for May 2, 2019, may be put off if the U.S. Trade Representative in Washington Mark Lightizer accepts an appeal from India-Causus co-chairs senators Mark Warner and John Cornyn, who wrote to him on April 12, 2019 as well as one from Republican Congressman George Holding who wrote to him on March 27, 2019.
- In the letter, the senators asked that the U.S.TR should "consider delaying the issuance of a Presidential proclamation to withdraw India's GSP benefits by at least 30 days, beyond the 60 day calendar, in order to move the negotiations beyond India's elections...to provide a real opportunity to resolve these market access issues, potentially improving the overall U.S.-India relationship or years to come."
- Despite the appeals, U.S. officials say there has been a growing sense of frustration in their administration on trade issues.

Outstanding issues

- "While we were pleased that growing U.S. exports to India, largely crude oil and LNG, led to a 7.1% reduction in our bilateral goods trade deficit last year (2018), many structural challenges in our trade relationship have yet to be resolved. Trade has frankly been an area of frustration in the relationship, but the door is open if India is prepared to bring a serious proposal to the table," a Senior State Department official is reported to have said.
- According to the officials, out of the nine outstanding issues on trade, the two sides were able to narrow differences on all but two or three, which were irreconcilable,



- and led to the U.S. notice on cancelling GSP.
- These include the issue of certifying dairy products from "vegetarian" cows, and the price caps on medical devices like stents both of which had originally triggered the GSP review in April 2018.
- The U.S. also remains concerned about duties and regulations in the Information Technology industry, an issue for which the European Union has filed a case against India at the World Trade Organisation (WTO) recently.

2. China enlarges its circle in Europe

- China's Premier surveyed construction of a long-sought bridge over Croatia's Mali
 Ston Bay, home to China's largest infrastructure project in Europe built by a
 Chinese company with Chinese workers, and financed in large part by EU money.
- Li Keqiang was there on 11th of April, 2019. He declared. "This bridge will be a rainbow on earth."
- The reassuring language was part of a broader effort to convince increasingly sceptical European nations that China comes in peace.
- Fresh from a summit meeting with EU leaders this week, Mr. Li arrived in Croatia for the annual meeting of an economic bloc that China has forged with 16 Central and Eastern European nations.
- It is important to note that the thickening ranks of China's economic allies have left European officials increasingly wary. In the month of March, 2019, Italy formally signed on to China's vast Belt and Road Initiative (BRI). On 12th April, 2019, the summit was capped by Greece's announcement that it had joined, too.

Dragon head:

- China has already moved ahead with plans to make the Greek port of Piraeus the "dragon head" of its infrastructure push, and it has stepped up investment in Greece, which is still smarting from the austerity measures imposed by its European partners.
- China's presence is no longer a novelty in this part of Europe, where its track record is decidedly more complicated than it was when the economic bloc was formed.
- For instance, after years of investments failing to materialise, Poland, the largest nation in the group and once one of its biggest champions, has cooled on China. The arrest in Poland of a Chinese regional director of the tech giant Huawei underscored the changing nature of the relationship.
- In fact, the pace of Chinese investment in Europe has slowed for the past two years, according to the Mercator Institute for Chinese Studies.
- In 2018, there was more than \$19 billion in direct Chinese investment in Europe, a



decline of 40% from 2017, and more than 50 percent from the 2016 peak of around \$42 billion.

3. Need to demystify India for our investors: Belgian Minister

What's in the news?

• Belgian Minister for Digital Agenda, Telecom and Postal Services Philippe De Backer is all for efforts to help demystify India to investors from Belgium, more importantly in the context of the changing geopolitical situation.

Analysis:

- "We have to look at India. Try to understand what's going on, what the differences are... many of [the] Belgian companies don't know. Demystification of India is an essential first step," he said in an interaction on 12th April, 2019.
- Backer was in Hyderabad for the inauguration of Belgium's honorary consulate and appointment of Dr. Reddy's Laboratories co-chairman and CEO G.V. Prasad as the honorary consul.

'Open to and from India'

- A gateway to Europe, Belgium was keen on supporting businesses wanting to come
 into India, and was open to business from India, he said, citing life sciences,
 information technology and shipping and logistics as the focus
 industries.
- The need was to strengthen ties by encouraging firms to "take the risk and go to India, invest and maybe build partnership with Indian companies, [as also] allow services and products from India to come onto the Belgium market," the Belgian Minister said. For that to happen, the right framework has to be created. "We should try to identify roadblocks... how can we ensure additional deepening of relationship," he said, pointing out that this was to do with the European Commission.
- Elections to Europe [Parliament] are to be held end of May, 2019. A new European Commission is set to be in place in November, 2019 and India is also set to have a new government, he said.
- "It will be time [then to see] how we can deepen the trade relationship. There is an on-going discussion between European Commission and India when it comes to trade, but the talks have not really moved a lot.
- "I think it is time to see opportunities in India. It's time Indian companies also start showing interest in the rich and open European market," Mr. Baker said. Such a move, he explained, was important in the geopolitical backdrop of the U.S. and China trying to change the manner in which trade was being conducted.
- "Both EU, Belgium in particular, and India, [ought] to really start looking at each other and see how they can strengthen their position in



the geopolitical scene," he said.

A Look at the Trade Basket and the Way Forward:

- The focus industries identified by Belgium for developing ties with India come in the
 context of an emphasis on diversifying the trade basket beyond gems and
 jewellery that now dominate the nearly €13 billion bilateral trade.
- Diamonds account for nearly 80% of the €7.9 billion trade from Belgium to India.
 Indian exports to the European country stand at €4.8 billion.
- Life sciences and IT are areas Hyderabad is strong in, offering considerable scope for partnership with Belgium, which is known for its R&D prowess and had set as one of its top priorities harnessing the potential of Artificial Intelligence.
- "We are going to invest up to €1 billion, both private and public money, in AI over the next couple of years in Belgium," he said, adding there could be collaborative efforts between start-ups in Hyderabad and those in Belgium.

C. GS3 Related

Category: INDIAN ECONOMY

1. Anil Ambani firm got tax relief after Rafale deal: French paper

What's in the news?

- In fresh revelations with a bearing on the Rafale fighter aircraft deal, a leading French newspaper on 13thApril, 2019 reported that Anil Ambani's French registered telecom company was given tax waivers worth €143.7 mn, shortly after the announcement by Prime Minister Narendra Modi of the purchase of 36 Rafales.
- According to Le Monde, French authorities cancelled a tax recovery "claimed for years" of €143.7 mn from a French company of Mr. Ambani's Reliance Communications. "The dispute was settled between February and October 2015, at a time when India and France were negotiating the sale of 36 combat aircraft," the report said.

A Closer Look:

- Responding to the report, the Ministry of Defence said it was drawing a "conjectural connection" between tax exemption to a private company and procurement of Rafale fighter jets by Government of India. Any connections drawn between the tax issue and the Rafale matter is "totally inaccurate, tendentious and is a mischievous attempt to disinform."
- Denying any "favouritism or gain" from the settlement, Reliance Communications said in a statement that the tax case pertained to 2008.



- Reliance FLAG Atlantic France SAS is a subsidiary of Reliance Communications, India and owns a terrestrial cable network and other telecom infrastructure in France. According to the report, Reliance Atlantic FLAG France was investigated by French tax authorities and found liable to pay €60 mn between 2007 and 2010.
- In an attempt to reach a settlement, Reliance had offered to pay €7.6 mn but the authorities had rejected the offer and an additional tax of €91 mn was levied for the period 2010 to 2012. By 2015, the tax liability was at least €151 mn.
- According to the Le Monde report, six months after the surprise announcement by Prime Minister Narendra Modi of the purchase of 36 Rafale aircraft during his April 2015 Paris visit, French tax authorities made a settlement with Reliance for just €7.3 mn instead of €151 mn.

What did the Le Monde report state?

- In its report, Le Monde stated, "As revealed in the report of January 30, 2015, by the
 auditor, whose role is to examine the accounts of the company, and to which Le
 Monde had access, Reliance Flag Atlantic France has been subjected to two tax
 adjustments."
- These include the way in which the company accounted for "certain purchases" made by other companies in the Reliance group" due to lack of "documentation" and the methods used for calculating its "transfer prices" usually used by companies to reduce their tax bill by sending profits to tax havens.

Bermuda-based unit:

- The report added that the parent company of the French unit owned by Mr. Ambani, Reliance Globalcom Limited, is based in Bermuda, a territory that has "just been blacklisted in March" as an illegal tax haven in the European Union (EU).
- In September 2016, India and France signed a €7.87 billion Inter-Governmental Agreement (IGA) for the purchase of 36 Rafale fighter jets which has a 50% offset clause to be executed by the manufacturer Dassault Aviation's partners.
- Dassault had chosen Mr. Ambani's Reliance Defence as an offset partner to execute
 its share of offset obligations. There have been questions on the selection of Reliance
 Defence as offset partner which has no experience in defence sector. The opposition
 Congress party has alleged financial irregularities in the deal.
- As a matter of fact, in a series of investigative reports, The Hindu has detailed how the Prime Minister's Office (PMO) ran parallel purchase negotiations alongside the official Indian Negotiating Team, giving French companies a range of concessions from the defence procurement procedure in the Rafale deal.
- Last year (2018), another French news outlet Mediapart.fr reported that Francois Hollande, who was the French President when the announcement on Rafale was



made in 2015, had said his government didn't have "a choice" in the selection of Reliance Defence as the offset partner. The same portal had reported that a French anti-corruption NGO Sherpa filed a complaint in October 2018 with the National Public Prosecutor's Office (PNF), requesting an investigation into "potential acts of corruption, granting of undue advantages, influence peddling, complicity of these offenses and money laundering" in the Rafale deal and selection of Reliance as the offset partner.

'No favouritism'

- Responding to the LeMondestory, Reliance Communications in a statement on 13th April, 2019 said the case pertains to 2008 and denied any "favouritism or gain" from the settlement. Reliance said the tax demands were completely "unsustainable and illegal" and claimed that disputes were settled "as per legal framework in France available to all companies operating in France."
- Reliance Communications said between 2008-12, Flag France had an operating loss of ₹20 crore (€2.7 mn) and French tax authorities had raised a tax demand of over ₹1100 crore for the same period. "As per the French tax settlement process as per law, a mutual settlement agreement was signed to pay ₹56 crore as a final settlement," it said.

No links to deal: MoD

- Responding to the newspaper report, the Ministry of Defence said it was drawing a "conjectural connection" between tax exemption to a private company and procurement of Rafale fighter jets by the Government of India.
- "Neither the period of the tax concession nor the subject matter of the concession relate even remotely to the Rafale procurement concluded during the tenure of the present Government," the MoD said in a statement.
- In its response, the French government said: "This [tax] settlement was conducted in full adherence with the legislative and regulatory framework governing this common practice of the tax administration. It was not subject to any political interference whatsoever."

2. Stringent norms likely for medical devices

What's in the news?

 In a move that would give end users more protection while using a medical device, the Drugs Technical Advisory Board (DTAB), India's top drug advisory body, has recommended that the Health Ministry should notify all medical devices under the drug laws.

Analysis:

• Experts opine that when enforced, this translates into medical devices being treated



- as drugs, more stringent tracking systems, mandatory reporting of all adverse reactions and registration of device before it is allowed into the market.
- A decision to this effect was taken at a meeting earlier in the month of April, 2019, and the recommendations, when brought in for implementation by the Central Drugs Standard Control Organisation, would be introduced in a phased manner to help the manufactures/importers adhere to the new laws.
- Currently of the 5,000-6,000 medical devices in the Indian market, there are only 23 notified medical devices under government control.
- When enforced, such devices will be recognised as drugs under Section 3 (b) (iv) of the Drugs and Cosmetics Act, 1940.

Call for separate law:

- The decision, however, has not gone down well with the Association of Indian Medical Device Industry (AIMED) which has sought a separate medical devices-specific law.
- Forum co-ordinator Rajiv Nath said the medical device industry wanted experts from their field to be part of the DTAB as special invitees.
- "Also it's imperative to have a separate law as devices are engineering items and not medicines an X-Ray machine by no stretch of imagination can be called a drug. The penal provisions need to be risk proportional as you can't have the same penalty for the manufacturing failure of a spectacle and a contact lens or an intraocular lens," said Mr. Nath.

3. India becomes net steel importer, a first in 3 years

What's in the news?

• India was a net importer of steel during the 2018-19 fiscal year, the first time in three years, as the country lost market share among its traditional steel buyers and imports jumped on demand for higher quality steel domestically.

Analysis:

- The country's finished steel exports fell by 34% in the fiscal year that ended in March, 2019 to 6.36 million tonnes, according to preliminary government data given to Reuters. During the same period, finished steel imports rose 4.7% to 7.84 million tonnes.
- India's exports during the fiscal year declined after rival steelmakers in China, Japan, South Korea and Indonesia, blocked from markets in the United States and Europe by tariffs and other protectionist measures, ate away at the country's markets in West Asia and Africa, according to an Indian government official with close knowledge of



the matter.

Supplies to India rise:

- Imports from the four Asian countries also climbed as they diverted supply into India, the source said.
- Imports of value-added steel, primarily for the auto sector and high-end electrical steel, were the biggest source of imports, the source said.
- "The imports for producing value-added steel for the auto sector were mainly by foreign steelmakers like POSCO," the source said, declining to be identified.

4. Monetary economics in emerging markets needs a rethink, says Das

Analysis:

- Observing that the global financial crisis has exposed several limitations of conventional and unconventional monetary policy tools, Reserve Bank of India (RBI) Governor Shaktikanta Das said monetary economics in emerging markets needs a rethink.
- This includes challenging the conventional wisdom of modern central banks to hike or reduce their interest rates by 25 basis points or multiples thereof, Mr. Das said in a special address delivered on the sidelines of the annual spring meetings of the International Monetary Fund (IMF) and World Bank.
- Highly appreciated by the audience for his call for out-of-the-box thinking to address
 monetary policy challenges of the 21st century, Mr. Das said the unconventional
 monetary policies of advanced economies have resulted in "risks and
 spillovers" for the emerging markets.
- In his speech titled 'Global risks and policy challenges facing emerging market economies,' Mr. Das observed that the global financial crisis had exposed several limitations of conventional and unconventional monetary policy tools. In despair, some have turned to the heterodox evolution of ideas that are being practised as modern monetary theory, he noted.
- In the end, monetary policy must touch the real economy, spur investments, and maintain monetary and financial stability, he asserted. The time has come to think out-of-the box, including by challenging the conventional wisdom, he told the packed auditorium.
- Typically, modern central banks, with interest rates as their main tool, move in baby steps 25 basis points or multiples thereof and announce a stance of tightening, neutrality or accommodation to guide the markets and the public on the likely future course of policy, he said. "One thought that comes to my mind is that if the unit of 25 basis points is not sacrosanct and just a convention, monetary policy can be well served by calibrating the size of the policy rate to the dynamics of the situation and



the size of the change itself can convey the stance of policy," he said.

5. India to launch coffee consumption drive

Analysis:

- India will plan and roll out a coffee consumption campaign on behalf of global coffee growers who have suffered huge financial losses on account of falling prices and soaring labour cost.
- The context is that coffee growers around the globe are staring at poverty. As per the International Coffee Organization (ICO), 2.5 crore farmers, including more than 3 lakh in India, produce coffee in 60 counties.
- Over 90% of these growers are smallholders and are forced to sell their coffees at a price much lower than the cost of production. This scenario has led to socio-economic issues.
- These growers and their families have gone deep into debt. Many have even abandoned their farms and migrated to cities.
- To bring world coffee producers, including Indian growers, out of this appalling situation, The World Coffee Producers Forum has decided to reach out to coffee-consuming countries around the world.
- As a precursor to this, India, which has a domestic consumption of more than 5 million bags (of 60 kg each) will kick off a five-year coffee consumption campaign in collaboration with top global roasters, including Nestle and Starbucks, cafe chains, other stakeholders and the Government of India.

Playing a 'Catalyst role':

- Anil Kumar Bhandari, president of India Coffee Trust and also chairman of Private Sector Consultative Board of ICO has mentioned that a special entity would be formed to execute this country-wide coffee campaign. The plan is to get most of the funding from international roasters while ICO will play a catalyst's role.
- The campaign will address a population of 450 million, mostly school and college students, in India. Carlos Brando, who ran various coffee projects in more than 50 countries including Brazil's famous coffee campaign that significantly pushed up the country's consumption in 1990 will be actively involved in the India campaign that will be ready for launch by mid 2020.
- "There is a huge demand-supply imbalance that currently exists in the global coffee markets. That's the root cause for the price fall. Increasing the consumption is the only way to counter this and therefore, demand for the commodity in the global markets will increase. This exercise has to begin somewhere and let that be from India," said Mr. Bhandari.



• The plan is to import excess coffees from Brazil, Colombia and Vietnam, provided the government of India waives the import duty on coffee which is 105%, he added.

Focussing on the Youth:

- "It is like catching them young, before students get involved with colas, carbonated sugar drinks or liquor. We have to create a generational change and build a coffee culture. The campaign will be run in consultation with parents, teachers and school/college managements. We will also rope in sugar companies, dairy brands into it," he added.
- As per ICO, the world drinks 1.5 billion cups of coffee every day and consumers, on an average, pay \$3.1 a cup in the U.S., \$4.60 in Shanghai, \$6.24 in Copenhagen and \$3 to \$4 in Bangalore and New Delhi.

Category: ENVIRONMENT AND ECOLOGY

1. What drives tiger dispersal

Background:

Tigers in India traverse long distances to find mates and new territories. But the
movement depends on roughness of the terrain and human disturbance in the area.
The terrain affects tiger dispersal differently in the Western Ghats and central India,
two strongholds of wild tiger populations in the country, finds a new study.

Analysis:

- The central Indian landscape is highly fragmented with high densities of people, while the Western Ghats has lesser human disturbance and is home to the world's largest contiguous tiger population.
- A study in 2017 by a team including Anuradha Reddy (of Hyderabad's CSIR-Centre for Cellular and Molecular Biology) revealed that roughness of terrain and human footprint drove tiger gene flow in central India: tigers moved across ridges and rough topography to avoid the presence of people.

An important question arises: Do similar landscape features drive tiger gene flow in the Ghats?

Varied samples:

- Another team including Dr. Reddy studied this across 30,000 sq km in the Western Ghats in Kerala, Karnataka and Tamil Nadu.
- They collected tiger faeces in forests including Bhadra Tiger Reserve and Nilgiri Biosphere Reserve, and used forensic samples that came to CSIR-CCMB between 2011 and 2015 to obtain genetic data of 115 individual tigers.
- They complemented this with overlays of land cover and land use categories, using



maps showing terrain, road networks, developed areas (reflecting human disturbance) and historical maps (from the 1960s, to see how vegetation cover changed over the decades).

The Role of gene flow:

- Though the team did not find strong correlations between current genetic structure
 and historical landscape in the Ghats, comparing the data with the team's earlier
 study in central India (after standardising the methods for comparisons) revealed an
 interesting pattern the relationship between terrain and gene flow is
 "inverted" in both regions.
- While gene flow correlated with rough terrain in central India, it was linked with smooth forest terrain containing minimal human disturbance in the Ghats, finds the team's study published in Animal Conservation.
- This pattern is mainly due to differing levels of human disturbance, Dr. Reddy said in an email. While Central India has more fragmented forests and higher human disturbance, the Ghats have relatively larger, connected forest patches and lesser human disturbance, facilitating tiger movement across lower and smoother areas, she added.

2. Mending hearts

What's in the news?

- Zebrafish and salamanders can normally regenerate their hearts unlike humans and many mammals. If exposed to excess of thyroid hormones, zebrafish lose this ability.
- The study published in Science infers that lack of heart regenerative ability in humans may be due to a trade-off for increase in metabolism, to stay warm.

D. GS4 Related

Nothing here for today!!!

E. Editorials

Category: GEOGRAPHY

1. Will the El Nino factor impact the monsoon?

What's in the news?

- The forecast of a below average monsoon in 2019 on the back of a prospective El Nino that is often associated with less rainfall has come from a private agency, Skymet.
- Its managing director Jatin Singh says the **Pacific Ocean has become strongly** warmer than average.



• It is important to look into the weather phenomenon called El Nino and its impact on the monsoon.

What is it?

- El Nino is synonymous with the Pacific Ocean that covers as much as one-third of the planet.
- There is no bigger stage for it to unfold in which the vast ocean and the atmosphere combine perfectly, only to send out associated bad tidings half a world away and even beyond.
- El Nino is a phenomenon in the equatorial Pacific, in which sea-surface temperatures rise over a threshold of +0.5 degree Celsius (and cools by the same margin during alter ego La Nina).
- These are averaged over five, three-month sessions on a trot across a stretch of water designated as the Nino 3.4 region (see below image) to arrive at the Oceanic Nino Index (ONI).
- There are a few other acronyms which one comes across while tracking El Nino.
- For instance, the Southern Oscillation Index, or SOI, that gives an indication of the development and intensity of El Nino or La Nina.
- The SOI is calculated on the basis of the atmospheric pressure differences between Tahiti (South Pacific Ocean) and Darwin (Australia), separated by 8,569 km.
- Sustained positive SOI values are indicative of La Nina conditions while negative values suggest El Nino conditions. Another acronym is the ENSO (El Nino Southern Oscillation) which refers to the oscillation between the El Nino and the La Nina.
- ENSO shifts irregularly back and forth between El Nino and La Niña every two to seven years. Each phase triggers predictable disruptions of temperature, precipitation, and winds disrupting large-scale air movements in the tropics, triggering a cascade of global side effects.
- Under 'normal' conditions, though, the west tropical Pacific is warmer than its
 eastern basin. The warmer area of the ocean is also a source for convection and is
 associated with cloudiness and rainfall. During El Nino years, the warmth shifts to
 Central and East Tropical Pacific (Nino 3.4 region), and along with it, cloudiness and
 rainfall.

How did it come about?

- El Nino was observed as far back as in the late 1800s when South American fishermen noticed the warming up of coastal waters around Christmas.
- They referred to it as "El Nino" (Spanish for the boy child), since it appeared around Christmas.



- Sir Gilbert Walker, a British mathematician, discovered the Southern Oscillation (SO), or large-scale changes in sea level pressure across Indonesia and the tropical Pacific.
- However, he did not recognise that it was linked to changes in the Pacific Ocean or El Nino. It wasn't until the late 1960s that Norwegian-American meteorologist Jacob Bjerknes and others realised that the changes in the ocean and the atmosphere were connected. This was how the coinage 'ENSO' came into existence.
- As already mentioned, El Nino has been found to impact almost half the world triggering droughts in Australia, India, southern Africa and floods in Peru, Ecuador, the United States, the Gulf of Mexico, and the Colorado River basin.
- If Sir Gilbert found in the 1920s that many global climate variations, including monsoon rains in India, were correlated with the SO, the credit of linking it with El Nino as part of ENSO involving both the ocean and atmosphere, goes to Bjerknes. But it took until the 1980s or later for 'La Nina' or even the 'neutral phase' (neither El Nino or La Nina) to gain currency.

Why does it matter?

- India has not had a particularly productive monsoon since 2014 (save a tolerable 2017), with weak El Nino events unfolding on either side of the strong 2015-16 El Nino, a trend forecast to continue into this year (2019).
- This comes on the back of a deficient post-monsoon season last year. After all, the south-west monsoon (June-September) accounts for over 70% of the country's annual rainfall and irrigates over half of the crop land.
- The rain-fed kharif crops are heavily dependent on the monsoon and the quantity of rainfall determines agricultural production.
- It is important to note that agriculture accounts for around 15% of the GDP and normal rains rejuvenate the farm sector and help the government deal with rural stress.
- Normal rains can boost sentiments, raise farm production, perk up rural demand, and tame inflation to some extent.
- But what perplexes scientists and researchers is that no direct correlation between the ENSO events and the monsoon has been established yet.
- From 1950 to 2012, there were 16 La Nina years, with the monsoon rains ending up above or around average nearly every time.
- El Nino brought in five droughts during this period but on 14 other occasions, monsoon performance ranged from being well below-average, average, or even above-average.
- To top it all, the 1997-98 El Nino, among the century's strongest, went on to stand conventional logic on its head; far from heralding a drought, it generated above-



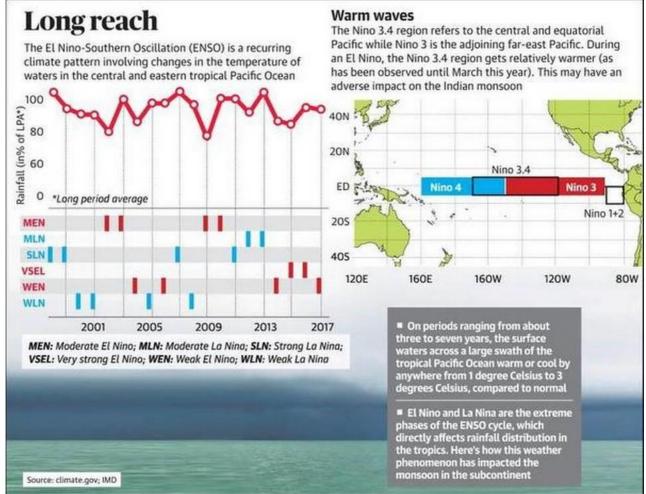
average rain.

• Likewise, 2002 proved to be one of the driest monsoons despite it being a weak to moderate El Nino year. It only helped bust another myth: the strength of an individual El Nino event may not necessarily have its imprint on monsoon performance.

What lies ahead?

- El Nino has been generally known to suppress monsoon rainfall in India while La Nina increases it. El Niño years tend to be drier than average, but one of the strongest El Nino of the century (1997-98) produced a monsoon season with above-average rainfall for India (see table).
- Researchers also believe that even the location of the warming in the Pacific may possibly have an influence on the monsoon.
- Anomalous warming in the Central and East Pacific (Nino 3.4 region) could have a more profound adverse impact on the monsoon than when the warming shifts to the adjoining far east Pacific (Nino 3. region).
- Current conditions (March, 2019) suggest that the warming is pronounced (+0.98 degree Celsius) in the Nino 3.4 region than the far east Pacific (+0.74 degree Celsius), which could suggest a weaker monsoon this year (2019).
- Already, a couple of private forecasters as well as a few international agencies have sounded out the possibility. The official forecast from the India Meteorological Department (IMD) is eagerly awaited.
- Scientists claim there may be other factors that combine with the prevailing Pacific conditions to decide the fate of the monsoon. Progressive heating of the land during April-May-June is one. The extent of the Himalayan/Eurasian snow cover is another.
- Less snow cover means a warmer subcontinent, which can help to intensify the monsoon circulation and bring more rain.
- It is worthwhile in this context to recall that north India has had an extended winter earlier this year (2019).
- Last but not the least is the 'dipole' effect nearer home, wherein the Indian Ocean mimics El Nino-La Nina in which the western and eastern basins warm up relative to each other every few years with associated impact on the monsoon.
- Warming up of the west Indian Ocean boosts a prevailing monsoon, and vice-versa.
- International and domestic weather agencies expect that this year (2019), the Indian Ocean dipole could be either 'neutral' or weakly positive. It remains to be seen how this could reflect in the monsoon's performance.





Category: SCIENCE AND TECHNOLOGY

1. Capturing the image of a black hole

Analysis:

- In 2017, a consortium of institutions around the world decided to pool the scanning abilities of eight telescopes from Hawaii to the South Pole and focus on getting a picture of a black hole.
- By definition, a black hole can't be seen. As a cosmic gobbler of all matter on its periphery, these sinkholes have gravitational fields so powerful that even light cannot escape them, rendering its contents invisible.
- Because the concept of black holes (the cemeteries of spent stars above a certain
 mass and massive cosmic objects) followed from Einstein's theories of general
 relativity, scientists have had intricate mathematical descriptions and speculation of
 how they look, how many of them exist, how they behave, where they might be
 located and their relationship to the universe.
- Based on this, there have been a plethora of visual and artistic descriptions of black holes. However, there has never been visual confirmation of their existence, until now.



What has been discovered?

- On April 10, 2019, astronomers shared an image, now christened on Indian Twitter as a 'giant meduvada in the sky,' from the black hole at Messier 87 or M87.
- It was a blurred, yellowish orange frame surrounding a black centre. While this wasn't vastly different from how astronomers and artists have visualised black holes for decades, it's still great to see reality correspond to imagination.
- The black hole measures 40 billion km across three million times the size of the earth — and is 55 trillion light years from earth. (A light year is about 9.46 trillion km).
- It is bigger than our entire solar system and a scientist described it to the BBC as "the heavyweight champion of black holes in the Universe."

Why is it important?

- Since the 1970s, astronomers have known that there are 'super massive' black holes (about a billion times heavier than the sun) in the Milky Way or galaxies close to it.
- While black holes themselves are invisible, the region around them the luminous frenzy of charged particles from matter in their vicinity is, in theory, 'visible'.
- The bigger a black hole, the greater the odds of it having a massive event
 horizon the fiery periphery of a black hole and the better our chances of
 observing wisps of radiation from it.
- After the discovery of a super massive black hole in M87 (a 'neighbouring' galaxy about 55 trillion light years away) and one in our Milky Way, astronomers formed a network of ultra-sensitive telescopes called the Event Horizon Telescope to dedicatedly train their sights towards trying to capture some radiation from them and hopefully, snap a real picture from the black hole's periphery.

How did the scientists image it?

- Because black holes are the result, mostly, of heavy stars collapsing in on themselves, radiation emitted by particles within the disc are heated to billions of degrees as they swirl around the black hole at close to the speed of light, before vanishing into them.
- The astronomers used a technique known as **interferometry**, which combines radiation from eight telescopes from around the world in a way that it appears as one single telescope capture.
- What this virtual telescope would capture were traces electromagnetic radiation
 — from jets of particles spewed from the event horizons of the black hole. This faint
 radiation, in the form of mostly radio waves, would have travelled trillions of
 kilometres and for the telescope to observe them would be the equivalent of trying
 to snap a picture of an ant from the moon.
- The EHT team observed M87 and Sagittarius A (Sgr A), the black hole at the centre of



- our Milky Way, over five nights in April 2017, using eight radio telescopes that are sensitive to the wavelengths of a millimetre.
- The telescopes they used stretched from Hawaii to Arizona, Mexico to Spain, and Chile to the South Pole. The data generated were so voluminous that they couldn't be transmitted on the internet and had to be recorded on disk and shipped to the Massachusetts Institute of Technology, Boston.
- It took nearly a year for data from the South Pole to be shipped because of inclement weather. A total of 4 petabytes were recorded — the equivalent of 8,000 years of MP3-format music played non-stop — and was crunched in supercomputers by teams of scientists working 16-18 hour shifts.
- A report in Science said four independent teams duplicated the data processing to eliminate biases and over four days of observations of M87, the shape and size of the shadow was consistent with theoretical expectations. The team did not report results from Sgr A because the picture quality from M87 was better.

What does it mean?

- Coupled with the momentous discovery of gravitational waves, generated by two black holes, in 2015 by the Laser Interferometer Gravitational-Wave Observatory, the black hole image of M87 is a testament to engineering skills.
- It will help to form international collaborations to pool the capabilities of disparate scientific instruments and perceive phenomena that cannot be comprehended by individuals.
- It also underlines that international scientific collaboration is now essential to scientific advancement. The image and the data generated could better illuminate black holes, how they work, how the jets of luminosity that enabled us to see them, actually behave.
- An actual image also confirms a century of theoretical work that has built up over the years, premised on the assumption that black holes are indeed real objects and not the fantasy fallout of abstruse mathematical equations.
- It allows scientists greater confidence to proceed with more involved questions such as the surface of the regions around black holes, how they rotate, how quickly their characteristics vary and how earthlings need to shift and shape their instruments accordingly to learn more about them.

F. Tidbits

Nothing here for today!!!

G. Prelims Facts

Nothing here for today!!!



H. UPSC Prelims Practice Questions

Q1) Consider the following statements:

- 1) Belgium shares borders with France, Germany, Luxembourg and the Netherlands.
- 2) The North Sea is bordered by Great Britain to the west and southwest, northwest by the Orkney Islands and Shetland Islands, east and northeast by Norway and Denmark, Germany and the Netherlands to the southeast, with Belgium and France to the south.

Which among the above statements is/are correct?

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

Answer: c

Explanation:

- Belgium shares borders with France, Germany, Luxembourg and the Netherlands
- The North Sea is bordered by Great Britain to the west and southwest, northwest by the Orkney Islands and Shetland Islands, east and northeast by Norway and Denmark, Germany and the Netherlands to the southeast, with Belgium and France to the south.

Q2) Consider the following statements:

- 1. Zebrafish and salamanders can normally regenerate their hearts unlike humans and many mammals.
- 2. Zebrafish is a tropical fish belonging to the minnow family. The ability of zebrafish to produce thousand of embryos in a synchronous manner has made zebrafish an invaluable tool for genetic and chemical screens

Which among the above statements is/are incorrect?

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

Answer: d

Explanation:

- Zebrafish and salamanders can normally regenerate their hearts unlike humans and many mammals.
- Zebrafish is a tropical fish belonging to the minnow family. The ability of zebrafish to produce thousand of embryos in a synchronous manner has made zebrafish an invaluable tool for genetic and chemical screens

Q3) Consider the following statements:

- 1. The basic object of the Right to Information Act is to empower the citizens, promote transparency and accountability in the working of the Government, contain corruption, and make our democracy work for the people in real sense.
- 2. Section 8 (2) of the RTI Act, mandates that the government cannot refuse information if disclosure in public interest overshadows certain "protected interests".

Which among the above statements is/are correct?

a) 1 Only



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

Answer: c

Explanation:

- The basic object of the Right to Information Act is to empower the citizens, promote transparency and accountability in the working of the Government, contain corruption, and make our democracy work for the people in real sense.
- Section 8 (2) of the RTI Act, mandates that the government cannot refuse information if disclosure in public interest overshadows certain "protected interests".

Q4) IV. Which of the following international organizations published the "World Economic Outlook"?

- a) IMF
- b) World Bank
- c) World Economic Forum (WEF)
- d) Financial Action Task Force (FATF)

Answer: a

Explanation:

The IMF publishes the "World Economic Outlook".

I. UPSC Mains Practice Questions

- 1. Monetary policy must touch the real economy, spur investments, and maintain monetary and financial stability. Examine. (10 Marks; 250 Words)
- 2. The controversy surrounding the acquisition of the Rafael fighter jets has raised a question mark on the probity of defence procurement. Examine. (10 Marks; 250 Words)

See previous CNA