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ESE-2020

(Preliminary Examination)

Current Issues

(November - 2020)

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15 All India 1st Ranks in ESE

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Current Issues

(November -2020)

Asafoetida

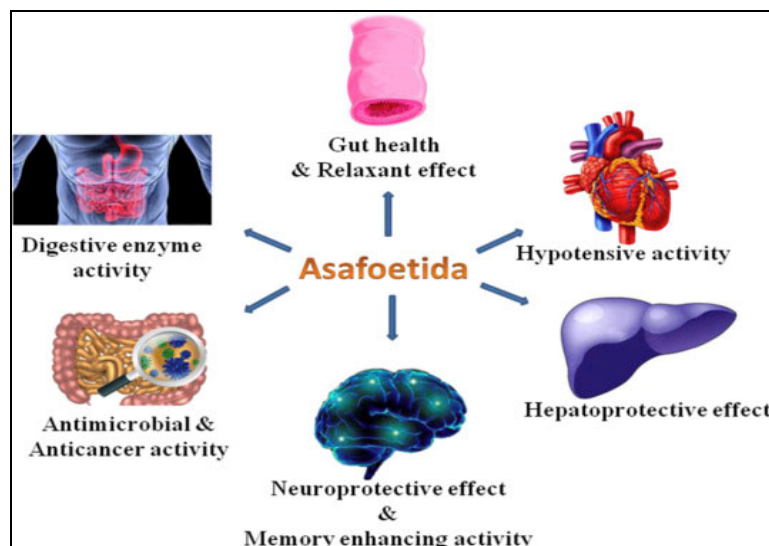
- Asafoetida is the dried latex (gum oleoresin) exuded from the rhizome or tap root of several species of *Ferula*, perennial herbs growing 1 to 1.5 m (3.3 to 4.9 ft) tall. They are part of the celery family, Umbelliferae.
- The species are native to the deserts of Iran and mountains of Afghanistan where substantial amounts are grown. The common modern name for the plant in Iran and Afghanistan is (in Persian) badian, meaning 'that of gas or wind', due to its use to relieve stomach gas.
- An integral part of Indian cuisine and natural medicine, asafoetida is extracted from the fleshy roots of the perennial *ferula* (part of the celery family) as an oleo-gum resin.



- There was an excitement amongst food trend watchers recently when scientists from the Council of Scientific and Industrial Research (CSIR) — Institute of Himalayan Bioresource Technology (IHBT) based in Palampur, Himachal Pradesh, announced that they had planted 800 saplings of *Ferula asafoetida* in the cold desert region of Lahaul and Spiti.

Indigenous growth

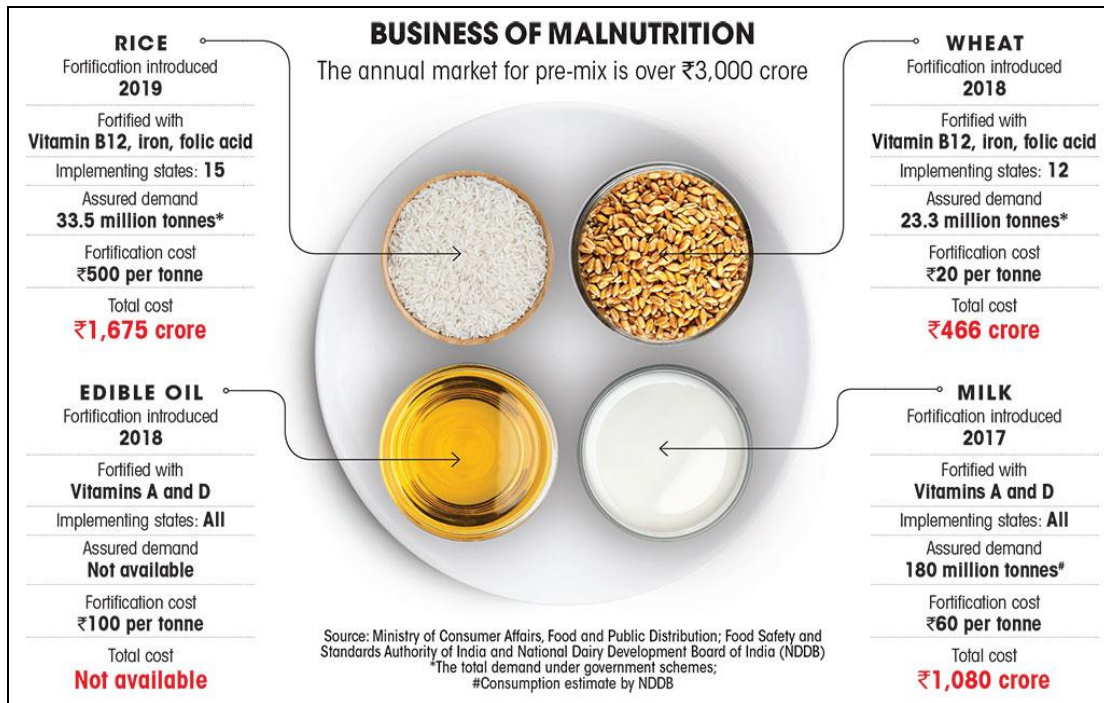
- The IHBT plantation drive, held under the aegis of the State Department of Agriculture, Himachal Pradesh, hopes to make India reduce its reliance on imported raw stock.
- Cold desert areas of India such as Lahaul and Spiti, Ladakh, parts of Uttarakhand and Arunachal Pradesh are suitable for cultivation of *ferula*. In inclement weather conditions, it is known to go dormant.
- “The country imports about 1,540 tonnes of raw asafoetida annually from Afghanistan, Iran and Uzbekistan and spends approximately ₹942 crore per year on it. It is important for India to become self-sufficient in hing production,” says Sanjay Kumar, Director, CSIR-IHBT, Palampur, in an email interview.
- It will take approximately five years for the project to bear fruit (or rather, resin).



- Asafoetida is often used as an instant remedy for heartburn, indigestion, constipation and reflux. According to Ayurveda, it has the ability to balance all the three doshas
- It is best to keep asafoetida sealed in an airtight container.

Fortified rice

- As one of the world's most widely consumed foods, rice plays a significant role in many diets around the globe. In low income countries, it can make up to 70% of an individual's calorie intake.
- Though it is a great source of energy, it is a poor source of micronutrients and has a low overall nutritional value beyond carbohydrates and protein. This is because the milling process that produces white rice removes the fat, as well as the more nutrient-rich bran layers.
- Vitamin and mineral deficiencies are also an issue outside of low-income countries, affecting most regions worldwide at varying levels. While malnutrition is often associated with those not consuming enough calories, the lack of essential vitamins and minerals in ample or high calorie diets is a prominent issue, known as 'hidden hunger'.
- Parboiled rice, brown rice and bio-fortified rice (for example high-zinc rice) are more nutritious compared to white rice in one or a few essential micronutrients. This is due to different paddy processing or utilizing more nutritious rice varieties.



- The focus, now is on post-harvest rice fortification – the addition of several essential vitamins, minerals and potentially other nutrients to make any rice variety more nutritious post-harvest and after paddy processing.
- Rice fortification is currently compulsory in six countries: Costa Rica, Nicaragua, Panama, Papua New Guinea, Solomon Islands and the Philippines. It is also mandatory in six states in the US.
- In a bid to combat chronic anaemia and undernutrition, the government is planning to distribute fortified rice through the Integrated Child Development Services and Mid-Day Meal schemes across the country from next year, with a special focus on 112 aspirational districts, according to a statement from the Food Ministry.
- Children in anganwadis and government schools could soon be eating rice infused with iron, folic acid and vitamin B-12.

WHAT IS FORTIFIED RICE?

Fortification is the practice of deliberately increasing the content of an essential micronutrient, i.e. vitamins and minerals (including trace elements) in food to improve its nutritional quality and provide a public health benefit with minimal risk to health

➤ The fortification factor does not last for more than 45 days , so it isn't advisable to store fortified rice for long	➤ According to National Family Health Survey, 78.7% children and 75% in the district are anaemic and suffer from malnutrition	➤ In the first phase, fortified rice will be distributed in Badangi, Bobbili, Ramabhadrapuram and Terlam mandals
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- However, an existing pilot scheme to distribute fortified rice through the Public Distribution System in 15 districts has only been implemented in five districts so far, although more than half the project duration is over.
- The Food Corporation of India has now been asked to come up with a comprehensive plan to scale up the annual supply of fortified rice from the current 15,000 tonnes to at least 1.3 lakh tonnes.
- The Centrally sponsored pilot scheme was approved in February 2019 and allocated a total budget outlay of ₹174.6 crore for a three-year period from 2019-20. However, only five States — Andhra Pradesh, Gujarat, Maharashtra, Tamil Nadu and Chhattisgarh — have started distribution of fortified rice in their identified pilot districts.
- The remaining 10 States have only now identified their respective districts, and will soon start distribution, but less than one-and-a-half years remain in the scheme period.

Major trade bloc RCEP

- The Regional Comprehensive Economic Partnership (RCEP), a mega trade bloc comprising 15 countries led by China, said India would have to write expressing “intention” to join the organisation to restart negotiations for membership.

Landmark pact

A look at some features of the Regional Comprehensive Economic Partnership (RCEP), which was signed on Sunday



Virtual signing: A screen grab showing Philippines' Secretary of Trade and Industry Ramon Lopez holding up the agreement on Sunday. ■ AFP

- Members of the RCEP include all ASEAN countries (Indonesia, Malaysia, Philippines, Singapore, Thailand, Brunei, Vietnam, Laos, Myanmar and Cambodia) along with China, Japan, South Korea and Australia
- The members account for nearly 30% of the global GDP
- The RCEP

includes provisions on trade in goods and services, intellectual property, e-commerce, telecommunications, small and medium enterprises, and other issues

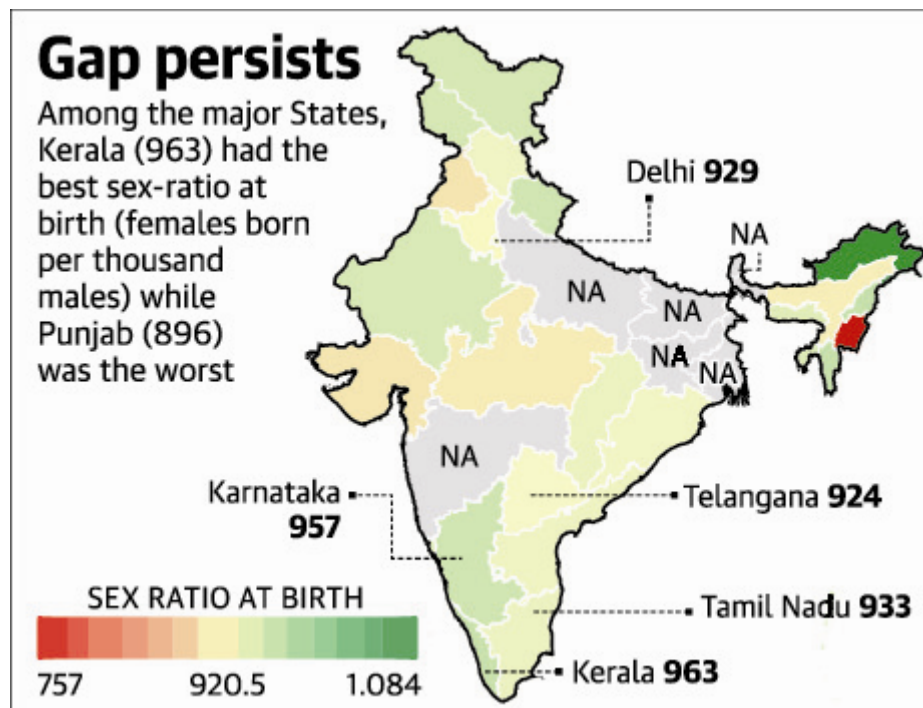
- The three largest economies in the pact, China, Japan and South Korea, are part of a free trade agreement for the first time
- On November 4, 2019, India walked out of the agreement as negotiations failed to address the country's issues and concerns

- “The RCEP signatory states will commence negotiations with India at any time after the signing of the RCEP Agreement once India submits a request in writing of its intention to accede to the RCEP Agreement to the depository of the RCEP Agreement, taking into consideration the latest status of India’s participation in the RCEP negotiations and any new development thereafter,” declared the RCEP, which comprises the 10 ASEAN members and Australia, China, Japan, South Korea and New Zealand.

- The China-backed group is expected to represent at least 30% of the global GDP and will emerge as the largest free trade agreement in the world. The mega trade bloc is a landmark initiative, which is expected to boost commerce among the member-countries spread across the Asia-Pacific region.
- India's ties with China in recent months have been disturbed by the military tension in eastern Ladakh along the LAC. In the meantime, India has also held maritime exercise with Japan, Australia and the United States for the "Quad", interpreted as an anti-China move. However, these moves did not influence Japanese and Australian plans regarding RCEP.
- India did not return to the negotiations despite request from the RCEP members, who have discussed the trade pact for nearly eight years.
- Experts are interpreting the beginning of RCEP as a major development that will help China and trade in Asia-Pacific region in the post-COVID-19 scenario.

Sex ratio of states

- Arunachal Pradesh recorded the best sex ratio in the country, while Manipur recorded the worst, according to the 2018 report on "Vital statistics of India based on the Civil Registration System" published by the Registrar-General of India.
- Sex ratio at birth is the number of females born per 1,000 males.
- Arunachal Pradesh recorded 1,084 females born per thousand males, followed by Nagaland (965) Mizoram (964), Kerala (963) and Karnataka (957). The worst was reported in Manipur (757), Lakshadweep (839) and Daman & Diu (877), Punjab (896) and Gujarat (897).
- Delhi recorded a sex ratio of 929, Haryana 914 and Jammu and Kashmir 952.



- The ratio was determined on the basis of data provided by 30 States and Union Territories as the “requisite information from six States namely Bihar, Jharkhand, Maharashtra, Sikkim, Uttar Pradesh and West Bengal is not available”, the report said.
- The number of registered births increased to 2.33 crore in 2018 from 2.21 crore registered births the previous year. “The level of registration of births has increased to 89.3% in 2018 from 81.3% in 2009,” the report said.
- The prescribed time limit for registration of birth or death is 21 days. Some States, however, register the births and deaths even after a year.
- The birth or death certificate is issued free of charge by the Registrar concerned if reported within 21 days. If reported within 21-30 days, it can be registered on payment of the prescribed fee. If the duration is more than 30 days but within a year, it can be registered with the written permission of the prescribed authority and on production of an affidavit made before a notary public or any other officer authorised by the State government and on payment of a fee.
- “Births and deaths reported after one year of occurrence shall be registered only on an order of the Magistrate of the First Class after verifying the correctness and on payment of the prescribed fee,” the report said.

PPP in health sector

- The 15th Finance Commission has mooted a greater role for public private partnerships to ramp up health infrastructure and scale up public spending on health from 0.95% of the GDP to 2.5% by 2024.
- While public outlays should focus on primary health care at the panchayat and municipality levels, private players should be relied on for specialty healthcare, hinting that the commission has recommended steps to fix the skewed availability of healthcare across India as poorer States have the worst facilities.

Inadequate spending	
The table lists the three States/Union Territories with the highest and lowest per capita public expenditure on health-care, respectively according to FY20 (budget estimates)	
STATES SPENDING THE MOST	
State/U.T.	Per capita public expenditure on healthcare
Delhi	₹3,808
Himachal Pradesh	₹3,780
Jammu and Kashmir	₹3,163
STATES SPENDING THE LEAST	
Bihar	₹781
West Bengal	₹988
Uttar Pradesh	₹1,065

Source: RBI | Northeastern States excluding Assam spent ₹3,717 per capita on healthcare

- “The total spending of around 0.95% of GDP is not adequate both in relation to our peer groups, and in relation to the commitments under the National Health Policy of 2017. There is no doubt that public spending, both by the Centre and the States, need to go up very significantly. And the endeavour must be to raise public spending from 0.95% of GDP to 2.5% of GDP by 2024.
- While India does not have adequate health infrastructure, the picture is “exceedingly skewed” among the States with the poorest of them having the worst health infrastructure.
- Doctors in many States were engaged on a contract basis and there is need to improve their working conditions.
- To achieve better healthcare parameters, public private partnerships must be considered “in a holistic way” instead of the current situation where the government only turned to the private sector in times of emergency.
- For that, a working relationship is needed and this relationship can be built only if, first and foremost, the trust deficit that exists [between industry and government] now is bridged. Private sector investment in health has an exceedingly important role to play.

Undernutrition in India

- Two recent reports — the annual report on “The State of Food Security and Nutrition in the World 2020” by the Food and Agricultural Organization of the United Nations and the 2020 Hunger report, “Better Nutrition, Better Tomorrow” by the Bread for the World Institute document staggering facts about Indian food insecurity and malnutrition.
- Using two globally recognised indicators, namely, the Prevalence of Undernourishment (PoU) and the Prevalence of Moderate or Severe Food Insecurity (PMSFI), these two reports indicate India to be one of the most food-insecure countries, with the highest rates of stunting and wasting among other South Asian countries.
- The PoU measures the percentage of people who are consuming insufficient calories than their required minimum dietary energy requirement, while the PMSFI identifies the percentage of people who live in households that are severely or moderately food insecure.
- The reduction in poverty has been substantial going by official estimates available till 2011-12. However, malnutrition has not declined as much as the decline has occurred in terms of poverty. On the contrary, the reduction is found to be much lower than in neighbouring China, Pakistan, Nepal and Bangladesh.
- Except China, these are countries which had somewhat similar levels of PoU in and around the year 2000. In terms of percentages, the PoU has declined 24.7% between 2001 and 2018 for India; other data are China (76.4%), Nepal (74%), Pakistan (42%), Afghanistan (37.4%) and Bangladesh (18.9%). It must be noted that the decline in China is way higher than that of India, even though it had started with lower levels of PoU in 2000.
- In contrast, Afghanistan (47.8%) that started with a higher base than India (18.6%) had experienced higher rates of decline. Of note is the fact that, economically, while Afghanistan is relatively much poorer and has gone through several prolonged conflicts in last two decades, it has been more successful in reducing malnutrition than India.

- Further, Pakistan and Nepal which had almost similar (slightly higher to be precise) levels of PoU in the initial years, have also successfully reduced malnourishment at a rate that is much faster than India. Therefore, irrespective of the base level of PoU, most of these countries have done better than India on this dimension.
- These findings also get substantiated through Food Insecurity Experience Scale survey which covers almost 90% of the world's population. Because it is not allowed to be conducted in India, direct estimates are not available.
- Instead, three-year moving average figures are given separately for the whole of South Asia and South Asia, excluding India. A difference between these two would roughly give us a sense about the extent and broad direction of the prevalence of food insecurity here.
- Estimates indicate that between 2014-16, about 29.1% of the total population was food insecure, which rose up to 32.9% in 2017-19. In terms of absolute number, about 375 million of the total population was moderately or severely food insecure in 2014, which went to about 450 million in 2019.

Armenia- Azerbaijan conflict

Armenia's leader, Nikol Pashinian, urged Russia to consider providing security assistance to end more than a month of fighting over Nagorno-Karabakh, and both sides in the hostilities accused each other of breaking a mutual pledge not to target residential areas hours after it was made.

Background:

- Nagorno-Karabakh lies within Azerbaijan but has been under the control of ethnic Armenian forces backed by Armenia since a war there ended in 1994. The latest outburst of hostilities began Sept. 27 and left hundreds — perhaps thousands — dead, marking the worst escalation of fighting since the war's end.
- Azerbaijani President Ilham Aliyev has insisted that Azerbaijan has the right to reclaim its territory by force after three decades of fruitless international mediation. He said that Armenia must pledge to withdraw from Nagorno-Karabakh as a condition for a lasting truce.
- The fighting represents the biggest escalation in decades in a long conflict between Armenia and Azerbaijan over the separatist territory.
- Russia brokered a ceasefire two weeks into the conflict, but it didn't hold.
- As Azerbaijani troops pushed farther into Nagorno-Karabakh, Prime Minister Nikol Pashinian asked Russian President Vladimir Putin to quickly discuss possible security aid to Armenia.



- Russia, which has a military base in Armenia and has signed a pact obliging it to protect its ally in case of foreign aggression, faces a delicate balancing act, of trying to also maintain good ties with Azerbaijan and avoid a showdown with Turkey.
- Mr. Pashinian's request puts Russia in a precarious position — joining the fighting would be fraught with unpredictable consequences and risk an open conflict with Turkey.
- President Vladimir Putin said the security guarantee is for Armenia, not for the Armenians in Nagorno-Karabakh. But Russia was apparently concerned about the rapid change in the status quo and the more assertive security role Turkey was playing in its backyard.
- But By the third week of October, Russia established small military outposts along the Armenian border, apparently to prevent the conflict being spilling into mainland Armenia and also to send a message to Baku.
- In the same week, Russia conducted a massive air strike in Syria's Idlib against Turkish-backed militants, killing dozens of them, which is seen as Moscow's warning to Turkey. Mr. Putin accepted Azerbaijan's victory (as the ceasefire allows Azeri troops to take control of the territories they have seized) but prevented a total defeat of Armenia.
- Under pressure from a decisive Moscow, both sides agreed to cease the operations.
- According to the ceasefire agreement, Armenia agreed to withdraw its troops from much of the territories around Nagorno-Karabakh. The core of the enclave with ethnic Armenians and Stepanakert as its capital would remain outside the control of Azerbaijan.
- As the broker of the truce, Russia would send some 2,000 peacekeepers to the region, who would patrol between the Azeri troops and Nagorno-Karabakh, including the Lachin corridor, which connects the enclave with Armenia.
- In sum, Azerbaijan gained territories, but not the whole of Nagorno-Karabakh. Armenia lost territories it controlled since the 1990s but avoided a total defeat as much of Nagorno-Karabakh would remain independent of Azeri control. And Russia gained a bigger foothold in the region with its troops being deployed within Azerbaijan.

Prince Khalifa bin Salman al-Khalifaa

- Bahrain's Prince Khalifa bin Salman al-Khalifa, the world's longest-serving Prime Minister who had held the post since Independence in 1971, died at the age of 84, the state media announced.
- Prince Khalifa was a controversial figure during his five decades in office — and deeply unpopular with the Sunni-ruled kingdom's Shia population.
- When Shia-led protesters occupied Manama's Pearl Square for a month in 2011, before being driven out by Saudi-backed security forces, their main demand was for the prince to step down.
- He played a key role in Bahrain's political and economic affairs, including setting the stage for a referendum that put paid to the Shah of Iran's claims to the tiny Gulf archipelago.
- But the Prime Minister, who was accused by dissidents of opposing reforms and cracking down on activists, adopted a lower profile in recent years as his age advanced and as Crown Prince Salman played a more prominent role.
- Prince Khalifa died at the Mayo Clinic Hospital in the United States, the official Bahrain News Agency said.
- The country will hold a week of official mourning, during which flags will be flown at half-mast. Government Ministries and departments will be closed for three days. Gulf leaders paid tribute, hailing the veteran leader's long career "that has shaped Bahrain's recent history", according to Dubai ruler Sheikh Mohammed bin Rashid Al-Maktoum.





Track 1.5 Dialogue

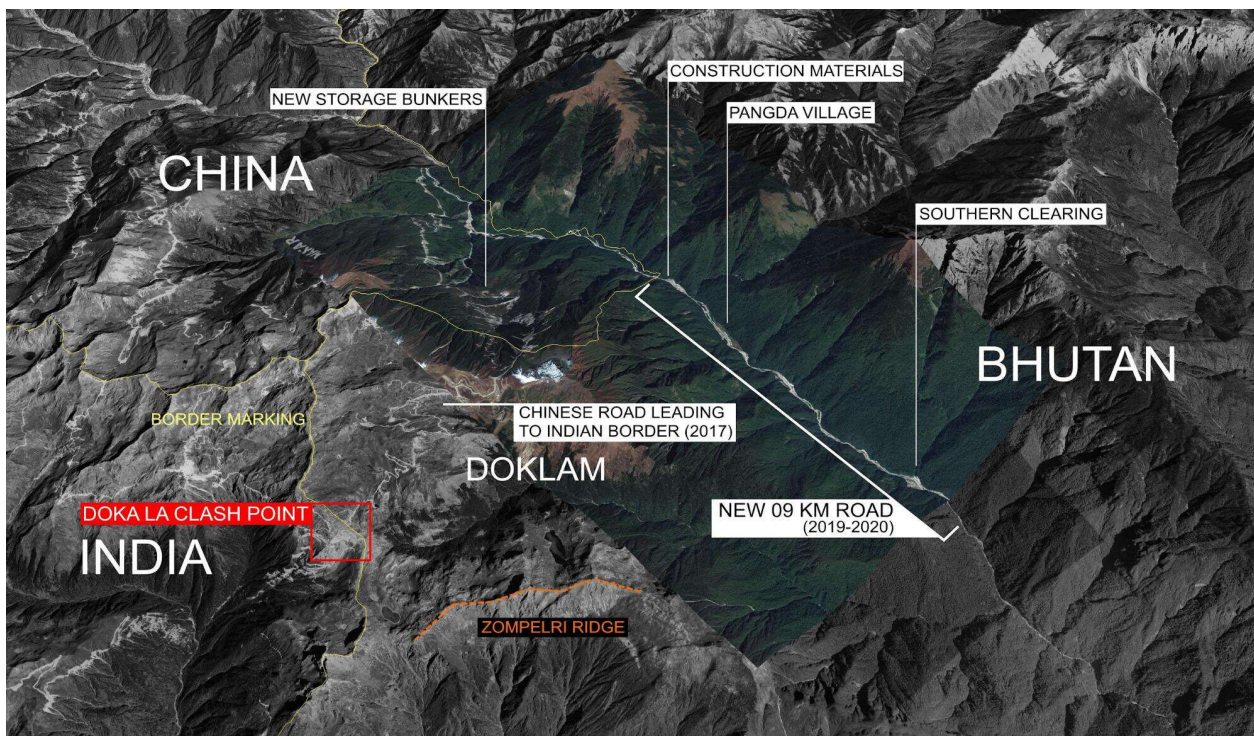
- On November 17, the third round of India-Canada Track 1.5 Dialogue, comprising senior diplomats, officials and independent experts, addressed by Canadian Foreign Minister François-Philippe Champagne and India's External Affairs Minister S. Jaishankar on a virtual platform.
- The Ministers deliberated on and define the role of India and Canada in the post-COVID-19 world.
- This promising interaction represents a major, deliberate endeavour to boost the bilateral relationship, helping it to cope with challenges of the third decade of the 21st century.
- It demonstrates how far the two governments have progressed in just two years, following the setback caused by the differences over the Khalistan issue that surfaced both before and during Canadian Prime Minister Justin Trudeau's week-long visit to India in February 2018.
- And this dialogue creates a template for a judicious merger of government to government (G2G) diplomacy with public diplomacy, and the maturing role of think tanks in the conduct of foreign policy today.
- The 1.5 Track Dialogue has been piloted since February 2018 by two think tanks — Gateway House: Indian Council on Global Relations and Canada's Centre for International Governance Innovation (CIGI).

Their deep three-year-long has encouraged the governments to focus on the immediate opportunities available in investment, technology and geopolitical rearrangements.

- Foreign policy observers highlight the importance of recent positive trends, as below: Canada-India merchandise trade exceeded C\$10 billion in 2019; Canada's cumulative investment, including foreign direct investment and by Canadian pension funds, is a substantive C\$55 billion, according to diplomatic sources.
- Indian students are increasingly being educated in Canada, and a quarter million of them spent an estimated \$5 billion in tuition fees and other expenses last year, a solid contribution to the Canadian economy.
- Of 330,000 new immigrants accepted by Canada last year, 85,000 i.e. nearly 25%, were from India. The Indian diaspora in Canada is now 1.6 million-strong, representing over 4% of the country's total population. Like their brethren to the south, they are increasingly mainstreamed in Canadian politics.
- The principal areas of bilateral cooperation are best defined by five Es: Economy, Energy, Education, Entertainment and Empowerment of women. In particular, the digital domain holds immense potential, given Canada's proven assets in technology — especially its large investment in Artificial Intelligence, innovation and capital resources, and India's IT achievements, expanding digital payment architecture and policy modernisation.

Pangda village

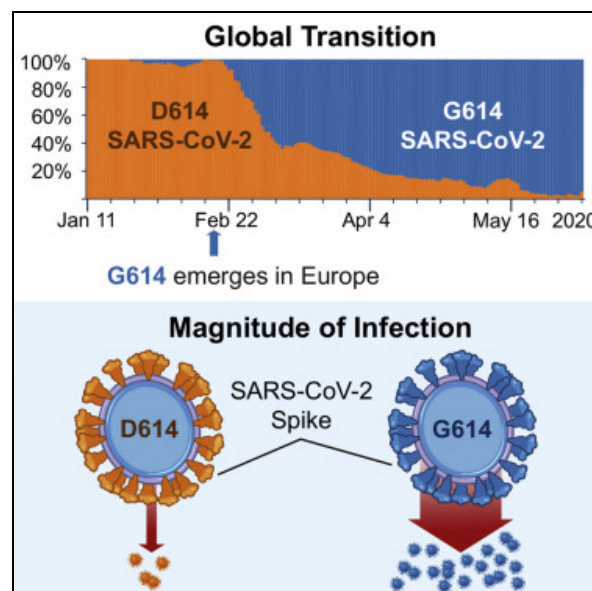
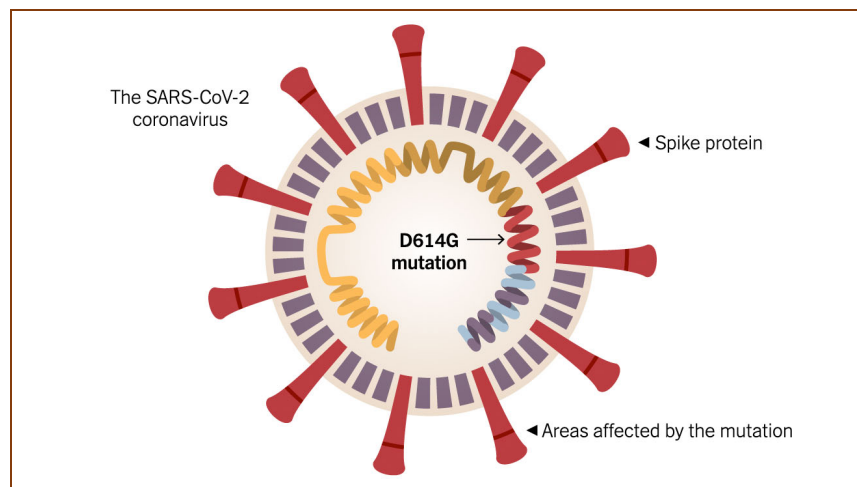
- Chinese media claimed that a new border village built by China near Bhutan was on Chinese territory, but released images of the village show its location on territory disputed by the two countries.
- The Global Times confirmed that the village of Pangda had been newly built and residents moved there in September. An image released by the newspaper placed the village in disputed territory, a couple of kilometres inside what Bhutan sees as its territory.
- However, Bhutan's officials denied the village was on their territory.
- According to open records, authorities in Yadong county of Southwest China's Tibet Autonomous Region confirmed that 27 households with 124 people voluntarily moved from Shangdui village of Duina prefecture of Yadong county to Pangda village in September 2020, adding the village was 35 km away from the county.
- Chinese media reported there were 27 households, and the village was covered by asphalt roads and "has a public square, village committee, health room, police room, kindergarten, supermarket, and plastic runway".
- China has in the past sought to bolster its territorial claims in disputed areas by building civilian settlements there, as on disputed South China Sea islands.
- According to China's maps, the village is within China's territory, but China's border extends further south beyond where India and Bhutan say the border runs.
- The area is east of the India-Bhutan-China trijunction on the Doklam plateau, which was the site of a 72-day stand-off in 2017 triggered by China's road-building up to where it sees its border.



- India moved in to stop the road, which was built a few hundred metres east of India's border, saying China had entered Bhutanese territory and was unilaterally pushing the tri-junction further south.
- The new village is located farther east, away from the tri-junction.
- Chinese experts blamed India for the unsettled China-Bhutan border and stalled negotiations.

D614G mutation in coronavirus

- A mutation is a change that occurs in our DNA sequence, either due to mistakes when the DNA is copied or as the result of environmental factors such as UV light and cigarette smoke.
- While novel coronavirus is undergoing many mutations, one particular mutation called D614G, according to a study, has become the dominant variant in the global COVID-19 pandemic.
- When the virus enters an individual's body, it aims at creating copies of itself. When it makes an error in this copying process, we get a mutation.
- In this case, the virus replaced the aspartic acid (D) in the 614th position of the amino acid with glycine (G). Hence the mutation is called the D614G. This mutated form of the virus was first identified in China and then in Europe. Later it spread to other countries like the U.S. and Canada and was eventually reported in India.



- Not only did the D614G show increased infectivity but it also displayed greater ability at attaching itself to the cell walls inside an individual's nose and throat, increasing the viral load.
- The patients seem to be exhibiting variable reactions to it depending upon their genetic constitution, age, exposure to other diseases etc. Researchers are still pondering over the effects of this mutation.
- A study (a preprint posted on bioRxiv) — which collected SARS-CoV-2-positive samples from the various States like Delhi, Tamil Nadu, Maharashtra and Uttar Pradesh among others — reveals that the D614G was one of the most prevalent spike mutations even during the initial phase of the pandemic.
- Since then, D614G mutation's 'relative abundance' has increased over time to 70% and above, in most States except Delhi, reports another pre-print in BioRxiv after analysing samples from 10 Indian States.

EOS-01

- India successfully launched its latest earth observation satellite EOS-01 and nine international customer spacecraft on board a Polar rocket from the spaceport here on Saturday, in its first mission this year amid the COVID-19 pandemic.
- The Indian Space Research Organisation's (ISRO) workhorse Polar Satellite Launch Vehicle (PSLV-C49) injected EOS-01, intended for applications in agriculture, forestry and disaster management support, and other satellites, one by one in orbit, around 20 minutes after lift-off from the Satish Dhawan Space Centre (SDSC), about 110 km from Chennai, at 3.12 p.m.
- This is ISRO's first mission in 2020 after the COVID-19 pandemic induced lockdown disturbed 10 missions planned by the agency.




- EOS-01 is an X-band, synthetic-aperture radar (SAR) based all weather Earth imaging satellite built by the Indian Space Research Organisation (ISRO) for tasks pertaining to forestry, agricultural and disaster management.

- It is a part of India's RISAT series of SAR imaging spacecraft and would be third satellite in the series including RISAT-2B, RISAT-2BR1 with 120° phasing. EOS-01 has been developed at the cost of roughly ₹125 crore.
- The nine customer satellites are from the United States (4), Lithuania (1) and Luxembourg (4).
- ISRO Chairman K. Sivan described the mission as a “success” and termed it “unusual” for ISRO as a rocket launch cannot happen like “work from home” and all engineers and technicians had to travel from different centres and work together at Sriharikota for rocket launches.

Atmanirbhar Bharat Abhiyan 3.0


- Finance Minister Nirmala Sitharaman announced a fresh set of relief and stimulus measures for the economy worth ₹1.19 lakh crore, including a scheme to boost re-employment chances of formal sector employees who lost their jobs amid the COVID-19 pandemic.
- The measures, announced a day after the Reserve Bank of India (RBI) said the country had entered into a technical recession in the first half of 2020-21, include a ₹65,000 crore additional outlay for providing fertilizer subsidies to farmers.

Booster dose | A look at the fresh stimulus steps announced by the Finance Minister




Jobs
A new **Atmanirbhar Bharat Rozgar Yojana** mooted to spur job creation

- Govt. to foot **two years' EPF dues** (24% of wages) for new employees hired between Oct. 1, 2020 and June 30, 2021
- People earning less than **₹15,000 per month** who lost jobs between March 1 and Sept. 30 to be covered if re-employed
- Firms with more than 50 employees must hire **at least 5 more** to be covered




Farmers
Govt. to provide **₹65,000 crore** as fertilizer subsidy to ensure adequate availability in view of the expected rise in sown area




Salaried taxpayers
Some income tax relief for purchase of residential units of value up to **₹2 crore**

- Permissible differential under Income Tax Act between circle rate and agreement value to be raised from **10% to 20%** for primary sale of new units till June 30, 2021



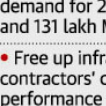
Infrastructure
₹18,000 crore allocated to PM Awas Yojana to build urban housing, over the **₹8,000 crore** allotted in the Budget

- Govt. expects this would create **78 lakh new jobs** and drive



Stressed sectors
Emergency Credit Line Guarantee Scheme extended till March 31, 2021


- New scheme to provide credit to firms in the healthcare sector and 26 other sectors identified as 'stressed'



demand for 25 lakh MT of steel and 131 lakh MT of cement

- Free up infrastructure contractors' capital by reducing performance security charges, and scrapping earnest money deposits for bidding on government projects
- **₹6,000 crore** equity infusion in debt platform of National Infrastructure Investment Fund, which will be used to raise **₹1.1 lakh crore** for infra projects by 2025
- **₹10,200 crore** additional funding for capital and industrial expenditure

If you take all the packages and the RBI measures announced so far, a total of ₹29,87,641 crore has been given so far as stimulus. A total of 15% of GDP. The Central government on its own has provided 9% of GDP as stimulus



NIRMALA SITHARAMAN

- The measures under the Atmanirbhar Bharat Abhiyan 3.0 included the production-linked incentive scheme for 10 sectors with a proposed expenditure of ₹1.46 lakh crore over five years.
- The other measures add up to a proposed outgo of ₹1,19,100 crore. Experts pegged the fiscal cost of the announcement at about 1.2% of the GDP, if the PLI scheme was included. However, according to the Ministry a total of 15% of GDP has been given so far as part of the stimulus.. The Central government on its own has provided 9% of GDP as stimulus.”

- Ms. Sitharaman allocated ₹900 crore for research and development towards the COVID-19 vaccine, and said the government was ready to provide for the actual cost of the vaccine and the logistics for its distribution.
- To spur rural employment, an additional ₹10,000 crore has been provided for spending through the MGNREGS and PM's rural roads scheme. Effectively, this takes the total allocations for MGNREGA in the year close to ₹1.1 lakh crore, with Ms. Sitharaman stating that ₹73,504 crore had already been spent to generate 251 crore person days of employment.
- To boost formal sector employment, a new Atmanirbhar Rozgar Yojana has been launched, under which the government will bear the entire Employees' Provident Fund (EPF) contributions for two years of all new employees hired between October 1, 2020 and June 30, 2021, in firms with fewer than 1,000 employees.

1. Atmanirbhar Bharat Rozgar Yojana Subsidy support from Central Govt.(3/3)

1. Central Govt. to provide subsidy for two years in respect of new eligible employees engaged on or after 01.10.2020 at following scale:
 - **Establishments employing up to 1000 employees:** Employee's contributions (12% of Wages) & Employer's contributions (12% of wages) totalling 24% of wages
 - **Establishments employing more than 1000 employees:** Only Employee's EPF contributions (12% of EPF wages)
2. The subsidy support to get credited upfront in Aadhaar seeded EPFO Account (UAN) of eligible new employee

FDI ceiling on Video streaming platforms

- Four days after it brought video streaming platforms such as Netflix under its jurisdiction, the Ministry of Information and Broadcasting issued a detailed notification asking digital news portals to comply with the 26% cap on Foreign Direct Investment (FDI) sanctioned last year.
- The notification reiterates the Cabinet decision of August last year, imposing a 26% cap on FDI under government route for uploading/streaming of news and current affairs through digital media.
- The only major departure is that now even the companies with investment below the 26% cap have to intimate the Ministry about the shareholding pattern along with the "names and addresses of its directors/shareholders". These details have to be submitted within a month.
- The firms which have more than 26% of FDI have been instructed to take steps to bring down the figure before October 15, 2021.

International refuse

The global waste trade is the international trade of waste between countries for further treatment, disposal, or recycling. Toxic or hazardous wastes are often imported by developing countries from developed countries.

- Current international trade flows of waste follow a pattern of waste being produced in the Global North and being exported to and disposed of in the Global South. Multiple factors affect which countries produce waste and at what magnitude, including geographic location, degree of industrialization, and level of integration into the global economy.
- Current supporters of global waste trade argue that importing waste is an economic transaction which can benefit countries with little to offer the global economy. Countries which do not have the production capacity to manufacture high quality products can import waste to stimulate their economy.
- Sri Lanka has started shipping 242 containers of hazardous waste, including body parts from mortuaries, back to Britain after a two-year court battle by an environment watchdog, officials said on Saturday.
- Several Asian countries have in recent years been pushing back against an onslaught of international refuse from wealthier nations and have started turning back the unwanted shipments of garbage as they battle against being used as the world's trash dump.

‘Sea sparkle’

- The bloom of Noctiluca Scintillans, commonly known as “sea sparkle” that the Karnataka coast has been witnessing recently, has displaced microscopic algae called diatoms, which form the basis of the marine food chain.
- This has deprived food for the planktivorous fish, scientists from the Central Marine Fisheries Research Institute (CMFRI), Mangaluru, have said.
- The bioluminescent Noctiluca Scintillans also brightened the sea water during night. The toxic blooms of N. Scintillans were linked to massive fish and marine invertebrate kills. Though the species does not produce a toxin, it was found to accumulate toxic levels of ammonia, which is then excreted into the surrounding waters, possibly acting as the killing agent in blooms.



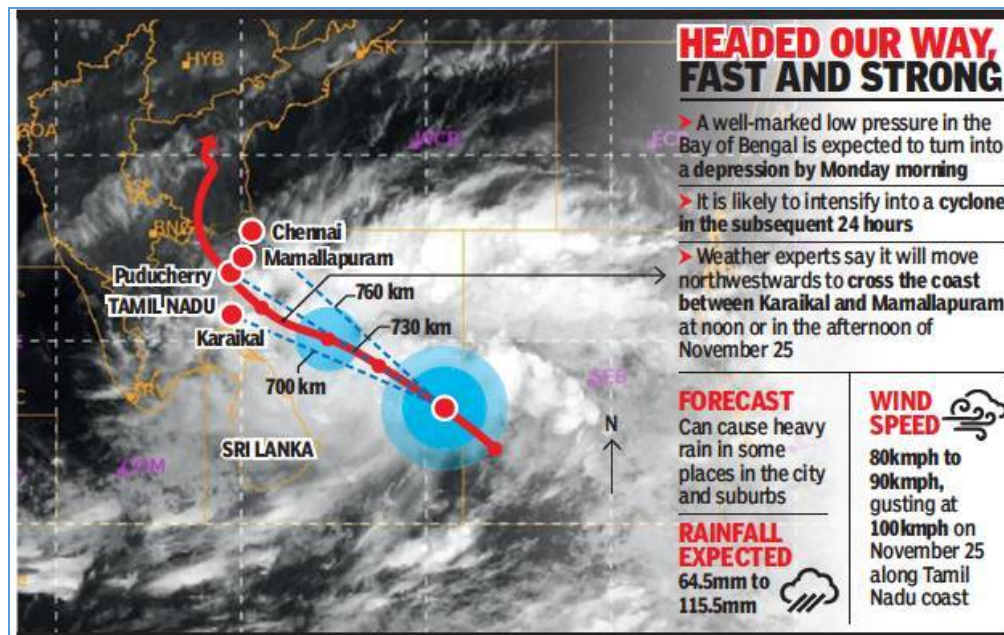
- The ammonia makes *N. Scintillans* unpalatable for most creatures. Only jellyfish and salps were known to prey on it. *N. Scintillans* grazes on other micro-organisms such as larvae, fish eggs, and diatoms. But the unicellular phytoplankton that live inside it can photosynthesise, turning sunlight into energy. They help their host cell survive even when food was scarce. Thus, *N. Scintillans* acts as both a plant and an animal.
- Field studies by the CMFRI in the Arabian Sea off the Karnataka coast since a decade showed widespread blooms of the green dinoflagellate, *N. Scintillans*. Blooms were witnessed on September 8 this year while in September 2018 too such bioluminescence was witnessed along the Someshwara beach in Dakshina Kannada and Mattu in Udupi. This year, however, the intensity and vastness of the bloom close to the shore was observed by many.

Plankton bloom

Plankton bloom was reported when the density of plankton would be more than 1,00,000 cells per m³. Bioluminescence was the production and emission of light by a living organism and occurs due to a chemical reaction, involving a light-emitting molecule and an enzyme, called luciferin and luciferase.

Cyclone Nivar

- Recently, the tropical cyclone Nivar has made landfall along the Tamil Nadu-Puducherry coast.
- It is the fourth cyclone that has taken shape in the North Indian Ocean region this year. The first three cyclones were Cyclone Gati (made landfall in Somalia in November), Cyclone Amphan (eastern India witnessed it in May), and Cyclone Nisarga (in Maharashtra).
- Nivar will be the second cyclone to hit Tamil Nadu in two years after Cyclone Gaja in 2018.
- The storm has been named Cyclone Nivar, based on the guidelines of the World Meteorological Organisation (WMO). Nivara has been selected from the list of names given by Iran.



- A tropical cyclone is an intense circular storm that originates over warm tropical oceans and is characterized by low atmospheric pressure, high winds, and heavy rain.
- A characteristic feature of tropical cyclones is the eye, a central region of clear skies, warm temperatures, and low atmospheric pressure.
- Storms of this type are called hurricanes in the North Atlantic and eastern Pacific and typhoons in SouthEast Asia and China. They are called tropical cyclones in the southwest Pacific and Indian Ocean region and Willy-willies in north-western Australia.
- Storms rotate anticlockwise in the northern hemisphere and clockwise in the southern hemisphere.

Bio-decomposer technique:

- Chief Minister Arvind Kejriwal has said that the bio-decomposer technique of converting stubble into manure has shown success.
- This claim was based on the initial results from a farm where the bio-decomposing solution, developed under the guidance of the PUSA Institute, was being tried out by the Delhi government.
- The government would now present this alternative in the Supreme Court owing to its effectiveness and cost.
- This solution can also be tried by farmers in Punjab and Haryana.
- Pusa Decomposer is a mix of seven fungi that produce enzymes to digest cellulose, lignin and pectin in paddy straw.
- The fungi thrive at 30-32 degree Celsius, which is the temperature prevailing when paddy is harvested and wheat is sown.
- A liquid formulation is formed using decomposer capsules and fermenting it over 8-10 days and then spraying the mixture on fields with crop stubble to ensure speedy bio-decomposition of the stubble.
- The farmers can prepare 25 litre of liquid mixture with 4 capsules, jaggery and chickpea flour. The mixture is sufficient to cover 1 hectare of land.
- It takes around 20 days for the degradation process to be completed.

Benefits of PUSA decomposers:

- Improves the fertility and productivity of the soil as the stubble works as manure and compost for the crops and lesser fertiliser consumption is required in the future.
- It is an efficient and effective, cheaper, doable and practical technique to stop stubble burning.
- It is an eco-friendly and environmentally useful technology.

Fifteenth Finance Commission

- The Fifteenth Finance Commission led by Chairman N K Singh, submitted its Report to the President of India.
- The Report will be available in the public domain once it is tabled in the Parliament by the Union Government.
- The Finance Commission was required to submit two reports. The first report, consisting of recommendations for the financial year 2020-21, was tabled in Parliament.
- Terms of reference (ToR):
- The Commission was asked to give its recommendations on many unique and wide-ranging issues in its terms of reference.
- Apart from the vertical and horizontal tax devolution, local government grants, disaster management grant, the Commission was also asked to examine and recommend performance incentives for States in many areas like power sector, adoption of DBT, solid waste management etc.
- The Commission was also asked to examine whether a separate mechanism for funding of defence and internal security ought to be set up and if so how such a mechanism could be operationalised.
- The Finance Commission is a constitutionally mandated body that is at the centre of fiscal federalism.
- Set up under Article 280 of the Constitution, its core responsibility is to evaluate the state of finances of the Union and State Governments, recommend the sharing of taxes between them, lay down the principles determining the distribution of these taxes among States.

Production-linked incentive (PLI) scheme:

- The Central government has unveiled a production-linked incentive (PLI) scheme to encourage domestic manufacturing investments in 10 more sectors, with an estimated outlay of about ₹1.46 lakh crore over the next five years.
- These sectors have been identified on the basis of their potential to create employment and make India self-reliant.

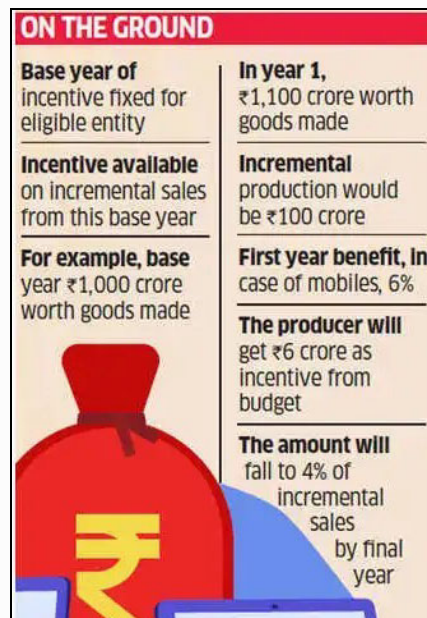
The 10 sectors include:

- Food processing, telecom, electronics, textiles, speciality steel, automobiles and auto components, solar photo-voltaic modules and white goods, such as air conditioners and LEDs.

EXISTING PLI SCHEMES	OUTLAY(₹ CR)
Mobile phone, specified electronic components	40,951
Critical key starting materials, APIs	6,964
Medical devices	3,420

PLI scheme:

- To make India a manufacturing hub, the government had announced the PLI scheme for mobile phones, pharma products, and medical equipment sectors.
- Notified on April 1 as a part of the National Policy on Electronics.
- It proposes a financial incentive to boost domestic manufacturing and attract large investments in the electronics value chain.
- Makes domestic manufacturing competitive and efficient.
- Creates economies of scale.
- Make India part of global supply chain.
- Attract investment in core manufacturing and cutting edge tech.
- Competitive manufacturing would in turn lift exports.



GIFT City in Gujarat

- Gujarat Maritime Board (GMB) has been trying to develop such a maritime cluster at GIFT City in the state capital Gandhinagar through its subsidiary Gujarat Ports Infrastructure and Development Company Ltd (GPIDCL).
- maritime cluster is an agglomeration of firms, institutions, and businesses in the maritime sector that are geographically located close to each other.
- This concept is new to India, but these clusters have been driving some of the most competitive ports of the world like Rotterdam, Singapore, Hong Kong, Oslo, Shanghai, and London.
-

Unique institutions at the Gujarat Maritime Cluster:

- Gujarat Maritime University will be set up.
- Within this, an Alternate Dispute Resolution (ADR) Centre will be set up.
- This centre will provide an option to Indian players seeking to avoid availing the services of international alternate dispute resolution hubs which entail huge costs, time, and travel.
- The cluster is also expected to house the office of the Director General of Shipping.

Gujarat has a lot of ports and handles 40 per cent of the country's cargo, but we have not targeted the entire value-chain.

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

- Madhya Pradesh's Panna National Park has been declared a UNESCO Biosphere Reserve.
- The UNESCO's recognition cited PTR as a critical tiger habitat.
- Every year UNESCO appoints new biosphere reserves and removes others to promote the conservation of biodiversity, resolve the man-animal conflict at that site and allow sustainable use of natural resources.

UNESCO's Man and the Biosphere Programme (MAB):

- The idea of the biosphere reserve was initiated by UNESCO in 1974 under the MAB with the objective of obtaining international cooperation for the conservation of the biospheres.
- Launched in 1971, UNESCO's Man and the Biosphere Programme (MAB) is an Intergovernmental Scientific Programme that aims to establish a scientific basis for the improvement of relationships between people and their environments.
- MAB combines the natural and social sciences, economics and education to improve human livelihoods and the equitable sharing of benefits, and to safeguard natural and managed ecosystems, thus promoting innovative approaches to economic development that are socially and culturally appropriate, and environmentally sustainable.
- Under this, Protection is granted not only to the flora and fauna of the protected region, but also to the human communities who inhabit these regions, and their ways of life.
- The first of India's reserves to make it to UNESCO's list was Tamil Nadu's Niligiri Biosphere Reserve in 2000.

The Panna tiger reserve is situated in the Vindhya mountain range in the northern part of Madhya Pradesh.

Ken river (a tributary of the Yamuna River) flows through the reserve.

The region is also famous for Panna diamond mining.

Ken-Betwa river interlinking project will be located within the tiger reserve.

UAE to widen ‘golden’ visa’s eligibility criteria

- The United Arab Emirates will extend its “golden” visa system to certain professionals, specialised degree-holders and others.
- After first announcing a long-term visa plan in 2018, the UAE in 2019 started granting 5- and 10-year renewable visas to certain foreign investors, entrepreneurs, chief executives, scientists and outstanding students.

‘Golden Card’ Permanent Residency Scheme:

- The United Arab Emirates (UAE) had launched this Scheme to woo wealthy individuals and exceptional talents from all over the world.

The “Golden Card” visa includes categories:

General investors who will be granted a 10 year permanent residency visas .

Real Estate Investors, who can get a visa for 5 year visa.

Entrepreneurs and Talented Professionals like doctors, researchers and innovators can get 10 years visa.

‘Outstanding students’. These will also be permitted 5 years permanent residency visas.

Statue of Peace unveiled in Rajasthan

- PM Narendra Modi unveils ‘Statue of Peace’ in Rajasthan to mark the 151st Birth Anniversary celebrations of Jainacharya Shree Vijay Vallabh Surishwer Ji Maharaj.
- The 151-inch tall statue has been made from Ashtadhatu ie 8 metals, with copper being the major constituent.
- Jainacharya Shree Vijay Vallabh Surishwer Ji Maharaj: The saint, who lived during 1870-1954, led an austere life, working selflessly and dedicatedly to spread the message of Lord Mahavira.
- He also worked relentlessly for the welfare of the masses, spread of education and eradication of social evils, wrote inspiring literature (poetry, essays, devotional hymns and stavans) and gave active support to the freedom movement and the cause of the swadeshi.

Defence Acquisition Procedure of 2020 (DAP 2020):

- The Indian Air Force (IAF) is looking at leasing trainer aircraft and light utility helicopters (LUH) for a short duration till the indigenous platforms under development are inducted into service.
- The recently released Defence Acquisition Procedure (DAP), 2020 allows leasing of military platforms.
- The new policy superseded the Defence Procurement Procedure of 2016 from October 1.

Highlights of the new policy:**Reservations for Indigenous firms:**

The policy reserves several procurement categories for indigenous firms.

DAP 2020 defines an “Indian vendor” as a company that is owned and controlled by resident Indian citizens, with foreign direct investment (FDI) not more than 49 per cent.

New Buy (Global–Manufacture in India) category:

This stipulates indigenisation of at least 50 per cent of the overall contract value of a foreign purchase bought with the intention of subsequently building it in India with technology transfer.

Greater indigenous content:

It promotes greater indigenous content in arms and equipment of the military procures, including equipment manufactured in India under licence. In most acquisition categories, DAP-2020 stipulates 10 per cent higher indigenisation than DPP 2016.

Import embargo list:

The “import embargo list” of 101 items that the government promulgated last month has been specifically incorporated into DAP 2020. (An embargo is a government order that restricts commerce with a specified country or the exchange of specific goods.)

Offset liability:

The government has decided not to have an offset clause in procurement of defence equipment if the deal is done through inter-government agreement (IGA), government-to-government or an ab initio single vendor.

The offset clause requires a foreign vendor to invest a part of the contract value in India.

Immediate comprehensive ceasefire:

- India has called for an “immediate comprehensive ceasefire” in Afghanistan.
- At a recent UNSC meeting, convened under the Arria Formula (informally convened at the request of a UNSC member), India reiterated that “For durable peace in Afghanistan, we have to put an end to terrorist safe havens and sanctuaries operating across the Durand Line.”
- The Afghan peace process and premature withdrawal of NATO/ U.S. coalition forces could leave opportunities for terrorist networks that could target both Afghanistan and India.
- As recently as May of this year, the UN issued a report providing evidence that despite assurances from the Taliban to the United States, Al Qaeda is still present and active in Afghanistan, harboured by the Taliban.
- For violence to end in Afghanistan, terrorist supply chains must be broken.
- Four requirements for peace and stability in Afghanistan highlighted by India are:
 - The process had to be Afghan-led and Afghan-owned.
 - There must be zero tolerance for terrorism.
 - Rights of women need to be strongly protected, the rights of the minorities and the vulnerable need to be safeguarded.
 - The transit rights of Afghanistan should not be used by countries “to extract [a] political price from Afghanistan.”

J&K’s Roshni Act:

- There are allegations related to irregularities in the implementation of the Jammu and Kashmir States Land (vesting of ownership to the occupants) Act, also known as Roshini Act, which has now been declared null and void.
 - The J&K administration has published a list of Roshni Act beneficiaries.
 - The beneficiaries include former Ministers, and retired civil servants.
 - The law was declared null and void recently by the Government.
- Roshini Act:
- Enacted in 2001, the law sought to regularise unauthorised land.
 - The Act envisaged the transfer of ownership rights of state land to its occupants, subject to the payment of a cost, as determined by the government.
 - The government said the revenue generated would be spent on commissioning hydroelectric power projects, hence the name “Roshni”.
 - Further, through amendments, the government also gave ownership rights of agricultural land to farmers occupying it for free, charging them only Rs 100 per kanal as documentation fee.
 - In 2009, the State Vigilance Organisation registered an FIR against several government officials for alleged criminal conspiracy to illegally possess and vest ownership of state land to occupants who did not satisfy criteria under the Roshni Act.

- In 2014, a report by the Comptroller and Auditor General (CAG) estimated that against the targeted Rs 25,000 crore, only Rs 76 crore had been realised from the transfer of encroached land between 2007 and 2013, thus defeating the purpose of the legislation.
- The report blamed irregularities including arbitrary reduction in prices fixed by a standing committee, and said this was done to benefit politicians and affluent people.

Germany's new boardroom quota for women

- Germany is planning to impose a mandatory quota for the number of women working in senior management positions in the country's listed firms.
- This historic move is being seen as the next step in narrowing the gap of sexual inequality in the country. As per the agreed-upon provisions:
- In case executive boards of listed companies have more than three members, one of them must be a woman.
- Companies in which the federal government has a stake will require a supervisory board quota of at least 30 per cent and minimum participation in executive boards.
- Since 2015, Germany, which is Europe's biggest economy, has had a voluntary quota of 30 per cent for women on supervisory boards.
- However, various studies have indicated this did little to improve the proportion of senior executive positions held by women.

Negative yield bonds

- Last week, China sold negative-yield debt for the first time. These are debt instruments that offer to pay the investor a maturity amount lower than the purchase price of the bond.
- 5-year bond was priced with a yield of -0.152% , and the 10-year and 15-year securities with positive yields of 0.318% and 0.664% .
- Can be issued by central banks or governments.
- Here, investors pay interest to the borrower to keep their money with them.
- Such instruments are usually in demand during times of stress and uncertainty. This is to protect their capital from significant erosion.
- From currency fluctuations to deflation, there are scenarios in which purchasers of negative-yield bonds can come out ahead.
- Relationship between Bond Price and Yield:
- A bond's price moves inversely with its yield or interest rate; the higher the price of a bond, the lower the yield.
- The reason for the inverse relationship between price and yield is due, in part, to bonds being fixed-rate investments.

- Investors might sell their bonds if it's expected that interest rates will rise in the coming months and opt for the higher-rate bonds later on.
- Conversely, bond investors might buy bonds, driving the prices higher, if they believe interest rates will fall in the future because existing fixed-rate bonds will have a higher rate or yield.

Negative Yield Bond

A Negative yield bond is when the issuer of the bond (borrowers) is paid by the investor (holder of the bond) to borrow money in a negative interest rate environment. Investors end up losing money when they hold such bonds until maturity.

