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## GS PAPER - I

**Paper 1 Topic:** Indian culture will cover the salient aspects of Art Forms, Literature and Architecture from ancient to modern times.

### 70-ft Buddha statue to adorn tourist project in Ghantasala

To develop **Ghantasala village in Krishna district of Andhra Pradesh** as one of the prime Buddhist tourist spots in the State, decks have been cleared for the construction of a Rs. 1.5-crore project, which envisages construction of 70- ft statue of Buddha.

#### Mahaparinirvana:

A two-storied structure in Buddhist architecture resembling a pedestal with a 100-ft wide and 70-ft high Buddha in the Mahaparinirvana posture will be a major highlight. The new facility will be **themed on the Mahaparinirvana of the Buddha**. In Buddhism, **Mahaparinirvana means the ultimate state — everlasting, highest peace and happiness — entered by an Awakened Being (Buddha)**.

#### Significance of reclining Buddha:

On top of the two-storey structure will be an imposing statue of **the reclining Buddha**. This is a major iconographic and statuary pattern of Buddhism. It represents the **historical Buddha during his last illness, about to enter the Mahaparinirvana**. It shows Buddha lying on the right flank, his head resting on a cushion or on his right elbow, supporting his head with his hand. This pattern seems to have emerged at the same time as other representations of the Buddha in the Greco-Buddhist art of Gandhara.

#### About Ghantasala:

Ghantasala, **known as Katakasila** in the ancient times, was a renowned Buddhist centre located near the coast. **Ptolemy, the Greek geographer, had made a specific mention of an emporium of Kontakossyla in the region of Misolia (present Machilipatnam)**.

Initially, the archaeological significance of Ghantasala was reported by Boswel in 1870-71 and the site was subsequently subjected to excavations by Alexander Rea which brought out the stupa architecture in detail.

Sources: the hindu.



**Paper 1 Topic:** Salient features of Indian Society, Diversity of India.

### Nuakhai Juhar

Nuakhai Juhar was celebrated across Odisha on August 26.

#### About Nuakhai Juhar:

Nuakhai is the chief festival of Western Odisha. It is the **harvest festival of Odisha wherein farmers are in possession of new rice of the season**. They offer the first produce of their respective lands to Goddess Samaleswari and then consume it personally. It is one of the major festivals celebrated widely in the state.

Sources: pib.



*Paper 1 Topic: Role of women and women's organization, population and associated issues, poverty and developmental issues, urbanization, their problems and their remedies.*

### Startling figures of inequality in India offer an incomplete picture

*Inequality is no longer a first-world phenomenon.* It is very much at our shores, but the moot question remains if the trend is undesirable at all.

- The data released by the Bloomberg Billionaire Index reveals some shocking statistics about the rise of inequality in India. It showed that **the top 20 industrialists in India added a staggering \$50 billion to their combined wealth in the first seven months this year**, taking their total valuation to \$200 billion — roughly 10% of India's \$2 trillion economy.
- Similarly, an Oxfam report released this year revealed that **57 billionaires in India own as much as the bottom 70% of the population and, more broadly, the richest one percent holds 58% of the country's total wealth** — higher than the global average of 50%.

However, these studies offer an incomplete picture. How?

According to US economists Simon Kuznets, when economic growth takes place, at the disaggregated micro-level, individual economic agents move along the real income scale — a process which he termed as **"income mobility"**. Now, income mobility can either be upward or downward but it is observed that during phases of rapid economic growth, opportunities for upward mobility far outweigh those for unchanged or downward mobility. Also, in the presence of income mobility, the identity of individuals at different levels of the income scale changes rapidly over time.

- In such a scenario, **average inequality indicators cannot reflect the true picture on the ground** and can, therefore, prove to be misleading predictors of the adverse social outcomes of growing inequality. The tolerance level of inequality for the society in times of rapid economic growth may be much higher than what is reflected in inequality statistics as it fails to take income mobility into account.
- Another problem with only looking at inequality statistics is **the perception of a simplistic one-to-one correspondence between movements in income inequality and equity**. Rising inequality cannot be equated to a one-on-one fall in equity. Therefore, more focus should be kept on the wealth accruing to the people at the bottom of the ladder to understand the real implications of rising inequality.
- Finally, **inequality data fail to take into account the public perception of rising inequality**. A stagnant economy leads to a zero-sum game where economic advancement of others provokes a negative signalling effect of a possible deterioration of one's own economic position. However, in times of rapid economic growth, there arises a positive-sum game where economic improvement of others signals an environment where there is hope for a rise in one's own prosperity in the future.

Way ahead:

Thus, it needs to be understood that contrary to the common perception among individuals and policymakers, rising inequality is not necessarily inequitable, if and when it arises out of rapid economic growth. The startling figures of inequality in India that have been brought about of late, therefore, offer an incomplete picture. Moreover, use of these figures to argue that Indian economic development has had adverse distributional consequences offers the incorrect diagnosis and skews policymaking.

What needs to be done?

*The focus on wealth accruing at the top needs to be supplemented with the income mobility achieved by those at the bottom of the pyramid and with a focus on elimination the social and economic barriers that they face in achieving upward mobility.* A skewed focus on the top hardly serves any purpose other than providing shock value.

Sources: et.

## Swachh Bharat launches Swachh Survekshan Gramin 2017

The Ministry of Drinking Water and Sanitation has launched a third party verification survey report to take stock of the progress already made by the Mission in rural India. It also launched Swachh Survekshan Gramin 2017.

### About Swachh Survekshan Survey:

In order to foster a healthy competition between cities for improving cleanliness standards, the Ministry of Urban Development (MoUD) started the “Swachh Survekshan” survey, ranking of cities on cleanliness and other aspects of urban sanitation, in 2016 which ranked 73 cities across the country. On the same lines, MoUD has initiated “Swachh Survekshan” 2017 which will conduct a survey to rank 500 cities of India.

### Key facts:

- The **Quality Council of India (QCI)** has conducted a transparent third-party assessment of the present status of rural sanitation in all States and UTs, called Swachh Survekshan Gramin 2017.
- Under the Swachh Survekshan Gramin 2017, QCI surveyed 1.4 lakh rural households across 4626 villages, and found the overall toilet coverage to be 62.45%.
- At the time of the survey, i.e. May-June 2017, the Swachh Bharat Mission (Gramin) MIS reported the coverage to be 63.73%. The survey also observed that 91.29% of the people having access to a toilet, use it.
- **Kerala and Haryana have topped the survey.** Northeastern States of Sikkim, Manipur and Nagaland have performed well with 95% rural households covered by toilets. And so were the Himalayan States of Himachal Pradesh and Uttarakhand with over 90% toilet coverage of the rural houses.

### Background:

**Swachh Bharat Mission Gramin seeks to eliminate open defecation in rural areas by 2019 through improving access to sanitation.** It also seeks to generate awareness to motivate communities to adopt sustainable sanitation practices, and encourage the use of appropriate technologies for sanitation.

- SBM-Gramin mainly focuses on ensuring the use of toilets, besides their construction. The States and their implementing agencies will be given incentives for meeting performance standards: reducing open defecation, sustaining their open defecation-free status and improving solid and liquid waste management in rural areas.
- Over 4.54 crore household toilets have been constructed since the launch of the Swachh Bharat Mission Gramin. 2,20,104 villages, 160 districts and 5 States declared ODF. Sanitation Coverage has increased from 39% in October 2016 to 66% in August 2017.

### About QCI:

Quality Council of India (QCI) was set up in 1997 as **an autonomous body** jointly by the Government of India and the Indian Industry represented by the three premier industry associations i.e. Associated Chambers of Commerce and Industry of India (ASSOCHAM), Confederation of Indian Industry (CII) and Federation of Indian Chambers of Commerce and Industry (FICCI), to establish and operate national accreditation structure and promote quality through National Quality Campaign. **The Department of Industrial Policy & Promotion, Ministry of Commerce & Industry, is the nodal ministry for QCI.**

**Chairman of QCI is appointed by the Prime Minister** on recommendation of the industry to the government.

Sources: pib.

## Odisha govt and Facebook launches ‘SheMeansBusiness’ programme

Odisha government has launched ‘**She Means Business**’ programme of Facebook for women entrepreneurs. *Odisha government’s partnership with Facebook aimed to reduce the digital divide and empower nearly 25,000 women entrepreneurs and SHGs.*

### Highlights of the programme:

- Under the scheme 25, 000 women entrepreneurs and self-help group (SHG) members will be given training on digital marketing skills within next one year.
- Facebook will also make a database of entrepreneurs in the state and will monitor their growth, turnover and profit after one year. While success stories among them will be highlighted to inspire others.

- Women entrepreneurs will get hands on training on digital marketing free of cost and they need not create their website to promote their business. The platform will also facilitate vertical integration.

#### Background:

As many as 201 million monthly active people on Facebook in India on their mobile and 57% of people on Facebook in India are connected to at least one small business. Moreover, 1.99 billion interactions generated between businesses and people in India through Facebook. Number of new women-owned small and medium business pages on Facebook in India has increased approximately six-fold in the last four years (between 2012 and 2015).

Sources: et.

## Melbourne named 'World's Most Liveable City'

Melbourne has been named '**The World's Most Liveable City**' for the seventh consecutive year by the annual Economist Intelligence Unit's (EIU) **Global Liveability Index**.

#### Background:

The EIU's Liveability Ranking assesses living conditions in 140 cities across the globe by assigning a rating across five broad categories.

- The rating quantifies the challenges that might be presented to an individual's lifestyle in any given location, and allows for direct comparison between locations.
- Every city is assigned a rating of relative comfort for over 30 qualitative and quantitative factors across **five broad categories** – stability, healthcare, culture and environment, education and infrastructure.

#### Top five most liveable cities:

- Melbourne
- Vienna
- Vancouver
- Toronto
- Adelaide, Calgary.

#### Key facts:

- No Indian city was ranked in the top ten or bottom ten in the most liveable city ranking.
- As per the survey, the least liveable city was Damascus at 140th place.

Sources: the hindu.

## Navika Sagar Parikrama

**Navika Sagar Parikrama** is a project wherein a team of women officers of the Indian Navy would circumnavigate the globe on an Indian-built sail boat **INSV Tarini**.

#### Key facts:

- This is **the first ever Indian circumnavigation of the globe by an all-women crew**. The project is scheduled to commence in early Sep 17.
- INSV Tarini is **the sister vessel of INSV Mhadei**.
- The project is considered essential towards promoting Ocean Sailing activities in the Navy while depicting Government of India's thrust for 'Nari Shakti'.
- The expedition has been aptly titled 'Navika Sagar Parikrama', aimed at promoting women empowerment in the country and ocean sailing by the Indian Navy.



Additional aims of the Expedition are as follows:

**Nari Shakti:** In consonance with the National policy to empower women to attain their full potential, the expedition aims to showcase 'Nari Shakti' on the world platform. This would also help to discard the societal attitudes and mindset towards women in India by raising visibility of participation by women in challenging environment.

**Environment and Climate Change:** Sailing encourages the use of environment friendly non-conventional renewable energy resources which affects the life of women. The expedition thereby aims at harnessing the energy to optimise the livelihood of the women onboard.

**Make in India:** The voyage also aims to show case the 'Make in India' initiative by sailing onboard the indigenously built INSV Tarini.

**Meteorological/ Ocean/ Wave Data Observation:** The crew would also collate and update Meteorological/ Ocean/ Wave data on a daily basis for subsequent analysis by research and development organisations.

**Marine Pollution:** The crew would monitor and report marine pollution on the high seas.

Sources: pib.

## Supreme Court scraps instant triple talaq

The controversial Islamic divorce practice of **instant triple talaq** (Talaq-e-Biddat) has been struck down as arbitrary and against the tenets of Islam. **The practice was against Article 14 of the Constitution, which guarantees the right to equality, the Supreme Court has ruled.**

Background:

Shayara Bano, a 35-year-old resident of Uttarakhand, filed a petition in the Supreme Court in 2015 and sought a ban on the practice after her husband ended their 15-year marriage by sending a letter with the word talaq written thrice. Her petition seeks the Supreme Court to declare talaq-e-bidat, polygamy and nikah halala illegal and unconstitutional on the grounds that they violate the rights guaranteed by the Constitution under Articles 14, 15, 21 and 25.

Several other women lined up with their petitions over the following months. Women cannot pronounce **triple talaq and are required to move a court for getting divorce under the Sharia Act, 1937.**

What is instant triple talaq?

There are three forms of talaq (divorce) in Islam: Ahsan, Hasan and Talaq-e-Biddat (triple or instant talaq). Ahsan and Hasan are revocable but Biddat is irrevocable. Biddat is considered sinful but is permissible in Islamic law. It has been banned in more than 20 Muslim countries, including Pakistan and Bangladesh.

Triple talaq as a statutory right:

**Section 2 of the Muslim Personal Law (Shariat) Application Act of 1937 has already recognised triple talaq as a statutory right.** Therefore, Instant talaq was no longer a personal law to remain free from the rigours of the fundamental rights as it comes under the ambit of Article 13 of the Constitution. Article 13 mandates that any law, framed before or after the Constitution, should not be violative of the fundamental rights.

Triple talaq and Supreme Court:

The Supreme Court in June 2016 decided to examine if Islamic laws governing marriage and inheritance violated the fundamental rights of women and take a call on how far it can intervene to modify the existing laws.

Constitutional provisions:

Under the Constitution, **religious freedom is subject to all other Fundamental Rights. Article 25** — which guarantees Freedom of Practice and Propagation of Religion — does not protect religious practices since they can negatively affect the welfare of citizens. **Article 14**, which guarantees the Right to Equality, overrides **Article 25** because triple talaq denies a Muslim woman's equality before the law.

Similarly, Article 25 is subject to Article 15 (1) which says that the State "shall not discriminate against any citizen on grounds only of religion, race, caste, sex..." Since triple talaq does not work in the favour of women, it violates Article 15 (1) of the Constitution.



Way ahead:

The court favoured keeping on hold the practise of triple talaq for six months, urged the political parties to set aside their differences and aid the Centre in coming out with a legislation.

- The government has said it will write a new matrimony law for Muslims to fill a legal vacuum should the Supreme Court strike down triple talaq.
- Also, this judgment is likely to be a valuable touchstone for the Law Commission while handling contentious issues under **the Uniform Civil Code (UCC)**.

Sources: the hindu.

### Rural Games to take Place in Delhi

The first edition of **Rural Games or Grameen Khel Mahotsav** will kick-start from Delhi and will take place between 28th August to 3rd September, 2017.

About Grameen Khel Mahotsav:

The Rural Games will **aim at popularising the indigenous games** like wrestling, athletics etc. and will also have fun games like Matka Race, Tug of War for senior citizens to add the fun element in the games.

- This festival will help participation of rural youth in large numbers in popular sports and encourage them to achieve excellence and adopt healthy life style.
- These games are intended to act as a catalyst to promote sports in rural areas across the country. The main objective is to deepen the sports culture among the rural youth.

Sources: pib.

***Topic:** Important Geophysical phenomena such as earthquakes, Tsunami, Volcanic activity, cyclone etc., geographical features and their location- changes in critical geographical features (including water-bodies and ice-caps) and in flora and fauna and the effects of such changes.*

### The largest volcanic region on Earth

Scientists have uncovered **the largest volcanic region on Earth** – consisting of almost 100 volcanoes – two kilometres below the surface of the vast Antarctic ice sheet.

Key facts:

- The region consists of a staggering 91 volcanoes, adding to the 47 others that had been discovered previously, with the highest as tall as the Eiger, which stands at almost 4,000 metres, in Switzerland.
- The newly discovered volcanoes range in height from 100 to 3,850 metres. All of them are covered in thick layers of ice.
- **Where is it located?** These active peaks are concentrated in a region known as the west Antarctic rift system, which stretches 3,500 km from Antarctica's Ross ice shelf to the Antarctic peninsula.

Concerns:

- If one of these volcanoes were to erupt it could further destabilise west Antarctica's ice sheets. Anything that causes **the melting of ice** – which an eruption certainly would – is likely to speed up the flow of ice into the sea.
- Another alarming trend is that most volcanism in the world at present is in regions that have only recently lost their glacier covering – after the end of the last ice age. **This could happen in west Antarctica, where significant warming in the region caused by climate change has begun to affect its ice sheets.**

## Scientists discover new tectonic plate

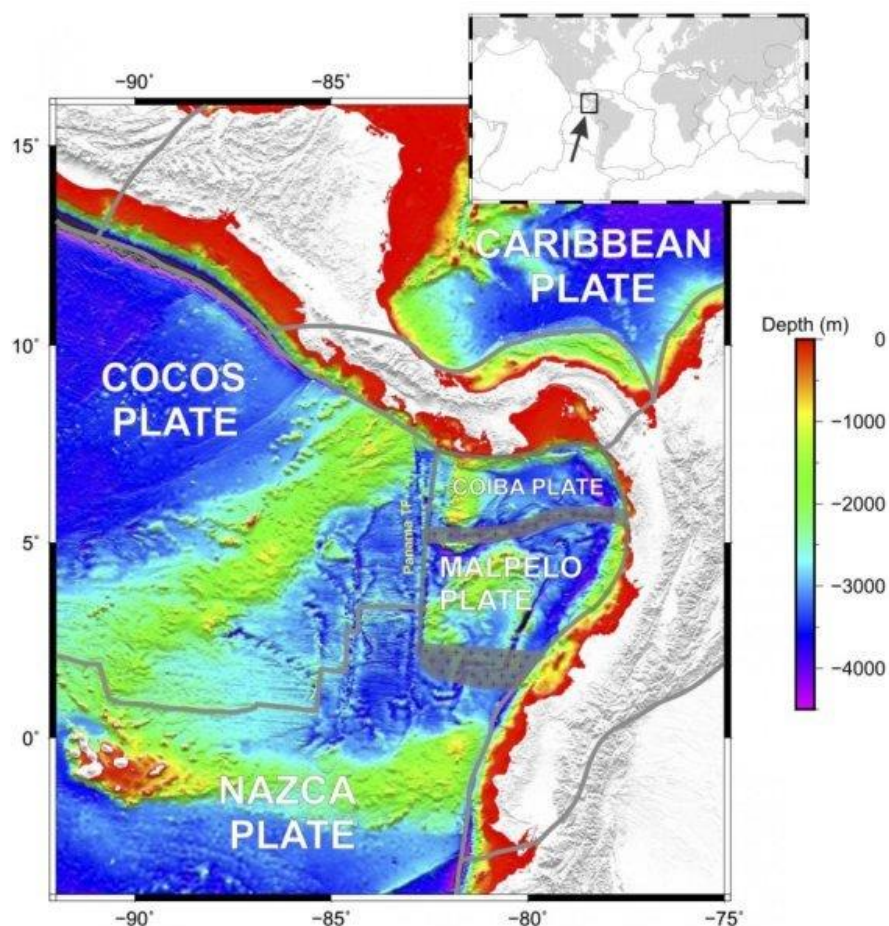
Researchers have discovered a **new tectonic plate off the coast of Ecuador**. There were 56 plates; now, there are 57 — and researchers think there could be one more to find.

About the new plate- Malpelo:

Scientists discovered the microplate — which they've dubbed "Malpelo" — while analyzing the movements of what they believed to be the convergence of a trio of plates. Researchers were studying the coming together of a major tectonic plate and two smaller plates. The edges of the Pacific lithospheric plate roughly form the Ring of Fire, a region of volcanic activity. Filling in the gaps between larger plates are smaller plates. Just west of the Galapagos Islands, the Pacific plate is met by Cocos and Nazca.

Evidence for the Malpelo plate came with the researchers' identification of a diffuse plate boundary that runs from the Panama Transform Fault eastward to where the diffuse plate boundary intersects a deep oceanic trench just offshore of Ecuador and Colombia. **A diffuse boundary is best described as a series of many small, hard-to-spot faults rather than a ridge or transform fault that sharply defines the boundary of two plates.**

Sources: science daily.



## GS PAPER - II

**Topic:** Indian Constitution- historical underpinnings, evolution, features, amendments, significant provisions and basic structure.

### Article 35A: Centre's move for debate stirs hornet's nest

The Centre's move seeking "larger debate" over **Article 35A of the Constitution**, which empowers the Jammu and Kashmir legislature to define "permanent residents" of the state and provide special rights and privileges to them, has triggered a political storm with several parties warning against any tinkering of the provision.

#### What you need to know about Article 35A?

Article 35A is a provision in the Constitution that empowers the Jammu and Kashmir legislature to define permanent residents of the state. It was added **through the Constitution (Application to Jammu and Kashmir) Order, 1954, issued under Article 370**.

The Jammu and Kashmir Constitution was adopted on November 17, 1956. It had defined a Permanent Resident as a person who was a state subject on May 14, 1954, or who has been a resident of the state for 10 years, and has lawfully acquired immovable property in the state, the article.

#### What's the case now?

Attempts to undo Article 35A of the Indian Constitution would strike a fatal blow to the nationalists in the state. There is an ongoing case in the Supreme Court challenging the validity of the Article, which prevents non-J&K state subjects from settling and buying property in the state. However, Kashmiris are apprehensive that such a move would open the sluice gates for a demographic transformation of the Valley.

The J&K government is also concerned at the reluctance of the Union government to file a counter affidavit in the Supreme Court. Against the backdrop of the escalating protests in Kashmir, this issue could potentially be explosive.

Sources: the hindu.

### Supreme Court seeks Centre's reply on validity of special status to JK

The Supreme Court has sought the Centre's response on a plea against a Delhi high court order which had rejected a petition challenging validity of **Article 370 of the Constitution giving special status to Jammu and Kashmir**. The court has issued the notice to the Centre and sought its reply within four weeks.

- The court also questioned the Centre's decision to delegate matters such as citizenship to the state government and the state's decision to have a separate Constitution, when it had ratified its accession to India unconditionally.

#### Background:

In April, the Delhi High Court had rejected the plea challenging the validity of Article 370, saying nothing survives in it as the Supreme Court has already dismissed a petition on the issue. The petitioner in high court had claimed that the issue raised before the high court was different from the matter which was put before the apex court.

#### What's the issue?

The petitioner had contended that **Article 370 was a temporary provision that had lapsed with the dissolution of the state's Constituent Assembly in 1957**.

- The petition had said the continuance of the temporary provision of Article 370 even after dissolution of the state's Constituent Assembly and its Constitution which has never got the assent of the President of India or Parliament or the Government of India, "**amounts to fraud on the basic structure of our Constitution**".
- The petition also claimed that as per the Indian and the J&K Constitutions, the state is an integral part of India. Therefore, the President could declare Article 370 in operative. It also questioned the validity of the J&K Constitution on the ground that it was yet to be ratified either by the President or Parliament.

#### What is Article 370?

Article 370 of the Indian Constitution is a '**temporary provision**' which grants special autonomous status to Jammu & Kashmir.

- Under Part XXI of the Constitution of India, which deals with “Temporary, Transitional and Special provisions”, the state of Jammu & Kashmir has been accorded special status under Article 370.
- All the provisions of the Constitution which are applicable to other states are not applicable to J&K.

#### Important provisions under the article:

- According to this article, except for defence, foreign affairs, finance and communications, Parliament needs the state government’s concurrence for applying all other laws. Thus the state’s residents live under a separate set of laws, including those related to citizenship, ownership of property, and fundamental rights, as compared to other Indians.
- Indian citizens from other states cannot purchase land or property in Jammu & Kashmir.
- Under Article 370, the Centre has no power to declare financial emergency under Article 360 in the state. It can declare emergency in the state only in case of war or external aggression. The Union government can therefore not declare emergency on grounds of internal disturbance or imminent danger unless it is made at the request or with the concurrence of the state government.
- Under Article 370 the Indian Parliament cannot increase or reduce the borders of the state.

Sources: the hindu.

## Right to privacy

The Supreme Court has ruled **right to privacy is intrinsic to the entire fundamental rights** chapter of the Constitution.

- The court has held that *“the right to privacy is protected as intrinsic part of the right to life and personal liberty under Article 21 and as a part of the freedoms guaranteed by Part III of the Constitution”*.
- The court has, with broad brushstrokes, enhanced and highlighted the right. Crucially, it has indicated that the contours of privacy mentioned in the judgment are not limitations to the right but foundations, over which it will develop over time.



#### The case:

The Supreme Court was hearing a challenge to the Delhi high court’s September 23, 2016 order by which it allowed WhatsApp to roll out its new privacy policy but stopped it from sharing the data of its users collected up to September 25, 2016, with Facebook or any other related company.

- The issue was rooted in a reference by a three-judge bench that was hearing a challenge to the constitutional validity of the Aadhaar scheme on the grounds of its being violative of the fundamental right to privacy.
- Initially, on July 7, a three-judge bench said all issues arising out of Aadhaar should finally be decided by a larger bench and the Chief Justice of India would take a call on the need for setting up a constitution bench.
- The matter was then mentioned before CJI Khehar who set up a five-judge constitution bench to hear the matter.
- However, the five-judge constitution bench on July 18 decided to set up a nine-judge bench to decide whether the right to privacy can be declared a fundamental right under the Constitution.
- The decision to set up the nine-judge bench was taken **to examine the correctness of two apex court judgements delivered in the cases of Kharak Singh and MP Sharma**, decided by six and eight judge benches respectively, in which it was held that this right was not a fundamental right.

#### Arguments against right to privacy as a fundamental right:

Though after the mid-seventies, several judgments by the benches of strength of two or three judges had held that right to privacy was fundamental but it was the judgment of 1954 and 1962 by the larger benches that holds the ground. **The judgments of 1954 and 1962 had held that the right to privacy was not a fundamental right.**

- The Centre had also termed privacy as a “vague and amorphous” right which cannot be granted primacy to deprive poor people of their rights to life, food and shelter.
- The Unique Identification Authority of India, too, said privacy was not a fundamental right and there were sufficient safeguards to protect data collected from the people — their iris scan and finger prints.

- The attorney general had contended that right to privacy cannot fall in the bracket of fundamental rights as there were binding decisions of larger benches that it was only a common law right evolved through judicial decisions.

#### Petitioners' arguments:

The petitioners had contended that the right to privacy was "inalienable" and "inherent" to the most important fundamental right which is the right to liberty.

- They had said that right to liberty, which also included right to privacy, was a pre-existing "natural right" which the Constitution acknowledged and guaranteed to the citizens in case of infringement by the state.
- The petitioners also say, "Privacy is associated with and is the bulwark of other rights. It is located in the golden trinity of Articles 14, 19, and 21 (right to liberty and equality). There can be no dignity without privacy, and dignity is part of the Preamble, part of the basic structure of the Constitution."

#### Importance of privacy:

While the notion of privacy now extends to the digital space, in the wake of increased internet penetration and smartphones, there is an increase of hacking and misuse of digital credentials as well. It is a well-established fact that privacy helps individuals maintain autonomy, and exercise power over information.

However, there are several bottlenecks etched to the concept of total privacy. For instance, in matters of national security and involving high-profile digital crimes needs intervention from the government, however, in matters which are personal to the user such as digital credentials, chat history on instant messaging apps, digital footprint are among facets that cannot be encroached by any other entity, as it would amount to breaching or hacking.

#### Concerns:

Legacy data is proof that Indian government or private websites do not have the best reputation when it comes to security, which is vindicated by the number of hacks that have ploughed government websites in the past. Besides, there have been several cases where individuals have succeeded in successfully hacked into UIDAI server.

- While the government has been pushing for the use of Aadhaar and promoting digital transactions, it must be noted that there are no laws to safeguard misuse of personal data, which can be easily traced by data mining activities. While mining is solely used for targetted advertisements, some miscreants may use in to harm the interests of a company or individual.
- Over the years, India has witnessed and been worst victims of deadly ransomware attacks, especially in the sectors of banking and health. With Aadhaar, the government wants the citizens to surf on the digital wave, but noted analysts have mentioned the advanced threat the country faces from modern day hackers.

#### Impact on Aadhar:

This will have a massive impact on Aadhaar-based litigation. A separate Bench of the court will examine the Aadhar issue. This verdict examines the constitutional status of the right to privacy and strengthens the ordinary Indian's privacy from being invaded. Government cannot be arbitrary and this verdict has paved the way for growth of jurisprudence on privacy rights in India.

The right to privacy, like any other fundamental right, shall be subject to reasonable restrictions. So, what are reasonable restrictions? That shall be a matter of interpretation to be decided on a case to case basis, just as it is done for fundamental rights. The right of privacy is always a legal right. A legal right can always be curtailed or extinguished by the legislature.

#### In conclusion, what you need to know?

The right to privacy is now a fundamental right which applies to every Indian's privacy in the actual world and the virtual world. This fundamental right now gives protection to all Indians but it is not an absolute right, as there can be reasonable restrictions for which the government has to establish a procedure. Any state or its instrumentality cannot infringe on the right to privacy. The verdict has ushered in a new era of privacy practice in India. Privacy, as a fundamental right, will get more premium than it did yesterday. This is a giant leap forward – no other Supreme Court judgment has pushed the envelope like this on privacy jurisprudence and no one will ever be able to treat privacy as an inferior right in India.

Sources: the hindu.

## SC order on right to privacy sparks fresh debate on Section 377

The Supreme Court's ruling that held the right to privacy is a fundamental right recognizes a new ground which lights the way to **future judgements on the controversial Section 377 of the Indian Penal Code**, which criminalizes homosexuality.

### Article 377



Chapter XVI, Section 377 of the Indian Penal Code dating back to 1861, introduced during the British rule of India, criminalises sexual activities "against the order of nature", arguably including homosexual acts.

- The court in its judgement said, "It is an individual's choice as to who enters his house, how he lives and in what relationship. The privacy of the home must protect the family, marriage, procreation and sexual orientation, which are all important aspects of dignity."
- With this, the debate on Section 377, marked by demands by LGBT and human rights activists to decriminalize homosexuality, is set to be revived by Thursday's judgement.

#### What next?

With this ruling, the Supreme Court has widened the realm of the right to privacy to include all sorts of personal choices. These include an individual's choice to travel, to reside and to decide whether or not to terminate a pregnancy. It also protects various aspects of an individual's intimate life, including their sexual orientation.

The ruling will certainly impact the future course of decisions on Section 377 that criminalizes homosexuality since it was not considered by the courts earlier. The right of personal choices including sexual orientation has today been recognised.

#### The law:

**Section 377 of IPC** — which came into force in 1862 — defines unnatural offences. It says, "Whoever voluntarily has carnal intercourse against the order of nature with any man, woman or animal, shall be punished with imprisonment for life, or with imprisonment of either description for a term which may extend to 10 years, and shall also be liable to fine."

#### Delhi HC legalises homosexuality:

The Delhi High Court had in July 2009 de-criminalised consensual homosexual acts in private by declaring as unconstitutional a part of Section 377 of IPC that criminalises unnatural sex, saying "the section denies a gay person a right to full personhood."

#### SC re-criminalises homosexuality:

The Supreme Court chose to reverse the verdict in December 2013. Upholding the constitutional validity of Section 377 IPC, the court put the ball in the Parliament's court, saying it was for the legislature to take a call on the desirability of the controversial provision.

#### International developments:

There have been many positive developments in favour of LGBT community on the international front. In May 2015, Ireland legalised same-sex marriage. The country which had decriminalized homosexuality in 1993 became the first country to allow same sex marriage a national level by popular vote.

- In June 2015, the US Supreme Court ruled that same sex marriages were legal. Near home, Nepal legalized homosexuality in 2007 and the new Constitution of the country too gives many rights to the LGBT community.
- France, UK, Canada, United States, Australia and Brazil have de-criminalised homosexuality. Other countries like Belgium, Brazil, Canada, France, Iceland, Ireland, Luxembourg, Norway, Portugal, South Africa, Spain, Sweden and Uruguay allow either same sex marriage or a civil union.
- India currently stands with a host of countries such as Nigeria, Ghana, Iran, Saudi Arabia, Afghanistan, Mauritania, Qatar and Pakistan which criminalizes homosexuality.

Law and morality:

Those against legalising homosexuality argue that it is against the moral values of the society. What is forbidden in religion need not be prohibited in law.

However, those in favour say, "Morality cannot be a ground to restrict the fundamental rights of citizens. A legal wrong is necessarily a moral wrong but vice versa is not correct. A moral wrong becomes a legal wrong only when its consequences are for society and not just the person/s committing it."

Sources: the hindu.

### Northeast yet to implement SC judgement on parliamentary secretaries

The Supreme Court had in July struck down an Assam legislation of 2004, which allowed the appointment of parliamentary secretaries, viewing it as "unconstitutional". However, no state in the Northeast has implemented it as yet.

- Nagaland, Arunachal Pradesh, Manipur, Mizoram and Meghalaya, which appointed parliamentary secretaries as a matter of political convenience, have not yet implemented the SC judgment.

Background:

The Supreme Court, in July, held **unconstitutional a law enacted by Assam government in 2004 that allowed appointment of parliamentary secretaries enjoying the rank of minister of state**. As per the Act parliamentary secretary was given *the rank and status of a minister of state and exercised such powers, functions and duties as were assigned by the chief minister*.

- The court said, "**Article 194 does not expressly authorise the state legislature to create offices such as the one in question.**" Therefore, the legislature of Assam lacked the competence to create the post of parliamentary secretaries.
- Arunachal Pradesh and Nagaland have 26 parliamentary secretaries, which is more than 43% of the total strength of the 60-member legislative assemblies of the two states.

Who is a parliamentary secretary?

A Parliament Secretary is similar to a **Minister of State who assists a Minister in his or her duties**.

Issues associated:

**Office of profit:** First, the Constitution specifies conditions which disqualify MPs, MLAs, Municipality and Panchayat members from membership of their respective institutions. The first is holding an "Office of Profit" under the state or central government. The essence of this disqualification is that there should be no conflict between the duties and interests of an elected member. MPs and MLAs hold the government accountable for its work, and if they held an "Office of Profit" under the government, they might be susceptible to government influence and might not discharge their constitutional mandate fully.

**Cap:** Second, the Constitution caps the number of members in the union and state cabinet. Article 164(1A) specifies that the number of ministers including the Chief Minister has to be within 15% of the total number of members of the Assembly (10% in the case of Delhi, which is not a 'full' state).

Over the last few years, courts across the country have struck down the appointment of Parliamentary Secretaries for violating the Constitution.

Sources: et.

### SC verdict to affect ban on slaughter

The Supreme Court has said that its landmark judgment declaring right to privacy a fundamental right would have "some bearing" in matters relating to slaughter of cows, bulls and bullocks in Maharashtra. It is argued that **the right to eat food of one's choice was now protected under privacy**.

- The SC observed this while hearing a batch of appeals filed against the HC verdict decriminalising the possession of beef in case of animals slaughtered outside the state.

Background:

The Bombay High Court had on May 6 last year struck down **Sections 5(D) and 9(B) of the Maharashtra Animals Preservation (Amendment) Act, 1995**.

While **Section 5(D) criminalises possession of flesh of cows, bulls or bullocks, slaughtered outside Maharashtra**, **Section 9(B) imposed burden on the accused to prove that meat or flesh possessed by him/her does not belong to these animals**. The State government had filed an appeal in the top court.

BEEF BAN VS PRIVACY:

The Maharashtra government had on August 10 moved the apex court challenging the high court's verdict striking down sections 5(d) and 9(b) of the Maharashtra Animals Preservation (Amendment) Act, 1995, which criminalised and imposed punishment on persons found in possession of beef of animals, slaughtered in or outside the state, on the ground that it infringed upon a person's "right to privacy".

The Maharashtra government has challenged in Supreme Court the Bombay High Court's May 6, 2016 order that decriminalised the possession of beef, in case of animals slaughtered outside the state.

High Court judgment:

The High Court had struck down sections 5(d) and 9(b) of the Maharashtra Animals Preservation (Amendment) Act, 1995, which criminalised and imposed punishment on persons found in possession of beef of the animals, slaughtered in or outside the state, on the ground that it infringed upon a person's "right to privacy".

- The court had termed as "unconstitutional" the provisions which held mere possession of beef as crime, saying only "conscious possession" of the meat of the animals slaughtered in the state would be an offence.
- In its judgment, the High Court had upheld the ban on slaughter of bulls and bullocks imposed by the Maharashtra government, but had decriminalised possession of beef in case the animals were slaughtered outside the state.

Sources: the hindu.

## Niti Aayog favours simultaneous LS, assembly polls from 2024

The Niti Aayog has favoured conducting synchronised two-phase Lok Sabha and assembly elections from 2024 in "national interest". All elections in India should happen in a free, fair and synchronised manner to ensure **minimum "campaign mode" disruption to governance**, the government think tank said in its report released recently.

NITI Aayog has proposed the following in this regard:

- To implement this in the national interest, **a focused group of stakeholders** comprising constitutional and subject matter experts, think tanks, government officials and representatives of various political parties should be formed to work out appropriate implementation related details.
- This may include drafting appropriate Constitution and statutory amendments, agreeing on a workable framework to facilitate transition to simultaneous elections, developing a stakeholder communication plan and various operational details.
- It has made **the Election Commission the nodal agency to look into the suggestion and set a "timeline" of March 2018 for this purpose**.

Simultaneous elections is a good idea?

- This will help save public money.
- It will be a big relief for political parties that are always in campaign mode.
- It will allow political parties to focus more on policy and governance.

Need for simultaneous elections:

- **Unnecessary expenditures:** Elections are held all the time and continuous polls lead to a lot of expenditure. More than Rs1,100 crore was spent on the 2009 Lok Sabha polls and the expenditure had shot up to Rs4,000 crore in 2014.

- **Use of manpower:** Also, over a crore government employees, including a large number of teachers, are involved in the electoral process. Thus, the continuous exercise causes maximum harm to the education sector.
- **Security concerns:** Security forces also have to be diverted for the electoral work even as the country's enemy keeps plotting against the nation and terrorism remains a strong threat.

#### Significance of this proposal:

The recommendation of the Aayog assumes significance as former president Pranab Mukherjee and Prime Minister Narendra Modi have pitched for simultaneous Lok Sabha and assembly polls. Mukherjee in his speech on the eve of this year's Republic Day had favoured holding Lok Sabha and assembly elections together.

#### Way ahead:

The time is ripe for a constructive debate on electoral reforms and a return to the practice of the early decades after Independence when elections to the Lok Sabha and state assemblies were held simultaneously. It is for the Election Commission to take this exercise forward in consultation with political parties.

Sources: et.

**Paper 2 Topic:** Separation of powers between various organs dispute redressal mechanisms and institutions.

### NOTA option to stay in Rajya Sabha polls

The Supreme Court has refused to stay an Election Commission circular issued in January 2014 that introduced NOTA in the Rajya Sabha elections. The court has, however, issued notice to the Election Commission of India, saying the poll body should be heard in detail as any judicial decision on NOTA may have a ripple effect on elections conducted from January 24, 2014, to the present day.

#### Background:

The Election Commission, in October 2013, issued directions for providing the NOTA option in elections. But then, doubts were raised about its applicability in the Rajya Sabha polls.



- After examining the issue, the EC on January 24, 2014, directed that the option would also apply for elections to the Rajya Sabha. Immediately thereafter, NOTA was introduced for the biennial elections to the Upper House held in 16 States on February 7 the same year.
- On February 27, 2014, while extending the NOTA option to the Legislative Council elections, the electoral body gave further directives on its use.

#### What is NOTA?

NOTA, or 'None Of The Above', option appears at the bottom of EVM or ballot paper, below the names of all the contestants. This option allows a voter to reject all the candidates in any election. It was included in the EVMs and ballot papers by virtue of a Supreme Court judgment in September 2013 which directed the Election Commission to "make necessary provision in the ballot papers/EVMs for "None of the Above (NOTA)" option so that the electors who do not wish to vote for any of the candidates can exercise their right not to vote for any candidate without violation of the secrecy of their decision."

- The Supreme Court had justified the inclusion of NOTA by saying that *it would force political parties to project clean candidates in an election. The court said that since all citizens have the "right to vote", one must also have the right to reject all candidates as part of their fundamental right to speech and expression in the Constitution.*

Prior to this judgment, there was a similar provision in which one could refuse all the candidates in the fray and exercise his or her right to vote. To do that, a voter had to go to the Presiding Officer at the polling booth and fill form 17A. This, however, did not allow for anonymity.

Which other countries have such a provision?

According to Association of Democratic Reforms, apart from India, France, Belgium, Bangladesh, Brazil, Greece, Ukraine, Chile, Finland, Sweden, Spain and Columbia are countries where NOTA or similar voting practice is allowed. Few states like Nevada and Texas in the US also allow it. Bulgaria also joined the list in 2016.

Sources: the hindu.

## High Level Committee on Making India Hub of Arbitration Submits Report

The government had constituted a **ten Member, High Level Committee under the Chairmanship of Justice B.N.Srikrishna**, Retired Judge, Supreme Court of India to *review the institutionalization of arbitration mechanism and suggest reforms thereto*. The committee has submitted its report.



### Recommendations made by the committee:

- **APCI:** Setup an Autonomous Body, styled the Arbitration Promotion Council of India (APCI), having representatives from all stakeholders for grading arbitral institutions in India. The APCI may inter alia recognize professional institutes providing for accreditation of arbitrators. The APCI may hold training workshops and interact with law firms and law schools to train advocates with interest in arbitration and with a goal to create a specialist arbitration bar comprising of advocates dedicated to the field.
- **Special benches:** Create a specialist Arbitration Bench to deal with such Commercial disputes, in the domain of the Courts. Changes have been suggested in various provisions of the 2015 Amendments in the Arbitration and Conciliation Act with a view to make arbitration speedier and more efficacious and incorporate international best practices.
- **ICADR as an institution of national importance:** The Committee has preferred for declaring the International Centre for Alternative Dispute Resolution as an Institution of national importance and takeover of the Institution by a statute. The Committee are of the view that a revamped ICADR has the potential be a globally competitive institution. The Institution was set up with the objective of promoting ADR methods and providing requisite facilities for the same.
- **International law adviser:** As regards the role of arbitrations in matters involving the Union of India, including bilateral investment treaties (BIT) arbitrations, the Committee has recommended for creation of the post of an 'International Law Adviser' (ILA) who shall advise the Government and coordinate dispute resolution strategy for the Government in disputes arising out of its international law obligations, particularly disputes arising out of BITs. The Committee has emphasized that ILA may be consulted by the Department of Economic Affairs (DEA), at the time of negotiating and entering into BITs.

### Significance of this move:

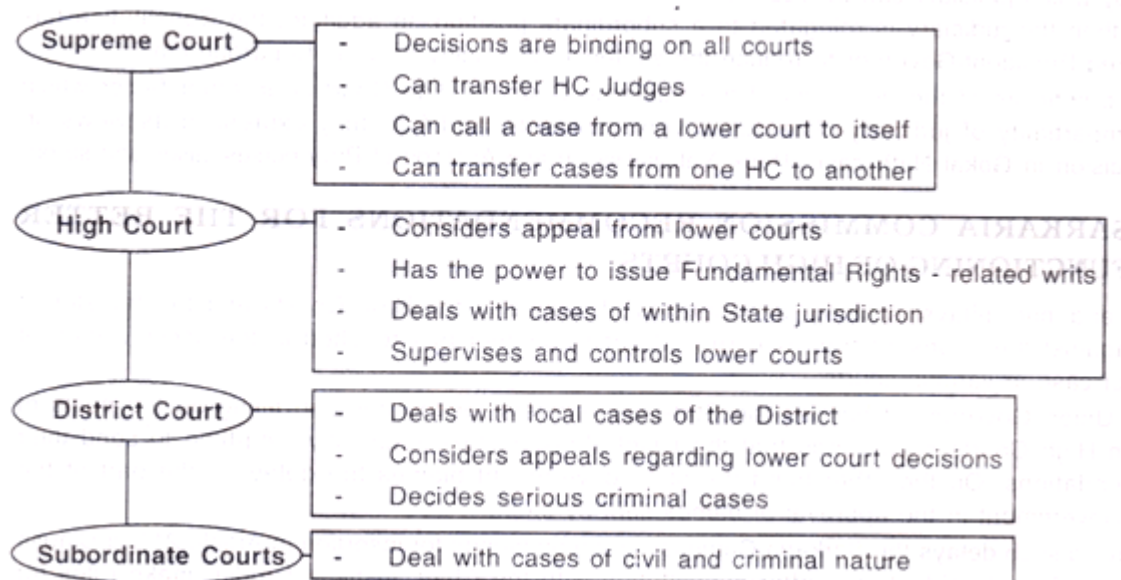
These reforms can result in a paradigm shift from the current perception of delay in resolution of commercial disputes in India to it being viewed as an investor friendly destination. The suggested reforms will not only lessen the burden of the judiciary, but give a fillip to the development agenda of the Government and aid the financial strength of the country and serve the goal of welfare of the citizens.

These reforms aim to make India an international hub of Arbitration and a Centre of robust ADR mechanism catering to international and domestic arbitration, at par with international standards available.

Sources: pib.

## Nine High Courts oppose all-India judicial service

Nine High Courts have opposed a proposal to have an **all-India service** for the lower judiciary, eight have sought changes in the proposed framework and only two have supported the idea. However, most of the High Courts want the administrative control over the subordinate judiciary to remain with the respective High Courts.



#### Background:

The government had given a fresh push to the long-pending proposal to set up the new service to have a separate cadre for the lower judiciary in the country. The idea was first mooted in the 1960s. Seeking to overcome the divergence of views, the government had recently suggested to the Supreme Court various options, including a NEET-like examination, to recruit judges to the lower judiciary. There were vacancies of 4,452 judges in subordinate courts in the country.

#### Need for an all- India Judicial Service:

The **quality of judicial officers in the subordinate judiciary is a matter of concern**. The ever continuing decline in their quality will delay delivery of justice, increase pendency of cases, impair quality of judgments, and in turn affect competence of higher judiciary as well.

- The proposal for setting up an AIJS, in the lines of Indian Civil Service, is hanging fire for more than five decades despite there were several proposals and decisions including that of the apex court, in its favour.
- There is widespread hope that AIJS can deal with great many ills Indian judiciary face right now and revitalize it into a far more vibrant constituent of Indian governance and democracy.
- The precise purpose of AIJS is *to create a rigorous mechanism for appointment of persons of highest ability, impartiality and integrity to the district courts and to equip the subordinate judiciary in turn to serve as the feeder line for appointment of competent judges to the high courts or eventually the Supreme Court.*

#### Who administers lower judiciary in the country?

In the Indian Constitution the judiciary and executive remained separate but the control of lower judiciary remains vested with the high courts.

Sources: the hindu.

**Paper 2 Topic:** *Functions and responsibilities of the Union and the States, issues and challenges pertaining to the federal structure, devolution of powers and finances up to local levels and challenges therein.*

### **NITI Aayog selects 3 States for transformative change in Health & Education sectors**

In a major push to competitive, cooperative federalism, NITI Aayog has announced partnership with three States each to radically transform their Health and Education sectors.

- NITI Aayog has selected Uttar Pradesh, Assam, and Karnataka to improve healthcare delivery and key outcomes in these States.
- In Education, Madhya Pradesh, Odisha, and Jharkhand have been selected for support to better learning outcomes.

Selection process:

The six States have been chosen after a rigorous competitive process based on comprehensive metrics to determine potential for impact and likelihood of success.

States were called to, first, express intent of collaborating with NITI Aayog to better their Health and Education indices. States then made presentations for each sector which was assessed by a committee comprised of senior members of NITI Aayog and Health and Education ministries. The States highlighted the initiatives undertaken by them thus far, their willingness to accelerate improvement and justified why they should be selected for the institutional support being offered by NITI Aayog.

What next?

On thorough technical evaluation, the chosen States have committed to time-bound, governance reforms in both sectors. A Program Management Unit to push for efficiency and efficacy in governance structures and service delivery will now be available in the six chosen States for a period of 30 months. It is expected that these three years of focussed attention and support from the premier think tank will lead to a marked transformation and also provide a model for other States to replicate and adapt.

Background:

This three-way partnership between NITI, State Governments and a knowledge partner for each of the sectors is part of the Sustainable Action for Transforming Human Capital (SATH) initiative of NITI Aayog.

About SATH programme:

Furthering the agenda for cooperative federalism, NITI Aayog has launched SATH, **a program providing ‘Sustainable Action for Transforming Human capital’ with the State Governments**. The vision of the program is to initiate transformation in the education and health sectors. The program addresses the need expressed by many states for technical support from NITI.

- SATH aims to identify and build three future ‘role model’ states for health systems.
- NITI will work in close collaboration with their state machinery to design a robust roadmap of intervention, develop a program governance structure, set up monitoring and tracking mechanisms, hand-hold state institutions through the execution stage and provide support on a range of institutional measures to achieve the end objectives.
- The program will be implemented by NITI along with McKinsey & Company and IPE Global consortium, who were selected through a competitive bidding process.

Sources: pib.

## Article 35A comes under scrutiny

The question whether Article 35A, relating to special rights and privileges of the citizens of Jammu and Kashmir, is ultra vires of the Constitution or not is likely to head for a decision before a five-judge Constitution Bench.

- The indication that the constitutionality of Article 35A will be under scrutiny came from the court while hearing a petition challenging the Article as well as Section 6 of the Jammu and Kashmir Constitution, which deal with the permanent residents’ status in J&K.

Centre’s stand:

The Centre is likely to take a divergent opinion from that of the Jammu and Kashmir government on Article 35A, on the grounds that it discriminates against women who marry outside the State from applying for jobs or buying property, which is in violation of Article 14 of the Constitution.

**Article 14 says:** *“The State shall not deny to any person equality before the law or the equal protection of the laws within the territory of India.”*

What you need to know about Article 35A?

Article 35A protects *certain provisions of the J&K Constitution which denies property rights to native women who marry from outside the State. The denial of these rights extend to her children also.*

**Article 35A** also empowers the State's legislature to frame any law without attracting a challenge on grounds of violating the Right to Equality of people from other States or any other right under the Constitution.

#### Section 6 of the Jammu and Kashmir Constitution:

It restricts the basic right of women to marry a man of their choice by not giving the heirs any right to property if the woman marries a man not holding the Permanent Resident Certificate. Her children are denied a permanent resident certificate thereby considering them illegitimate — not given any right to such a woman's property even if she is a permanent resident of Jammu and Kashmir.

#### WHY ARE POLITICAL PARTIES & SEPARATISTS OPPOSED TO TINKERING WITH 35A?

Fear that it would lead to further erosion of J&K's autonomy and trigger demographic change in Muslim majority valley. Political parties say Kashmir resolution lies in greater autonomy; separatists fan paranoia against possibility of Hindus 'flooding' the valley.

#### Way ahead:

Attempts to undo Article 35A of the Indian Constitution would strike a fatal blow to the nationalists in the state. There is an ongoing case in the Supreme Court challenging the validity of the Article, which prevents non-J&K state subjects from settling and buying property in the state. However, Kashmiris are apprehensive that such a move would open the sluice gates for a demographic transformation of the Valley.

The J&K government is also concerned at the reluctance of the Union government to file a counter affidavit in the Supreme Court. Against the backdrop of the escalating protests in Kashmir, this issue could potentially be explosive.

Sources: the hindu.

### Can't Mekedatu be used to address T.N.'s needs, asks SC

The Supreme Court has asked the Karnataka and Tamil Nadu governments to envision the **Mekedatu dam project as a facility to store excess water from Karnataka**, which can be released to Tamil Nadu. The suggestion was mooted during the hearing of appeals in the Cauvery case. Tamil Nadu has indicated that it was agreeable to the proposition, provided that such an arrangement was under the control and supervision of an independent third party.

#### About the project:

Karnataka intends to build **a reservoir across river Cauvery near Mekedatu in Kanakapura taluk**. It was first proposed along with Shivanasamudra hydro power project at Shimsa in 2003 with an intention to use the water for a hydro power station and supply drinking water to Bengaluru city.

- The drinking water and hydroelectric project will have a balancing reservoir to store 66.50 tmcft of Cauvery water.
- The project is estimated to cost 5,912 crore and about 4,900 hectares of forest land will submerge if the project is implemented.

Sources: the hindu.

***Paper 2 Topic:** Appointment to various Constitutional posts, powers, functions and responsibilities of various Constitutional Bodies.*

### Venkaiah Naidu becomes 15th Vice-President of India

Former Union Minister **M Venkaiah Naidu has been elected as the 15th Vice-President of India**. Naidu will be administered the oath of office by President Ram Nath Kovind.

#### All you need to know about the election of the Vice President:

The election for the Vice President is conducted **through a secret ballot** where the **members of Electoral College consisting of Members of the both Houses of Parliament including, the nominated members of Lok Sabha and the Rajya Sabha** vote.

- Members of Parliament will **use special pens for marking their choice**. Votes marked with any other pen are liable to be rejected.

- The ballot paper shall **contain the names of the contesting candidates, but does not contain any election symbol.**
- A candidate **needs 20 electors as proposers and at least another 20 electors as seconders for his nomination.** The candidate also has to make a security deposit of Rs. 15,000.
- A person shall not be eligible for election as Vice-President if he holds any office of profit under the Government of India or the Government of any State or under any Local or other Authority subject to the control of any of said Governments.
- The Vice President is **the 'ex-officio' Chairperson of the Rajya Sabha.**
- The Vice President is elected **for a period of five years.** There is no fixed retirement age to the Vice President and he or she can be re-elected as the Vice President for any number of times.
- The Vice President is entitled to receiving the salary of the Chairman of the Council of States, which presently amounts to Rs 1,25,000 per month.

#### TOTAL MEMBERS IN THE ELECTORAL COLLEGE:

The Electoral College consists of following members: a) 233 elected and 12 nominated members of the Rajya Sabha. (Total: 245). b) 543 elected and 2 nominated members of the Lok Sabha (Total: 545). The grand total comes to 790.

A person shall be eligible for election as Vice-President if he:

- Is a citizen of India.
- Has completed the age of 35 years.
- Is qualified for election as a member of the Council of States (Article 66).

#### Removal:

The Vice President can be terminated before the completion of fixed five-year term, either by **resignation or by removal by the President.** There is no formal process of impeachment for the removal of the Vice President, and a removal proceeding can be initiated when members of the Rajya Sabha vote against the Vice President in an effective majority and members of Lok Sabha agree to this decision in a simple majority.

A total of 14 days advance notice must be given prior to the initiation of the removal proceedings of the Vice President. In such cases, when a temporary vacancy in the office of the Vice President is created, the Deputy Chairman of the Rajya Sabha takes over the role of the Chairman of the Rajya Sabha.

Sources: pib.

***Paper 2 Topic:** Statutory, regulatory and various quasi-judicial bodies.*

### **National Commission for Backward Classes (Repeal) Bill, 2017**

*The Constitution (123rd Amendment) Bill, 2017, providing for setting up of a National Commission for Backward Classes, was recently passed by the Rajya Sabha. The Bill was passed after dropping Clause 3.*

#### **What is Clause 3 all about?**

Clause 3 pertains to *the insertion of a new article 338B about the constitution and powers of the National Commission for Backward Classes.*

#### **Background:**

The bill is meant to **upgrade the Backward Classes Commission from a statutory body to a constitutional body**, which will give it powers equal to a court to summon people and inquire into incidents of violence and discrimination against backward classes.

**Cabinet gives ex-post-facto approval for introduction of Constitution (One Hundred and Twenty-third Amendment) Bill 2017 and National Commission for Backward Classes (Repeal) Bill, 2017 in the Parliament (1/2)**

- **Constitutional Amendment to be brought about by:**
  - Constitution of a Commission under Article 338B for socially and educationally backward classes, by name of National Commission for Backward Classes
  - (b) insertion of Clause (26C) under Article 366 with modified definition viz.: "socially and educationally backward classes" means such backward classes as are so deemed under Article 342A for the purpose
- **Bill to be introduced to:**
  - Repeal of National Commission for Backward Classes Act, 1993, along with Savings Clause
  - Dissolution of the National Commission for Backward Classes with effect from such date as the Central Government may appoint in this behalf

**Way ahead:**

The amended bill will now have to be returned to the Lok Sabha for its fresh approval. The Lower House had already passed the bill but in the Upper House it had been referred to a Select Committee as the Opposition had wanted more scrutiny. The Constituent amendment bill's passage requires two-third majority of those present and voting.

Sources: pib.

### FCI let over 4 lakh tonne wheat rot away: CAG

The Comptroller and Auditor General of India has said in an audit report on the Food Corporation of India (FCI) that more than 4.72 lakh tonnes of wheat valued at Rs700.30 crore got damaged in Punjab till March 2016 due to delay in implementation of **the private entrepreneur scheme** which was expected to increase the storage capacity of foodgrains in the state.

- The damaged wheat was declared as non-issuable for public distribution as it was stored in open areas. The auditor also found that the state-owned FCI sold wheat to bulk consumers at a rate below the cost under open market sale scheme during 2013-14, leading to non-recovery of Rs38.99 crore.

**Background:**

The report pertains to implementation of **the Private Entrepreneur Guarantee (PEG)** schemes in Punjab and the way the FCI managed its debt, labour and incentive payments during 2011-16. *The PEG scheme 2008 was launched to enhance covered storage capacities as the covered and plinth (CAP)/kacha storage is prone to damage and deterioration of stock and is not an optimum storage method.*

**About the Food Corporation of India (FCI):**

FCI is the main agency for procurement, storage and distribution of food grains. It was set up in 1965 under the Food Corporations Act 1964 to implement the following objectives of the National Food Policy:

- Effective price support operations for safeguarding the interests of the farmers.
- Distribution of foodgrains throughout the country for Public Distribution System.
- Maintaining satisfactory level of operational and buffer stocks of foodgrains to ensure National Food Security.
- Regulate market price to provide foodgrains to consumers at a reliable price.

Sources: et.

### NCRB merged with bureau of police research

The government has merged the National Crimes Records Bureau (NCRB) – which, over the years, has been the principal source of reference by policy makers, police, criminologists, researchers and media – both in India and abroad, with the Bureau of Police Research and Development (BPR&D).

- **NCRB's functions will now be placed under the Director General of BPR&D**, who will oversee all the data collection related to Crime in India, Accidental Deaths and Suicides, Prison Statistics and Fingerprints.

**Why was the merger necessary?**

It was felt that if the researchers of BPR&D, which conducts its own researches and commissions many to private institutes/bodies to study the crime patterns, policing and other related aspects, and statisticians of NCRB work together, there will be more accurate and research based data collection.

**Opposing view:**

Some are not happy with the decision as both bureaus have different functions. NCRB's core function is to collect data on crimes related to IPC and other sections, courts, convictions etc which are taken from states and union territories and then analysed. On the other hand, BPRD's research is not related to crime. It focusses more on research and data collection on how police, central paramilitary forces work, manpower problems, pattern of registration of crime, or influences of police on society etc. therefore, there is no clarity how both these organisations will work together.

About NCRB:

The NCRB was established in 1986 with a mandate **to empower Indian police with information technology solutions and criminal intelligence to enable them to enforce the law effectively.**

- It also compiles data on crimes, prosecutions, traffic related prosecutions, and prisons, suicides etc and its annual report were extensively globally to present India's crime figures. The primary crime collection bureau also has the database of all the fingerprints in India and also plays a role in capacity building for government's ambitious project – Crime and Criminal Tracking Networks and Systems (CCTNS).
- NCRB's data on crimes against women, particularly rapes, has shaped government's policies on safety of women in last few years.

Sources: the hindu.

## Financial Data Management Centre

The Law Ministry has approved a revised Cabinet proposal on the creation of **the Financial Data Management Centre (FDMC)** that would subsequently collect raw data directly.

Key facts:

- FDMC will **collect data in electronic format from the (financial) regulators**. Over time, it will gradually build capacity to collect data from the regulated entities i.e. Financial Service Providers.
- FDMC and the regulators can also **"enter into agreement" for flow of data**, "stringent confidentiality norms". This ensures the same level of protection as provided by various acts applicable to the regulators and guarantees that the "data centre is at all times kept secure and effectively protected".
- In order to facilitate FDMC functioning, "consequential amendments" have been sought in **the RBI Act, Banking Regulation Act and the Payment and Settlement Systems Act** as their confidentiality clauses do not allow access to raw data.

Need for statutory status Statutory status:

FDMC will be set up **through an Act**. Initially, FDMC was to be a non-statutory body to collect data from financial sector regulators, standardise and analyse them on issues relating to financial stability for onward decisions by the Financial Stability and Development Council (FSDC). It was also to provide regular access to the data. However, the Department of Legal Affairs turned down the initial Cabinet proposal saying that *a non-statutory FMDC would find it difficult to acquire data from the regulators, majority of which were statutory.*

Moreover, it said that *any levy of penalty through a gazette notification for violation of data management scheme would neither be legally tenable nor withstand judicial scrutiny.* Besides, courts may not take cognizance of any such offence and compounding of the same under the Code of Criminal Procedure is also not feasible.

Opposition from RBI:

The Reserve Bank of India (RBI) would now no longer be the sole collector and custodian of financial data. The RBI is also against sharing raw data that it gets from banks and other market sources with FDMC as it is not obliged to share confidential client information of banks with anybody. The only exception is when a law enforcement agency has to get specifics on an individual company for investigation purpose. But it has to then approach the courts first to get an order to request the data from the regulators.

Sources: et.

## CBFC Board Reconstituted

In exercise of the powers conferred by sub-section (1) of section 3 of the **Cinematograph Act, 1952 and the Cinematograph (Certification) Rules, 1983, the Central Government** has reconstituted the existing Central Board of Film Certification for a period of three years or until further orders, whichever is earlier. **The new board will be headed by Sh. Prasoon Joshi.**

### About CBFC:

- Films can be publicly exhibited in India only after they have been certified by the Central Board of Film Certification.
- The Board consists of non-official members and a Chairman (all of whom are appointed by Central Government).

Sources: pib.

The National Human Rights Commission (NHRC) has issued a notice to the Uttar Pradesh government, seeking a detailed report on the death of children at BRD Medical College in Gorakhpur in four weeks.

- The rights panel has taken suo motu cognizance of media reports hinting at negligence in the supply of liquid oxygen at the hospital which resulted in the death of a large number of children.

The National Human Rights Commission (NHRC) of India is **an autonomous public body** constituted on 12 October 1993 under the Protection of Human Rights Ordinance of 28 September 1993. **It was given a statutory basis by the Protection of Human Rights Act, 1993 (TPHRA).**

Composition:

**Appointment:** The chairman and members are appointed on the recommendation of a 6 member committee consisting of Prime Minister, Speaker of the Lok Sabha, Deputy Chairman of the Rajya Sabha, leaders of opposition in both the houses of parliament and Union Home Minister.

**Removal:** President has to refer the matter to Supreme Court and if after enquiry Supreme Court holds it right then they can be removed by the President.

## TRIFED celebrates World Honey Bee Day

To create awareness about Beekeeping and uses of its products including Honey, **Tribal Cooperative Marketing Development Federation of India Limited (TRIFED)** is celebrating **World Honey Bee Day (WHBD)** on **August 19** across the Country.

The **main theme** of celebrating WHBD is to save Indian honey bee.

### Benefits of beekeeping:

Beekeeping has been useful in pollination of crops, thereby, increasing income of the farmers/beekeepers by way of increasing crop yield and providing honey and other beehive products, viz. royal jelly, bee pollen, propolis, bees wax, etc. that serves a source of livelihood for rural poor. Therefore, honeybees/ beekeeping has been recognised as one of the important inputs for sustainable development of agriculture/ horticulture.

### Significance of honey and honey bees for tribal people:

Honey is an important Minor Forest Produce. About 90% of the Scheduled Tribes of the country live in and around forest areas and the forests provide 60% of the food & medicinal needs of tribals and 40% of their income from Minor Forest Produce (MFP) mostly of which come from Honey.

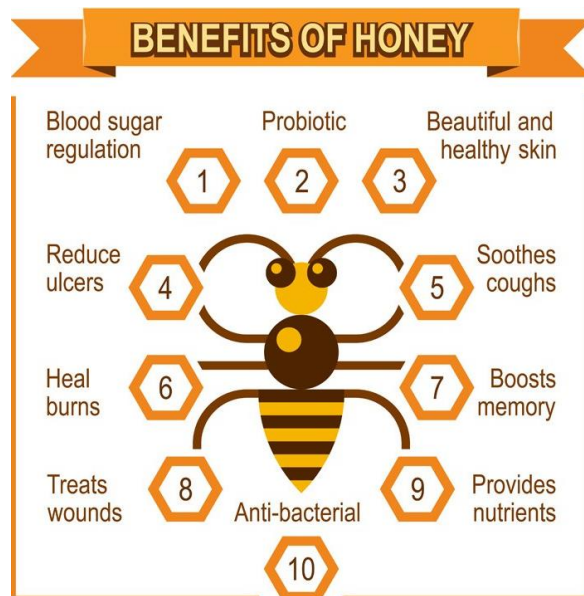
### Way ahead:

TRIFED is playing and lead role in protecting, promoting and multiplication of Honey Bees by Scientific, Non-destructive collection practices, thereby increasing the livelihood of tribal people living in various forest areas of the country, contributing to the growth of Honey Bees population and reducing the mortality rate of Honey Bees drastically.

### About TRIFED:

TRIFED is **an apex organisation at National Level and functioning under the administrative control of Ministry of Tribal Affairs**. TRIFED is serving the interests of Tribals, who are engaged in collection of NTFP and making of Tribal Art & Handicraft Products for their livelihood so as to ensure better remunerative price for their products as well as for the socio-economic betterment through Self Help Groups, Empanelled NGOs, State level Tribal Development Corporations, Forest Development Corporations for undertaking marketing development of the tribal products.

Sources: pib.



## Ministry of Defence approves delegation of Powers to Border Roads Organisation

The Ministry of Defence has decided to delegate **administrative and financial powers to the Border Roads Organisation (BRO)** right upto the level of Chief Engineer and Task Force Commander, so as to avoid delays.



### Need for more powers:

Transformational changes are necessary in the organization in order **to improve the pace of execution of works and to achieve the desired outcomes** according to the requirement of the Armed Forces.

It is expected that with delegation of powers by the Ministry of Defence to the BRO, the pace of road construction in border areas would improve and the BRO would be able to complete ongoing/new projects in compressed timelines.

### About BRO:

Functioning **under the control of the Ministry of Defence** since 2015, the BRO is engaged in **road construction to provide connectivity to difficult and inaccessible regions in the border areas of the country**.

- It is staffed by officers and troops drawn from the Indian Army's Corps of Engineers, Electrical and Mechanical Engineers, Army Service Corps, Military Police and army personnel on extra regimental employment.
- Engineering Service and personnel from the General Reserve Engineer Force (GREF) form the parent cadre of the Border Roads Organisation.

- Currently, the organisation maintains operations in twenty-one states, one UT (Andaman and Nicobar Islands), and neighbouring countries such as Afghanistan, Bhutan, Myanmar, and Sri Lanka.
- The BRO operates and maintains over 32,885 kilometres of roads and about 12,200 meters of permanent bridges in the country.

Sources: pib.

## Meeting of FSDC

The seventeenth Meeting of the Financial Stability and Development Council (FSDC) was recently held in New Delhi under the Chairmanship of the Union Minister of Finance, Shri Arun Jaitley.

- The Council discussed the issues and challenges facing the Indian economy and Members agreed on the need to keep constant vigil and be in a state of preparedness of managing any external and internal vulnerabilities.
- FSDC took note of the developments and progress made in setting up of Computer Emergency Response Team in the Financial Sector (CERT-Fin) and Financial Data Management Centre and discussed measures for time bound implementation of the institution building initiative.

Financial Stability and Development Council



- The then Finance Minister Pranab Mukherjee said that the proposed high-level Financial Stability and Development Council (FSDC) would be established soon but would not dilute the autonomy of individual regulators.
- To strengthen and institutionalize the mechanism for maintaining financial stability.
- All regulatory heads would be members.
- Governor RBI would be the VC
- Would be Chaired by the Finance Minister.

### About FSDC:

The Financial Stability and Development Council (FSDC) was constituted in December, 2010. The **Council is chaired by the Union Finance Minister** and its members are Governor, Reserve Bank of India; Finance Secretary and/or Secretary, Department of Economic Affairs; Secretary, Department of Financial Services; Chief Economic Adviser, Ministry of Finance; Chairman, Securities and Exchange Board of India; Chairman, Insurance Regulatory and Development Authority and Chairman, Pension Fund Regulatory and Development Authority.

### What it does?

The Council deals, inter-alia, with issues relating to financial stability, financial sector development, inter-regulatory coordination, financial literacy, financial inclusion and macro prudential supervision of the economy including the functioning of large financial conglomerates. No funds are separately allocated to the Council for undertaking its activities.

Sources: pib.

## Conflict of interest in appointment of GEAC members: Par panel

The department-related parliamentary standing committee on science and technology and environment and forest recently submitted its recommendations in its 301st report on 'GM crop and its impact on environment'.

### Observations made by the panel on GEAC:

- The committee said, there is **a conflict of interest in the appointment of some members of the country's biotech regulator- GEAC-** with two of the top three positions being held by bureaucrats of the environment ministry.
- The committee expressed its concerns about the "ad hocism" in the constitution of the committee and also about the criteria adopted by the environment ministry for selection of the members of GEAC, their credentials, etc.
- The panel said that "it would be in fitness of things **if GEAC is headed by an expert** from the field of biotechnology given the understanding of scientific data and analysis of research and its implication before coming to a conclusion in the matter."

### Background:

Genetic Engineering Appraisal Committee (GEAC) was first constituted on May 28, 1990 and it was last re-constituted on March 11, 2013 for a period of three years. Subsequently, with the approval of the competent authority, the tenure of the committee has been extended till re-constitution of the new committee.

- The Genetic Engineering Appraisal Committee (GEAC) is the apex body constituted in the Ministry of Environment and Forests under 'Rules for Manufacture, Use, Import, Export and Storage of Hazardous Microorganisms/Genetically Engineered Organisms or Cells 1989', under the Environment Protection Act, 1986.
- The GEAC is also responsible for approval of proposals relating to release of genetically engineered organisms and products into the environment including experimental field trials (Biosafety Research Level trial-I and II known as BRL-I and BRL-II).

Sources: the hindu.

## Serious Fraud Investigation Office has powers to arrest

The provision under the Companies Act, 2013 which provides powers of arrest to the SFIO has been notified. The Serious Fraud Investigation Office (SFIO) now has powers to arrest people for violations of companies law.



### Key facts:

- The director as well as additional or assistant director level officials at the SFIO can arrest a person if they believe he or she is guilty of any offence with regard to the case being probed. The reason for arrest should be recorded in writing.
- In case of an arrest being made by additional director or assistant director, the prior written approval of the director SFIO shall be obtained.
- The SFIO director would be the competent authority for all decisions pertaining to arrest.
- The arrest of a person in connection with a government or a foreign company under investigation can be made by the SFIO only "with prior written approval of the central government". Besides, such arrest should be intimated to the managing director or the person in-charge of the affairs of the government company.
- In case the person arrested is the managing director or person in-charge of a government company, then the secretary of the administrative ministry concerned should be intimated by the arresting officer.

### About SFIO:

The Serious Fraud Investigation Office (SFIO) is a fraud investigating agency. It is under the jurisdiction of the Ministry of Corporate Affairs, Government of India. The SFIO is involved in major fraud probes and is the co-ordinating agency with the Income Tax and CBI.

- It is a multi-disciplinary organization having experts from financial sector, capital market, accountancy, forensic audit, taxation, law, information technology, company law, customs and investigation.
- These experts have been taken from various organizations like banks, Securities and Exchange Board of India, Comptroller and Auditor General and concerned organizations and departments of the Government.
- The Government approved setting up of this organization on 9 January 2003 on the basis of the recommendations made by the **Naresh Chandra Committee** which was set up by the Government on 21 August 2002 on corporate governance.

Sources: et.

**Topic:** Salient features of the Representation of People's Act.

## Proxy voting for NRIs cleared by the Union Cabinet

The Union Cabinet has cleared a **proposal to extend proxy voting to overseas Indians by amending electoral laws**. If the proposal passes political muster in Parliament, NRIs will be able to exercise their voting rights through "proxy". Currently, only service personnel are permitted to vote through proxy.

### Background:

An expert committee in the Election Commission working on the issue had, in 2015, forwarded the legal framework to the law ministry to amend electoral laws to allow overseas Indians use proxy voting.

Need for the introduction of proxy voting:

According to rough estimates, there are about 1 crore Indians settled abroad, of which 60 lakh could be of eligible voting age. Currently, voters residing abroad can only cast their votes in their respective constituencies. This regulation is seen as restrictive as only a few thousand Indians living overseas have registered as voters, the maximum being from Kerala. Of these, barely anyone has travelled to the country to exercise his or her franchise.

Key facts:

- While NRIs and overseas Indians are free to cast their votes in constituencies where they are registered, according to the proposal, they would also be allowed to use the option of proxy, which as of now is only available to service personnel.
- For overseas Indians, the Representation of the People Act needs to be amended to include proxy voting as other means to cast their votes.**

How proxy voting takes place?

The Union Cabinet's approval for proxy voting by NRIs carries a caveat: they cannot nominate one proxy for all polls. Overseas electors will have to appoint a nominee afresh for each election — one person can act as proxy for only one overseas voter. The proxy voter should be an ordinary resident of the constituency one is voting in.

Sources: the hindu.

## Electronic Voting Machines To Have Paper Trail In Gujarat Assembly Polls

The Election Commission has told the Supreme Court that it will be able to conduct the Gujarat assembly elections, due late this year, using EVMs with paper trail. In its affidavit, the EC has said it will be able to conduct the upcoming Gujarat assembly polls using EVMs with paper trail if it gets 73,500 VVPAT machines by September from the manufacturers.

What is VVPAT?

VVPAT stands for **Voter-Verified Paper Audit Trail**. VVPAT system maintains a physical trail of all votes cast. Small slips of paper records the details of the vote. The Election Commission (EC) first introduced VVPAT in the 2014 Lok Sabha elections.

How is it related to EVMs?

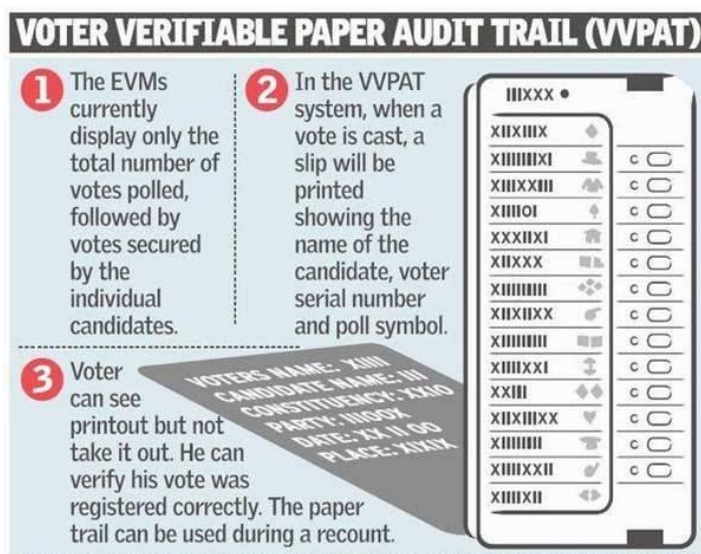
When a vote is cast on the electronic voting machine, a small paper slip bearing the name and symbol of the candidate is generated. This paper appears for about 10 seconds. The slip will then automatically fall in a sealed safe box, attached to the EVM, thus maintaining a physical paper trail of all the votes cast.

Background:

In 2013, conduct of Election Rules, 1961 was amended to facilitate the introduction of VVPAT units. For the first time, VVPAT with EVMs was used for the Noksen Assembly seat in Tuensang district of Nagaland.

In the case of **Subramanian Swamy vs Election Commission of India (ECI)**, the Supreme Court held that VVPAT is "indispensable for free and fair elections" and directed the ECI to equip EVMs with VVPAT systems. The apex court had directed the EC to introduce EVMs in a phased manner for the next General Elections in 2014, saying it would ensure free and fair polls. SC also directed the Centre to provide financial assistance for introducing VVPAT system.

Sources: et.



**Topic:** Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

## Lok Sabha passes bill to raise Nabard's capital to Rs 30000 crore

The National Bank for Agriculture and Rural Development (Amendment) Bill, 2017 to enable exit of RBI from Nabard and increase authorised capital of the development institution six times to Rs 30,000 crore was recently passed by the Lok Sabha.

### Highlights of the Bill:

The Bill seeks to amend the National Bank for Agriculture and Rural Development Act, 1981.

**Increase in capital of NABARD:** Under the 1981 Act, NABARD may have a capital of Rs 100 crore. This capital can be further increased to Rs 5,000 crore by the central government in consultation with the Reserve Bank of India (RBI). The Bill allows the central government to increase this capital to Rs 30,000 crore. The capital may be increased to more than Rs 30,000 crore by the central government in consultation with the RBI, if necessary.

**Transfer of the RBI's share to the central government:** Under the 1981 Act, the central government and the RBI together must hold at least 51% of the share capital of NABARD. The Bill provides that the central government alone must hold at least 51% of the share capital of NABARD. The Bill transfers the share capital held by the RBI and valued at Rs 20 crore to the central government. The central government will give an equal amount to the RBI.

**Micro, small and medium enterprises (MSME):** The Bill replaces the terms 'small-scale industry' and 'industry in the tiny and decentralised sector' with the terms 'micro enterprise', 'small enterprise' and 'medium enterprise' as defined in the MSME Development Act, 2006. Under the 1981 Act, NABARD was responsible for providing credit and other facilities to industries having an investment of upto Rs 20 lakh in machinery and plant. The Bill extends this to apply to enterprises with investment upto Rs 10 crore in the manufacturing sector and Rs five crore in the services sector.

Under the 1981 Act, experts from small-scale industries are included in the Board of Directors and the Advisory Council of NABARD. Further, banks providing loans to small-scale, tiny and decentralised sector industries are eligible to receive financial assistance from NABARD. The Bill extends these provisions to the micro, small, and medium enterprises.

**Consistency with the Companies Act, 2013:** The Bill substitutes references to provisions of the Companies Act, 1956 under the NABARD Act, 1981, with references to the Companies Act, 2013. These include provisions that deal with: (i) definition of a government company, and (ii) qualifications of auditors.

### Nabard:

It is an apex development and specialized bank established on 12 July 1982 by an act by the parliament of India. Its main focus is to uplift rural India by increasing the credit flow for elevation of agriculture & rural non farm sector.

- It was established based on **the recommendations of the Committee set up by the Reserve Bank of India (RBI) under the chairmanship of Shri B. Shivaraman.**
- It replaced the Agricultural Credit Department (ACD) and Rural Planning and Credit Cell (RPCC) of Reserve Bank of India, and Agricultural Refinance and Development Corporation (ARDC).
- It has been accredited with "matters concerning policy, planning and operations in the field of credit for agriculture and other economic activities in rural areas in India".

Sources: the hindu.



## New Bill to allow States to drop no-detention policy

The Ministry of Human Resource Development is looking to introduce a Bill to amend **the Right of Children to Free and Compulsory Education Act, 2009**, to enable States to do away with the no-detention policy if they wish. The Cabinet has cleared the introduction of the Bill.

Background:

Twenty-five States had recently agreed with the idea of doing away with or tweaking the no-detention policy — wherein a child is not detained till Class 8 — to give a boost to levels of learning. The Centre has thus decided to allow States to take the call and to tweak the RTE Act to enable them to do so. The Bill is expected to permit States to introduce exams in Classes 5 and 8.

What is no detention policy?

The no-detention policy was introduced as **a part of the Continuous and Comprehensive Evaluation (CCE) under the Right to Education Act (RTE) in 2010**. Under this policy, *students up to class 8 are automatically promoted to the next class without being held back even if they do not get a passing grade*. The no-detention policy under the RTE Act was to ensure that no child admitted in a school shall be held back in any class or expelled from school until the completion of elementary education.

The policy was path-breaking but, unfortunately, it ended up being completely opposite to its original objective. There have been plenty of arguments on both sides of this policy.

What experts say?

The provision had attracted criticism with several states and schools complaining that it compromised on academic rigour and learning levels and quality at schools.

- The **TSR Subramanian committee for formulation of the National Policy on Education** has also suggested that 'no detention' policy should be discontinued after Class V. It had recommended restoration of detention provision, remedial coaching and two extra chances to each student such to move to a higher class.
- **A sub-committee of the Central Advisory Board of Education** also studied the issue closely and recommended a provisional detention clause at Classes V and VIII. In 2013, a parliamentary panel had also asked the ministry to 'rethink' on its "policy of automatic promotion up to Class VIII".

Sources: the hindu.

## Motor Vehicles Bill sent to RS panel

A Bill seeking to bring radical changes in the transport sector by amending the Motor Vehicles Act, 1988, has been sent to a Select Committee of the Rajya Sabha.

Background:

The bill, which would amend the nearly 30-year old Motor Vehicle Act, 1988 was passed by the Lok Sabha last year but had got stuck in the Rajya Sabha where the opposition had demanded that it be sent to the Select Committee for proper scrutiny. The parliamentary standing committee had also examined it.

Highlights of the Bill:

- The Bill amends the Motor Vehicles Act, 1988 to address issues such as third party insurance, regulation of taxi aggregators, and road safety.
- Under the Act, the liability of the third party insurer for motor vehicle accidents is unlimited. The Bill caps the maximum liability for third party insurance in case of a motor accident at Rs 10 lakh in case of death and at five lakh rupees in case of grievous injury.
- The Bill provides for a Motor Vehicle Accident Fund which would provide compulsory insurance cover to all road users in India for certain types of accidents.
- The Bill defines taxi aggregators, guidelines for which will be determined by the central government.
- The Bill also provides for: (i) amending the existing categories of driver licensing, (ii) recall of vehicles in case of defects, (iii) protection of good samaritans from any civil or criminal action, and (iv) increase of penalties for several offences under the 1988 Act.

Sources: the hindu.

## Cattle trade ban rules were not placed before Parliament

### Drawing flak

The fact that the rules on cattle slaughter were never placed before Parliament, as per the RTI reply, has earned the SC's censure

- Chapter 11 of the Manual of Parliament Procedure states that all new rules/laws must be effected after the approval of the Parliament

- As per Section 38A of the Prevention of Cruelty to Animals Act, it is mandatory that any new rule/law made by the concerned Ministry has to be placed before the Parliament

- The Ministry of Environment and Forests (MoEF), the nodal Ministry for the "Regulation of Livestock Market Rules", notified the draft rules on January 16, 2017, inviting suggestions within 30 days

- The final rules, "Prevention of Cruelty to Animals (Regulation of Livestock Market) Rules, 2017", were notified on May 26, 2017



A simple reading of Section 38A tells us that you [government] cannot say 'I will not place the rules before the Parliament'

J.S. KHEHAR,  
Chief Justice of India



Laying a law before the Parliament is important. It is an exercise of parliamentary control over the laws of the land

D.Y. CHANDRACHUD,  
Supreme Court judge



An RTI response has pointed out that rules banning sale of cattle for slaughter in livestock markets were not laid in Parliament, thus making its enforcement an illegal exercise.

#### What the rules say?

The parliamentary procedure makes it **mandatory for the government to lay any new rule it notified before Parliament**. Besides, **Section 38A of the Prevention of Cruelty Act of 1960** mandates that *any rule made by the Centre under it ought to be laid before each House of Parliament "as soon as it is made."*

#### What next?

The Centre is re-considering the entire body of the livestock market rules. The rules, in their existing form, meanwhile, would not be implemented.

#### Background:

The centre, on May 26th, notified the Prevention of Cruelty to Animals (Regulation of Livestock Market) Rules, 2017. The notification banned the sale of cattle in livestock market for slaughter and religious sacrifices. This had dismayed cattle traders, butchers and beef eaters. Farmers were also hit as they were also barred from selling non-milch and ageing cattle thus being deprived of their traditional incomes. Various states too opposed the notification saying that it would impact the livelihoods of many. The validity of the rules was challenged in various high courts and the SC. The Madurai bench of Madras HC had stayed the rules.

Sources: the hindu.

## Amended Banking Regulation Bill gets elders' nod

The Rajya Sabha has passed the Banking Regulation (Amendment) Bill, which empowers the Reserve Bank of India to issue instructions to the banks to act against major defaulters. The Bill, earlier passed by the Lok Sabha, will replace the Banking Regulation (Amendment) Ordinance, 2017.

#### The Banking Regulation (Amendment) Bill, 2017:

It seeks to amend the Banking Regulation Act, 1949 to insert provisions for handling cases related to stressed assets. **Stressed assets** are loans where the borrower has defaulted in repayment or where the loan has been restructured (such as by changing the repayment schedule). It will replace the Banking Regulation (Amendment) Ordinance, 2017.

- **Initiating insolvency proceedings:** The central government may authorise the Reserve Bank of India (RBI) to issue directions to banks for initiating proceedings in case of a default in loan repayment. These proceedings would be under the Insolvency and Bankruptcy Code, 2016.

- **Issuing directions on stressed assets:** The RBI may, from time to time, issue directions to banks for resolution of stressed assets.
- **Committee to advise banks:** The RBI may specify authorities or committees to advise banks on resolution of stressed assets. The members on such committees will be appointed or approved by the RBI.
- **Applicability to State Bank of India:** The Bill inserts a provision to state that it will also be applicable to the State Bank of India, its subsidiaries, and Regional Rural Banks.

Sources: the hindu.

### Panel moots defence procurement fund

The Ministry of Defence (MoD) has gone back on its demand for a **non-lapsable capital fund for defence procurements**, even as the Parliamentary Standing Committee (PSC) on Defence asked the Ministry of Finance to work out the modalities for the creation of such a fund in consultation with the MoD.

#### Background:

MoD was earlier keen on such a fund to prevent the unspent amount in a financial year from being returned to the Finance Ministry as defence purchases generally tend to have long procurement cycles. On February 2 this year, the MoD had sent a proposal for obtaining an 'in-principle' approval of the Finance Ministry on the creation of the account.

**The reasons cited by the MoD for no longer seeking the fund are:** the limited utility of such a fund, rules governing its creation that state the Government should have surplus funds (which is not so in the prevailing fiscal situation), and assurance from the Finance Ministry for additional funds, if required.

Sources: the hindu.

### Bill introduced in Lok Sabha to fix a universal minimum wage

The Government has introduced in the Lok Sabha 'The Code on Wages' Bill to consolidate and amend the laws relating to wages and bonus which also seeks to empower the Centre to fix a "universal minimum wage" aimed to benefit over 40 crore unorganised sector workers.

#### Highlights of the bill:

- The bill seeks to **amalgamate four laws** — Payment of Wages Act 1936, Minimum Wages Act 1948, Payment of Bonus Act 1965 and Equal Remuneration Act 1976.
- The **Code provides for the government to determine the minimum wages every five years** using factors like skills required for the job, arduousness of work, geographical location of work place and other aspects. Such wages are to be fixed on recommendation of panels comprising an equal number of representatives of employers and employees, and independent persons.
- The government will **fix the number of hours of work** that would include a day of rest every seven days. The payment for work on a day of rest will not be less than overtime rate.
- The Code stipulates that **the wages are to be paid in coin or currency notes or by cheque or through digital or electronic mode or by crediting the wages in the bank account** of the employee and the government may specify industrial or other establishment where the salary will be paid only through cheque or digital mode.
- Where an employee is removed or dismissed from service as also when he or she resigns, the wages payable shall be paid within two working days.
- The **Code provides employers with authority to make deductions from the wages** only in case of fines imposed, absence from duty, damage or loss of goods expressly entrusted with the employee custody, housing accommodation and amenities and services.



Sources: et.

## Is generic drug deflation good?

Amid the public fury over the escalating costs of brand-name medications, *the prices of generic drugs have been falling*, raising fears about the profitability of major generic manufacturers. This may seem like good news for consumers, but it's unclear how much they will save.

### What are generic drugs?

A generic drug is identical — or bioequivalent — to a brand name drug in dosage form, safety, strength, route of administration, quality, performance characteristics and intended use. Although generic drugs are chemically identical to their branded counterparts, they are typically sold at substantial discounts from the branded price.

### What exactly is the difference between a generic drug and brand-name drug?

When a company develops a new drug — often after years of research — it applies for a patent, which prohibits anyone else from making the drug for a fixed period. To recover the cost of research and development, companies usually price their brand-name drugs on the higher side. Once the patent expires, other manufacturers duplicate and market their own versions of the drug. Since the manufacture of these generic drugs do not involve a repeat of the extensive clinical trials to prove their safety and efficacy, it costs less to develop them. Generic drugs are, therefore, cheaper.

However, because **the compounds in the generic versions have the same molecular structure as the brand-name version, their quality is essentially the same**. The generic drug has the same “active ingredient” as the brand-name drug. This ingredient is the one that cures the patient; and other, “inert ingredients”, which give the drug its colour, shape or taste, vary from the brand-name drug to the generics. In the United States, the Food and Drug Administration notes that the cost of a generic drug is 80% to 85% lower than the brand-name product on average.

### Why are prices falling?

Generic drugs are copycat versions of brand-name products and — to a point — their prices are expected to drop over time. When a brand-name drug first loses its patent protection, prices fall slowly. Over the next couple of years, as more competitors enter the market, the prices drop even more, until the pills become commodities and sell for pennies.

The trend toward deflating generic prices appears to have accelerated as companies have more aggressively undercut each other's prices. Making matters worse for the generics companies, they are missing out on peak profit potential because not as many brand-name products are losing patent protection.

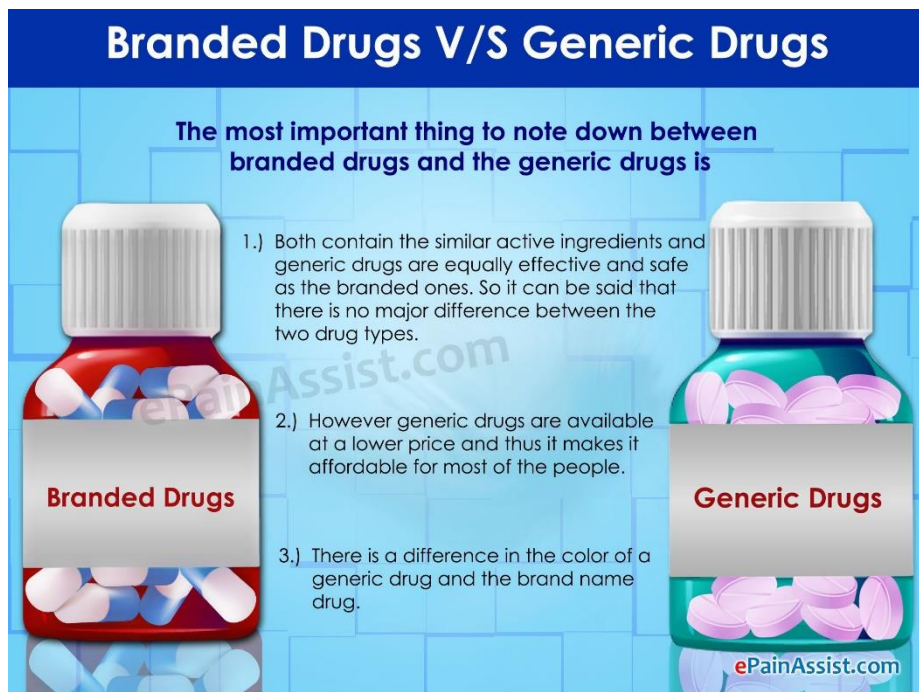
### So are consumers saving any money?

The declining prices are broadly beneficial to the health care system, and may put some slight brake on rising premiums. But most of those with health insurance pay a fixed co-payment — \$10, for example — for each generic prescription, and therefore don't pay more or less, regardless of any fluctuation in the actual price. And even those who pay cash for generics may not notice a drop in price because many are already cheap.

### What's the concern?

Generic manufacturers say lower prices could put pressure on profits and threaten the viability of the companies. This could lead to a wave of mergers and acquisitions, reducing competition and leading to higher prices.

Sources: the hindu.



## New Metro Rail Policy

The Union Cabinet has approved a new Metro Rail Policy that seeks to enable realization of growing metro rail aspirations of a large number of cities but in a responsible manner.

### Highlights of the new policy:

**Boost to private investments:** The policy opens a big window for private investments across a range of metro operations making PPP component mandatory for availing central assistance for new metro projects. This has been done to meet the huge resource demand for capital intensive high capacity metro projects.

**Last mile connectivity:** In view of inadequate availability and even absence of last mile connectivity at present, the new policy seeks to ensure it focusing on a catchment area of five kms. on either side of metro stations requiring States to commit in project reports to provide necessary last mile connectivity through feeder services, Non-Motorised Transport infrastructure like walking and cycling pathways and introduction of para-transport facilities. States, proposing new metro projects will be required to indicate in project report the proposals and investments that would be made for such services.

**Alternatives:** Seeking to ensure that least cost mass transit mode is selected for public transport, the new policy mandates Alternate Analysis, requiring evaluation of other modes of mass transit like BRTS (Bus Rapid Transit System), Light Rail Transit, Tramways, Metro Rail and Regional Rail in terms of demand, capacity, cost and ease of implementation.

**UMTA:** Setting up of Urban Metropolitan Transport Authority (UMTA) has been made mandatory which is to prepare Comprehensive Mobility Plans for cities for ensuring complete multi-modal integration for optimal utilization of capacities.

**Third party assessment:** The Policy provides for rigorous assessment of new metro proposals and proposes an independent third party assessment by agencies to be identified by the Government like the Institute of Urban Transport and other such Centres of Excellence whose capacities would be augmented, as required in this regard.

**TOD:** Noting that urban mass transit projects should not merely be seen as urban transport projects but more as urban transformation projects, the new policy mandates Transit Oriented Development (TOD) to promote compact and dense urban development along metro corridors since TOD reduces travel distances besides enabling efficient land use in urban areas.

**States' role:** Under the policy, States need to adopt innovative mechanisms like Value Capture Financing tools to mobilize resources for financing metro projects by capturing a share of increase in the asset values through 'Betterment Levy'. States would also be required to enable low cost debt capital through issuance of corporate bonds for metro projects. The new policy empowers States to make rules and regulations and set up permanent Fare Fixation Authority for timely revision of fares.

**Financial viability:** Seeking to ensure financial viability of metro projects, the new Metro Rail Policy requires the States to clearly indicate in the project report the measures to be taken for commercial/property development at stations and on other urban land and for other means of maximum non-fare revenue generation through advertisements, lease of space etc., backed by statutory support. States are also required to commit to accord all required permissions and approvals.

The policy envisages private sector participation in O & M of metro services in different ways. These include:

1. **Cost plus fee contract:** Private operator is paid a monthly/annual payment for O&M of system. This can have a fixed and variable component depending on the quality of service. Operational and revenue risk is borne by the owner.
2. **Gross Cost Contract:** Private operator is paid a fixed sum for the duration of the contract. Operator to bear the O&M risk while the owner bears the revenue risk.
3. **Net Cost Contract:** Operator collects the complete revenue generated for the services provided. If revenue generation is below the O&M cost, the owner may agree to compensate.

Sources: pib.

***Paper 2 Topic:** Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes; mechanisms, laws, institutions and bodies constituted for the protection and betterment of these vulnerable sections.*

## National Handloom Day

National Handloom Day was observed on August 7 across the country to honour the handloom weavers.

About the National Handloom Day:

**August 7 was declared as the National Handloom Day in 2015 to mark the 1905 Swadeshi movement.**

It was on August 7, 1905 that the formal proclamation of the Swadeshi Movement was made in a meeting at the Calcutta Town hall. The movement involved boycotting British products and the revival of domestic products and production processes.

Background:

India exports about 95% of hand-woven fabric in the world. In India itself, handweaving covers one of the largest sectors in Indian economy and it provides employment to about 43 lakh weavers. It is time to encourage citizens to use more of handloom products because a certain increase of 5% in the consumption would help the handloom market and revenue grow by over 33%.

Sources: pib.



## French index for retirement says India is worst place to retire

As per the report of French asset management company Natixis Global, India ranks lowest among BRICS countries in terms of retirement. In a list of global retirement index of 43 countries, India has ranked the lowest.

About the Global Retirement Index:

The index created by French asset management company Natixis Global, ranks countries on **the basis of four factors** — the material means to live comfortably in retirement; access to quality financial services to help preserve savings value and maximize income; access to quality health services; and a clean and safe environment.

The index ranks 43 countries which include International Monetary Fund (IMF) advanced economies, members of the Organization for Economic Co-operation and Development (OECD) and the BRIC countries (Brazil, Russia, India and China).

Performance of India:

- **India ranks 43rd in this year's GRI and has the same score compared to last year.** Its sub-indices all rank in the bottom five. On all the four parameters, India ranked lowest whereas Switzerland, Norway and Iceland help top positions.
- Compared to last year's report, India declines in the Material Wellbeing (41st) and Health (43rd) sub-indices but gains ground in Finances (39th) and Quality of Life (43rd). Despite finishing third to last for the Material Wellbeing sub-index, India actually has a top five finish by having the third highest score for the employment indicator. However, it has the lowest income per capita of all countries in the GRI.
- Additionally, its score for the income equality indicator declines compared to last year's report. For the second year in a row, India ranks last in the Health sub-index and its score declines even more from last year. It has the lowest scores for all indicators within the sub-index and declines in the insured health expenditure compared to last year.
- India's largest sub-index improvement is in Finances and it moves up three spots from its ranking last year. However, India still has the fifth-worst sub-index score of any country in the GRI. The main reason for the improvement is better scores in the interest rate, inflation and governance indicators. It also finishes first in old-age dependency, second in tax pressure and sixth in interest rates.
- Counterbalancing the high scores in these sub-indices is the governance indicator which, despite improving from last year, ranks as the fifth worst among all countries in the GRI. It also has the tenth-lowest score for the bank

non-performing loans indicator. India places last in the Quality of Life sub-index for the second year in a row. Progress in CO2 emissions per GDP improves India's environmental factors indicator.

- However, the country still has the worst scores for happiness, water and sanitation, and air quality as well as the second-worst score for biodiversity and habitat among all GRI countries.
- **Switzerland, Norway and Iceland topped the ranking.**

Sources: et.

### 'Swasth Bachche, Swasth Bharat'

'Swasth Bachche, Swasth Bharat' Programme, **an initiative of Kendriya Vidyalaya Sangathan to prepare a physical Health and Fitness Profile Card for more than 12 lakhs of Kendriya Vidyalaya students** was recently launched in Kochi.

What you need to know about the programme?

Swasth Bachche, Swasth Bharat programme will provide **a comprehensive and inclusive report card for children covering all age groups and children of different abilities.**

**Objective of the programme:** Making students, teachers and parents aware about the importance of good health and fitness and encouraging 60 minutes of play each day is an objective of the programme.

Other objectives:

- Imbibe values of Olympics and Paralympics amongst students.
- Bring back the childhood amongst children and make physical activity and recreational games an integral part of learning process.
- Motivate potentially outstanding performers in various games and sports of excellence, using technology for data capture and analytics, and giving access to schools, parents and teachers are also the objectives of the programmes.

Sources: pib.

### Commission to examine the Sub-Categorization within OBCs

The Union Cabinet has approved a proposal for setting up of **a Commission under article 340 of the Constitution to examine the issue of sub-categorization of the Other Backward Classes (OBCs).**

- The Commission shall submit its report within 12 weeks from the date of appointment of the Chairperson of the Commission. The Commission shall be known as the Commission to examine the sub-categorization of Other Backward Classes.

The proposed terms of references of the Commission are as follows:

- **To examine the extent of inequitable distribution of benefits of reservation** among the castes/ communities included in the broad category of OBCs, with reference to the OBCs included in the Central list.
- To work out the mechanism, criteria, norms and parameters, in a scientific approach, **for sub-categorization** within such OBCs.
- **To take up the exercise of identifying** the respective castes/communities/ sub-castes/ synonyms in the Central List of OBCs and classifying them into their respective sub-categories.

Is sub-categorisation permissible under the law?

The Supreme Court in its order in **Indra Sawhney and others vs. Union of India** observed that there is no Constitutional or legal bar to a State categorizing backward classes as backward or more backward and had further observed that if a State chooses to do it (sub-categorization), **it is not impermissible in law.**

How are OBC reservations offered at present?

At present, there is a single Central OBC list, with entries from each State. People belonging to all of these castes can seek reservation from within the single 27% OBC reservation pie for Central government jobs and Central educational institutions. **Nine States, however, have already sub-categorised OBCs.** These are Andhra Pradesh, Telangana,

Puducherry, Karnataka, Haryana, Jharkhand, West Bengal, Bihar, Maharashtra and Tamil Nadu. OBC reservation became a reality after the implementation of the Mandal Commission report, which categorised many castes as constituting backward classes and deserving of quotas. New castes have been added to the list over the years.

#### What are the political and social implications of the move?

Politically, this can be seen as an attempt by the government to reach out to the most backward castes among the OBCs. At present, many feel that the more advanced OBC castes corner the lion's share of the benefits and have become influential. Not only will such a move offer more opportunities to the most backward castes among the OBCs but also give the government and the ruling party an opportunity to carve out a new political constituency.

Sources: pib.

### Atal Pension Yojana (APY) surges ahead with 62 lakh enrolment

The Pension Fund Regulatory and Development Authority (PFRDA) through its **'One Nation One Pension' Mobilization Campaign** has sourced approximately 3.07 lakh APY accounts which led to a total of 62 lakh enrolments under the Atal Pension Yojana (APY) as on date. This campaign was organized all over the country by PFRDA from 2nd August to 19th August 2017 in association with the APY Service Provider Banks.

- The objective of PFRDA is *to cover the maximum possible population uncovered by any pension scheme under the APY scheme so that India as a nation can move from a pension less to a pensioned society and the citizens can live a life of dignity in their vulnerable years.*

#### About APY:

The Atal Pension Yojana became operational from June 1, 2015 and is **available to all the citizens of India in the age group of 18-40 years.**

- Under the scheme, a subscriber would receive a minimum guaranteed pension of Rs 1,000 to Rs 5,000 per month, depending upon his contribution, from the age of 60 years.
- The same pension would be paid to the spouse of the subscriber and on the demise of both the subscriber and the spouse, the accumulated pension wealth is returned to the nominee.
- The Central Government would also co-contribute 50% of the total contribution or Rs. 1000 per annum, whichever is lower, to each eligible subscriber account, for a period of 5 years, that is, from 2015-16 to 2019-20, to those who join the NPS before 31st December, 2015 and who are not members of any statutory social security scheme and who are not Income Tax payers.

Sources: pib.

**Paper 2 Topic:** *Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.*

### Govt will investigate restaurants serving foods with liquid nitrogen

The government will soon start investigating the issue of restaurants serving food and drinks with liquid nitrogen in it.

#### Background:

The Haryana government had recently banned the use of liquid nitrogen, after a man had ended up with a hole in his stomach after consuming a drink. The Haryana food and drugs administration department issued an order under section 34 of Food Safety and Standards Act, 2006 (Central Act 34 of 2006).

#### **USES:**

- AS A COOLANT FOR COMPUTERS
- IN MEDICINES TO REMOVE UNWANTED SKIN
- IN RESTAURANTS AND PUBS TO INSTANTLY FREEZE FOOD AND DRINKS AND CREATE A CLOUD OF SMOKE

**REPERCUSSIONS:** Nitrogen has a large expansion ratio. When it evaporates, the liquid freezes everything around it and causes oxygen deficiency. The expansion can cause the stomach to burst. Its freezing properties can also cause an internal frostbite

### Why is liquid nitrogen considered harmful for consumption?

Liquid nitrogen, which has a **boiling point of -195.8 degree Celsius**, is used by molecular gastronomy chefs to instantly **freeze food and drinks**. As it evaporates, liquid nitrogen freezes everything around it, including tissues that come in contact with it. According to experts, food and drinks that are prepared with liquid nitrogen should be consumed only after all the gas has bubbled off.

**Liquid nitrogen also has an expansion ratio of 1:694 at 20 degree Celsius**, meaning one litre of liquid nitrogen at 20 degree Celsius can expand to 694 litres of nitrogen gas.

### What is Liquid Nitrogen?

It is scientifically known as LN2 and is a **coloured, odourless, non-inflammable gas**. It is a **cryogen**, which means it is used to create extremely low temperatures. It has a low boiling point of -196 degree Celsius. The gas is so cold that it is capable of rapid freezing any living tissue coming in contact with it.

### How and Why Liquid Nitrogen Used in Food?

Since past few years, liquid nitrogen is being extensively used by restaurants and food industries to prepare frozen desserts like ice creams, which can be created a moment before serving on the table. It cools any substance immediately. The rapidity of cooling is also responsible for smaller ice crystals which gives a smooth texture to the ice cream.

Recently, it is also being popular in preparing cocktails, as it can immediately chills glasses of ingredients. It also adds a smoking effect to the drink.

### Are there regulations governing the use of liquid nitrogen?

Liquid nitrogen is permitted as an additive in frozen food as per the guidelines of the national regulatory body Food Safety and Standards Authority of India (FSSAI). However, when it comes to the use of liquid nitrogen it is a gray area. There is no clear-cut guideline for it and generally it is considered to be a novel technique, which can be used by food business operators.

Sources: pib.

## 5 chemicals banned in firecrackers

Ahead of the festive seasons of Dussehra and Deepavali, the Supreme Court has prohibited the use of five chemicals, labelled as toxic by the Central Pollution Control Board (CPCB), in the manufacture of firecrackers.

- The banned chemicals include antimony, lithium, mercury, arsenic and lead in any form whatsoever.
- The responsibility to ensure compliance particularly in Sivakasi is given to the Petroleum and Explosive Safety Organisation (PESO).

The order came after the court heard the submissions from officials of the CPCB and Petroleum and Explosive Safety Organisation's (PESO) Firework Research and Development Centre at Sivakasi in Tamil Nadu.

### About PESO:

Petroleum And Explosives Safety Organisation (PESO) was formed **to control and administer the usage of explosives, petrol stations in India**. The agency issues licenses for Operation of Petrol Stations, Licenses to operate Petroleum Product Transportation vehicles, Licenses for Refineries, Petrochemical Complexes, etc. The Department is headed by Chief Controller of Explosives and is headquartered at Nagpur in the State of Maharashtra in India. It functions under DIPP.

Sources: the hindu.

## Inadequate breastfeeding may drain Indian economy of USD 14bn

The **Global Breastfeeding Scorecard**, a new report by the *UN Childrens Fund (UNICEF)* and *WHO* in collaboration with the *Global Breastfeeding Collective*, has been released.

- The scorecard was released at the start of World Breastfeeding Week alongside a new analysis, demonstrating that *an annual investment of only USD 4.70 per newborn is required to increase the global rate of exclusive breastfeeding among children under six months to 50% by 2025.*

### Significance of breastfeeding:

The report points out that breastfeeding not only helps prevent diarrhoea and pneumonia, two major causes of death in infants, it also helps reduce mothers risk of ovarian and breast cancer, two leading causes of death among women. Breastfeeding gives babies the best possible start in life. Breastmilk works like a babys first vaccine, protecting infants from potentially deadly diseases and giving them all the nourishment they need to survive and thrive.

### Highlights of the report:

- In China, India, Nigeria, Mexico and Indonesia alone, inadequate breastfeeding is responsible for more than 236,000 child deaths each year. In these countries, the estimated future economic cost of mortality and cognitive losses attributed to inadequate breastfeeding are estimated to be almost USD 119 billion per year.
- Despite a reported 55% exclusive breastfeeding rate in children below the age of six months, the large population in India and high under five mortality means that an estimated 99,499 children die each year as a result of cases of diarrhea and pneumonia that could have been prevented through early initiation of breastfeeding, exclusive breastfeeding for the first six months, and continued breastfeeding. Mortality and other losses attributed to inadequate breastfeeding could cost the country's economy USD 14 billion.
- Further, the high level of child mortality and growing number of deaths in women from cancers and type II diabetes attributable to inadequate breastfeeding is estimated to drain the Indian economy of USD 7 billion. Together with another \$7 billion in costs related to cognitive losses, India is poised to lose an estimated USD 14 billion in its economy, or 0.70% of its Gross National Income.
- The scorecard, which evaluated 194 nations, reveals that no country in the world fully meets recommended breastfeeding standards. It found that only 40% of children younger than six months are given nothing but breastmilk and only 23 countries have exclusive breastfeeding rates above 60%.
- Globally, investment in breastfeeding is far too low. Each year, governments in lower- and middle-income countries spend approximately USD 250 million on breastfeeding promotion donors provide only an additional USD 85 million.

Sources: et.

### Benefits of Breastfeeding for Children



- Breast milk is irreplaceable and no other nutritional food source can replace it adequately including the various infant formulas available in the market.
- There is a possibility that the breast milk has some accumulation of pollutants, however, even then it remains much superior food formula for the infant as compared to any other options.

## Breastfeeding Week to promote breastfeeding

Breastfeeding Week is observed in the first week of August to focus attention on the important aspect of promotion and support of breastfeeding. The theme of this year's breastfeeding week is 'Sustaining Breastfeeding'. The Ministry of Health & Family Welfare has planned various activities at the national level.

### MAA programme:

To intensify the efforts further for promotion of breastfeeding, the **Health Ministry has initiated a nationwide programme called "MAA-Mother's Absolute Affection"** to bring undiluted focus on promotion of breastfeeding and provision of services towards supporting breastfeeding, along with ongoing efforts of routine health systems.



### Programme Implementation

#### District level activities:

- District level launch by noted leader/ MP/MLA.
- Conducting one day sensitization in August and achieve high coverage.
- Sensitize health facilities in-charges for MAA awards.
- Complete orientation of all ASHAs by September and roll out the activity.
- Plan for reporting by health facilities, ANM and ASHA.

- The key components of the MAA programme are awareness generation, promotion of breastfeeding & inter personal counselling at community level, skilled support for breastfeeding at delivery points and monitoring and Award/ recognition of health facility.
- Under this programme, ASHA has been incentivized for reaching out to pregnant and lactating mothers and provide information on benefits and techniques of successful breastfeeding during interpersonal communication. ANMs at all sub-centres and health personnel at all delivery points are being trained for providing skilled support to mothers referred with issues related to breastfeeding.
- Under NHM, funding support has been recommended for all States and UTs for successful implementation of the MAA programme.

### Significance of breastfeeding:

Breastfeeding is an important efficient and cost-effective intervention promoting child survival and health. Breastfeeding within an hour of birth could prevent 20% of the newborn deaths. Infants who are not breastfed are 15 times more likely to die from pneumonia and 11 times more likely to die from diarrhoea than children who are exclusively breastfed, which are two leading causes of death in children under-five years of age. In addition, children who were not breastfed are at increased risk for diabetes, obesity, allergies, asthma, childhood leukemia, sudden infant death syndrome etc. Apart from mortality and morbidity benefits, breastfeeding also has tremendous impact on improved IQ.

Sources: pib.

## After SC order, focus on chemicals in firecrackers

The Supreme Court ban on the use of antimony, lithium, mercury, arsenic and lead in the manufacture of firecrackers to prevent air pollution has turned the focus on what chemicals are used to produce spectacular visual effects and noise. Experts say none of the specific products banned by the court are used.

### What's the issue?

The Supreme Court, in its order, had directed that no firecrackers manufactured by the respondents shall contain the chemicals. The banned chemicals **include antimony, lithium, mercury, arsenic and lead in any form whatsoever**. The court entrusted the Petroleum and Explosive Safety Organisation (PESO) with the responsibility of ensuring compliance particularly in Sivakasi. Over 90% of cracker production is done in Sivakasi.

However, cracker manufacturers in Sivakasi, who denied using the banned chemicals, said the sound and light show is produced by chemicals such as sulphur, aluminium powder and charcoal (used as fuel), besides potassium nitrate and barium nitrate (as oxidising agents).



What gives colour to the firecrackers?

**Red:** Strontium salts (Nitrates, carbonates and sulphates of strontium).

**Orange:** Calcium salts (Carbonates, chlorides and sulphates of calcium).

**Yellow:** Sodium salts (Nitrates and oxalates of sodium).

**Green:** Barium salts (Nitrates, carbonates, chlorides and chlorates of barium).

**Blue:** Copper salts (Carbonates and oxides of copper).

**Purple:** A combination of copper and strontium compounds.

**White:** The burning of metals like magnesium, aluminium and titanium).

Sources: the hindu.

## Second phase of measles-rubella vaccination drive launched in eight states, UTs

Aiming to eliminate measles and curb instances of rubella by 2020, the Centre has rolled out the second phase of its measles-rubella (MR) vaccination campaign in the country. Nearly 3.4 crore children across eight states and union territories — Andhra Pradesh, Chandigarh, Himachal Pradesh, Kerala, Telangana, Uttarakhand, Dadra and Nagar Haveli and Daman and Diu — will be covered in this stage.

### Background:

The Union health ministry's campaign against the two diseases intends to cover approximately 41 crore children in a phased manner, making it the largest-ever worldwide. Under the measles-rubella (MR) vaccination campaign, all children in the age group of 9 months to less than 15 years will be vaccinated in a phased manner across the nation. Following the campaign, MR vaccine will become a part of routine immunization and will replace measles vaccine, currently given at 9-12 months and 16-24 months of age of child.

## Rubella (rubeola)

Contagious? Yes, Airborne

Life Threatening? Potentially, Not Very

Curable? No, but it only last 3-4 days

Vaccine? Yes

Symptoms: Rash, spreading from the face to the rest of the body, fever, swollen glands, joint pains, headache, and conjunctivitis

Treatment: The same as for the flu.

Info: Rubella is confusing, because, in Slovak, Rubella and Rubeola are the same thing, but, in English they aren't. They come from similar viruses. Rubella is caused by the Rubella Virus, and Rubeola (The Measles) is caused by Morbillivirus. Rubella is also called the 3-Day Measles, and Ružienka in Slovak. If a pregnant woman gets Rubella, it can make her baby very sick, and it's incurable for the child.



The first phase of the campaign was launched across five states — Tamil Nadu, Karnataka, Goa, Lakshadweep and Puducherry — in February this year. More than 3.3 crore children were vaccinated, reaching out to 97% of the intended age group. The drive was carried out at schools, community centres and medical institutes, covering children between the ages of nine months and 15 years.

### About Measles- Rubella:

While measles is a viral infection that can be fatal, congenital rubella syndrome is responsible for irreversible birth defects. **Congenital rubella syndrome (CRS)** is a cause of public health concern. CRS is characterized by congenital anomalies in the foetus and newborns affecting the eyes (glaucoma, cataract), ears (hearing loss), brain (microcephaly, mental retardation) and heart defects, causing a huge socio-economic burden on the families in particular and society in general.

According to a study by the University College of Medical Sciences, Delhi, "1-15% of all infants suspected to have intra-uterine infection were found to have laboratory evidence of CRS (congenital rubella syndrome). About 3-10% of suspected CRS cases are ultimately proven to have confirmed CRS with the aid of laboratory tests. CRS accounts for 10-15% of pediatric cataract. 10-50% of children with congenital anomalies have laboratory evidence of CRS. 10-30% of adolescent females and 12-30% of women in the reproductive age-group are susceptible to rubella infection in India."

Sources: pib.

## National Deworming initiative

Ministry of Health and Family Welfare has launched its 2nd round of **National Deworming Day (NDD)** 2017 in 33 States/UTs targeting. A total of 7.8 crore children are targeted in private schools and 3.5 crore out of school children will be covered in this program through Anganwadi workers and ASHAs.

### What you need to know about National Deworming Day?

The NDD program has been launched in 2015 as WHO estimates that 220 million children below 14 years of age are at risk of STH infections in India. National Deworming Day is organised twice in a year **covering all the children from 1-19 years** of age except the States of Rajasthan and Madhya Pradesh where deworming is carried out once in a year. The Soil Transmitted Helminths (STH) prevalence in these two States is less than 20%.



- All the children are provided deworming tablet in schools and anganwadis. The deworming has the potential to improve nutritional status of children. The deworming tablet called 'Albendazole' is a safe and efficacious drug for controlling worm infestation.
- During NDD, besides the deworming tablet, various health promotion activities related to Water, Sanitation and Hygiene (WASH) are also being organised in schools and anganwadis. This program is being implemented in close collaboration with Ministry of Human Resource & Development and Ministry of Women & Child Development.
- This is one of the largest public health programs reaching large number of children during a short period. The first NDD round of 2017 implemented in February covered 26 crore children with a coverage of 89%.

### Background:

India carries the highest burden of worm infestation and 64% of Indian population less than 14 years of age are at risk of Soil Transmitted Helminths (STH) or worms' infestation (WHO). Soil Transmitted Helminths (STH) interfere with nutrients uptake in children; can lead to anaemia, malnourishment and impaired mental and physical development. The situation of undernutrition and anaemia which is linked to STH ranges from 40% to 70% in different population groups across the country (WHO). They also pose a serious threat to children's education and productivity later in life.

### About Intestinal parasitic worms:

They are **large multicellular organisms**, which when mature can generally be seen with the naked eye. They are also known as **Helminths**. They are often referred to as intestinal worms even though not all helminths reside in the intestines.

### Why this is a cause for concern:

- Parasitic worms in children interfere with nutrient uptake, and can contribute to anaemia, malnourishment, and impaired mental and physical development.
- Parasitic worms have also debilitating consequences on the health and education of children, and on their long-term earning potential.
- According to the 2012 report 'Children in India', published by the Ministry of Statistics and Programme Implementation, 48% of children under the age of 5 years are stunted and 19.8% are wasted, indicating that half of the country's children are malnourished.

Sources: pib.

## Corpus fund for Secondary and Higher education

The Union Cabinet has accorded its approval for creation of a non-lapsable pool in the Public Account for secondary and higher, education known as “**Madhyamik and Uchchatar Shiksha Kosh**” (MUSK) into which all proceeds of “Secondary and Higher Education Cess” will be credited.

### Key facts:

- Administration and maintenance of the above pool will be done by Ministry of Human Resource Development.
- The MUSK would be maintained as a Reserve Fund in the non-interest bearing section of the Public Accounts of India.
- The funds arising from the MUSK would be utilized for schemes in the education sector which would be available for the benefit of students of secondary and higher education, all over the country.

### Background:

The purpose of levying cess for secondary and higher education is to provide adequate resources for secondary and higher education. During the 10th Plan, an education cess of 2% on all central taxes was imposed to make available additional resources for basic education/elementary education to augment the existing budgetary resources. A need was felt to give a similar fillip to the effort of the Central Government in universalizing access to secondary education and expanding the reach of the higher education sector. Therefore, the Finance Minister, in his budget speech of 2007 proposed an additional cess of 1% on central taxes for secondary and higher education.

A **cess** imposed by the central government is **a tax on tax**, levied by the government for a specific purpose.

Sources: pib.

## YUVA – a skill development programme

The **YUVA – a skill development programme** and an initiative by Delhi Police under Pradhan Mantri Kaushal Vikas Yojana was recently launched.

### About the YUVA initiative:

The ‘YUVA’ initiative by Delhi Police aims to connect with youth by upgrading their skill as per their competencies. It will help them to get a gainful employment under Pradhan Mantri Kaushal Vikas Yojna under the Ministry of Skill Development.

- Delhi Police has tied up with **National Skill Development Corporation (NSDC)** and **Confederation of Indian Industry (CII)** for providing mass job linked skill training for the selected youth.
- National Skill Development Corporation shall be providing skill training to the youth under ‘Pradhan Mantri Kaushal Vikas Yojna’ (PMKVY) and CII will provide job linked training through its Sector Skill Councils who are connected to industry and thereby provide job guarantee.

### Significance of this move:

The youth coming for skill training in a police station building will be a huge step in building up their confidence and faith in police organization and will go a long way in building a positive image of police in the long run.

### PMKVY:

Pradhan Mantri Kaushal Vikas Yojana (PMKVY) is the **flagship outcome-based skill training scheme of the Ministry of Skill Development & Entrepreneurship (MSDE)**. The objective of this skill certification and reward scheme is to enable

**Pradhan Mantri Kaushal Vikas Yojana (PMKVY) Objectives**

- Enable and mobilize a large number of Indian youth to take up skill training and become employable and earn their livelihood
- Increase productivity of the existing workforce & align the training & certification to the needs of the country
- Encourage standardization in the certification process of creating a registry of skills
- Provide monetary awards for Skill Certification to boost employability & productivity of the youth by incentivizing them for skill training
- Reward candidates undergoing skill training by authorized institutions at an average monetary reward of Rs. 8,000 per candidate

Source: /MSR\_India, /IndusMinistry, /IndusMinistry, /IndusMinistry, /IndusMinistry.blogspot.in

and mobilize a large number of Indian youth to take up outcome based skill training and become employable and earn their livelihood. Under the scheme, monetary reward would be provided to trainees who are successfully trained, assessed and certified in skill courses run by affiliated training providers.

Sources: pib.

**Topic:** *Role of civil services in a democracy.*

### New system for rating bureaucrats open to bias

A parliamentary standing committee, in its report, has said that the government's new system of rating officers on the basis of a **360-degree approach** is opaque and susceptible to bias, manipulation and lacks fairness.

What is 360- degree approach?

The 360-degree approach is a **new multi-source feedback system for performance appraisal of bureaucrats started by the current government for future postings**. The system seeks to look beyond the ratings received in appraisal reports written by their bosses. It relies on feedback of juniors and other colleagues for an all-round view.

Why committee is not in favour of this approach?

The present 360-degree appraisal system is **opaque, non-transparent, and subjective**. Feedback in this process is obtained informally, making the process susceptible to being manipulated.

**Lack of objectivity:** Most central posts of joint-secretary level and upwards go to IAS officers. Since the new 360-degree system hinges on feedback about officers received from people who have worked with them — juniors and peers included— the committee noted that such feedback could lack objectivity.

**Possibility of biasness:** Feedback received from subordinates and stakeholders could be biased or lack objectivity, particularly if the officer had to discipline his subordinates or he was unable to meet the unjustified demands of stakeholders. Acting on such feedback behind the back of the officer may not be legally tenable particularly if it adversely affects the empanelment prospects of the officer.

**No statutory status:** Also, the 360-degree approach does not have any statutory backing, or supported by any Act. It is based on executive instructions only.

Way ahead:

In the context of India, where strong hierarchical structures exist and for historical and social reasons it may not be possible to introduce this system unless concerns of integrity and transparency are addressed. The committee recommended that the empanelment process be more objective, transparent and fair.

Sources: et.

**Paper 2 Topic:** *Development processes and the development industry the role of NGOs, SHGs, various groups and associations, donors, charities, institutional and other stakeholders.*

### ISTD mulls a national registry of skilled people

Indian Society for Training and Development (ISTD) is planning to form a **national registry of skilled people** to help upgrade the large number of unskilled population in the country.

Need for such a registry:

Since a large number of workforce live below poverty line and are early school dropouts, they find getting decent employment difficult. Therefore, ISTD aims to bring out a registry of trainers in every skill so as to improve the economic condition of such workers. There are around 600 trades that need certified trainers. This include popular ones in the field of construction, textile, jewellery making, retail, handicrafts etc.

About ISTD:

The Indian Society for Training & Development (ISTD), established in April 1970, is a national level professional & non-profit society registered under the Societies Registration Act, 1860. It has a large membership of individuals and institutions involved in the area of training and development of Human Resource from Government, Public and Private Sector Organization & Enterprises; Educational and Training Institutions and other Professional Bodies.

- The Society is affiliated to the **International Federation of Training and Development Organizations (IFTDO), USA and Asian Regional Training and Development Organizations (ARTDO), Manila.**
- ISTD Organizes Training Programs, all over the country both at Chapter and National Levels. The Programs cover selected areas of HRD with special emphasis on Training of Trainers, Training Goals & Objectives and Training Tools & Technologies.
- ISTD has been designated as the **National Nodal Agency to 'Testing and Certification' of Skilled Workers in the organized and unorganized sectors.**

Sources: et.

***Paper 2 Topic:** Important aspects of governance, transparency and accountability, e-governance-applications, models, successes, limitations, and potential; citizens charters, transparency & accountability and institutional and other measures.*

## IT systems of 7 north eastern states integrated with Public Financial Management System

To provide the Centre and State governments with a real time, reliable and meaningful management information system, the IT systems of all North Eastern States' treasuries (namely, Arunachal Pradesh, Manipur, Mizoram, Assam, Meghalaya, Sikkim, and Tripura) except Nagaland, have been integrated with PFMS.

## PFMS: Transaction Perspective (Real time Transaction System)

PFMS is a Centralized Transaction System & Platform, providing end to end Financial management services to all stakeholders.



PFMS is a Centralized Transaction System & Platform, providing end to end Financial management services to all stakeholders. CPSMS Transaction System. Program division (Sanction) DDO- Bill Preparation. PAO – Payments. State Government (Departments/Treasury etc.) Implementing Agency. (E-Payments and other transactions) Banks. External Systems (MCTS/OCEANS etc.) MIS Users. For Analytical Approach. UIDAI. Citizen. Post Offices.

**About the Public Financial Management System:**

The PFMS, also known as **Central Plan Scheme Monitoring System (CPSMS)**, tracks fund disbursement and ensures that state treasuries are integrated with the Centre to ensure money is sent as and when required.

- PFMS, **administered by the department of expenditure**, is an end-to-end solution for processing payments, tracking, monitoring, accounting, reconciliation and reporting. It is a web based application.
- The PFMS platform compiles, collates and makes available in real-time, information regarding all government schemes, and, significantly, provides the government real-time information on resource availability and utilisation across schemes.
- In addition, the platform will allow government expenditure to adopt a Just-in- Time (JIT) approach, with payments made only when they are needed.
- The government has set a target to integrate PFMS with all state treasuries in current fiscal and implement Direct Benefit Transfer (DBT) for welfare and scholarship schemes.

Sources: et

### Commerce Ministry to wind up DGS&D this fiscal

The commerce ministry has started the process of shutting down over 100-year-old government procurement arm – Directorate General of Supplies and Disposals (DGS&D)- in this fiscal.

**Key facts:**

- The public procurement of goods and services is being managed by the ministry's e-market platform (GeM) since last year.
- Currently, the directorate has four regional offices including Mumbai, Kolkata and Chennai. It has 12 Purchase Directorates (Commodity-wise) at its headquarters here. Besides, there are 20 offices /sub centres and the staff strength is over 1,200.
- Before closing, the ministry has to decide upon the issues concerning manpower, land and office spaces of the directorate, which are present all over the country.

**Background:**

DGS&D has its origin in the India Stores Department, which was established in 1860 in London for purchase of imported stores. In 1922, India Stores Department was established in India to arrange purchases for Government Civil Departments and Military Purchases. In 1951, the set-up of Purchase and Inspection was reorganised and DGS&D was constituted, in its present form, to handle all government purchases centrally.

A minor restructuring happened in 1974, when defence and railways were allowed to procure items meant for their exclusive use. The directorate has two professional service cadres — Indian Supply Service and Indian Inspection Service.

**What necessitated this move?**

Last year, GeM was launched by the ministry to bring greater transparency and efficiency in public procurement. The GeM portal has eliminated human interface in vendor registration, order placement and payment processing to a great extent.

The central and state governments procure goods and services worth over Rs 5 lakh crore annually. Currently, over 20,000 sellers are registered on this portal for selling over 50,000 products.

Sources: et.

## e-Shakti initiative of NABARD

As per information compiled by NABARD, about 69,696 SHGs of the SHGs which have been digitised are credit linked as on 31st July, 2017. No SHG has been de-recognised on account of, or, after digitisation.

### About e- Shakti:

e-Shakti is a **pilot project of National Bank for Agriculture and Rural Development (NABARD) for digitisation of Self Help Groups (SHGs)**. It was initiated to address certain concerns like improving the quality of book keeping of SHGs and to enable banks to take informed credit decisions about the group through a Management Information System (MIS). The project covers 25 districts and 1,30,176 SHGs have been digitised as on 31st March, 2017.



The project aims at digitisation of all the SHG accounts to bring SHG members under the fold of Financial Inclusion thereby helping them access wider range of financial services together with increasing the bankers' comfort in credit appraisal and linkage by way of:

- Integrating SHG members with the national Financial Inclusion agenda.
- Improving the quality of interface between SHG members and Banks for efficient and hassle free delivery of banking services by using the available technology.
- Facilitate convergence of delivery system with SHGs using Aadhaar linked identity.

### Need for digitisation:

The need of digitisation of records of SHGs has been felt for quite some time due to patchy and delay in maintenance of books of accounts. Transparent and proper maintenance of records of SHGs will facilitate in nurturing and strengthening of SHGs.

It is also felt that digital empowerment will help in bringing SHGs on a common web based e-platform by making book keeping easy for low literacy clients. This will help in promoting national agenda of Financial Inclusion and pave the way of credibility of SHG data which can later be used by Credit Bureaus to reduce the issues related to multiple financing by banks.

### Benefits of the project:

- A comprehensive information base and robust MIS can be developed about poor community covered, which may facilitate suitable interventions and convergence of other programme for social and financial empowerment.
- It will help in identifying suitable interventions and support for proper nurturing and strengthening of SHGs.
- Ease of transfer of social benefits and Direct Benefit Transfer (DBT) through Aadhaar linked accounts and convergence with other Government benefits.

Sources: pib.

## Push for law to ensure transparency rules

The Economic Survey has proposed **Transparency of Rules Act (TORA)**, a legislation to end any asymmetry of information regarding rules and regulations faced by an average citizen.

### What you need to know about TORA?

- The **TORA is an attempt to change in some ways the relationship between the average normal citizen and the State.**
- TORA will require all departments to mandatorily place all citizen-facing rules on their website. Officials will not be able to impose any rule not mentioned beforehand.
- All laws will have to be updated by the department while providing access to history of the same webpage.
- Once a department has shifted to the platform, it can be deemed "TORA compliant" and citizens can be sure that the information is authentic and updated.

Need for a law in this regard:

The 'opaque mesh' of regulations prevalent in India not only make life difficult for citizens who cannot feign ignorance of the rules as a valid defence, but also act as a magnet for corruption and endless litigation.

Sources: pib.

### Telemedicine: Odisha shows the way

A telemedicine project started by an Odisha-based social entrepreneur is slowly going national after the Central government adopted it as a model project two years ago.

About the project:

Through this micro-entrepreneurship programme the government **attempts to tackle two problems- unemployment and bad health.**

- Started in 2009, the unique model that focusses on sustainability involves training of local youth in e-medicine services and enables them to set up e-health centres in government-run primary health-care centres (PHC), community health centres (CHC) and subdivisional hospitals. These centres have created job opportunities for over 500 youth in Odisha and reached out to over five lakh patients.
- Under the project, local youth are trained for a month in an e-health assistance programme, after which they can apply for a bank loan to start an e-health centre in PHCs and CHCs. On average, the cost of starting a telemedicine centre goes up to ₹6 lakh. A centre needs a staff of four people, including the entrepreneur.
- Typically, a centre is equipped with a laptop with video camera and basic diagnostic testing facilities like blood glucose meter, urine analyser, heart rate monitor, etc. So far, 127 such centres have been opened in Odisha at the village and district level.
- The revenue comes from charges for tests and tele-consultation fees. In case patients are covered under any health scheme for the poor, these charges are borne by the scheme. The charges for tests and consultation are fixed by the government; a basic consultation costs ₹100 while that with a super-specialist costs ₹300.
- At no cost to the government, these centres help in offering basic testing facilities. Patients suspected to have major illness get the benefit of the telecommunication facility for consultations with senior doctors. These telemedicine centres also create a database of personal health records of every patient walking in for future reference.

Sources: the hindu.

### Centre's eBiz initiative stutters

Even after 4 years of its launch, the centre's eBiz is struggling to become fully operational. **eBiz project was unveiled in 2013 to serve as online, single-point entry for investors looking to set up a business anywhere in the country.**

Challenges:

- **State governments' apathy:** Many State governments have not come on board for critical components of the project.
- **Technical glitches** have arisen in the plan to integrate all clearances onto a single system owing to government departments opting for different technology platforms. Even services that were available on the portal, such as registrations with the Corporate Affairs Ministry and the Employees' Provident Fund, have been 'impacted' due to technical issues.
- **Multiple stakeholders:** Testing the integration of individual services with the eBiz portal also added to delays. This is mainly because of 'dependency on multiple stakeholders' such as NSDG, banks and state treasuries.

What can be done?

Matter should be taken up at appropriate levels in partner departments to take necessary measures in speeding up integration with the portal. Also, additional efforts are required to resolve technology migration issues.

About eBiz:

eBiz is **one of the integrated services projects and part of the 27 Mission Mode Projects (MMPs) under the National E-Governance Plan (NEGP)** of the Government of India.

**Implementation:** eBiz is being implemented by Infosys Technologies Limited (Infosys) under the guidance and aegis of Department of Industrial Policy and Promotion (DIPP), Ministry of Commerce & Industry, Government of India.

The **focus** of eBiz is to improve the business environment in the country by enabling fast and efficient access to Government-to-Business (G2B) services through an online portal. This will help in reducing unnecessary delays in various regulatory processes required to start and run businesses.

**Aim:** This project aims at creating an investor-friendly business environment in India by making all regulatory information – starting from the establishment of a business, through its ongoing operations, and even its possible closure – easily available to the various stakeholders concerned. In effect, it aims to develop a transparent, efficient and convenient interface, through which the government and businesses can interact in a timely and cost effective manner, in the future.

Sources: the hindu.

### Highways authority unveils mobile apps to facilitate FASTags for e-tolling

The National Highways Authority of India has come out with two mobile apps – **MyFASTag** and **FASTag Partner** – as part of its efforts to facilitate availability of the tag towards electronic toll payment.

- **MyFASTag** is a consumer app that can be downloaded from both Android and iOS app stores. A consumer can purchase or recharge FASTags on this app, which also helps keep track of transactions and provides for online grievance redressal.
- **FASTag Partner** is a merchant app.

The government is also working on making lanes of all 371 NHAI toll plazas FASTag enabled from October 1 this year.

What is FASTag?

It is a device that **uses Radio Frequency Identification (RFID) technology** for making toll payments directly from the prepaid account linked to it.

- It is affixed on the windscreen of vehicle and enables to drive through toll plazas without waiting.
- The tag has a validity of 5 years and after purchase, it only needs to be recharged or topped up. The service is applicable to all kinds of vehicles but use of the service is currently voluntary.

How is it beneficial?

It helps quicken passage through toll barriers and helps avoid use of cash. Long queues of vehicles waiting while cumbersome cash transactions happen at the counter can be avoided. Here, it helps reduce use of fuel and pollution due to high waiting-times at the barriers.

It can also help the government identify the quantum of road use and types of vehicles passing through, aiding budgets for road widening and other infrastructure expenses. Theoretically, it could help increase accruals to the government as some operators managing toll plazas have, in the past, have been suspected of under reporting their revenues.

Sources: the hindu.

### NITI Aayog to launch “Mentor India” Campaign

NITI Aayog is all set to launch the Mentor India Campaign, **a strategic nation building initiative to engage leaders who can guide and mentor students at more than 900 Atal Tinkering Labs**, established across the country as a part of the Atal Innovation Mission.

About Mentor India campaign:

Mentor India is **aimed at maximizing the impact of Atal Tinkering Labs**, possibly the biggest disruption in formal education globally. The idea is to engage leaders who will nurture and guide students in the Atal Tinkering Labs. These labs are non-prescriptive by nature, and mentors are expected to be enablers rather than instructors.

NITI Aayog is looking for leaders who can spend anywhere between one to two hours every week in one or more such labs to enable students experience, learn and practice future skills such as design and computational thinking.

#### Background:

NITI Aayog's **Atal Innovation Mission** is among one of the flagship programs of the Government of India to promote innovation and entrepreneurship in the country to set up the Atal Tinkering Labs across the country. The Mission has / is in the process of setting up 900+ such labs across India and aims to have 2,000 such labs by end of 2017.

**Atal Tinkering Labs** are dedicated works spaces where students from Class 6th to Class 12th learn innovation skills and develop ideas that will go on to transform India. The labs are powered to acquaint students with state-of-the-art equipment such as 3D printers, robotics & electronics development tools, Internet of things & sensors etc.

Sources: pib.

## Uttar Pradesh launches Chief Minister's Helpline

UP state government has proposed to operationalise a 1,000-seater grievance cell in Lucknow —to be christened '**Chief Minister's Helpline**' —which will be capable of handling as many as 80,000 calls a day from harried residents from across the state on a single toll-free number.

#### Key facts:

- The set-up, to be monitored by the chief minister through a special dashboard, will allow 55,000 outbound calls per day for followup action, right up to the block level where officials are responsible for resolving issues.
- Complainants will receive a commitment through text message on their mobile phone, specifying the "minimum time" required to resolve the problem.
- Grievances will be automatically escalated to higher officials at the district headquarters, then to divisional headquarters and ultimately to top officials sitting in Lucknow if a complainant is not satisfied with the resolution.
- The 24\*7 call centre will be privately run to ensure complaints are listened to by operators without bias, and analytical reports will be prepared for the UP government, suggesting how services can be improved.
- The state government will nominate 10 officials from the departments that receive the maximum number of complaints and they in turn will train some of the private call operators to become subject matter experts on processes and schemes of various departments.
- A key feature of the system will also be capturing suggestions and feedback from citizens. As per the proposal, one of the main objectives of this programme is "not only to run a call centre but also to collect information for the government so that it can achieve better quality of service for the residents".

**24X7 Support**

**CM TO MONITOR**  
set-up through a special dashboard

**Will allow 55,000**  
outbound calls per day for follow-up action

**COMPLAINANTS WILL RECEIVE**  
commitment via text messages specifying "minimum time" for resolving issue

**CELL WILL CONTACT** the complainant for feedback on quality of work done

**CALLS PERTAINING TO EMERGENCIES LIKE LAW AND order or medical will be transferred by to the existing 'UP 100' service**

#### Significance of this move:

The CM's helpline will arm citizens with a big power – of simple calling up a number and reaching the CMO with their grouse and getting an assured timeline for redressal. This move aims to solve citizens' grievances at their doorstep in a time-bound manner.

Sources: et.

## Uttar Pradesh joins PM Narendra Modi's Government e-Market portal

Uttar Pradesh has joined central Government's e-Market portal. It will now be making all its procurements of goods and services through the central portal.

### About GeM:

It aims to ensure that public procurement of goods and services in India worth more than Rs. 5 lakh crore annually is carried out through the online platform for transparency and to eliminate corruption.

- It aims to transform the way in which procurement of goods and services is done by the Government Ministries/Departments, PSUs, autonomous bodies etc.
- DGS&D with technical support of NeGD (MeitY) has developed GeM portal for procurement of both Products & Services.
- GeM is a completely paperless, cashless and system driven e-market place that enables procurement of common use goods and services with minimal human interface.

Sources: et.

### GeM Advantages For Buyers

- Rich listing of products for individual categories of Goods/Services
- Search, Compare, Select and Buy facility
- Buying Goods and Services online, as and when required.
- Transparent and ease of buying
- Continuous vendor rating system
- User-friendly dash board for Buying and monitoring supplies and payments
- Easy Return policy

## Spice Digital gets RBI licence to operate under BBPS

Spice Digital Limited (SDL) has received the final licence from the Reserve Bank of India (RBI), allowing the company to process bill payments as a Bharat Bill Payment Operating Unit (BBPOU) in the Bharat Bill Payment System (BBPS).

### About BBPS:

The Bharat Bill Payment System (BBPS) is an RBI conceptualised system driven by National Payments Corporation of India (NPCI). It is a one-stop payment platform for all bills, providing an interoperable and accessible "Anytime Anywhere" bill payment service to customers across the country with certainty, reliability and safety of transactions.

Payments through BBPS may be made using cash, transfer cheques and electronic modes. Bill aggregators and banks, who will function as operating units, will carry out these transactions for the customers.

### NPCI:

National Payments Corporation of India (NPCI) is an umbrella organization for all retail payments system in India. It was set up with the guidance and support of the Reserve Bank of India (RBI) and Indian Banks' Association (IBA). NPCI has ten promoter banks.

Sources: the hindu.



## Judicial performance index for lower courts

The NITI Aayog has suggested far-reaching reforms to expedite the justice delivery system, particularly the lower courts where nearly three crore cases have been pending for years. The recommendation comes against the backdrop of pendency of nearly 2.7 crore cases in subordinate courts, which also face a shortfall of nearly 5,000 judicial officers.

### Important recommendations made by the NITI Aayog:

- Establish a **judicial performance index** to help the high courts and its chief justices to keep track of the performance and process improvement at district courts and subordinate levels for reducing delay.
- The index can also include certain progress on process steps that have already been approved by high courts, like burden of day-to-day activity being removed from judges and given to administrative officials.

- The process would require **fixing non-mandatory time frames for different types of cases**. Using existing infrastructure and data, indicators could be created to see how long cases have been pending, what percentage of cases have been delayed and how many cases were disposed in the last year compared to the year before.
- Create a **separate administrative cadre in the judicial system** to reduce the workload on judges. This cadre should report to the Chief Justice in each high court to maintain judicial independence.
- High priority should be given to court process **automation and information and communication technology** enablement for electronic court and case management, including electronic management of court schedules and migration of all courts to the unified national court application software.
- Steps may also be taken for ensuring availability of online real time **judicial statistics** for determining the adequacy of judicial manpower and infrastructure to deal with work load of cases, which will enable priority appointment of judges at the lower judiciary levels keeping in mind a scientific approach to assessing the number of judges needed to tackle the pendency problem.
- Government may have a look at internationally developed measures such as 'global measures of court performance', created jointly by the Australasian Institute of Judicial Administration, the Federal Judicial Center (US), the National Center for State Courts (US) and the Subordinate Courts of Singapore.

Sources: et.

## Privacy safeguards can make Aadhaar a global model

The Supreme Court judgement on the right to privacy comes at a critical moment in India's and the world's transformation to a digital economy. This decision will also have a major impact on identification technology and policy across the globe. The SC judgement gives the opportunity to provide a strong privacy foundation to Aadhaar.

### What can be done to address the privacy concerns?

**Multi-factor authentication:** Aadhaar can provide this option to people by issuing a physical card with the biometric information stored within it protected by access and authentication identifiers that will address privacy concerns to a large extent.

**Data sharing concerns:** The concern of data sharing across different uses can be addressed by a system where a single, unique individual can be identified in different ways for different purposes. In Austria, cryptography enables users to access multiple services using a single e-ID while ensuring that records cannot be matched across the different databases using a common number.

### Lessons from other countries:

Globally, 120 countries have data privacy laws which can be a useful guide to any future legislation. India would do well to learn from experiences of countries like Estonia and Austria. Both these countries have unique identification systems similar to India but that provide greater control to individuals at the point of authentication and in the way their data is shared across sectors. If Aadhaar adopted lessons from abroad, it will address the privacy concerns raised by its critics.

### Way ahead:

The SC judgement could not have come at a more appropriate time. Aadhaar is the world's largest unique individual database, with one in seven persons in the world enrolled. Many countries are closely following Aadhaar's biometric standards, data safety protocols and authentication capability as they roll out their own identity systems.

Aadhaar is changing the way ordinary people interact with the state but is also asking people to trust the Unique ID Authority of India (UIDAI) to keep private information safe in an increasingly interconnected world. Resolving the issue of individual privacy and data security is therefore of utmost importance.

### Conclusion:

If Aadhaar strengthens its data protection as prescribed by the decision, it has the potential to be an example for the world, and will define the global discourse on how both state and non-state actors collect, protect and use personal information. By addressing the genuine concerns of individual privacy and data protection, Aadhaar will be ready to move ahead and lead by example as it has already done on the technological side.

Sources: et.

**Paper 2 Topic:** *India and its neighbourhood- relations.*

## Pakistan yet to transition fully to MFN status for India

Pakistan is yet to award the most favoured nation (MFN) status to India and it maintains a negative list of 1,209 items which are not permitted to be imported from India. The neighbouring country allows only 137 products to be exported from India through Wagah/Attari border land route.

*As per a World Trade Organisation (WTO) rule, every member of WTO requires to accord this status to other member countries. India has already granted this status to all WTO members including Pakistan.*

### What is Most Favoured Nation status?

Most Favoured Nation is a treatment accorded to a trade partner to ensure non-discriminatory trade between two countries vis-a-vis other trade partners. The importance of MFN is shown in the fact that it is the first clause in the General Agreement on Tariffs and Trade (GATT). *Under WTO rules, a member country cannot discriminate between its trade partners. If a special status is granted to a trade partner, it must be extended to all members of the WTO.*

### MFN at the same time allows some exemptions as well:

- One such exemption is the right to engage in Free Trade Agreements. This means members can participate in regional trade agreements or free trade agreements where there is discrimination between member countries and non member countries.
- Another exemption is that members can give developing countries special and differential treatment like greater market access. This special concession are in different forms like reduced tariff rates from developing country imports, concessions that allows developing countries to give subsidies to their production sectors etc.

All these exceptions are subjected to strict conditions.

### Does MFN mean preferential treatment?

In literal explanation, MFN doesn't mean preferential treatment. Instead it means non-discriminatory trade that ensures that the country receiving MFN status will not be in a disadvantageous situation compared to the granter's other trade partners. When a country receives MFN status, it is expected to raise trade barriers and decrease tariffs. It is also expected to open up the market to trade in more commodities and free flow of goods.

MFN essentially guarantees the most favourable trade conditions between two countries. These terms include the lowest possible trade tariffs, the least possible trade barriers and very crucial to trade relations— highest import quotas. The disclaimer only requires equal treatment to all Most Favoured Nations.

Sources: et.

**Benefits of MFN to India**

- Cheap raw material can be imported by Pakistani manufacturers at relatively low price than they are paying to European exporters.
- Pakistan can import textile machinery at relatively low price, which will further reduce cost of finished textile goods.
- There would be favorable opportunities for all MNC's

## India allowed to construct hydroelectric power plants under Indus Waters Treaty

The World Bank has said that India is allowed to construct hydroelectric power plants on the Jhelum and Chenab Rivers after secretary-level discussions between India and Pakistan on the technical issues over the Indus Waters Treaty concluded recently in a spirit of goodwill and cooperation.

### What the disagreement is about:

India and Pakistan disagree about the construction of the Kishenganga (330 megawatts) and Ratle (850 megawatts) hydroelectric power plants being built by India (the World Bank is not financing either project). The two countries disagree over whether the technical design features of the two hydroelectric plants contravene the Treaty. The plants

are on respectively a tributary of the Jhelum and the Chenab Rivers. The Treaty designates these two rivers as well as the Indus as the “Western Rivers” to which Pakistan has unrestricted use. Among other uses, India is permitted to construct hydroelectric power facilities on these rivers subject to constraints specified in Annexures to the Treaty.

#### **Background:**

Pakistan had approached the World Bank last year, raising concerns over the designs of two hydroelectricity projects located in Jammu and Kashmir. It had demanded that the World Bank, which is the mediator between the two countries under the 57-year-old water distribution pact, set up a court of arbitration to look into its concerns.

- On the other hand, India had asked for the appointment of a neutral expert to look into the issues, contending the concerns Pakistan raised were “technical” ones.
- Following this, the international lender had in November 2016 initiated two simultaneous processes — for appointing neutral expert and establishment of court of arbitration to look into technical differences between the two countries in connection with the projects.
- The simultaneous processes, however, were halted after India objected to it. After that, representatives of the World Bank held talks with India and Pakistan to find a way out separately.

#### **What is the Indus Water Treaty (IWT)?**

The six rivers of the Indus basin originate in Tibet and flow across the Himalayan ranges to end in the Arabian sea south of Karachi. The components of the treaty were fairly simple. **The three western rivers (Jhelum, Chenab and Indus) were allocated to Pakistan while India was given control over the three eastern rivers (Ravi, Beas and Sutlej).** While India could use the western rivers for consumption purpose, restrictions were placed on building of storage systems. The treaty states that aside of certain specific cases, no storage and irrigation systems can be built by India on the western rivers.

Sources: et.

### **India, Iran Call For Early Operationalisation Of Chabahar Port**

India and Iran have expressed commitment for early completion and operationalisation of Chabahar Port besides strengthening bilateral ties.

- India has also conveyed it's readiness to aid Iran in taking up operations in Chabahar Port during the interim period between the actual activation of contract. The Iranian side earlier had requested India to provide up to 150 million dollar credit and had made it a condition for activation of the Chabahar Port contract.

#### **Background:**

India and Iran had signed a pact for the development of Chabahar port in May 2016. India will develop and operate the Chabahar port. India Ports Global, a recently formed port project investment arm of the shipping ministry and a joint venture between the Jawaharlal Nehru Port Trust and the Kandla port, will invest \$85 million in developing two container berths with a length of 640 metres and three multi-cargo berths.

#### **Where is Chabahar port?**

Iran's Chabahar port is located on the Gulf of Oman and is the only oceanic port of the country. The port gives access to the energy-rich Persian Gulf nations' southern coast and India can bypass Pakistan with the Chabahar port becoming functional.



Why Chabahar port is important for India?

**Access to Afghanistan:** The first and foremost significance of the Chabahar port is the fact that India can bypass Pakistan in transporting goods to Afghanistan. Chabahar port will boost India's access to Iran, the key gateway to the International North-South Transport Corridor that has sea, rail and road routes between India, Russia, Iran, Europe and Central Asia.

**Countering Chinese presence:** Chabahar port will be beneficial to India in countering Chinese presence in the Arabian Sea which China is trying to ensure by helping Pakistan develop the Gwadar port. Gwadar port is less than 400 km from Chabahar by road and 100 km by sea.

**Iran as military ally:** With Chabahar port being developed and operated by India, Iran also becomes a military ally to India. Chabahar could be used in case China decides to flex its navy muscles by stationing ships in Gwadar port to reckon its upper hand in the Indian Ocean, Persian Gulf and Middle East.

**Boost to imports:** With Chabahar port becoming functional, there will be a significant boost in the import of iron ore, sugar and rice to India. The import cost of oil to India will also see a considerable decline. India has already increased its crude purchase from Iran since the West imposed ban on Iran was lifted.

**Sustainable connectivity:** Chabahar port will ensure in the establishment of a politically sustainable connectivity between India and Afghanistan. This is will, in turn, lead to better economic ties between the two countries.

**Humanitarian assistance:** From a diplomatic perspective, Chabahar port could be used as a point from where humanitarian operations could be coordinated.

**Ease of access:** The Zaranj-Delaram road constructed by India in 2009 can give access to Afghanistan's Garland Highway, setting up road access to four major cities in Afghanistan – Herat, Kandahar, Kabul and Mazar-e-Sharif.

Sources: pib.

## UN chief Antonio Guterres concerned about India's plans to deport Rohingya refugees

UN Secretary General Antonio Guterres is concerned about India's plans to deport Rohingya refugees from Myanmar. He said that refugees should not be returned to countries where they fear persecution once they are registered.

### Background:

Minister of State for Home Affairs Kiren Rijiju had told parliament last week that the central government had directed state authorities to identify and deport illegal immigrants, including Rohingyas, who face persecution in the Buddhist-majority Myanmar.

### What necessitates this move?

The Home Ministry had said that infiltration of (Rohingyas) from the Rakhine state of Myanmar into Indian territory, especially in recent years, besides being a burden on the limited resources of the country, also aggravates security challenges posed to India.

### UN principles of non-refoulement:

UN principles of non-refoulement applies in this case. According to these principles, no nation shall expel or return a refugee in any manner to territories where his life or freedom would be threatened on account of his race, religion, nationality, membership of a particular social group or political opinion.

### Who are the Rohingya?

Few years ago, religious and ethnic tensions between the Rohingya Muslims and the Rakhine Buddhists (who make up the majority of the population in Myanmar) escalated into widespread, deadly rioting. Hundreds of thousands were forced to flee. Since then, ongoing violent attacks have forced even more people to leave their homes.

- The Myanmar Government says that Rohingya people are not Burmese citizens – but the Rohingya have been living in Myanmar for generations. Today, they are a people with no home or citizenship.
- Rohingya people are being widely abused and exploited. They are one of the most persecuted minorities in the world.

What needs to happen?

The Myanmar Government should immediately end the violent crackdown on the Rohingya and amend or repeal the 1982 Burma Citizenship Law to provide the Rohingya people with full citizenship in the country.

Bangladesh and other governments in Southeast Asia must ensure those fleeing violence and seeking protection, are granted access. Guaranteeing they will not be pushed back or arbitrarily detained and instead that all their rights will be respected.

Sources: ie.

## India moves to revive TAPI gas pipeline

India will host the next steering committee meeting of the proposed 1,814 kilometre-long Turkmenistan-Afghanistan-Pakistan-India (TAPI) gas pipeline. With this, India has reaffirmed its strong commitment to TAPI — first proposed in 1995.

About TAPI gas pipeline project:

The Turkmenistan-Afghanistan-Pakistan-India Natural Gas Pipeline (TAPI) Project is a **natural gas pipeline being developed by the Asian Development Bank**.

- The TAPI pipeline will have a capacity to carry 90 million standard cubic metres a day (mscmd) gas for a 30-year period and be operational in 2018.
- India and Pakistan would get 38 mscmd each, while 14 mscmd will be supplied to Afghanistan. From the Galkynysh field in Turkmenistan, the pipeline will run to Herat and Kandahar province of Afghanistan, before entering Pakistan. In Pakistan, it will reach Multan via Quetta before ending at Fazilka (Punjab) in India.
- The pipeline, that had its ground-breaking ceremony in December 2015, has seen flagging interest since then for a number of reasons. India's effort is to tap Turkmenistan's Galkynysh gasfields, which are the fourth largest in the world.

Sources: the hindu.



## India, China 'clash' near high-altitude Pangong Lake

The Indian and Chinese armies clashed recently along the Pangong lake in Ladakh when the People's Liberation Army tried to penetrate into the Indian side.

Background:

The latest incident comes amid an ongoing dispute between the two sides over a strategic Himalayan plateau thousands of kilometres away where hundreds of Indian and Chinese soldiers have been facing off against each other for more than two months.



About the disputed region:

**Pangon lake or Pangong Tso**, a 135-km long lake, located in the Himalayas at the height of approximately 4,350 m, stretches out from India to China. One-third of water body, its 45 km stretch, is in Indian control while the rest of the 90 km is under Chinese control.

- There has been constant strife between the two countries over the region as both assert territorial possession.
- The region has been a bone of contention between India and China for long. In the 1990s, when the Indian side laid claims over the area, the Chinese army built a metal-top road contending that it was part of the Aksai Chin, which is another disputed border area between the two.
- **The Aksai Chin area falls under Chinese control and is governed as part of Hotan County. However, India also claims it to be a part of the Ladakh region of Jammu and Kashmir.**

Sources: the hindu.

## India welcomes Trump's new Afghanistan policy

India has welcomed U.S. President Donald Trump's new policy on Afghanistan and said his move would help target "safe havens" of terrorism in South Asia.

- American President had urged India to play a larger role in providing economic and development assistance to the war-torn Afghanistan.

The new US policy on Afghanistan:

The Pentagon and NATO allies are redrawing their operational plans in America's longest war that began in 2001, and an increase in troop levels is expected soon. The new U.S. strategy for South Asia has many old elements, but in a departure from the past, it commits troops in Afghanistan for an open-ended period of time. The policy also sets the stage for a new wave of U.S. offensive against Islamist forces in Afghanistan and Pakistan.

Benefits for India:

- **Increased access:** A greater role of India in Afghanistan where it is already playing a big part in its reconstruction, will not only give India strategic advantage over its traditional rivals like Pakistan and China, but would also mean greater access to the oil and mineral rich Central Asian nations and opportunity for its industry to gain a larger share in the whole Afghanistan rebuilding business.
- **Strategic advantage:** A stable Afghanistan, which is fiercely against Pakistan, can in fact give India strategic advantage by providing a valuable military base in future, overlooking both Pakistan and China.
- **Gateway to central Asia:** In July 2015, Prime Minister Narendra Modi made a historic visit of five Central Asian nations, Kazakhstan, Kyrgyzstan, Uzbekistan, Turkmenistan and Tajikistan and the main objective was ensuring India's future energy security. For India, Afghanistan is the gateway to Central Asia and a stable Afghanistan with greater access will go a long way in fulfilling India's objective.
- **Against terrorism:** Also, a wider presence in Afghanistan will give India greater leverage in dealing with the terror groups like Al Qaeda and the Islamic State which are trying to establish their Indian footprint. These groups are currently using restive regions of Pakistan and Afghanistan as their gateway opportunity to the Indian Subcontinent.
- Afghanistan in future can also emerge as a big push for **Make in India** initiative for India's nascent defence industry as the country would need a sustained military supply to handle not only its internal terror threats but also to secure its contentious borders with Pakistan, a terror exporter that has been destabilising Afghanistan for the past four decades.

India and Afghanistan:

India has played an important role in Afghanistan's reconstruction in post Taliban era spending around USD 2 Billion since 2002 on development projects including its parliament building and committed another USD 1 Billion last year.

The Indian aid has been mostly in infrastructure development, health services and military equipment like bullet proof jackets and convoy vehicles. But breaking the tradition of not giving lethal military equipment in aid, it gave Afghanistan four attack helicopters last year and is also training its soldiers.

Sources: the hindu.

## A new Bridge over Mechi River at Indo-Nepal border

The Union Cabinet has approved a Memorandum of Understanding (MoU) to be signed between India and Nepal for laying down implementation arrangement on Cost sharing, Schedules and Safeguard issues for starting construction of **a new Bridge over Mechi River at Indo-Nepal border**.



### Key facts:

- The estimated cost of construction of the bridge is Rs. 158.65 crore, which would be funded by Government of India through ADB loan.
- The new bridge is part of up-gradation of the Kakarvitta (Nepal) to Panitanki Bypass (India) on NH 327B covering a length of 1500 meters.
- **Mechi Bridge is the ending point of Asian Highway 02 in India leading to Nepal** and provides critical connectivity to Nepal.
- **National Highway and Infrastructure Development Corporation (NHIDCL) under Ministry of Road Transport & Highways has been designated as the implementing agency** for this project.

### Importance of the bridge:

The construction of the bridge will improve regional connectivity and has potential to strengthen cross border trade between both the countries and cementing ties by strengthening industrial, social and cultural exchanges.

### About Mechi river:

The Mechi River is **a trans-boundary river flowing through Nepal and India**. It is **a tributary of the Mahananda River**. The Mechi originates in the Mahabharat Range in Nepal.

Sources: pib.

## MoU between India and Nepal on Drug Demand Reduction and Prevention of Illicit Trafficking

The Union Cabinet has given its approval for signing of a Memorandum of Understanding (MoU) between India and Nepal on Drug Demand Reduction and Prevention of Illicit Trafficking in Narcotic Drugs and Psychotropic Substances and precursor chemicals and related matters.

- The MoU lists out the areas of cooperation on drug matters between the two countries. It also indicates the mechanism of information exchange and the competent authorities in the two countries who are responsible for the implementation of the MoU and exchange of any information.
- Cooperation on drug matters is expected to curb the illicit traffic of narcotic drugs, psychotropic substances and precursor chemicals in the two countries.

### The MoU provides that the Parties shall endeavour to:

- Develop **mutual cooperation** with a view to effectively resolving the issue of illicit traffic in narcotic drugs, psychotropic substances and their precursors, cooperate in drug demand reduction through prevention, awareness, education and community based programmes, treatment and rehabilitation; and
- **Exchange information** of operational, technical and general nature in drug matters, exchange literature on their existing laws, rules, procedures, best practices and methods of curbing illicit trafficking in narcotic drugs, psychotropic substances and their precursors and any further amendments to the existing legislation.

### Background:

India has always supported global efforts to counter drug trafficking and is party to several multilateral and bilateral initiatives in this regard as also United Nations (UN) led initiatives. In accordance with the spirit of UN Conventions on Narcotic Drugs, effort is made to enter into Bilateral Agreements/MoUs with neighbouring countries and the countries which have a direct bearing on the drug situation prevailing in our country. Such Bilateral Agreements/ MoUs have

already been executed with various countries. The proposed MoU with Nepal is another such MoU which shall be entered for the purpose of bilateral cooperation on drug matters.

Sources: pib.

## Cabinet approves MoU with Myanmar for the Conservation of Pagodas at Bagan

The Union Cabinet has approved the Memorandum of Understanding (MoU) between India and Myanmar for the conservation of earthquake-damaged pagodas at Bagan, Myanmar.



### Significance of this MoU:

- Implementation of the project will further strengthen India's enduring ties in culture and religion with Myanmar.
- It will also generate immense goodwill for India among the people of Myanmar due to the religious significance as well as the touristic significance of the project.
- It will also contribute to India's development partnership with Myanmar.
- It will be an opportunity to showcase India's expertise in the restoration and conservation of monuments not only to the people of Myanmar but also to the tourists from other countries.

### About Bagan:

Bagan in central Burma is one of **the world's greatest archeological sites**. The Ayeyarwady (Irrawaddy) River drifts past its northern and western sides. From the 9th to 13th centuries, the city was **the capital of the Pagan Kingdom**, the first kingdom that unified the regions that would later constitute modern Myanmar. During the kingdom's height between the 11th and 13th centuries, over 10,000 Buddhist temples, pagodas and monasteries were constructed in the Bagan plains alone.

Sources: pib.

*Paper 2 Topic: Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.*

## USISPF set up to deepen Indo-US ties

A new representative body — **US- India Strategic Partnership Forum (USISPF)** — is being set up to further enhance business relations between the two countries.

### What it does?

The non-profit corporation aims to promote bilateral trade and work on creating "meaningful opportunities that have the power to change the lives of citizens. The body will work closely together with businesses and government leaders to achieve its goals of driving economic growth, job creation, innovation, inclusion and entrepreneurship.

Sources: et.

## Memorandum of Association (MOA) to establish the ISARC

In order to establish the **IRRI-South Asia Regional Centre (ISARC)**, a Memorandum of Association (MOA) has been signed between the Department of Agriculture, Cooperation and Farmers Welfare (DAC & FW), DAC&FW and International Rice Research Institute (IRRI), Philippines.

### About ISARC:

The Center will be the **first international Center in the eastern India** and it will play a major role in harnessing and sustaining rice production in the region. It is expected to be a boon for food production and skill development in the eastern India and similar ecologies in other South Asian and African countries.

- This would be a Centre of Excellence in Rice Value Addition (CERVA) and will include a modern and sophisticated laboratory with the capacity to determine quality and status of heavy metals in grain and straw. The Centre will also undertake capacity-building exercises for stakeholders across the rice value chain.
- ISARC will operate under the governance of the IRRI Board of Trustees who will appoint an appropriate IRRI staff member as Director. A Coordination Committee will be headed by Director General, IRRI as Chair and Secretary, Government of India, DACFW as Co-Chair.

#### What it does?

The Centre will support in adopting value chain based production system in the country. This will reduce wastage, add value and generate higher income for the farmers. The farmers in Eastern India will benefit in particular, besides those in South Asian and African countries.

Sources: pib.

### Cabinet approves MoU between India and BRICS countries to set up BRICS Agriculture Research Platform

The Union Cabinet has given its ex-post facto approval for a Memorandum of Understanding (MoU) signed among India and various BRICS countries for establishment of **the BRICS Agriculture Research Platform (BRICS-ARP)**.

#### About BRICS ARP:

In October last year, a memorandum of understanding (MoU) for setting up agriculture research platform (ARP) was signed by foreign ministers of BRICS countries in the 8th BRICS Summit held at Goa. With this, the Centre will promote sustainable agricultural development and poverty alleviation through strategic cooperation in agriculture to provide food security in the BRICS member countries.

**BRICS-ARP will be the natural global platform for science-led agriculture-based sustainable development** for addressing the issues of world hunger, under-nutrition, poverty and inequality, particularly between farmers' and non-farmers' income, and enhancing agricultural trade, bio-security and climate resilient agriculture.

Sources: pib.

### India, ASEAN-5 more fetching to FDI than other emerging markets

As per a report, India along with Indonesia, Malaysia, Thailand, the Philippines and Vietnam has emerged as attractive destinations to FDIs as compared to other emerging markets and flows to these nations are expected to surge to around USD 240 billion by 2025.

- For the same reason, India and ASEAN-5 (Indonesia, Malaysia, the Philippines, Thailand and Vietnam) have been dubbed as **"Asia's tiger cubs"**.
- Moreover, sources of FDI to these nations are also witnessing a significant shift with more inflows expected from countries as China and Japan.

#### Factors behind this:

Rising labour costs in China and an ageing population in Northeast Asia have disincentivised foreign direct investment (FDI) and they are in search of new destinations and "India and the ASEAN-5 are well placed to emerge as that destination. Other factors that are expected to encourage FDI into India and ASEAN-5 include – large and growing domestic markets; reforms focussed on improving infrastructure and the ease of doing business; a more open and liberal FDI regime; sound economic management and political stability; and availability of low-cost labour.

Sources: et.

## Preparatory Meeting of the First 'BIMSTEC Disaster Management Exercise- 2017'

The two-day Preparatory Meeting of the **First 'BIMSTEC Disaster Management Exercise- 2017'** has begun in New Delhi. This marks the first phase of the First 'BIMSTEC Disaster Management Exercise- 2017', being organized by the National Disaster Response Force (NDRF).

### Key facts:

- The Government of India has entrusted **the responsibility of organizing the First 'BIMSTEC Disaster Management Exercise- 2017' to the NDRF.**
- This Exercise will provide a platform to share the Best Practices on comprehensive aspects of Disaster Risk Reduction (DRR), strengthening regional response and coordination for Disaster Management among the BIMSTEC nations.
- Senior officers from MHA, MEA, NDMA, NDRF and National Institute of Disaster Management (NIDM), besides representatives from all seven BIMSTEC nations, – namely Bangladesh, Bhutan, India, Nepal, Sri Lanka, Myanmar and Thailand, are participating in the Preparatory Meeting.
- The main exercise will comprise of Table Top Exercise (TTX), Field Training Exercise (FTX) and After Action Review (AAR).

### Significance of this exercise:

The impact of natural disasters is increasing due to growing population and urbanization. Sharing of Best Practices in DRR including Prevention, Mitigation and Resilience are critical to Disaster Management. Regional and International Cooperation in DRR is therefore critical to Disaster Management. The Disaster Management Exercise of BIMSTEC bloc will help in the augmentation of capacities, especially response capacity, besides promoting cooperation and coordination in Disaster Risk Reduction (DRR).

- India has been at the forefront of DRR efforts by hosting the South Asian Annual Disaster Management Exercise (SAADMEx) and the Asian Ministerial Conference for Disaster Risk Reduction (AMCDRR). India has also offered its expertise and capabilities in DRR such as the South Asia satellite, GSAT-9, and the Tsunami Early Warning Centre to other countries.
- The modalities and requirements of the First 'BIMSTEC Disaster Management Exercise- 2017' would be worked during the course of the two-day Preparatory Meeting.

### About BIMSTEC:



Bangladesh



Bhutan



India



Nepal



Myanmar



Thailand



Sri Lanka



The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) is an international organization involving a group of countries in South Asia and South East Asia.

- The BIMSTEC comprises of seven countries, Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka and Thailand.
- The main objective of BIMSTEC is technological and economical cooperation among South Asian and South East Asian countries along the coast of the Bay of Bengal.
- The headquarters of BIMSTEC is in Dhaka.

Sources: pib

## India ratifies second commitment period of Kyoto Protocol

India has ratified the second commitment period of the Kyoto Protocol that commits countries to contain the emission of greenhouse gases, reaffirming its stand on climate action. With this, India became the 80th country to accept the amendment relating to the second commitment period of the Kyoto Protocol, the international emissions reduction treaty.

### About Kyoto Protocol:

The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change (UNFCCC), which commits its Parties by setting internationally binding emission reduction targets.

- The Kyoto Protocol was adopted in Kyoto, Japan, in December 1997 and entered into force in February 2005.
- The first commitment period under the Kyoto Protocol was from 2008-2012. The Doha Amendment to the Kyoto Protocol was adopted in Qatar in December 2012. The amendment includes new commitments for parties to the Kyoto Protocol who agreed to take on commitments in a second commitment period from January 2013 to December 2020 and a revised list of greenhouse gases to be reported on by Parties in the second commitment period.
- Recognizing that developed countries are principally responsible for the current high levels of Greenhouse Gas (GHGs) in the atmosphere, the Kyoto Protocol places commitments on developed nations to undertake mitigation targets and to provide financial resources and transfer of technology to the developing nations.
- Developing countries like India have no mandatory mitigation obligations or targets under the Kyoto Protocol.

Sources: the hindu.



## Kyoto Protocol

- After 3 Conferences of the Parties (COPs) meeting in Berlin and Geneva, eventually in Kyoto, Japan in December 1997 the member countries prepared the Kyoto Protocol
- The Kyoto Protocol decided upon:
  1. Emission-reduction targets of greenhouse gases for each of the member countries
  2. A greenhouse gas emission-trading program
  3. Holding future meetings to set penalties for violators of the established targets and regulation rules of the emission-trading program
- Under The leadership of President Bush, America did not support the Protocol
- The Kyoto Protocol finally came into effect on February 16, 2005

## BIMSTEC meeting



# BIMSTEC



The 15th ministerial meeting of the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation concluded recently in Kathmandu, endorsing the memorandum of understanding for the establishment of BIMSTEC grid interconnection and also agreed to expedite the negotiations for BIMSTEC Free Trade Area Agreement.

- The meeting of the BIMSTEC also pledged to deepen cooperation for shared prosperity in the region. The meeting decided to establish cells focused on areas, like energy, environment and culture, among others, for effective

cooperation and to elevate BIMSTEC as a vibrant and visible regional cooperation. The meeting also decided to form an eminent persons' group to prepare the future roadmap of BIMSTEC.

#### What you need to know about BIMSTEC?

BIMSTEC or the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation is a regional organisation which comprises of seven member states which lie near the Bay of Bengal.

- This sub-regional organisation was started on June 6, in the year 1997 through a Bangkok Declaration.
- BIMSTEC consists of seven countries: 5 come from South Asia, including India, Nepal, Bangladesh, Bhutan, and Sri Lanka; and 2 come from Southeast Asia, which includes Myanmar and Thailand.
- BIMSTEC headquarters are situated in Dhaka, Bangladesh.
- The whole region which constitutes the BIMSTEC is home to over 1.5 billion people. The population counts for around 22 percent of the total world population. These countries have a combined GDP of \$2.7 trillion.

Sources: the hindu.

### India, China to join Indian Ocean exercise

Indian Navy will be joining the People's Liberation Army (PLA) Navy in a maiden maritime search and rescue exercise to be chaired by Bangladesh at the **Indian Ocean Naval Symposium (IONS)** in November this year.

#### Background:

*Bangladesh, the current Chair, is scheduling a maiden International Maritime Search and Rescue Exercise (IMMSAREX) in November in the Bay of Bengal to be attended by ships and aircraft of the members and observers of the IONS.*

#### What you need to know about IONS?

The IONS is a regional forum of Indian Ocean littoral states, represented by their Navy chiefs, launched by India in February 2008. It presently has 23 members and nine observers.



- It is a **voluntary initiative that seeks to increase maritime co-operation among navies of the littoral states of the Indian Ocean Region** by providing an open and inclusive forum for discussion of regionally relevant maritime issues and, in the process, endeavors to generate a flow of information between naval professionals that would lead to common understanding and possibly agreements on the way ahead.
- Under the charter of business adopted in 2014, the grouping has working groups on Humanitarian Assistance and Disaster Relief (HADR), Information Security and Interoperability (IS&I) and anti-piracy now renamed as maritime security.

Sources: the hindu.

### India, Russia to hold mega war games in October

In the midst of evolving security situation in the region, India and Russia will hold a mega war game in October involving their armies, navies and the air forces for the first time to further ramp up military ties.

#### Key facts:

- **The exercise Indra**, which will be held in Russia in October, will primarily focus on achieving coordination between forces of the two countries in a tri-services integrated theatre command scenario.
- **It will be for the first time India will participate in a tri-services exercise with a foreign country** with such a large scale participation by the Navy, the Army and the Air Force.
- A total of 350 Indian Army personnel will participate at the mega exercise and the contingent will be led by a major- general rank official. The contingents by the Navy and the IAF will also be sizeable in numbers.

Background:

The exercise is taking place at a time when India's ties with China have nosedived due to the simmering border dispute and its ties with Pakistan have deteriorated over cross-border terrorism and number of other issues.

Sources: et.

### Cabinet approves MoU between India and Sweden on IPRs

The Union Cabinet has given its approval to the Memorandum of Understanding (MoU) between India and Sweden on cooperation in the field of Intellectual Property (IPRs).

- The MoU establishes a wide ranging and flexible mechanism through which both countries can exchange best practices and work together on training programs and technical exchanges to raise awareness on IPRs and better protect intellectual property rights.

Significance of this MoU:

- The MoU will enable India to exchange experiences in the innovation and IP ecosystems that will substantially benefit entrepreneurs, investors and businesses on both sides.
- The exchange of best practices between the two countries will lead to improved protection and awareness about India's range of Intellectual creations which are as diverse as its-people.
- It will be a landmark step forward in India's journey towards becoming a major player in global Innovation and will further the objectives of National IPR Policy, 2016.

As per the MoU, a Joint Coordination Committee (JCC) with members from both sides will be formed to decide cooperation activities to be taken in following areas:

- Exchange of best practices, experiences and knowledge on IP awareness among the public, businesses and educational institutions of both countries.
- Collaboration in training programmes, exchange of experts, technical exchanges and outreach activities.
- Exchange and dissemination of best practices, experiences and knowledge on IP with the industry, universities, R & D organisations and Small and Medium Enterprises (SMEs) through participation in programs and events in the matter, organized singly or jointly by the Parties.
- Exchange of information and best practices for disposal of applications for patents, trademarks, industrial designs, copyrights and Geographical Indications, as also the protection, enforcement and use of IP rights.
- Cooperation in the development of automation and implementation of modernization projects, new documentation and information systems in IP and procedures for management of IP.
- Cooperation to understand how Traditional Knowledge is protected; and the exchange of best practices, including traditional knowledge related databases and awareness raising of existing IP systems.
- Exchange of information and best practices regarding Intellectual Property law infringements in the digital environment, especially regarding Copyright issues.
- Other cooperation activities as may be decided by the Parties with mutual understanding.

Sources: pib.

### A Memorandum of Understanding...

- \* Outlines the details of an agreement.
- \* Between two or more parties.
- \* Intend to work together toward a common goal.
- \* Abbreviated and referred to as an MOU.
- \* Less complex and detailed than a contract, while providing a framework.
- \* Great to confirm and solidify the terms of a verbal agreement.

### US and India to co-host global entrepreneurship summit

The US and India will co-host the Global Entrepreneurship Summit (GES) in November in Hyderabad, India. GES 2017 will create an environment that empowers innovators, particularly women, to take their ideas to the next level.

- Around 1,500 delegates from over 160 countries will participate in the Global Entrepreneurship Summit (GES).

The **theme of the GES this year** is: “Women First, Prosperity for All,” which highlights that when women do better, countries do better.

#### About the summit:

The summit organised annually since 2010, is the preeminent annual entrepreneurship gathering that convenes over one thousand emerging entrepreneurs, investors, and supporters from around the world.

- This year marks **the first GES held in South Asia**, and the event underscores the broad and enduring partnership with India.
- The summit will focus on four key industry sectors: Energy and Infrastructure, Healthcare and Life Sciences, Financial Technology and Digital Economy, and Media and Entertainment.

Sources: the hindu.

## India, US to establish new ministerial dialogue

India and US have resolved to enhance peace across the Indo-Pacific region by establishing a **new 2-by-2 ministerial dialogue** that will elevate their strategic consultation.

#### Key facts:

- The India-US Strategic and Commercial Dialogue, once described by the US State Department as the “signature mechanism for advancing the United States’ and India’s shared priorities,” will now be replaced by the new dialogue in which the foreign and defence ministers will participate.
- **Composition:** The new dialogue format will involve the Indian foreign minister and the US secretary of state as well as the Indian defence minister and the US defence secretary.
- The shared priorities include job creation, improving the business and investment climate and sustaining a rules-based global order.
- The US has strategic consultations in this format with key partners and allies including Australia, Japan and the Philippines. India has had a dialogue in the two-plus-two format with Japan with secretaries or senior-most bureaucrats from the foreign and defence ministries engaging each other.

#### Background:

Till last year, trade and commercial issues were discussed in the Strategic and Commercial Dialogue and the Trade Policy Forum. The first Strategic and Commercial Dialogue was held in 2015 in Washington and the second in New Delhi last year. It was seen as an elevation of the US-India Strategic Dialogue in place since 2009 and which focused on regional security, economic cooperation, defence, trade and climate challenges.

Sources: the hindu.

## MPs fret over trade deficit with ASEAN

The Parliamentary Standing Committee on Commerce has questioned the government for suggesting that the country’s increasing trade deficit with ASEAN nations is due to imports of essential commodities and has strongly recommended that India seek better market access for its products and services with the 10-nation bloc.

#### Trade deficit with ASEAN:

India has suffered a trade deficit in respect of five ASEAN members — Malaysia, Indonesia, Thailand, Brunei and Lao PDR — over 2015-16 and 2016-17, with the biggest deficit emerging in trade with Indonesia.



- Under the existing trade agreement, Indonesia has committed a tariff elimination on 50.1% of its items which is the least in comparison to other ASEAN member States. The least tariff elimination by Indonesia has resulted in biggest trade deficit from India amongst all ASEAN member States.

- Among the other top 10 commodities imported from ASEAN, consumer electronics grew at the highest pace in 2016-17 (18.33%), followed by ships and boats (12.82%), electronic components (11.72%) and telecom instruments (9.17%). India's second-largest export commodity to ASEAN — buffalo meat — saw a 4.92% increase in 2016-17 to reach \$2.78 billion.

#### Essential commodities:

The Ministry of Commerce apprised the panel that **the imports of essential commodities — coal, petroleum and edible oils — from ASEAN constitute a significant percentage of India's imports and that 'if these essential commodities are excluded, India will have a better or positive balance of trade position.'**

As per official data, among the 'essential commodities' cited by the government, imports of coal fell by 2.5% in 2016-17 from a year earlier, while vegetable oil imports grew by 3.7% to touch \$6.19 billion in 2016-17. Crude petroleum imports rose by almost 50% in 2016-17, but exports of petroleum products (India's top export product to the ASEAN bloc) surged 58.4%.

#### Concerns:

**Absence of quality norms:** While exports of agricultural products from India faced high import tariffs and barriers, leading to a sharp drop in trade, India's food processing sector had raised concerns about the 'near absence of quality norms' for import of cheap processed food products from ASEAN countries.

**Non- tariff barriers:** Concerns have also been raised about the imposition of safeguards and non-tariff barriers by ASEAN nations on exports of India's textiles and pharmaceuticals.

#### What needs to be done?

**Better market access:** India must seek better market access for goods where India has an edge over ASEAN nations, like leather goods and pharmaceuticals, to improve the trade balance.

**Quality norms:** Cheap import of poor quality processed food products should be looked into. Appropriate quality norms may be fixed for import of such products from ASEAN as well as other regions of the world.

**Reduction in tariffs:** The government must ensure reciprocity in the reduction of tariffs in products like steel. Efforts should also be there to improve India's access to services trade in ASEAN, with a focus on increasing the footprint of Indian banks and financial institutions in the region.

#### Background:

The Association of South-East Asian Nations (ASEAN) comprises of Indonesia, Singapore, Philippines, Malaysia, Brunei, Thailand, Cambodia, Lao PDR, Myanmar and Vietnam. ASEAN is India's fourth largest trading partner with total trade in 2016-17 at \$71.69 billion, constituting almost 11% of India's overall global trade of \$660.6 billion. Total exports to ASEAN in 2016-17 stood at \$31.07 billion, while imports were \$40.63 billion, creating an adverse trade balance of \$9.56 billion.

Sources: the hindu.

## MoU between India and Brazil for cooperation in the fields of Zebu Cattle Genomics and Assisted Reproductive Technologies

The Union Cabinet was recently apprised of Memorandum of Understanding (MoU) signed between India and Brazil for cooperation in the fields of Zebu Cattle Genomics and Assisted Reproductive Technologies. The MoU was signed in October, 2016.

#### Highlights of the MoU:

- The MoU aims to strengthen the existing friendly relations between India and Brazil and promote development of Genomics and Assistant Reproductive Technologies (ARTs) in Cattle through joint activities to be implemented through mutually agreed procedures.
- An implementation committee shall be created with an equal number of representatives of each party for the purpose of regularly determining the activities and developing work plans and subsequently their evaluation.
- It will be done through joint projects in the fields of Productivity Improvement of cattle and buffaloes, for the purpose of broadening the existing knowledge base on sustainable dairy development and institutional strengthening.

The MoU would promote and facilitate scientific cooperation and setting up of genomic selection programme in Zebu Cattle through:

- Application of genomic in Zebu Cattle and their crosses and buffaloes.
- Application of assisted reproductive technologies (ARTs) in cattle and buffaloes.
- Capacity building in genomic and assisted reproductive technology.
- Related research and development in Genomics and ART in accordance with the respective laws and regulations of the two countries and is covered.

About Zebu cattle:

Zebu, sometimes known as **indicine cattle or humped cattle**, is a species or subspecies of domestic cattle originating in the Indian subcontinent. Zebu are characterised by a fatty hump on their shoulders, a large dewlap, and sometimes drooping ears. They are well **adapted to withstanding high temperatures, and are farmed throughout the tropical countries**, both as pure zebu and as hybrids with taurine cattle, the other main type of domestic cattle. Zebu are used as draught oxen, dairy cattle, and beef cattle, as well as for byproducts such as hides and dung for fuel and manure. In 1999, researchers at Texas A&M University successfully cloned a zebu.

Sources: pib.

### India-Israel Industrial R&D and Technological Innovation Fund

The Union Cabinet has approved a Memorandum of Understanding (MoU) between India and Israel on “**India-Israel Industrial R&D and Technological Innovation Fund (I4F)**”. The MoU was concluded in July, 2017.

Key facts:

- The MoU envisages promotion of bilateral Industrial R&D and Innovation cooperation in the fields of science and technology by extending support to joint projects for innovative or technology-driven new or improved products, services or processes.
- Such projects will lead to affordable technological innovations in focus areas of mutual interest such as water, agriculture, energy and digital technologies. Institutional support in building up consortia including private industry, enterprises and R&D institutions from India and Israel will be enabled through these collaborative projects.
- **India and Israel will make an contribution of four million US Dollars each for the Fund, both equivalent amount, annually for five years.**
- The Innovation Fund will be **governed by a joint Board** which will consist of four members from each country.

Benefits of this MoU:

- The activities supported by the Joint Fund would increase the techno-economic collaboration between the two countries by investing in jointly developed technology projects and collaborations based on technological innovation.
- It would leverage the complementary strengths of Israel and India to encourage Israel-Indian joint projects that capitalize on both the national and global marketplace.
- It would provide a comprehensive set of support tools to encourage joint projects that convert “know-how” into “show-how”.
- It is expected that this will foster and strengthen the eco-system of innovation and techno-entrepreneurship in India and will contribute directly to the Start-up India programme.

Sources: pib.

**Topic:** Effect of policies and politics of developed and developing countries on India's interests, Indian diaspora.

## 'Merit-based' immigration plan may benefit Indian professionals

President Donald Trump has announced his support for **the Reforming American Immigration for Strong Employment (RAISE) Act** that would cut in half the number legal immigrants allowed into the US while moving to a "merit-based" system favouring English-speaking skilled workers for residency cards.

What you need to know about the RAISE Act?

The RAISE Act would scrap the current lottery system to get into the US and instead institute a points-based system for earning a green card. Factors that would be taken into account include English language skills, education, high-paying job offers and age.

- The RAISE Act ends chain migration, and replaces the low-skilled system with a new points-based system for receiving a Green Card.
- If passed by the Congress and signed into law, the legislation titled the Reforming American Immigration for Strong Employment (RAISE) Act could benefit highly-educated and technology professionals from countries like India.

Sources: et.

## Chinese daily cautions India, Japan over trade corridor

China has cautioned India and Japan over the Asia Africa Growth Corridor (AAGC) sponsored by India and Japan. Some experts see AAGC as a counterbalance to China's "Belt and Road" (B&R) initiative.

What's the issue?

The new venture, jointly led by India and Japan – two countries that have so far opted not to join the B&R initiative – sets out a vision for the better integration of South Asia, Southeast Asia and East Asia with Africa and Oceania. However, the India-Japan vision indicates an overlap between the AAGC and the Belt and Road project and invites controversy over the actual intentions behind the growth corridor.

"One Belt, One Road" (OBOR):

Connecting with more than 60 across Asia, Europe and Africa, OBOR is one of the largest infrastructural projects and a network of land and sea routes. The primary objective of the Chinese President is to create a network of railways, roads, pipelines and grids, which will boost the development of China's connectivity to the rest of the world. The initiative introduced by the Chinese government includes the Silk Road Economic Belt and the 21st Century Maritime Silk Road, with the collaboration of more than 40 other countries, amid a huge investment of \$50 billion from Chinese companies for infrastructural projects.

Asia-Africa Growth Corridor (AAGC):

Aiming to strengthen the growth and connectivity between Asia and Africa, India and Japan initiated the Asia-Africa Growth Corridor (AAGC), which primarily focuses on Development Cooperation Projects, Quality Infrastructure and Institutional Connectivity, Enhancing Skills, and People-to-People Partnership. Reportedly, China is Africa's largest economic partner with a trade growth rate of 20% per year since 2002 and AAGC initiative by China's two Asian rivals is key for the trans-continent relation between the Asian and African countries.

Is AAGC a counter to OBOR?

Unlike OBOR which entails development of a land corridor, AAGC will essentially be a sea corridor linking Africa with India and other countries of South-East Asia and Oceania. It is being presented as a "distinct initiative" borne out of a consultative process which would be profitable and bankable, unlike the "government-funded model" of OBOR (One Belt One Road) project.



## Asean and China adopt framework for crafting code on South China Sea

Foreign ministers of Southeast Asia and China have adopted a negotiating framework for a code of conduct in the South China Sea, a move they hailed as progress but seen by critics as tactic to buy China time to consolidate its maritime power.

### What you need to know about the new framework:

The framework seeks to advance a 2002 Declaration of Conduct (DOC) of Parties in the South China Sea, which has mostly been ignored by claimant states, particularly China, which has built seven man-made islands in disputed waters, three of which are equipped with runways, surface-to-air missiles and radars.

All parties say the framework is only an outline for how the code will be established but critics say the failure to outline as an initial objective the need to make the code legally binding and enforceable, or have a dispute resolution mechanism, raises doubts about how effective the pact will be.

### Background:

Signing China up to a legally binding and enforceable code for the strategic waterway has long been a goal for claimant members of the Association of South East Asian Nations (ASEAN), some of which have sparred for years over what they see as China's disregard for their sovereign rights and its blocking of fishermen and energy exploration efforts.

Beijing insists its activities are for defense purposes, in areas it considers its waters. Malaysia, Taiwan, Brunei, Vietnam and the Philippines, however, all claim some or all of the South China Sea and its myriad shoals, reefs and islands.

### Where is the South China Sea?

The South China Sea is located at **the western edge of the Pacific Ocean**, to Asia's southeast. It encompasses an area of about 1.4 million square miles and contains a collection of reefs, islands and atolls, including the Spratly Islands, Paracel Islands and Scarborough Shoal.

### What's the dispute is all about?

Beijing claims 90% of the South China Sea, a maritime region believed to hold a wealth of untapped oil and gas reserves and through which roughly \$4.5tn of ship-borne trade passes every year. Vietnam, Malaysia, Brunei and Taiwan also contest China's claims to islands and reef systems closer to their territory than Beijing's.

China says it follows a historical precedent set by the "nine-dash line" that Beijing drew in 1947 following the surrender of Japan. The line has been included in subsequent maps issued under Communist rule.

Sources: et.

## Japan marks 72 years since Hiroshima atomic bomb

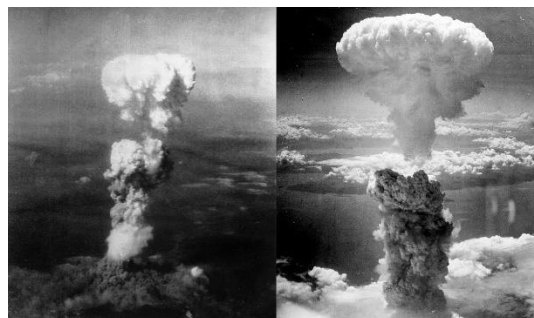
Japan, on August 6<sup>th</sup>, marked 72 years since **the world's first nuclear attack on Hiroshima**, with the nation's traditional contradictions over atomic weapons again coming into focus.

### Background:

Japan suffered two nuclear attacks at the end of the World War II by the United States — in Hiroshima on August 6, 1945 and in Nagasaki three days later. The bombings claimed the lives of 140,000 people in Hiroshima and 74,000 people in Nagasaki. Some died immediately while others succumbed to injuries or radiation-related illnesses weeks, months and years later. Japan announced its surrender in World War II on August 15, 1945.

Many in Japan feel the attacks amount to war crimes and atrocities because they targeted civilians and due to the unprecedented destructive nature of the weapons. But many Americans believe they hastened the end of a bloody conflict, and ultimately saved lives, thus justifying the bombings. Barack Obama became the first sitting U.S. president to visit Hiroshima in May last year, paying moving tribute to victims of the devastating bomb.

Sources: the hindu.



## China's RCEP push veils grand plan

China is pushing for the early signing of a mega-regional Free Trade Agreement (FTA), known as RCEP, among 16 Asia-Pacific nations, including China and India.

### About RCEP:

The Regional Comprehensive Economic Partnership (RCEP), the proposed FTA, aims to boost goods trade by eliminating most tariff and non-tariff barriers — a move that is expected to provide the region's consumers greater choice of quality products at affordable rates. It also seeks to liberalise investment norms and do away with services trade restrictions. The RCEP is billed as an FTA between the 10-member ASEAN bloc and its six FTA partners — India, China, Japan, South Korea, Australia and New Zealand.



### Why has it assumed so much significance in recent times?

When inked, it would become the world's biggest free trade pact. This is because the 16 nations account for a total GDP of about \$50 trillion and house close to 3.5 billion people. India (GDP-PPP worth \$9.5 trillion and population of 1.3 billion) and China (GDP-PPP of \$23.2 trillion and population of 1.4 billion) together comprise the RCEP's biggest component in terms of market size.

### Why is China so much interested in this deal?

China, using its influence as the global leader in goods exports, has been deploying quiet diplomacy to ensure consistent focus on attempts to obtain commitments on elimination of tariffs on most traded goods. China is keen on an agreement on a 'high level' of tariff liberalisation — eliminating duties on as much as 92% of traded products. This deal helps China fulfil its objectives.

China is also speeding up the RCEP negotiation process and striving for an early agreement, so as to contribute to realising the greater common goal of building **the Free Trade Area of the Asia-Pacific (FTAAP)**. The FTAAP spans 21 Asia-Pacific Economic Cooperation countries, including the U.S. and China, but does not cover India. With the U.S. withdrawing from the Trans Pacific Partnership — a mega-regional FTA not involving India and China — that similarly aimed to help establish the FTAAP, the path is clear for China to push ahead with this strategic initiative to its advantage through the RCEP.

### Why should India be concerned?

- A highly ambitious level of tariff elimination without enough flexibility would affect India the most on the goods side. This is because in the RCEP group (except Myanmar, Cambodia and Lao PDR), India has the highest average 'Most Favoured Nation (MFN) tariff' level at 13.5%. MFN tariff, as per the WTO, refers to normal, non-discriminatory tariff charged on imports — excluding preferential tariffs under FTAs and other schemes or tariffs charged inside quotas.
- India is already affected by China's overhang of excess capacity in sectors including metals, chemicals and textiles. Goods imports from China have been far outpacing India's shipments to that country (India's exports are mainly troubled by China's non-tariff barriers). This has led to goods trade deficit with China widening from just \$1.1 billion in 2003-04 to a whopping \$52.7 billion in 2015-16. The initiative could provide a means for Chinese industries with excess capacity to export equipment that is currently idle.
- Also, the proposed FTA, owing to the possibility of elimination of duties across most sectors, could lead to a surge in inflow of low-priced goods, mainly from China. This would result in Indian Industry's share in the domestic market contracting, and consequent downsizing/closure of operations, as well as job losses. This could lead to lower incomes and reduced consumer spending.
- Since India already has separate FTAs with the 10-member ASEAN bloc, Japan and Korea, India Inc. feels that on account of the RCEP, India may not gain much on the goods side with existing FTA partners. India is also negotiating separate FTAs with Australia and New Zealand. China is the only RCEP country with which India neither has an FTA, nor is in talks for one. Therefore, Indian industry sees RCEP as an indirect FTA with China, especially since there could be a hue and cry if India opts for a direct FTA with that country given the sensitivities involved.

What needs to be done?

India's FTA strategy has to be guided by the 'Make In India' initiative that aims to boost domestic manufacturing and job creation within India. In return for greater market access in goods, India, with its large pool of skilled workers and professionals, should try to use the RCEP to gain on the services side, by securing commitments from the other nations to mutually ease norms on movement of such people across borders for short-term work.

Sources: the hindu.

### U.K. to seek 'temporary customs union'

As UK leaves the EU and therefore the customs union, it has sought a new customs arrangement that facilitates the freest and most frictionless trade possible in goods between the U.K. and the EU, and allows to forge new trade relationships with India and other partners in Europe and around the world.

- The UK has said it is leaving the EU's customs union because as a member it is unable to strike trade deals with other countries.

What is the customs union?

Countries in the customs union don't impose tariffs – taxes on imports – on each other's goods. Every country inside the union levies the same tariffs on imports from abroad.

What the UK negotiators want?

The UK could ask Brussels to establish a "temporary customs union" after it leaves the EU in March 2019. But during this period, it would also expect to be able to negotiate its own international trade deals – something it cannot do as an EU customs union member.

The use of interim arrangements would mean businesses would only have to adjust once to the new arrangements. Once this period expires, the UK will look to agree either a "highly streamlined" border with the EU, or a new "partnership" with no customs border at all.

Sources: the hindu.

### Why India must take China's warning of a trade war seriously

A trade war between China and India seems to be looming after the imposition of anti-dumping duties on Chinese products. Recently, India imposed anti-dumping duties on 93 Chinese products. China is not going to tolerate this measure and is likely to respond. State-owned Chinese media has urged Chinese firms to reconsider the risks of investing in India and warned New Delhi to be prepared for the "possible consequences for its ill-considered action".

Why India cannot afford to fight a trade war with China at this juncture?

**Trade deficit:** India's trade deficit with China rose to \$46.56 billion last year. China's exports to India totaled \$58.33 billion, registering a meager increase of 0.2% compared to \$58.25 billion in 2015. India's exports to China dropped 12% from 2015 to \$11.76 billion. India exports less to China (mainly raw materials) and imports more (mainly electronics and other manufactured goods which are in high demand).

**India's share:** China's exports to India account for only 2% of its total exports. So even if Indians boycott all the goods imported from China, it will not make as big an impact on China as to bring it to its knees before India.

**Emerging markets:** Of course, China needs new markets for its manufactured goods, and India is one of those new markets where its electronic goods, especially smartphones, have found a large market. But China can find markets in other Asian countries and even in Africa. It is also trying to create a market for its goods in Europe. It is in no way dependent on India.

**Telecom and pharma sectors:** India today imports telecom gear worth over Rs 70,000 crore annually, much of it from Chinese firms like Huawei and ZTE. Chinese companies dominate the telecom sector in India. India's pharma sector has critical dependence on Chinese imports used in drugs manufacturing.

**Power:** Power is another sector where India has come to be dependent on Chinese imports. In the 12th Plan alone, almost 30% of the generating capacity was imported from China. In the rapidly growing solar energy sector, between April 2016 and January 2017, solar equipment from China had a share of 87% in a market pegged at \$1.9 billion.

Way ahead:

The popular impression is that China is dumping consumer goods into India. But the fact is that India depends on China for capital goods too. Reduction in import of cheaper capital goods will push up production costs.

China is India's largest trading partner, but the trade is heavily skewed in favour of China. India can fight trade wars with China only when it has removed the big skew in its trade with China, which can take a decade of manufacturing growth. A trade war when Indian manufacturing ability is limited is not going to favour India. India's imports from China are crucial at this stage.

Sources: et.

## China forced to abandon plan to enlarge BRICS in face of resistance from India, others

China has aborted its attempt to create a permanent BRICS Plus feature and invite other countries to join in following resistance from the other members of the five-nation grouping, including India, who apprehend dilution of BRICS's goals if other countries, including Beijing's close allies, are brought in.

Background:

China has been campaigning for the creation of a permanent BRICS Plus arrangement to enable non-BRICS countries to play an active role. BRICS had started off with four members and Beijing was instrumental in bringing in South Africa at a later stage. Critics say China wants to expand the BRICS mechanism as a means to garner wider influence for itself.

About BRICS:

BRICS is the acronym for an association of five major emerging national economies: Brazil, Russia, India, China and South Africa.

- Originally the first four were grouped as "BRIC", before the induction of South Africa in 2010. The BRICS members are all leading developing or newly industrialized countries, but they are distinguished by their large, sometimes fast-growing economies and significant influence on regional affairs; all five are G-20 members.
- Since 2009, the BRICS nations have met annually at formal summits. China will host the 9th BRICS summit in Xiamen in September 2017.

Significance of the BRICS countries:

The five BRICS countries represent over 3.6 billion people, or about 40% of the world population; all five members are in the top 25 of the world by population, and four are in the top 10. The five nations have a combined nominal GDP of US\$16.6 trillion, equivalent to approximately 22% of the gross world product, combined GDP (PPP) of around US\$37 trillion and an estimated US\$4 trillion in combined foreign reserves.

Sources: et.

*Paper 2 Topic: Important International institutions, agencies and fora, their structure, mandate.*

## New BRICS bank plans \$1.5 billion lending for South African projects

A New Development Bank (NDB) set up by the "BRICS" group of emerging economies plans to lend \$1.5 billion to South Africa for infrastructure projects over the next eighteen months. The bank **also officially opened its African regional centre in Johannesburg.**

NDB:

It is a multilateral development bank operated by the BRICS states (Brazil, Russia, India, China and South Africa). It is seen as an alternative to the existing US-dominated World Bank and International Monetary Fund.

- The New Development Bank was agreed to by BRICS leaders at **the 5th BRICS summit** held in Durban, South Africa in 2013.
- The bank is set up to foster greater financial and development cooperation among the five emerging markets.
- The bank will be **headquartered in Shanghai, China.**

- Unlike the World Bank, which assigns votes based on capital share, **in the New Development Bank each participant country will be assigned one vote, and none of the countries will have veto power.**

#### What it does?

The New Development Bank will mobilise resources for infrastructure and sustainable development projects in BRICS and other emerging economies and developing countries, to supplement existing efforts of multilateral and regional financial institutions for global growth and development.

Sources: the hindu.

## India's Exclusive Rights to Explore Polymetallic Nodules Extended

India's exclusive rights to explore polymetallic nodules from seabed in Central Indian Ocean Basin (CIOB) have been extended by five years. This has been approved unanimously in the 23rd session of International Seabed Authority (ISA) concluded recently at Kingston, Jamaica.

#### Key facts:

- The rights extended are over 75000 sq. km of area in international waters allocated by International Seabed Authority for developmental activities for polymetallic nodules.
- The estimated polymetallic nodule resource potential in this region is 380 million tonnes, containing 4.7 million tonnes of nickel, 4.29 million tonnes of copper and 0.55 million tonnes of cobalt and 92.59 million tonnes of manganese.

#### Background:

**India is the first country to have received the status of a pioneer investor in 1987 and was allocated an exclusive area in Central Indian Ocean Basin by United Nations (UN) for exploration and utilization of nodules.** India is one among the top 8-countries/ contractors and is implementing a long-term programme on exploration and utilization of Polymetallic Nodules through Ministry of Earth Sciences. This includes survey and exploration, environmental studies, technology development in mining and extractive metallurgy, in which significant contributions have been made.

#### What are PMN?

Polymetallic nodules (also known as manganese nodules) are potato-shaped, largely porous nodules found in abundance carpeting the sea floor of world oceans in deep sea. Besides manganese and iron, they contain nickel, copper, cobalt, lead, molybdenum, cadmium, vanadium, titanium, of which nickel, cobalt and copper are considered to be of economic and strategic importance.

#### About ISA:

**International Seabed Authority (ISA) is a UN body set up to regulate the exploration and exploitation of marine non-living resources of oceans in international waters.** India actively contributes to the work of International Seabed Authority. Last year, India was re-elected as a member of Council of ISA. India's nominees on Legal and Technical Commission and Finance Committee of the ISA were also elected last year.

Sources: pib.

## ICMR inks deal to promote vaccine development

The Indian Council of Medical Research (ICMR) has signed an MoU with the International Vaccine Institute (IVI) for collaborating on vaccine research and development. India will commit \$5,00,000 (₹3.20 crore) annually for a stake in IVI— an amount approved during a Cabinet meeting in January.



**INTERNATIONAL  
VACCINE INSTITUTE**

#### About IVI:

International Vaccine Institute (IVI), Seoul, South Korea, established in 1997 on **the initiatives of the UNDP**, is an international organization devoted to developing and introducing new and improved vaccines to protect the people, especially children, against deadly infectious diseases.

- Created initially as an initiative of the UN Development Programme (UNDP), IVI began formal operations as an independent international organization in 1997.
- Currently, IVI has 40 countries and the World Health Organization (WHO) as signatories to its Establishment Agreement.
- The Institute has a unique mandate to work exclusively on vaccine development and introduction specifically for people in developing countries, with a focus on neglected diseases affecting these regions.

#### India and the IVI:

IVI has been partnering with Indian vaccine manufacturers, research institutes, government, and public health agencies on vaccine development, research, and training. One of the most successful collaborations was with Shantha Biotech on the development of Shanchol, the world's first low-cost oral cholera vaccine.

Sources: the hindu.

### Atomic fuel reserve in Kazakhstan to ensure supply

Kazakhstan is all set to open **the world's first Low Enriched Uranium Bank in Oskemen**. The **International Atomic Energy Agency** launched the project in 2010.

- The bank will hold 90 tons of uranium—enough to power a large reactor for three years—and member states that withdraw from the bank will cover the cost of restocking.
- To ensure transport, the IAEA signed an agreement with Russia in 2015 to allow the material to travel through the country.



#### What is it for?

- The bank will serve as **a source of last resort for low-enriched uranium** when IAEA members are unable to either produce it or if it becomes unavailable on the international market for whatever reason.
- This function will help **non-proliferation efforts**. By providing uranium, it will disincentivise countries from developing their own uranium enrichment capacities—as even supposedly peaceful programs could see uranium enriched to a weapons-grade level.
- The bank seeks **to ensure that in the event of an international crisis or similar circumstances**, countries dependent on nuclear power would still have access to uranium.

The IAEA, which manages the reserve, has established a series of strict criteria for a member state to request and purchase uranium from the bank. These criteria include:

- First, **there must be a disruption in supply “due to extraordinary circumstances”** that would render the country in question unable to obtain fuel by the usual means.
- In addition, **the IAEA must have certified that nuclear material has not been diverted by the country in the past** and that the country complies with all safety measures.
- The buying country **must commit to using uranium only to produce fuel**, never for weapons, and not to enrich it or transfer it to third parties without the express consent of the IAEA.
- If these conditions are met and the uranium is purchased at the prevailing market price, the material will be introduced into special cylinders and transferred from northern Kazakhstan, where the bank is located, to a facility where LEU can be converted into fuel.

#### International Atomic Energy Agency (IAEA):

The IAEA is the world's centre of cooperation in the nuclear field. It was set up as **the world's “Atoms for Peace” organization in 1957 within the United Nations family**. It also seeks to promote the peaceful use of nuclear energy, and to inhibit its use for any military purpose, including nuclear weapons.

- It is not under direct control of the UN. Though established independently of the United Nations through its own international treaty, the IAEA Statute, **the IAEA reports to both the United Nations General Assembly and Security Council**.

- The Agency works with its Member States and multiple partners worldwide to promote safe, secure and peaceful nuclear technologies.
- The IAEA Secretariat is headquartered at the Vienna International Centre in Vienna, Austria.
- The IAEA serves as an intergovernmental forum for scientific and technical cooperation in the peaceful use of nuclear technology and nuclear power worldwide.

Sources: et.

## GS PAPER - III

**Paper 3 Topic:** Indian Economy and issues relating to planning, mobilization of resources, growth, development and employment.

### 5 lakh businesses opt for composition scheme under GST

Five lakh businesses have opted for the GST composition scheme, which allows them to pay taxes at a concessional rate and makes compliance easy.

#### PROCESS TO OPT COMPOSITION SCHEME



- ❑ Assessee has to opt the composition scheme from the 1<sup>ST</sup> day of Financial year i.e. from 1<sup>st</sup> April onwards.
- ❑ Application for opting such composition scheme have to given to the Department by the assessee.
- ❑ Such application must be filled with the Department on or before 31<sup>st</sup> March of Previous year.
- ❑ The law allows the assessee to shift from the composition scheme to normal scheme voluntarily even during the year.
- ❑ If the turnover of assessee opting composition scheme exceeds Rs.50 Lakhs during the year, he will be shifted to normal Scheme automatically.

E.g.: If Mr. X has to opt for composition scheme from 1st April, 2018, he has to fill the application on or before **31<sup>st</sup> March, 2018**.  
If during the year, Mr. X's turnover exceeds 50 lakhs at any point of time, his opted composition scheme will lapse and he will be shifted to the Normal scheme automatically.

EVERYTHING ABOUT GOODS AND SERVICE TAX

www.india-gst.com

The composition scheme is **an alternative method of levy of tax designed for small taxpayers whose turnover is up to Rs 75 lakh — Rs 50 lakh in the case of eight north-eastern states and the hilly state of Himachal Pradesh**. The objective behind it is *to bring simplicity and reduce the compliance cost for small taxpayers*.

- The scheme is optional under which manufacturers other than those of ice cream, pan masala and tobacco products have to pay a 2% tax on their annual turnover. The tax rate is 5% for restaurant services and 1% for traders.
- As per the Central GST Act, businesses are eligible to opt for the composition scheme if a person is not engaged in any inter-state outward supplies of goods and not into making any supply of goods through an electronic commerce operator who is required to collect tax at source.
- While a regular taxpayer has to pay taxes on a monthly basis, a composition supplier is required to file only one return and pay taxes on a quarterly basis. Also, a composition taxpayer is not required to keep detailed records that a normal taxpayer is supposed to maintain.

## RBI plans to set up public credit registry

RBI has announced the creation of a panel to consider creation of a **Public Credit Registry (PCR)** operated by the regulator.

### What you need to know about the PCR?

The PCR will be an extensive database of credit information for India that is accessible to all stakeholders. The idea is to capture all relevant information in one large database on the borrower and, in particular, the borrower's entire set of borrowing contracts and outcomes.

### Need for a PCR:

A central repository, which, for instance, captures and certifies the details of collaterals, can enable the writing of contracts that prevent over-pledging of collateral by a borrower. In absence of the repository, the lender may not trust its first right on the collateral and either charge a high cost on the loan or ask for more collateral than necessary to prevent being diluted by other lenders. This leads to, what in economics is termed as, pecuniary externality – in this case, a spillover of one loan contract onto outcomes and terms of other loan contracts.

Furthermore, absent a public credit registry, the 'good' borrowers are disadvantaged in not being able to distinguish themselves from the rest in opaque credit markets; they could potentially be subjected to a rent being extracted from their existing lenders who enjoy an information monopoly over them. The lenders may also end up picking up fresh clients who have a history of delinquency that is unknown to all lenders and this way face greater overall credit risk.

### Benefits of having a PCR:

- A PCR can potentially help banks in credit assessment and pricing of credit as well as in making risk-based, dynamic and counter-cyclical provisioning.
- The PCR can also help the RBI in understanding if transmission of monetary policy is working, and if not, where are the bottlenecks.
- Further, it can help supervisors, regulators and banks in early intervention and effective restructuring of stressed bank credits.
- A PCR will also help banks and regulators as credit information is a 'public good' and its utility is to the credit market at large and to society in general.

Sources: et.

## New Exchange Traded Fund (ETF) by the Name "BHARAT 22"

A new Exchange Traded Fund (ETF) by the name **BHARAT 22** was recently launched.

### What you need to know about BHARAT 22?

- Bharat 22 consists of 22 stocks of CPSE's, PSB's & strategic holding of SUUTI. Bharat 22 is a well Diversified portfolio with 6 sectors (Basic Materials, Energy, Finance, FMCG, Industrials & Utilities).
- The Bharat 22 Index will be rebalanced annually. ICICI Prudential AMC will be the ETF Manager and Asia Index Private Limited (JV BSE and S&P Global) will be the Index Provider.

Sources: pib.

### POWER OF 22

The new ETF is another tool to raise ₹72,500 crore budgeted through disinvestment

#### BLUE CHIPS UNDER ONE ROOF

|                                                                               |                                                                      |
|-------------------------------------------------------------------------------|----------------------------------------------------------------------|
| <b>ENERGY</b><br>ONGC, IOC, BPCL and Coal India                               | <b>FMCG</b><br>ITC                                                   |
| <b>BASIC MATERIALS</b><br>National Aluminum                                   | <b>INDUSTRIALS</b><br>L&T, Bharat Electronics, Engineers India, NBCC |
| <b>FINANCIALS</b><br>SBI, Axis Bank, Bank of Baroda, Indian Bank, PFC and REC | <b>UTILITIES</b><br>Power Grid, NTPC, GAIL, NHPC, NLC, SJVN          |

#### ANOTHER WAY OF INVESTING

ETFs are akin to mutual funds but with a defined asset basket like shares of an index

They are more liquid than mutual funds as they can be traded on stock exchanges

Value of units of ETF depends on the value of assets held by the fund

## Economic survey on Social Infrastructure, Employment and Human Development

India, is emerging as a knowledge based economy, poised for double digit growth, and needs to strengthen social infrastructure by investing in health and education.

### Challenges:

- The deterioration in quality learning in primary education sector and achievement of targeted enrolment level in the middle education is a challenge.
- Employment in India poses a great challenge in terms of its structure which is dominated by informal, unorganized and seasonal workers, and is characterized by high levels of under employment, skill shortages, with the labour markets impacted by rigid labour laws, and the emergence of contract labour.
- The health sector in India faces many challenges in the form of declining role of public delivery of health services, high Out of Pocket (OoP) expenses on health and issues of accessibility and affordability of health services for many.
- The Government's Swachh Bharat Mission has had remarkable progress since its inception. With its focus on cleanliness and Open Defecation Free (ODF) India, there has been a significant decline in the number of people who defecate in the open, which is estimated at less than 35 crores.

### Reforms:

- **Education sector:** The education policies need to be designed with focus on learning outcomes and remedial education with interventions which work and maximize the efficiency of expenditure. There is need for bio-metric attendance of school staff, independent setting of examination papers, neutral examination and for DBT for schools. There is need to adopt outcome measures for the education and skilling activities to ensure improvement in delivery of schemes/ programmes.
- **Labour reforms:** In order to make the labour market system dynamic and efficient, the government has taken several reforms/initiatives, both legislative as well as technological such as notification of 'Ease of Compliance to maintain Registers under various Laws Rules, 2017' and introduction of e-Biz Portal. These registers/forms can also be maintained in a digitized form.
- **Skill enhancement:** Government has been imparting short term skill training through Pradhan Mantri Kaushal Vikas Yojana (PMKVY) and long term training through Industrial Training Institutes (ITIs). Model Skill Centers are being set up in every district of the country under Pradhan Mantri Kaushal Kendra Scheme. The emphasis should be on enhancing the quality of skill training programmes and making a competency-based framework with giving individuals an option to progress through education, training, prior learning and experiences.
- **Health sector:** There has to be concerted efforts by the Central and State governments to reform the health sector, by addressing quality issues, standardising rates for diagnostic tests, generating awareness about alternative health systems and introduction of punitive measures like fines on hospitals and private health providers for false claims through surgery, medicines etc. For more equitable access to health services, government should provide health benefits and risk cover to poorer sections of the society.
- **Social security:** Addressing the social security of large number of vulnerable workers in the informal economy should be prioritized by the Government along with ensuring the safety and security of women to raise their participation in economic activities.

Sources: pib.

## Approval for Public Sector Banks to amalgamate through an Alternative Mechanism (AM)

The Union Cabinet has given in-principle approval for Public Sector Banks to amalgamate through an Alternative Mechanism (AM). The decision would facilitate consolidation among the Nationalised Banks to create strong and competitive banks.

The salient features of the approval Framework for Consolidation of Public Sector Banks are as follows:

- The decision regarding creating strong and competitive banks would be solely based on commercial considerations.

- The proposal must start from the Boards of Banks.
- The proposals received from Banks for in-principle approval to formulate schemes of amalgamation shall be placed before the Alternative Mechanism (AM).
- After in-principle approval, the Banks will take steps in accordance with law and SEBI's requirements.
- The final scheme will be notified by Central Government in consultation with the Reserve Bank of India.

#### Background:

In 1991, it was suggested that India should have fewer but stronger Public Sector Banks. However, it was only in May 2016 that effective action to consolidate public sector banks began to be taken by announcing amalgamation of six banks into the State bank of India. The merger was completed in record time, unlike earlier mergers of State Banks of Indore and Saurashtra.

#### Need for fewer banks:

There are now 20 PSBs other than SBI. The banking scenario has changed since 1970/80 when banks were nationalised, with an increased banking presence from Private Sector Banks, non-banking Financial Companies, Regional Rural Banks, Payment Banks and Small Finance Banks.

**To meet the credit needs of a growing economy, absorb shocks and have the capacity to raise resources without depending unduly on the state exchequer,** presence of strong and competitive banks in public sector space is necessary.

Sources: pib.

## NITI Aayog's 3-Year Agenda

NITI Aayog has come out with a detailed plan for reforms in the economy, judiciary, regulatory structure and social sectors, in the three-year document to be implemented from 2017-18 to 2019-20.

#### Key facts:

- NITI Aayog's three year action agenda has set stiff economic targets and meeting those would benefit the economy.
- According to the 'Three-Year Action Agenda' India has good prospects of achieving over 8% growth within 2-3 years. Therefore, the chances of massive cut in the poverty rate in the upcoming decade are excellent.

The action plan suggests a host of reforms to ensure prosperity for all citizens. Some important reforms proposed are as follows:

- Link central government expenditure to future priorities, shifting additional allocations to high-priority sectors which are more likely to promote development.
- Expand expenditures by 2019-20 on education, health, agriculture, rural development, defence, railways, roads and other categories of capital expenditure.
- Facilitate urbanisation in the country and deal with key challenges like affordable housing, infrastructure development, public transport and promotion of Swachh Bharat.
- Eliminate corruption and black money, and increase tax base besides reforms in civil services and electoral process.
- Reform the judicial system by streamlining human resource availability and performance, increasing and strengthening avenues for dispute resolution and extensive use of ICT to improve efficiency.
- On the social sector, bring in changes in segments like education, skill development, health and issues facing specific groups, such as scheduled castes, scheduled tribes and women.
- Strengthen and streamline regulatory structure governing sustainability of environment.

#### Background:

In May 2016, the Prime Minister's Office directed Niti Aayog to come up with a 15-year vision document for the period up to 2031-32. This would be complemented with a seven-year strategy starting 2017-18 to convert the vision

document into implementable policy and action as part of the National Development Agenda and a three-year draft action plan.

Sources: pib.

*Topic: Inclusive growth and issues arising from it.*

### Govt notifies changes in Banking Regulation Act

The government has notified the Banking Regulation (Amendment) Act under which it can authorise the RBI to issue directions to banks to initiate insolvency resolution process to recover bad loans.

#### Background:

The banking sector is saddled with non-performing assets (NPAs) of over Rs. 8 lakh crore, of which Rs. 6 lakh crore is with public sector banks (PSBs). To deal with this, Parliament had approved the Act, which replaced an ordinance in this regard.

The government in May had promulgated an ordinance authorising the Reserve Bank of India (RBI) to issue directions to banks to initiate insolvency resolution process under the Insolvency and Bankruptcy Code, 2016. Following the ordinance, the RBI had identified 12 accounts each having more than Rs. 5,000 crore of outstanding loans and accounting for 25% of total NPAs of banks for immediate referral for resolution under the bankruptcy law.

#### Highlights of the Banking Regulation (Amendment) Bill:

- The Banking Regulation (Amendment) Bill 2017 will **amend The Banking Regulation Act 1949**, giving the government power to authorise the Reserve Bank of India to issue directions to banks in order to initiate insolvency resolution in case of a default.
- Under the provisions of the Bill, **the government can also authorise the RBI to issue directions to banks with regard to resolution of stressed assets and allow it to name one or more committees to provide them with advice in order to do so.**
- The Bill will also give RBI **the authority to refer NPA cases to the Insolvency and Bankruptcy Board.**
- The Insolvency and Bankruptcy Code provides for a time-bound resolution of defaults and stressed assets, either by restructuring a loan or liquidating the borrower's assets.

Sources: the hindu.

*Paper 3 Topic: Effects of liberalization on the economy, changes in industrial policy and their effects on industrial growth.*

### TFA implementation: Govt formulates action plan with timelines

The government has formulated a detailed action plan with timelines for smooth implementation of WTOs trade facilitation agreement (TFA).

#### Background:

Members of the World Trade Organisation (WTO) including India has ratified TFA, which aims at easing customs procedures, expediting movement, release and clearance of consignments. For the implementation of the pact, the government has last year set up Cabinet Secretary-headed National Committee on Trade Facilitation (NCTF).

#### Action plan:

Implementation of the plan, which also includes suggestions of the private sector, have been divided into short term (0-6 months), medium term (6-18 months) and long term (18-36 months).

- The short term action plan includes augmentation of storage infrastructure for perishable goods and clearance of such goods within 12 hours of landing for import and 8 hours for export.
- The plan for mid term includes updation of all regulatory information available on the internet on a single window portal; to put in place adequate bio-security measures for livestock imports and publication of all fees on a single window website.

- Cargo release time, both for export and import purposes, would also be reduced within a time period.
- For imports, sea and air cargo release time would be reduced to three and two days respectively. Similarly, for exports, sea cargo release time would be brought down to two days and air cargo the same day.
- The CBEC and the commerce ministry would also work on streamlining policy for e-commerce which includes cutting documentation requirements and providing single submissions.
- Further, as part of the action plan, legislative changes have been proposed in the Customs Act 1962 for processing of documents among other things.
- The agencies and ministries involved in the implementation process includes Central Board of Excise and Customs (CBEC), Directorate General of Foreign Trade and Animal & Plant Quarantine, textiles and environment ministries.

Sources: et.

## Anti-dumping duty on 93 products from China

Anti-dumping duty is in force on 93 products including chemicals and machinery items imported from China. The other Chinese products on which India has imposed this duty include steel and other metals, fibres and yarn, rubber or plastic, electric and electronics and consumer goods.

What you need to know about Anti-dumping duty?

Anti dumping is a measure to rectify the situation arising out of the dumping of goods and its trade distortive effect.

**Purpose:** The purpose of anti dumping duty is to rectify the trade distortive effect of dumping and re-establish fair trade.

**Is it permitted?** The use of anti dumping measure as an instrument of fair competition is permitted by the WTO. It provides relief to the domestic industry against the injury caused by dumping. It is levied on distrustfully low-priced imports, so as to protect the domestic manufacturers.

**Need for anti-dumping duty:** Dumping is an unfair trade practice of exporting goods to another country at a price lesser than what is paid in the exporting nation or their normal production cost, thereby distorting international trade and causing injury to the domestic manufacturers of the goods in the importing country.

Sources: et.

## A hasty order

The Securities and Exchange Board of India recently imposed trading restrictions on 331 companies suspected of being shell entities. It is suspected that trading on the shares of these "shell" companies was used as a way to launder black money.

- However, this is being seen as an example of rash regulatory action. The Securities Appellate Tribunal also recently stated in its order that "it is apparent that SEBI passed the impugned order without any investigation."

Background:

As part of efforts to curb the black money menace, the corporate affairs ministry has already cancelled the registration of more than 1.62 lakh companies that have not been carrying out business activities for long. The ministry is implementing the Companies Act and firms are required to be registered under this law.

**The term 'shell company' is not defined under the Companies Act, 2013.** The Act requires that a company may be set up for any lawful purpose only. Subsequent to incorporation, if a company is found to be formed for fraudulent or unlawful purpose, it is liable for penal action, including for winding up under Section 271 of the Act.

Why is this move being criticised?

SEBI had acted on a list of suspect companies that the Ministry of Corporate Affairs had forwarded after consultation with the Serious Fraud Investigation Office and the Income Tax department. Instead of conducting an independent investigation into these suspect companies, SEBI passed the buck to the exchanges and asked them to impose immediate trading restrictions on the companies.

What's the concern now?

The government's resolve to act against dodgy companies, for the sake of bringing business practices under the purview of the law, is indeed warranted. However, on the list of companies closed were also companies with huge market capitalisations.

- A sound business environment requires that the government adhere to the basic rules of justice at all times. Handing out extremely harsh punishment on suspect companies without giving them an adequate chance to explain their positions smacks of heavy-handedness.
- The economic costs of freezing the trading of shares of popular companies are not commensurate with the purported benefits of such action.

Way ahead:

While the SAT order has brought some fairness to the entire proceedings, SEBI's action will deal a blow to its credibility among investors as being an effective and unbiased regulatory body. Not surprisingly, investor unease was at least partially evident on the street where stocks witnessed a sharp fall after the order. In order to restore confidence, SEBI and the government must explain the rationale behind their actions.

Sources: the hindu.

## NITI Aayog launches Ease of Doing Business Report

NITI Aayog has launched the **Ease of Doing Business report** based on an Enterprise Survey of 3,500 manufacturing firms across Indian states and union territories. *The Enterprise Survey was conducted in recognition of the importance of monitoring the business environment in India.*



- The survey has been conducted, along with the IDFC Institute, to assess the business regulations and enabling environment across India from firms' perspective.
- The World Bank's 'Ease of Doing Business' survey, which ranked India at 130, is confined to just two cities of Delhi and Mumbai whereas the NITI-IDFC Survey covers 3,276 manufacturing enterprises spread across India, including 141 earlystage firms and covering 23 manufacturing sectors.
- The report comes in the backdrop of the fact that India needs to create an environment that fosters globally competitive firms, capable of driving and sustaining economic growth.

The major findings of this report are as follows:

### 1. Economic Performance and Reforms:

A higher level of economic activity and better performance on a range of doing business indicators are strongly correlated.

- Enterprises in high-growth states are significantly less likely to report major or very severe obstacles in land/construction related approvals, environmental approvals and water and sanitation availability relative to enterprises in low-growth states.
- Quite remarkably, firms located in high-growth states also report 25% less power shortages in a typical month, compared to firms in low-growth states.

### 2. Improvements over time:

Newer and younger firms report a more favorable business environment in that they take less time in obtaining approvals than older firms, suggesting an improvement in the business environment. Newer firms include startups established after 2014. In addition, young firms report that most regulatory processes do not constitute a major obstacle to their doing business.

### 3. Informational gaps:

States need to enhance awareness of the steps being undertaken by them to the improve ease of doing business. The survey data show low awareness among enterprises about single window systems, instituted by states.

On average, only about 20% of start-ups, which are of recent origin, report using single window facilities introduced by state governments for setting up a business. Even among experts, only 41% have any knowledge of the existence of these facilities.

#### 4. **Labour regulations are a bigger constraint for labour intensive firms:**

Labour intensive sectors, that create proportionately more jobs per unit of capital investment, feel more constrained by labour related regulations. For example, compared to other enterprises, the enterprises in labour intensive sectors:

- 19% more likely to report that finding skilled workers is a major or very severe obstacle.
- 33% more likely to report that hiring contract labour is a major or very severe obstacle.
- Lose a greater number of days due to strikes and lockouts.
- Report higher average time for environmental approvals and longer power shortages.

#### 5. **Barriers to firm growth:**

The experience of firms with fewer employees is different from that of larger firms. In some cases, large firms face more regulatory barriers than smaller firms.

Firms with more than 100 employees took significantly longer to get necessary approvals than smaller firms with less than 10 employees. Large firms were also more likely to report that regulatory obstacles were a major impediment to doing business and that they incurred higher costs for getting approvals.

#### Way ahead:

Flexible labour laws will allow firms to grow larger and reap economies of scale, raise productivity, create jobs and spur higher growth. Reforming labour laws and achieving greater flexibility in their implementation can greatly help enhance the ease of doing business. Reforms are also required in the power sectors, facilitation of entry and exit of firms, levelplaying field for small and large firms, improvement in access to finance and informing firms about the improvements in ease of doing business norms.

Sources: pib.

## Consolidated FDI policy charter released

The government has brought out the latest edition of its consolidated FDI policy document, which is a compilation of the changes made in the past one year in a single document.

- It is an initiative aimed at ensuring greater ease of doing business in India and an investor-friendly climate to foreign investors so that the country attracts more FDI.

#### Background:

The past one year has seen FDI policy being liberalised in sectors including defence, civil aviation, construction and development, news broadcasting and private security agencies. These reforms have been incorporated in the document.

#### Key highlights:

#### **Competent authority:**

The document has spelt out “competent authority” for FDI approvals, delegating powers to mainly administrative departments in the absence of the Foreign Investment Promotion Board.

- While proposals relating to banking, mining, defence, broadcasting, civil aviation, telecoms, pharmaceuticals etc will have to be approved by administrative ministries, the DIPP will be the authority to clear proposals relating to areas including retail (single and multi-brand, and food).
- For proposals relating to financial services activities that are not regulated by any financial sector regulator or where only part of the financial services activity is regulated or where there is doubt regarding the regulatory oversight, the department of economic affairs will clear the proposals.



**Computation:**

The document has formally clarified that restriction of 25% on sales of one vendor through an e-commerce marketplace will be computed on a financial year basis. The period to be considered for compliance wasn't mentioned earlier.

**Inclusion of start-ups:**

For the first time, the document has included start-ups. As per the norms, start-ups can raise up to 100% of funds from Foreign Venture Capital Investors. Start-ups can issue equity or equity-linked instruments or debt instruments to FVCIs against receipt of foreign remittance.

Besides, a person resident outside India (other than citizens or entities of Pakistan and Bangladesh) will be permitted to purchase convertible notes issued by an Indian start-up company for an amount of ₹25 lakh or more in a single tranche. NRIs can also acquire convertible notes on non-repatriation basis.

**Definition of venture capital fund:**

The policy simplifies the definition of 'venture capital fund' defined FDI-linked performance conditions without diluting substance. So instead of complex definitions under the earlier FDI regime, 'venture capital fund' is now defined as a fund so registered under the Sebi (Venture Capital Funds) Regulations, 1996, while FDI-linked performance conditions are basically the sector-specific conditions for companies receiving foreign investment.

Sources: the hindu.

**Paper 3 Topic:** *Major crops cropping patterns in various parts of the country, different types of irrigation and irrigation systems storage, transport and marketing of agricultural produce and issues and related constraints; e-technology in the aid of farmers.*

### Govt launches e-RaKAM portal for selling agri produce

The government has launched a portal, **e-RaKAM**, to provide a platform to sell agricultural produce.

**Key facts:**

E-RaKAM is a first-of-its-kind initiative that leverages technology to connect farmers of the smallest villages to the biggest markets of the world through internet and e-RaKAM centres.

- The portal is a joint initiative by state-run-auctioneer MSTC and Central Warehousing Corporation arm CRWC.
- E-RaKAM is developed by MSTC Limited and supported by marketing & logistics partner CRWC Limited.
- E-RaKAM is a digital initiative bringing together the farmers, FPOs, PSUs, civil supplies and buyers on a single platform to ease the selling and buying process of agricultural products.
- Under this initiative, e-RaKAM centres are being developed in a phased manner throughout the country to facilitate farmers for online sale of their produce.

Sources: pib.

### Rising temperatures drive up farmer suicides in India: U.S. study

According to a research report from the University of California, Climate change may have led to over 59,000 farmer suicides over the last 30 years in India.

- The study tested the link between climate change, crop yields and suicide by comparing the number of suicides across India between 1967 and 2013 with crop yield and climate data. Data on suicides were collected from the National Crime Records Bureau.
- The study was carried out using data for all States and Union Territories. However, the study has several limitations, though, including the fact that it has not looked at other factors that could have contributed to suicides.

**Highlights of the study:**

- The increase in temperature during the cropping season reduces crop yields, resulting in increased suicides. Even a 1°C increase in temperature above 20° C in a single day during the crop growing season results in about 70 suicides on average. Similar increase in temperature during other seasons did not result in a rise in suicides.
- Crop losses due to heat damage cause additional burden on farming households and this at times leads to suicides. An increase in rainfall by 1 cm during the growing season leads to a decrease of about 0.8 deaths per 100,000, thus lowering the suicide rate by 7% on average, she writes.
- The effect of climate variation reveals that past growing season temperature strongly influences suicide rates in the following years up to about five years. For instance, when there is abundant rainfall during one growing season, the suicide rates dip for the next two or three years. Drought apparently does not seem to have any effect on suicide rates.
- South India, which is generally hotter, has higher farmer suicide rates. States where the yields are more affected by high temperatures are also the States which report higher suicide rates. Maharashtra, Karnataka, Tamil Nadu, and Andhra Pradesh not only show severe suicide responses to temperature but crop yield is also more negatively affected by higher temperature.
- The study did not find any adaptive behaviour to prevent suicides in response to climate change.

**Way ahead:**

The government must undertake anticipatory research using genetic checkmating for potential changes in climate such as changes in precipitation, and temperature. India's average temperature is expected to increase by 3°C by 2050.

Sources: the hindu.

## Development of Radiation Technology

Bhabha Atomic Research Centre (BARC) – Department of Atomic Energy (DAE) has been actively engaged in R&D work on the technology of preservation and hygienization of food and agri-products by radiation.

**Background:**

Irradiation is very effective in treating the horticultural produces. Extension of shelf life of horticultural produces is very much depended on the produce, variety and storage conditions. For many fresh agri produce subjected to irradiation and proper storage, substantial shelf life extension has been achieved.

**Unique advantages of radiation processing are:**

- Significant increase in shelf life for many products including fruits, vegetables, cereals, pulses, spices, sea foods and meat products.
- Effective elimination of harmful bacteria, viruses and insects/pests.
- Cold & clean process (No temperature raise or residue); and treatment done after final packaging (no repacking necessary).

**What is irradiation?**

In irradiation, food products are subjected to a low dosage of radiation to treat them for germs and insects, increasing their longevity and shelf life. Radiation treatment is carried out in dosage recommended by the International Atomic Energy Agency (IAEA) and it neither reduces the nutritional value of food nor spoils their taste and appearance.

**How this will help India?**

In India, according to estimates, post-harvest losses in food and food grains are around 40-50%, primarily due to insect infestation, microbiological contamination, physiological changes due to sprouting and ripening, and poor shelf life.

- The wastage of fruits and vegetables alone is about Rs. 60,000 crore annually. Including cereals, meat, pulses and flowers, the annual loss is estimated to be Rs. 2,50,000 crores. Besides, there are a few low level irradiation plants in the country, which are not adequate.

- With irradiation, it is possible to reduce these losses.

#### Government efforts in this regard:

- BARC-DAE has set up two technology demonstration units, one commissioned in the year 2000 for high dose irradiation at Vashi, Navi Mumbai, and another in 2002, for low dose irradiation, KRUSHAK (Krushi Utpadan Sanrakshan Kendra) facility at Lasalgaon, near Nashik.
- Recently the harmonization of food irradiation rules with the international regulation through adaptation of class wise clearance of irradiated food items by the Food Safety and Standards Authority of India (FSSAI) has taken place [Food Safety and Standards (Food Products Standards and Food Additives) Sixth Amendment Regulations, 2016] for large scale deployment of this technology.
- India and Russia have also signed a pact to set up 25 integrated infrastructure centers for irradiation treatment of perishable food items to improve shelf life and cut post-harvest losses.

#### Way ahead:

The quantum of horticulture produce in India is huge. Hence, many more facilities are needed.

Sources: pib.

### **AGRI UDAAN- Food and Agribusiness Accelerator 2.0**

In an attempt to promote innovation and entrepreneurship in agriculture, the government is launching a new AGRI-UDAAN programme that will mentor startups and help them connect with potential investors.

#### Key facts:

- The programme will help convert innovative ideas from India's rural youth into viable businesses. The idea is to attract the youth from rural India and elsewhere, and train them so they can add value to the farmers' produce.
- It will be managed by ICAR-NAARM's technology incubator, a-IDEA along with IIM Ahmedabad's Centre for Innovation.
- Under the programme, start-ups will get incubation space to run their businesses and have access to research laboratories and libraries. AGRI UDAAN will also help the selected start-ups with regulatory services like company registration and environmental compliances.
- The programme will shortlist 40 start-ups in the first round who will pitch their ideas to a panel of evaluators. Out of these, between 8 to 12 start-ups will be selected for the final capacity building workshop.
- Following an intensive training lasting six months, the new start-ups will be connected to investors for funding.

Sources: pib.

### **India in no hurry to grow GM food crops**

The government has decided to examine all objections raised by scientists and farmers before taking a decision on genetically engineered (GE) mustard.

#### Background:

GEAC, India's regulator for transgenic products, had given a green signal to GM mustard in early May, paving way for introduction of genetically modified food crops. After the regulator's nod, the final call is taken by the government. Developed by Delhi University-based Centre for Genetic Manipulation of Crop Plants (CGMCP), GE mustard is argued to be superior as it is resistant to pests and diseases.

However, several representations and concerns have been raised by a wide range of stakeholders including scientists, policymakers, farmers and NGOs. The issues raised are manifold, like long-term health and environmental impact, herbicide tolerance, loss to honey bees and pollinators, outperformance of native varieties, no enhancement in yields, etc. All these issues are under examination.

What is a GM crop?

A GM or transgenic crop is a plant that has a novel combination of genetic material obtained through the use of modern biotechnology. For example, a GM crop can contain a gene(s) that has been artificially inserted instead of the plant acquiring it through pollination. The resulting plant is said to be “genetically modified” although in reality all crops have been “genetically modified” from their original wild state by domestication, selection, and controlled breeding over long periods of time.

Do we need GM crops?Yes and why?

- Higher crop yields.
- Reduced farm costs.
- Increased farm profit.
- Improvement in health and the environment.

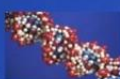
No and why?

- It is clear that the technology of genetic engineering is an evolving one and there is much, especially on its impact on human health and environment, that is yet to be understood properly. The scientific community itself seems uncertain about this.
- The irreversibility of this technology and uncontrollability of the Genetically Modified Organisms (GMO) once introduced in the ecosystem is worrisome.
- It is argued that introducing genetically modified versions of crops could be a major threat to the vast number of domestic and wild varieties of these crops. In fact, globally, there is a clear view that GM crops must not be introduced in centres of origin and diversity. India also has mega biodiversity hotspots like the Eastern Himalayas and the Western Ghats which are rich in biodiversity yet ecologically very sensitive.
- There is also a potential for pests to evolve resistance to the toxins produced by GM crops and the risk of these toxins affecting nontarget organisms. There is also the danger of unintentionally introducing allergens and other anti-nutrition factors in foods.

Sources: et.

## Modern Genetic Modification

*Inserting one or few genes to achieve desired traits.*



**Transfer of Genes into Crop Plants**

- Relatively Precise and Predictable
- Changes are Subtle
- Allows Flexibility
- Expeditious




## Economic survey on state of Agriculture and Food Management

The progress in agriculture needs to be evaluated in terms of outcomes such as catching up with global yields of various crops as a means to increase incomes of farmers. Managing and reducing the various risks in agriculture activities can make the sector resilient, increase profitability and can ensure stable income flows to the farmers.

Challenges:

- **Land holding size:** The average farm size in India is small, and declining since 1970-71. The predominance of small operational holdings is a major limitation to reap the benefits of economies of scale in agriculture operations.
- **Credit:** Credit is an important mediating input for agriculture to improve productivity. The predominance of informal sources of credit for farmers is a concern. There is regional disparity in the distribution of agricultural credit which also needs to be addressed.
- **Post- harvest losses:** The key challenge that the horticulture sector faces in India are post-harvest losses, availability of quality planting material and lack of market access for horticultural produce of small farmers.



Reforms suggested:

- To **address the price risks** in agriculture and allied sectors, marketing infrastructure along the entire value chain needs to be built and strengthened.
- To **address production risks**, the share of irrigated area should be expanded by increasing the coverage of water saving irrigation systems like micro irrigation systems.
- To **increase productivity of crops**, standards should be set and enforced for better quality, pest and disease resistant seeds.
- **Trade and domestic policy changes** should be announced well before sowing and should stay till arrivals and procurement is over.
- To **enhance women's involvement in the dairy projects**, funds should be earmarked through appropriate mechanisms.
- **Providing timely and affordable formal and institutional credit** to the small and marginal farmers is the key to inclusive growth.
- **Regime based on timely interventions** needs to be adopted.

Sources: pib.

### Farm waivers may cut GDP by Rs 1.1L cr

The Economic Survey part 2 has asked the states to follow **UP model**, if they are doling out farm loan waivers. On this basis, an upper bound of loan waivers at the all-India level would be between Rs 2.2 lakh crore and Rs 2.7 lakh crore.

The survey notes the following impacts:

- It could reduce aggregate demand in the economy by as much as 0.7%, shaving off Rs 1.1 lakh crore from GDP. This would impart a significant deflationary shock to an economy that has yet to gather its full momentum. But the predicted impact is the upper limit, as the estimate is based on the assumption that states that have not announced loan waivers will do so. The actual impact will depend on the number of states that actually decide to grant waivers, and how they distribute them over time.
- Farm loan waivers and declining profitability in the power and telecom sectors would exacerbate the twin balance sheet problem — overleveraged companies and the pile up of bad debt at banks — and weigh on the economy. A reduction in private consumption and higher borrowings by states, among others, could affect aggregate demand. Monetary, fiscal and agricultural policies will be the key to counter these deflationary impulses in the year ahead.
- The waivers will affect the aggregate demand in four ways: impact on private consumption via increases in private sector net wealth, impact on the public sector via changes in government expenditure or taxes, crowding out impact via higher borrowings by state governments and crowding in impact via higher credit availability as bank NPAs fall.
- Loan waiver will increase net wealth of farm households. Aggregate increase in income will be 28%, and 7% in consumption — or Rs 55,000 crore.
- States with fiscal room for loan waiver will add about Rs 6,350 crore to demand, while those that don't have the space will reduce demand by about Rs 1.9 lakh crore. This will result in higher borrowing by states with fiscal space, which could squeeze out private funding.
- However, bank balance sheets will improve inasmuch as non-performing farm loans are taken off their books. So they might be able to provide additional financial resources to the private sector, leading to greater spending. It is estimated that these two effects would almost cancel each other.

Sources: et.

## INAPH data base

**Pashu Sanjivni component under National Mission on Bovine Productivity scheme** was initiated by the Government in November 2016. Under the scheme, as on date 85 lakh milk producing animals have been identified and their data has been uploaded on INAPH data base.

- Data of the identified animals is being uploaded on Information Network on Animal Health and Productivity (INAPH) data base.



About the scheme:

Under the scheme, **88 million milk producing animals out of 300 million cattle and buffaloes are being identified using polyurethane tags with 12 digit unique identification (UID) number.**

- The polyurethane tags, which will last for a few year, will be affixed by the technicians using a special applicator. Next, the technicians will, using a tablet, upload details of the cow including its vaccination and deworming status into an online database.
- The purpose of the exercise, in the long run, is to improve vaccination practices, and ensure that scientific interventions can be made to improve both breeding and milk production.
- The Pashu Sanjivni is crucial for control and spread of animal diseases, scientific management of animals, enhanced production and productivity, improvement in quality of livestock & livestock products, increase in trade of livestock and livestock products by meeting out sanitary and phytosanitary issues.

Sources: pib.

## Long Term Irrigation Fund

Cabinet has approved raising Extra Budgetary Resources upto Rs. 9020 crore for Long Term Irrigation Fund during the year 2017-18.

About LTIF:

To cater to the large fund requirement and ensure completion of the projects, the Union Finance Minister, during his Budget speech 2016-17, announced creation of dedicated **Long Term Irrigation Fund (LTIF) in NABARD** with an initial corpus of Rs. 20,000 crore for funding of Central and State share for the identified ongoing projects under PMKSY (AIBP and CAD).

- Corpus would be raised by way of budgetary resources and market borrowings to fund fast tracking of implementation of incomplete major & medium irrigation projects.

About PMKSY:

PMKSY has been conceived amalgamating ongoing schemes viz. Accelerated Irrigation Benefit Programme (AIBP) of the Ministry of Water Resources, River Development & Ganga Rejuvenation (MoWR, RD&GR), Integrated Watershed Management Programme (IWMP) of Department of Land Resources (DoLR) and the On Farm Water Management (OFWM) of Department of Agriculture and Cooperation (DAC).

- The scheme will be **implemented by Ministries of Agriculture, Water Resources and Rural Development.**
- The major objective of PMKSY is to achieve convergence of investments in irrigation at the field level, expand cultivable area under assured irrigation, improve on-farm water use efficiency to reduce wastage of water and enhance the adoption of precision-irrigation and other water saving technologies (More crop per drop).

Sources: pib.

## North Koel Reservoir Project

The Union Cabinet has given its approval to the proposal to complete the balance works of the North Koel Reservoir Project in Jharkhand and Bihar at an estimated expenditure of Rs.1622.27 crore to be incurred during three financial years from the start of the project.

- The Cabinet also approved storage of water in dam restricted at lower level than envisaged earlier to reduce the submergence and to protect Betla National Park and Palamau Tiger Reserve.

#### About the North Koel Reservoir Project:

The project is situated on **North Koel river which is a tributary of Sone** river finally joining the river Ganga. The North Koel Reservoir is located in the most backward tribal areas in Palamau and Garhwa districts of Jharkhand State.

- The construction was originally started in the year 1972 and continued till 1993 when it was stopped by the Forest Department, Govt. of Bihar. Since then, the work on dam is at a standstill.
- The project aims to provide irrigation to 111,521 hectares of land annually in the most backward and drought prone areas of Palamu & Garhwa districts in Jharkhand and Aurangabad & Gaya districts in Bihar.

#### Key facts for Prelims:

North Koel river **rises on Ranchi plateau and flows through Jharkhand**. It joins the Sone a few miles north-west of Haidarnagar.

- The North Koel, along with its tributaries, meanders through the northern part of Betla National Park.
- The principal tributaries are the Auranga and the Amanat.

Sources: pib.

### PM reviews progress of Soil Health Cards

The Prime Minister, Shri Narendra Modi, recently reviewed the progress of Soil Health Cards scheme. So far, 16 States/UTs have completed the first cycle of Soil Health Cards distribution, and the remaining States are likely to complete the same within weeks.

#### Reform measures proposed:

- **Appropriate checks** should be undertaken for variation, both within a sampling grid, and across different soil testing labs. This would help ensure quality in the reports.
- **Soil health cards should be printed in the local dialect of the area**, so that the farmers are able to read and understand them easily.
- **Soil testing should eventually be possible through hand-held devices**. Officials were encouraged to explore the possibility of involving start-ups and entrepreneurs in this exercise.

#### About the Soil Health Card Scheme:

It is a scheme to provide every farmer a Soil Health Card in a Mission mode. It is a scheme under which the Central Government provides assistance to State Governments for setting up Soil Testing Laboratories for issuing Soil Health Cards to farmers.

- The scheme will be implemented in all states to promote soil testing services, issue of soil health cards and development of nutrient management practices.
- State Governments have adopted innovative practices like involvement of agricultural students, NGOs and private sector in soil testing, determining average soil health of villages, etc., to issue Soil Health Cards.
- The state governments will prepare yearly action plan on the issue and the cost will be shared in the ratio of 75:25 between the Centre and states.
- The scheme assumes importance as the imbalanced application of fertilisers have caused deficiency of primary nutrients (nitrogen, phosphorus, and potassium), secondary nutrients (such as sulphur), and micro-nutrients (boron, zinc, copper etc.) in most parts of country.

#### Soil health cards:

A Soil Health Card displays soil health indicators and associated descriptive terms. The indicators are typically based on farmers' practical experience and knowledge of local natural resources.

- The card lists soil health indicators that can be assessed without the aid of technical or laboratory equipment.

- The card, which will carry crop-wise recommendation of fertilisers required for farm lands, will help farmers identify health of soil and judiciously use soil nutrients.

Sources: pib.

### Claims on Bt cotton need to be probed, says panel

Reigniting the debate on GM crops, a Parliamentary panel in a report has said the government agencies have portrayed “a rosy picture” on Bt Cotton which is far removed from the truth.

- The report comes days after the government told the Supreme Court that the Centre could take a final decision on the regulator’s go-ahead for commercial cultivation of GM mustard by September-end.

#### Why the parliamentary panel said so?

The government cited only overall cotton output and not the average yield in area. India’s cotton yields increased by 69% in the five years (2000-2005) when Bt Cotton was less than 6% of total cotton area, but by only 10% in the 10 years from 2005-2015 when Bt Cotton grew to 94% of the total cotton area.

Also, 20 years after introduction of GM crops in 1996, only six countries continue to account for over 90 % of all GM crop area globally including U.S., Brazil, Argentina, Canada, China and India. “If GM technology was so good then why would all the countries not embrace it?” asked the committee.

#### Bt crops in India:

On May 11, the GEAC had recommended the commercial release of a high-yielding mustard variety — DMH 11 — developed by some Delhi university scientists. If this is okayed by the political establishment, it would be the third GM crop after Bt cotton and Bt brinjal to be approved by the regulator. While Bt cotton has been cultivated in the country since 2002, Bt brinjal, the first GM food crop okayed by GEAC, never hit the fields as an indefinite moratorium was imposed on its commercial release in early 2010 by then environment minister Jairam Ramesh.

#### Way ahead:

The panel slammed the government for its “casual” approach to the need for a scientific study of GM crop impact on health. It said, **the “duality of the claims about the increase in yield of cotton” needs further examination.**

Also, **unless bio-safety and socio-economic desirability studies are done through a participatory, independent and transparent process, the committee has recommended that no GM crop should be introduced.**

Sources: the hindu.

***Paper 3 Topic:** Issues related to direct and indirect farm subsidies and minimum support prices; Public Distribution System objectives, functioning, limitations, revamping; issues of buffer stocks and food security; Technology missions; economics of animal-rearing.*

### Niti Aayog pitches to remove agriculture from Essential Commodities Act

Premier think-tank NITI Aayog has pitched for **completely removing agriculture commodities from the Essential Commodities Act, and a shift towards organised trading** wherein lower number of traders with enough capital will dominate the market.

#### Benefits of this move:

- This will reduce handling costs, bring economies of scale, reduce prices and increase returns for farmers.
- This will also lead to organised trading, improve scale and logistics benefit and bring about more capital into trade with handful of big traders competing with each other.

#### Background:

With frequent changes in rules and stock limits, traders have no reason to invest in better storage infrastructure. Also, stock limits curtail the functioning of food processing industries which need to maintain large stocks of underlying commodity to run their operations smoothly. In such a situation, large scale private investments are unlikely to flow into food processing and cold storage facilities which are essential for ensuring farmers get better remuneration for their crops.

Way ahead:

The idea has been discussed at the highest level of the government and the Centre is likely to reach out to states for such an enabling provision after full consultation with the ministry of consumer affairs.

Sources: et.

**Paper 3 Topic:** Food processing and related industries in India- scope and significance, location, upstream and downstream requirements, supply chain management.

### New Central Sector Scheme – “Pradhan Mantri Kisan Sampada Yojana”

The Cabinet Committee on Economic Affairs, chaired by the Prime Minister Shri Narendra Modi, has approved the renaming of the new Central Sector Scheme – SAMPADA (Scheme for Agro-Marine Processing and Development of Agro-Processing Clusters) as “Pradhan Mantri Kisan Sampada Yojana (PMKSY)” for the period of 2016-20 coterminous with the 14th Finance Commission cycle.

Objective:

The objective of PMKSY is to supplement agriculture, modernize processing and decrease Agri-Waste.

Financial Allocation:

PMKSY with an allocation of Rs. 6,000 crore is expected to leverage investment of Rs. 31,400 crore, handling of 334 lakh MT agro-produce valuing Rs. 1,04,125 crore, benefit 20 lakh farmers and generate 5,30,500 direct/ indirect employment in the country by the year 2019-20.

Impacts:

- The implementation of PMKSY will result in creation of modern infrastructure with efficient supply chain management from farm gate to retail outlet.
- It will provide a big boost to the growth of food processing sector in the country.
- It will help in providing better prices to farmers and is a big step towards doubling of farmers' income.
- It will create huge employment opportunities especially in the rural areas.
- It will also help in reducing wastage of agricultural produce, increasing the processing level, availability of safe and convenient processed foods at affordable price to consumers and enhancing the export of the processed foods.

Background:

PMKSY is an umbrella scheme incorporating ongoing schemes of the Ministry like Mega Food Parks, Integrated Cold Chain and Value Addition Infrastructure, Food Safety and Quality Assurance Infrastructure, etc. and also new schemes like Infrastructure for Agro-processing Clusters, Creation of Backward and Forward Linkages, Creation / Expansion of Food Processing & Preservation Capacities.

Sources: pib.

**Paper 3 Topic:** Infrastructure: Energy, Ports, Roads, Airports, Railways etc.

## Methanol a clean, cheaper fuel

The government has asked the think-tank NITI Aayog to study the automobile standards developed in China to use methanol as an alternative fuel. Experts believe that Methanol economy will help India use its vast reserves of coal while driving import substitution.

### Methanol as an alternative fuel:

Methanol is a promising fuel for waterways as it is clean, cheaper than fossil fuels and a good substitute for heavy fuels. India imports methanol from Saudi Arabia and Iran at present. Across the world, methanol is emerging as a clean, sustainable transportation fuel of the future. Methanol can be blended with gasoline in low-quantities and used in existing road vehicles, or it can be used in high-proportion blends such as M85-M100 in flex-fuel or dedicated methanol-fueled vehicles. Technology is also being commercialized to use methanol as a diesel substitute.

- *Methanol is a clean-burning fuel that produces fewer smog-causing emissions* — such as sulphur oxides (SOx), nitrogen oxides (NOx) and particulate matter — and can improve air quality and related human health issues.
- *Methanol is most commonly produced on a commercial scale from natural gas.* It can also be produced from renewable sources such as biomass and recycled carbon dioxide.
- *As a high-octane vehicle fuel, methanol offers excellent acceleration and power.* It also improves vehicle efficiency.

Sources: the hindu.

## The Advantages of Methanol - Burning Engines

- Methanol can run at much higher compression ratios, meaning that you can get more power from the engine on each piston stroke.
- Methanol provides significant cooling when it evaporates in the cylinder, helping to keep the high-revving, high-compression engine from overheating.
- Methanol, unlike gasoline, can be extinguished with water if there is a fire. This is an important safety feature.
- The ignition temperature for methanol (the temperature at which it starts burning) is much higher than that for gasoline, so the risk of an accidental fire is lower.

## Loan agreement with the Asian Infrastructure Investment Bank (AIIB)

The Loan and Project Agreements for Asian Infrastructure Investment Bank (AIIB) lending of US\$ 329 million for Gujarat Rural Roads Project have been signed between the Government of India/ Government of Gujarat and the AIIB.

- The objective of the project is to improve the rural road connectivity and accessibility (by providing all weather road connectivity) to 1,060 villages in all the 33 districts in Gujarat state benefiting about 8 million people. The project will also benefit the service providers such as public transport operators, educational institutions, hospitals, local markets and traders.

### About AIIB:

The AIIB was established as a new multilateral financial institution aimed at providing “financial support for infrastructure development and regional connectivity in Asia.” It was founded in October, 2014, and has its headquarters in Beijing.

- Its goals are also to boost economic development in the region, create wealth, prove infrastructure, and promote regional cooperation and partnership.
- The value of AIIB’s authorized capital amounts to \$100 billion, with almost \$30 billion invested by China.

Sources: pib.

## Subsidise rail losses: PMO

The Prime Minister’s Office (PMO) has directed the Ministry of Finance to fund the losses incurred by the Indian Railways in operating non-profitable trains on strategic lines and backward areas.

- The directive ends a tussle that began following the merger of the Railway and Union Budgets, as the Ministry of Finance had discontinued the practice of providing an annual subsidy to the Railways.

Background:

Every year, the Ministry of Finance reimburses the Indian Railways operational losses incurred on six strategic lines and railway lines in hilly, coastal and backward areas. However, following the Budget merger, the Ministry of Finance argued that since the 'capital-at-charge' of the Railways, which represents the total investment made by the central government in the Railways, would be wiped-off, the subsidy payment in the form of reimbursement of losses on strategic lines and other concessions will be discontinued.

Need for subsidising losses:

The losses on operating strategic lines accounts for a small fraction of the estimated over ₹34,000 crore borne by the Railways towards social service obligation. Therefore, the decision comes as a relief for **the Railways which feels that the social service obligation borne by it in running non-profitable lines of national and strategic importance** should be funded by the Central government.

Besides, the Standing Committee on Railways and the Estimates Committee, in their reports, have also recommended that the Railways should get back the money invested in loss-making lines of national importance.

Sources: the hindu.

### Approval of Industrial Parks in Andhra Pradesh

Department of Industrial Policy and Promotion (DIPP) under Ministry of Commerce and Industry has approved two projects under 'Modified Industrial Infrastructure Upgradation Scheme (MIIUS)' for development of industrial clusters at Hindupur and Bobbili in the respective districts of Anantapur and Vizianagaram of Andhra Pradesh.

- The objective of the approved projects is to provide quality and reliable infrastructure to industrial units located in these clusters; specifically these projects aim to provide road network, drainage, power and water supply networks and some other common services like health centres, canteens, crèches, dormitories, parking areas, etc.

About MIIUS:

Industrial Infrastructure Upgradation Scheme (IIUS) was launched in 2003 with the objective of enhancing industrial competitiveness of domestic industry by providing quality infrastructure through public private partnership in selected functional clusters/locations which have potential to become globally competitive. The Scheme was recast in February, 2009 on the basis of an independent evaluation to strengthen the implementation process.

A modified version of IIUS viz 'Modified Industrial Infrastructure Upgradation Scheme (MIIUS)' was notified in July 2013. Under MIIUS, projects have been undertaken to upgrade infrastructure in existing Industrial Parks/ Estates/ Areas. Greenfield Projects have also been undertaken in backward areas and North Eastern Region (NER).

The Salient features of MIIUS are as under:

- Central assistance upto 50% (for North Eastern Region upto 80%) of project cost with ceiling of Rs. 50 crore, limiting sanction upto two projects per State.
- Project implementation by State Implementation Agency (SIA) such as, State Industrial Development Corporation with minimum mandatory contribution of 25% of the project cost (10% in case of North Eastern Region).
- Projects are to be sanctioned to upgrade infrastructure in Industrial Estates/Parks/Areas. Greenfield projects could be supported in backward areas, including North Eastern Region (NER).
- Release of GoI grant (in 3 Installments viz. 30%, 40% and 30%) subject to upfront other Stakeholders' contribution.
- Central grant for physical infrastructure is restricted to 25% of the grant subject to a ceiling of Rs.12.5 crore.

Sources: pib.

### MOUs signed for distribution of Energy Efficient appliances

Energy Efficiency Services Limited (EESL), under the Ministry of Power, have signed a Memorandum of Understanding (MoU) with Oil Marketing Companies (OMCs) under the Ministry of Petroleum and Natural Gas (MoPNG) for distribution of energy efficient appliances under the flagship Unnat Jeevan by Affordable LEDs and appliances for All (UJALA) scheme.

- According to the agreement, Oil Marketing Companies- IOCL, BPCL and HPCL will take up distribution of LED Bulbs, LED Tubelights and energy efficient Fans from select retail outlets across the country.

#### About UJALA scheme:

The main objective of the scheme is **to promote efficient lighting, enhance awareness on using efficient equipment which reduce electricity bills and help preserve environment.**

- The scheme is being implemented by Energy Efficiency Services Limited (EESL), a joint venture of PSUs under the Union Ministry of Power.
- The scheme will not only help reduce consumers their electricity bills but also contribute to the energy security of India.
- The scheme is being monitored in a transparent manner through a national dashboard (delp.in).
- The distribution of LED bulbs will happen through DISCOM offices, DISCOM bill collection centres, designated EESL kiosks, Weekly haat markets, etc.

Sources: pib.

## Govt eases norms under UDAN 2

The civil aviation ministry has relaxed the norms for its flagship regional flying scheme called UDAN (Ude Desh Ka Aam Nagrik) to allow for greater connectivity.

- The relaxations include dilution of the exclusivity clause mandating that only one airline may fly on one route in the initial years. The norms that restricted two airports in close proximity from participating in the bidding has also been relaxed.

#### About UDAN:

The scheme, **Ude Desh Ka Aam Nagrik**, which loosely translates as “let the common man fly”, proposes that at least half the seats on every flight should have a fare cap of Rs2,500 per seat per hour of flying.

- Inexpensive regional air connectivity under the UDAN scheme would allow travellers to save time and enable the middle-classes in small-town India to take their first flights.
- Five airlines including Air India, SpiceJet, Turbo Megha, Air Odisha and Air Deccan were allotted 128 routes to fly in the first round by March, but only 16 routes have been operationalised so far.

#### Way ahead:

If the scheme is successfully implemented, the air connectivity to difficult terrains of Jammu and Kashmir, northeast India, Himachal Pradesh, Uttarakhand, Andaman and Nicobar and Lakshadweep will get a major push. The ministry has marked these regions under priority areas.

Sources: the hindu.



## Why does the 2022 target for rooftop solar seem ambitious?

The government has set itself a target of 100 GW of solar power by 2022, of which 60 GW is to come from utilities and 40 GW from rooftop solar installations. While the 60 GW target seems achievable, the country is lagging behind on the target set for rooftop solar.

#### What is rooftop solar?

Rooftop solar installations — as opposed to large-scale solar power generation plants — can be installed on the roofs of buildings. As such, they fall under two brackets: commercial and residential. This simply has to do with whether the solar panels are being installed on top of commercial buildings or residential complexes.



What are the benefits?

Rooftop solar provides companies and residential areas the option of **an alternative source of electricity to that provided by the grid**. While the main benefit of this is to the environment, since it reduces the dependence on fossil-fuel generated electricity, solar power can also augment the grid supply in places where it is erratic.

Rooftop solar also has **the great benefit of being able to provide electricity to those areas that are not yet connected to the grid** — remote locations and areas where the terrain makes it difficult to set up power stations and lay power lines.

What is the potential for rooftop solar in India?

The Ministry of New and Renewable Energy has pegged the market potential for rooftop solar at 124 GW. However, only 1,247 MW of capacity had been installed as of December 31, 2016. That is a little more than 3% of the target for 2022, and 1% of the potential.

Why is it not being adopted widely?

- One of the major problems with rooftop solar — and what affects solar energy generation in general — is **the variability in supply**. Not only can the efficiency of the solar panels vary on any given day depending on how bright the sunlight is, but the solar panels also produce no electricity during the night. Arguably, night is when off-grid locations most need alternative sources of electricity.
- Storage is one solution. **Storage technology for electricity, however, is still underdeveloped and storage solutions are expensive**. So, while some companies will be able to afford storage solutions for the solar energy they produce, most residential customers will find the cost of installing both rooftop solar panels and storage facilities prohibitive. Residential areas also come with the associated issues of use restrictions of the roof — if the roof is being used for solar generation, then it cannot be used for anything else.
- Another major reason why rooftop solar is not becoming popular is that **the current electricity tariff structure renders it an unviable option**. Many states have adopted a net metering policy, which allows disaggregated power producers to sell excess electricity to the grid. However, the subsidised tariffs charged to residential customers undermine the economic viability of installing rooftop solar panels. The potential profit simply does not outweigh the costs.

Sources: the hindu.

## STPs to be constructed under Hybrid Annuity Model

In the first-of-its-kind success, the creation and maintenance of sewage treatment infrastructure under Hybrid Annuity based PPP model has taken off, with NMCG awarding work to private sector for construction and maintenance of Sewage Treatment Plants (STPs) in two major cities in Ganga river basin – Varanasi and Haridwar. The awarded projects would ensure that no untreated sewage waste water goes into river Ganga.

**Hybrid Annuity based PPP model has been adopted for the first time in the country in sewage management sector.** Such a model has earlier been adopted successfully in highway sector only.

What you need to know about the Hybrid Annuity Model?

The Government of India had accorded Cabinet approval to Hybrid Annuity-PPP model in January 2016 with 100% central sector funding.

- Under this model, *the development, operation and maintenance of the sewage treatment STPs will be undertaken by a Special Purpose Vehicle (SPV) to be created by the winning bidder at the local level. As per this model, 40% of the Capital cost quoted would be paid on completion of construction while the remaining 60% of the cost will be paid over the life of the project as annuities along with operation and maintenance cost (O&M) expenses.*
- One of the most important features of this model is that both the Annuity and O&M payments are linked to the performance of the STP. This will ensure continued performance of the assets created due to better accountability, ownership and optimal performance.

Sources: pib.

*Paper 3 Topic: Science and Technology- developments and their applications and effects in everyday life  
Achievements of Indians in science & technology; indigenization of technology and developing new technology.*

### India's first private missile production facility unveiled

India's first private sector missile sub-systems manufacturing facility, a joint venture between Kalyani Group and Israel's Rafael Advanced Defence Systems Ltd., was recently inaugurated near Hyderabad.

- Formed in line with the 'Make in India' initiative of the Centre and the policy to encourage private sector participation in defence production, the 51:49 joint venture will develop a wide range of advanced capabilities.
- To begin with, the Kalyani Rafael Advanced Systems (KRAS) plant will make anti-tank guided missile (ATGM) Spike. Besides supplying to the Indian Army, the plan is to export to South East Asian countries.

#### Make in India:

Make in India campaign aims to draw in organizations from around the globe to manufacture and invest in India. The campaign concentrates on facilitating job creation, enforcement to the tertiary and secondary sector, boosting the national economy, making India a self-reliant nation and ensuring that the Indian economy gets international acknowledgement.

- The essential target of the campaign is to draw in ventures from over the globe and reinforce India's assembling segment. It is being driven by the Department of Industrial Policy and Promotion (DIPP), Ministry of Commerce and Industry, Government of India.
- Under the 'Make in India' initiative, the government has, in the last one year, announced several steps to improve the business environment by easing processes to do business in the country, and attract foreign investments.

Sources: the hindu.

### Water as propellant for tiny satellites

Engineers from US have designed and tested a micropropulsion system that uses liquid water as the propellant for orbital maneuvering of tiny satellites called **CubeSats**.

#### CubeSats:

With rapid developments in miniaturisation of technologies CubeSats — which typically weigh about two kilograms — are poised to take over the sky in the future to carry out tasks like imaging and remote-sensing currently performed by heavier satellites which are expensive to build and launch. However, today's CubeSats cannot totally replace their larger counterparts as they are incapable of changing orbit or performing complex manoeuvres.

#### About the new propulsion system:

A dedicated propulsion system that is also compact and not power hungry has been the aim of CubeSat builders in several laboratories to exploit their full potential.

Called a **"Film-Evaporation MEMS Tunable Array", or FEMTA thruster**, it uses capillaries thinner than human hair through which the propellant water can flow. Small heaters located near the ends of the capillaries turn the water into vapor, which, on escape from these tiny tubes, provides the thrust. The minuscule capillaries act like valves that can be turned on and off by activating the heaters. inkjet printer, which uses heaters that fire dots of ink at the paper.

#### Propellant:

Pure water is chosen as the propellant since it is green, safe, easy to use and free from the risk of contaminating sensitive instruments by the backflow from plumes as in the case of thrusters using chemical propellants.

Sources: et.

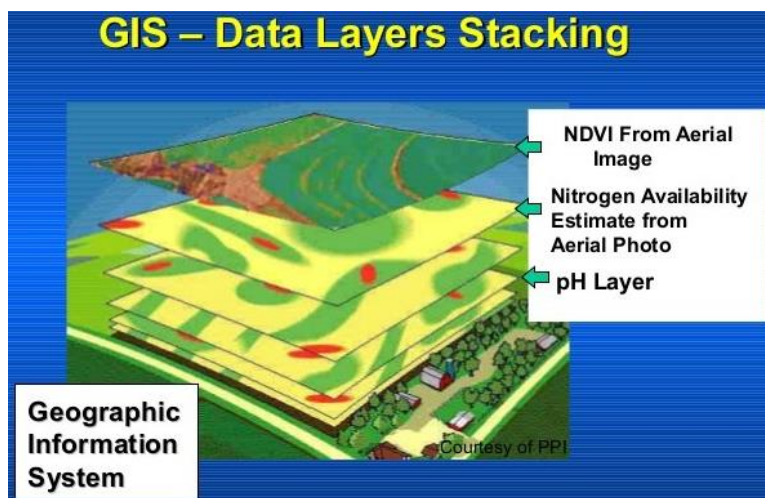
### GIS-enabled portal maps land-related information

The Centre has brought out an online database of more than half a million hectares of land assisting industry. The Geographic Information System-enabled database also has details of close to 3,000 industrial parks/clusters, as well as area-wise availability of agricultural/horticultural crops, and mineral production.

- The database is being developed by the Department of Industrial Policy and Promotion (DIPP) and the National e-Governance Division in the Ministry of Electronics and Information Technology as well as the BISAG – an institute for space applications and geo-informatics under the Gujarat Government.
- The exercise is to eliminate the information asymmetry that is currently adversely affecting the country's industrial policy-making and investments in the manufacturing sector.

#### Background:

It currently has specific area-wise details in each state on industrial parks/clusters, the focus sectors, common facilities available for industry, industrial land in use and available industrial land etc. The database also has information on the distance from airport/port to each industrial area/cluster and a satellite map view of the area. Data is available on agricultural crops such as fibre crops, food grains, oilseeds, plantation crops, pulses and spices, and horticultural crops, including most fruits and vegetables. Also available are the details of mineral production.



The portal will soon incorporate information on warehouses, power-grid and financial institutions as well as the demand for industrial infrastructure captured on the basis of applications from entrepreneurs for projects.

#### What is GIS?

Geographic Information Systems is a computer-based tool that analyzes, stores, manipulates and visualizes geographic information, usually in a map. GIS can refer to a number of different technologies, processes, and methods. It is attached to many operations and has many applications related to engineering, planning, management, transport/logistics, insurance, telecommunications, and business. For that reason, GIS and location intelligence applications can be the foundation for many location-enabled services that rely on analysis and visualization.

Sources: the hindu.

## Artificial womb raises hope for premature babies

An artificial womb has been successfully used to incubate healthy baby lambs for a period of one week, and researchers hope the technology will one day be able to do the same for extremely premature babies.

#### Key facts:

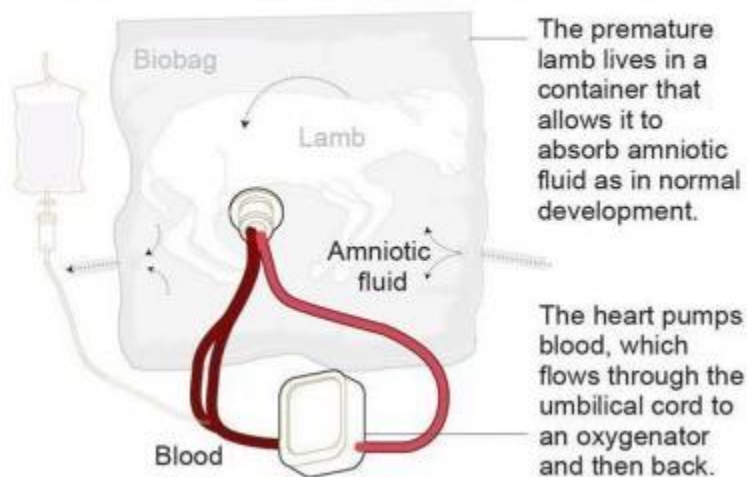
- Researchers have shown that preterm lambs were successfully maintained in a healthy, infection-free condition with significant growth, for a period of one week using **ex-vivo uterine environment (EVE) therapy**.
- EVE therapy could prevent the severe morbidity suffered by extremely premature infants by potentially offering a medical technology that does not currently exist.
- **What is the artificial womb made up of?** The artificial womb is a high-tech amniotic fluid bath combined with an artificial placenta.

#### How it works?

EVE (Ex-vivo uterine environment) therapy allows for oxygenation of the extremely preterm infant using the umbilical vasculature, and is not dependent on the highly immature fetal lung.

#### How the artificial womb works

Researchers are creating an artificial womb with a laboratory animal. Human testing is still several years away. The artificial wombs work through two separate systems:



SOURCE: Children's Hospital of Philadelphia

AP

Briefly, the infant is connected to a parallelised circuit comprised of artificial veins and arteries that supply blood to two membranous oxygenation devices, and submerged in a carefully controlled bath of artificial amniotic fluid. The membranous oxygenators allow gas exchange (removal of CO<sub>2</sub> and addition of oxygen) before the blood returns via the circuit to the fetus. Nutrients and other medications are delivered directly to the fetus, which is under round-the-clock monitoring.

#### Significance of this technology:

Designing treatment strategies for extremely preterm infants is a challenge. Because, at this gestational age the lungs are often too structurally and functionally under-developed for the baby to breathe easily. Therefore, EVF therapy can be an effective treatment strategy for extremely preterm infants born at the border of viability (22-23 weeks).

#### Background:

Those born at the earliest gestational ages may suffer from severe and life-long problems such as cerebral palsy, developmental delay or blindness. For those born at a later gestation, even approaching full-term, there may be behavioural and learning problems. Preterm birth is the single greatest cause of death and disability in children up to five years of age in the developed world. Worldwide, an estimated 15 million babies are born preterm each year. In 2015, preterm birth was responsible for nearly 1 million deaths.

Sources: science daily.

## New state of matter discovered

Scientists have discovered a potential new state of matter that may help explain phenomena like superconductivity.

#### About the new state- electronic nematic state:

The high-magnetic-field state of the heavy fermion superconductor CeRhIn<sub>5</sub> revealed a so-called electronic nematic state.

- In the new state, **the material's electrons are aligned in a way to reduce the symmetry of the original crystal**, something that now appears to be universal among unconventional superconductors.
- The appearance of the electronic alignment, called nematic behavior, in a prototypical heavy-fermion superconductor highlights the interrelation of nematicity and unconventional superconductivity, suggesting nematicity to be common among correlated superconducting materials.

#### Background:

A nematic state is most well known in liquid crystals, wherein the molecules of the liquid are parallel but not arranged in a periodic array. Nematic-like states have been observed in transition metal systems near magnetic and superconducting phase transitions. The occurrence of this property points to nematicity's correlation with unconventional superconductivity. The difference, however, of the new nematic state found in CeRhIn<sub>5</sub> relative to other systems is that it can be easily rotated by the magnetic field direction.

#### What is superconductivity?

Superconductivity is a phenomenon of exactly zero electrical resistance and expulsion of magnetic flux fields occurring in certain materials, called superconductors, when cooled below a characteristic critical temperature. The phenomenon is largely used in magnetic resonance imaging (MRI), particle accelerators, magnetic fusion devices, and microwave filters.

Sources: the hindu.

## Cloud-seeding project of Karnataka takes off at Jakkur Airfield

Karnataka has launched the much-touted cloud seeding project- **named Varshadhare**.

#### How does it work?

Cloud-seeding is a technique employed to increase precipitation in clouds. Experts say precipitation in clouds has been affected recently due to increase in particulate matter in the atmosphere, among other factors.

- Cloud-seeding aims at catalysing the process of precipitation, so that rainfall could be increased by 15-20% in drought-affected areas of the State

- Among the problems for successful precipitation in rain-bearing clouds are that water droplets formed in the clouds are much smaller. Droplets formed in the clouds are blown away in the wind even before they have the time to reach earth. Moreover, small droplets do not have the energy to collide and form large droplets that can come down as rain.
- By introducing **impurities such as Silver Iodide, Potassium Chloride and others, the objective is to ensure that the size of the droplets is large enough to fall down as rain.**

Sources: the hindu.

### New flexible fuel cells turn sweat into power

Scientists have developed stretchable fuel cells that extract energy from sweat, and could power a range of wearable devices such as LEDs and Bluetooth radios. The new cells were developed using lithography and screen-printing to make 3D carbon nanotube-based cathode and anode arrays.

#### How it operates?

The biofuel cells are equipped with **an enzyme that oxidises the lactic acid present in human sweat to generate current.**

- To be compatible with wearable devices, the biofuel cell needs to be flexible and stretchable. So engineers decided to use what they call a “bridge and island”.
- Essentially, the cell is made up of rows of dots that are each connected by spring-shaped structures. Half of the dots make up the cell’s anode or electrode through which conventional current flows; the other half are the cathode. The spring-like structures can stretch and bend, making the cell flexible without deforming the anode and cathode.
- The basis for the islands and bridges structure was manufactured via lithography and is made of gold. Researchers used screen printing to deposit layers of biofuel materials on top of the anode and cathode dots. To increase power density, engineers screen printed a 3D carbon nanotube structure on top the anodes and cathodes.
- The structure allows engineers to load each anodic dot with more of the enzyme that reacts to lactic acid and silver oxide at the cathode dots. In addition, the tubes allow easier electron transfer, which improves biofuel cell performance.

#### Significance of these cells:

The epidermal biofuel cells are a major breakthrough in the field, which has been struggling with making the devices that are stretchable enough and powerful enough. The biofuel cells generate 10 times more power per surface area than any existing wearable biofuel cells.

Sources: et.

### IIT team makes ‘implantable pancreas’

Researchers at the Indian Institute of Technology (IIT) Guwahati have successfully created an implantable bioartificial pancreas model grown within a 3D silk scaffold. The pancreas encapsulates insulin-producing cells and is capable of naturally producing insulin in a sustained manner.

#### How was it created?

Scientists coated the scaffold containing beta cells with a semi-permeable membrane barrier. The membrane allows insulin produced to be released into the blood stream but does not allow the immune cells to cross the membrane and kill the islet cells.

- To ensure that the implant is not rejected by the body’s immune system, drugs that suppress the immune system were embedded in the scaffold.
- Studies carried in the lab showed that the beta cells in the scaffold were able to produce adequate amount of insulin in response to different glucose levels within a few seconds.

Way ahead:

If successful in animal and human trials, it can be used for treating people with type 1 diabetes. **Type 1 diabetes** arises when the body's immune system kills the insulin-producing beta cells. Since type 1 diabetes patients do not have insulin-producing beta cells, the researchers have turned to stem cells to produce beta cells.

Sources: the hindu.

**Paper 3 Topic:** Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology and issues relating to intellectual property rights.

## India, China home to 39% of young Internet users: UN report

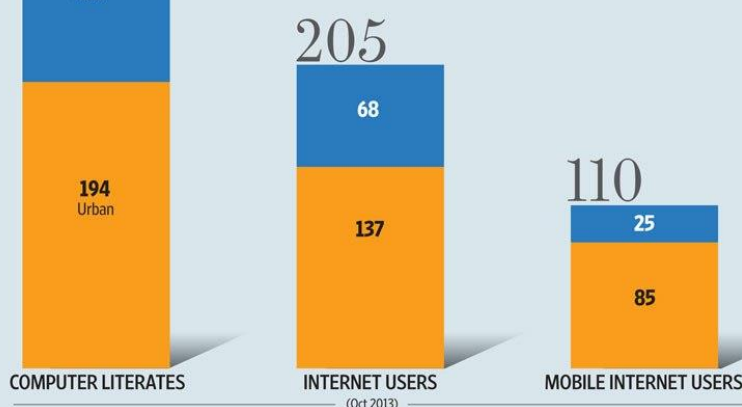
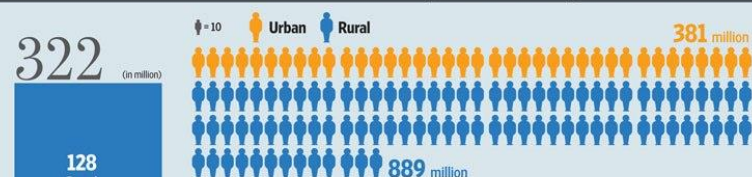
The ICT Facts and Figures 2017 report released by the International Telecommunication Union (ITU), the United Nations specialised agency for Information and Communication Technologies (ICTs), shows that of the 830 million young people online worldwide, 320 million, or 39%, are in China and India.

# INDIA NOW HAS MORE THAN 200 MILLION INTERNET USERS

A report by the Internet and Mobile Association of India (IAMAI) and IMRB International has put India's Internet user base at 205 million, almost on par with that of the US. The user base, which doubled in the last three years, according to the report, is expected to reach 213 million by the end of 2013. The definition of active users in the IMAI study as those that access the Internet at least once a month should tone down the implicit optimism of the numbers though. The report says that communication continues to be the primary activity. That, along with social networking, is what three-quarters of the active user base engages in, though online transactions trail in popularity.

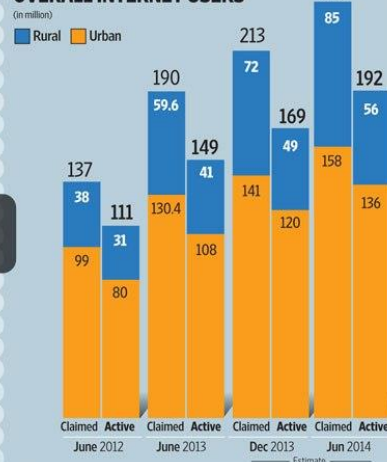
## POPULATION

1270,000,000



Compiled by Moulisree Srivastava; Graphics: Ahmed Raza Khan/Mint

## OVERALL INTERNET USERS

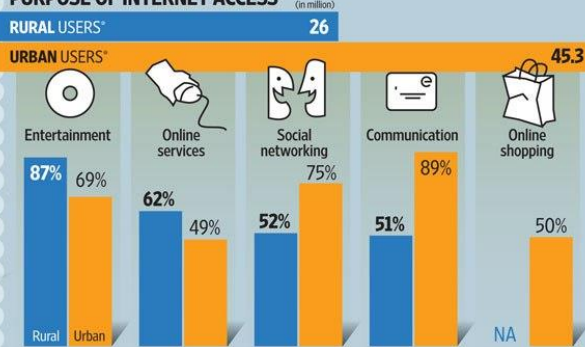


Claimed Internet users refer to not-so-frequent users of the Internet. Active Internet users access the Internet at least once a month.

## MOBILE INTERNET USERS



## PURPOSE OF INTERNET ACCESS



\*Rural base - 25.6 million active Internet users (rural), June 2013 - 7 states;  
\*Urban base - active Internet users (urban), 2013 - 35 cities

Source: research by IMAI, IMRB International

## Highlights of the report:

- Broadband access:** There is a significant increase in broadband access and subscriptions with China leading the way. Youths (15-24 years old) are at the forefront of Internet adoption. In Least Developed Countries (LDCs), up to 35% of individuals using the Internet are aged 15-24, compared with 13% in developed countries and 23% globally.
- Mobile Broadband subscriptions:** Mobile broadband subscriptions have grown more than 20% annually in the last five years and are expected to reach 4.3 billion globally by the end of 2017. Between 2012 and 2017, LDCs saw the highest growth-rate of mobile broadband subscriptions. Despite this, the number of mobile subscriptions per 100 inhabitants in LDCs is the lowest globally at 23%.

- **Fixed- broadband subscriptions:** The number of fixed-broadband subscriptions has increased by 9% annually in the last five years with up to 330 million subscriptions added. There has been an increase in high-speed fixed broadband subscriptions parallel to the growth in the number of fibre connections. Most of the increase in high-speed fixed broadband subscriptions in developing countries can be attributed to China, which accounts for 80% of all fixed-broadband subscriptions at 10 Mbit/s or above in the developing world.
- **Prices:** Mobile broadband prices, as a percentage of gross national income per capita, dropped by half between 2013 and 2016. Mobile broadband is more affordable than fixed broadband in most developing countries.
- **Gender gap:** While the Internet user gender gap has narrowed in most regions since 2013, the proportion of men using the Internet remains slightly higher than the proportion of women using the Internet in two-thirds of countries worldwide. In 2017, the global Internet penetration rate for men stands at 50.9% compared to 44.9% for women.
- **Bandwidth:** International Internet bandwidth grew by 32% between 2015 and 2016, with Africa registering an increase of 72% during this period, the highest of all regions.
- **Revenues:** Global telecommunication revenues declined by 4% from USD 2.0 trillion in 2014 to USD 1.9 trillion in 2015. Developing countries, which are home to 83% of the global population, generate 39% of the world's telecommunication revenues.

#### **Background:**

Great strides are being made in expanding Internet access through the increased availability of broadband networks. Digital connectivity plays a critical role in bettering lives, as it opens the door to unprecedented knowledge, employment and financial opportunities for billions of people worldwide.

#### **About ITU:**

ITU is the United Nations specialized agency for information and communication technologies – ICTs.

- It allocates global radio spectrum and satellite orbits, develops the technical standards that ensure networks and technologies seamlessly interconnect, and strives to improve access to ICTs to underserved communities worldwide.
- An organization based on public-private partnership since its inception, ITU currently has a membership of 193 countries and almost 800 private-sector entities and academic institutions. ITU is headquartered in Geneva, Switzerland, and has twelve regional and area offices around the world.

Sources: et.

### **Israel launches first environmental research satellite Venus**

Israel has launched the country's first environmental research satellite in a joint venture between the Israel Space Agency (ISA) and its French counterpart CNES.

#### **Key facts:**

- The *Venus satellite (Vegetation and Environment Monitoring New Micro-Satellite)* is an earth-observation micro-satellite.
- The satellite's goal is **to obtain high-resolution photographs of specific sites to track environmental issues** such as desertification, erosion, pollution, natural disasters, and other phenomena linked to climate change.
- The high resolution — plants can be distinguished as little as five meters apart — makes possible "precision agriculture," in which farmers would be able to accurately plan for water, fertilizer, and pesticide needs.
- The **technological mission of the satellite will test the operation of an innovative electric propulsion system** based on the Israeli-designed Hall Effect Thrusters. A **Hall-effect thruster (HET)** is a relatively low power device used to propel a spacecraft after entering orbit or farther out into space.
- The satellite will be able to take repeated photos of the same spot in the same light conditions (accounting for the position of the sun), allowing for more accurate tracking of changing environmental issues. This is called "heliosynchronis orbit" because it requires taking a photo of the same coordinates while the sun is in the same position.

- The satellite will circle the earth 29 times in each 48-hour period and will stay in commission for 4.5 years.

Sources: et.

## Joint Project between NASA and ISRO

ISRO and NASA are working towards realisation of NASA-ISRO Synthetic Aperture Radar (NISAR) mission by 2021.

### Background:

ISRO and NASA have a framework agreement for cooperation in the exploration and use of outer space for peaceful purposes signed in 2008. Under this framework agreement, ISRO and NASA have executed an implementing arrangement for cooperation in NISAR mission, which is valid until 2034 and provides scope for joint activities on science & applications of NISAR data after the launch.

### About NISAR:

The Nasa-Isro Synthetic Aperture Radar (NISAR) mission is a joint project between NASA and ISRO to co-develop and launch a dual frequency synthetic aperture radar satellite.

- The satellite will be the first radar imaging satellite to use dual frequency and it is planned to be used for remote sensing to observe and understand natural processes of the Earth.
- NISAR would provide information about a place more frequently than older satellites orbiting the Earth at present.
- Among the objectives of NISAR are estimation of soil moisture, agriculture and forest biomass.
- It is also designed to observe and take measurements of some of the planet's most complex processes, including ecosystem disturbances, ice-sheet collapse, and natural hazards such as earthquakes, tsunamis, volcanoes and landslides.

Sources: pib.

## Isro to sign MoU with CSIR-NPL to make desi GPS a reality soon

Seeking to make desi GPS – indigenous regional positioning system named as Navigation with Indian Constellation (NavIC) – independent from the US clock system, the Indian Space Research Organisation (ISRO) is all set to sign an MoU with CSIR-National Physical Laboratory (NPL) for time and frequency traceability services.

- *The move will help the desi GPS get formally synchronized with the Indian Standard Time (IST) which is being maintained by the Delhi-based NPL – the timekeeper of India.*
- The step will help in making the desi GPS fully operational in the market for commercial purposes as time synchronisation is essential for all kinds of services – be it financial transactions, stock handling, digital archiving, time stamping, national security or prevention of cyber crimes.

### About NavIC:

NAVIC is an independent regional navigation satellite system designed to provide position information in the Indian region and 1500 km around the Indian mainland. It provides two types of services, namely Standard Positioning Services available to all users and Restricted Services provided to authorised users.

**It consists of seven satellites.** Three of these will be geostationary over the Indian Ocean, i.e., they will appear to be stationary in the sky over the region, and four will be geosynchronous – appearing at the same point in the sky at the same time every day. This configuration ensures each satellite is being tracked by at least one of fourteen ground stations at any given point of time, with a high chance of most of them being visible from any point in India.

### Its applications include:

- Terrestrial, Aerial and Marine Navigation.
- Disaster Management.
- Vehicle tracking and fleet management.
- Integration with mobile phones.

- Precise Timing.
- Mapping and Geodetic data capture.
- Terrestrial navigation aid for hikers and travelers.
- Visual and voice navigation for drivers.

Sources: et.

## ISRO to develop full-fledged Earth observation satellite

The Indian Space Research Organisation (ISRO) says it plans to launch a full-fledged niche Earth observation (EO) satellite — called the Hyperspectral Imaging Satellite or HySIS — using a critical chip it has developed. With this satellite, it can see in 55 spectral or colour bands from 630 km above ground.

### What is Hyperspectral imaging?

Hyperspectral imaging is said to enable distinct identification of objects, materials or processes on Earth by reading the spectrum for each pixel of a scene from space. ISRO first tried it out in an 83-kg IMS-1 experimental satellite in May 2008. The same year, a hyperspectral camera was put on Chandrayaan-1 and used to map lunar mineral resources. Very few space agencies have such a satellite; a German environmental satellite called EnMAP is due to be launched on an Indian booster in 2018.

#### Applications:

Hyperspectral or hyperspectral imaging is said to be an EO trend that is being experimented globally. Adding a new dimension to plain-vanilla optical imagers, it can be used for a range of activities from monitoring the environment, crops, looking for oil and minerals all the way up to military surveillance — all of which need images that show a high level of differentiation of the object or scene.

Sources: the hindu.

## China uses a quantum satellite to transmit potentially unhackable data

China has demonstrated a world first by sending data over long distances using satellites which is potentially unhackable, laying the basis for next generation encryption based on so-called **quantum cryptography**.

- Last year, China launched a quantum satellite into space. Using this satellite, Chinese researchers at the Quantum Experiments at Space Scale (QUESS) project, were now able to transmit secret messages from space to Earth at a further distance than ever before.

### What you need to know about this technology?

The technology is called quantum **key distribution (QKD)**. Typical encryption relies on traditional mathematics and while for now it is more or less adequate and safe from hacking, the development of quantum computing threatens that. Quantum computing refers to a new era of faster and more powerful computers, and the theory goes that they would be able to break current levels of encryption. **QKD works by using photons** — the particles which transmit light — to transfer data.

QKD allows two distant users, who do not share a long secret key initially, to produce a common, random string of secret bits, called a secret key. Using the one-time pad encryption this key is proven to be secure to encrypt and decrypt a message, which can then be transmitted over a standard communication channel.

#### Significance of this technology:

- The encryption is “unbreakable” and that’s mainly because of the way data is carried via the photon. A photon cannot be perfectly copied and any attempt to measure it will disturb it. This means that a person trying to intercept the data will leave a trace.
- Any eavesdropper on the quantum channel attempting to gain information of the key will inevitably introduce disturbance to the system, and can be detected by the communicating users.

- The implications could be huge for cybersecurity, making businesses safer, but also making it more difficult for governments to hack into communication.

Sources: et.

## NASA successfully places next generation tracking and data relay satellite TDRS-M into orbit

NASA's third and final in a series of next generation communications satellites has successfully been placed into orbit. The Tracking and Data Relay Satellite-M (TDRS-M) was launched aboard a United Launch Alliance (ULA) Atlas V rocket.

### Background:

The **Tracking and Data Relay Satellite System, or TDRSS, is a fleet of geosynchronous communications satellites** that form part of NASA's Space Network. Introduced in the 1980s to support the Space Shuttle, TDRSS continues in service today, providing a relay for communications, scientific data, telemetry and commands between operators on the ground and spacecraft in Earth orbit.

### Key facts:

- When ready, TDRS-M will become part of NASA's Space Network providing navigation and high-data-rate communications to the International Space Station, NASA's Hubble Space Telescope, rockets and a host of other spacecraft.
- The TDRS fleet is a critical connection delivering science and human spaceflight data to those who can use it here on Earth.
- TDRS-M will expand the capabilities and extend the lifespan of the Space Network, allowing researchers to continue receiving and transmitting mission data well into the next decade.

Sources: et.

## Artificial intelligence imperils India Inc jobs

Technology leaders are drumming up the thought that the emergence of new technologies such as artificial intelligence (AI) and automation are going to be the new drivers of employment, especially for India's \$150 billion information technology (IT) industry that now employs about four million people.

### What is artificial intelligence (AI)?

Artificial Intelligence comes from computer systems that have been programmed to — or have learnt to — do tasks that would otherwise require human intelligence. Many apps and software are already making mundane work easier by doing a certain part of it for us, based on acquired intelligence.

### Concerns associated:

**Automation threatens 69% of the jobs in India**, while it's 77% in China, according to a World Bank research. The transition is expected to happen in a decade, according to experts. Therefore, if automation is not planned well and addressed holistically, it is a disaster in the making.

### New opportunities:

While there is a risk to jobs due to these trends, the good news is that a huge number of new jobs are getting created as well in areas like cybersecurity, cloud, big data, machine learning and AI. The new job roles that will dominate the IT workforce are within digital domains such as big data, artificial intelligence, Internet of Things (IoT), cloud computing and cybersecurity. It is clearly a time of career pivot for IT professionals to make sure they are where the growth is.

### Way ahead:

AI is a complex subject; it would be simplistic to look at it as all bad or all good. But robots and AI taking away middle-class, manufacturing jobs in the not-so-distant future is a very real prospect that will have to be addressed by governments sooner than they probably think.

Sources: the hindu.

## Worlds smallest surgical robot created

Scientists in the UK have developed the worlds smallest surgical robot with low-cost technology used in mobile phones and space industries. **The robot is called Versius.** The robot is controlled by a surgeon at a console guided by a 3D screen in the operating theatre.

### Functions performed by the robot:

It mimics the human arm and can be used to carry out a wide range of procedures in which a series of small incisions are made to circumvent the need for traditional open surgery. These include hernia repairs, colorectal operations, as well as prostate, ear, nose and throat surgery.

### Benefits:

- The robot is much easier to use than existing systems, and take up about a third of the space of current machines.
- It works like a human arm and contains technology that detects resistance to make sure the right amount of force is used when the instruments are inside the patient. Such procedures reduce complications and pain after surgery and speed up recovery time for patients.

Sources: the hindu.

## Microsoft launches 'Project Brainwave' for real-time AI

Software giant Microsoft has announced its **Project Brainwave** deep learning acceleration platform for real-time artificial intelligence (AI).

### Key facts:

- The 'Project Brainwave' uses the massive field-programmable gate array (FPGA) infrastructure that Microsoft has been deploying over the past few years.
- With the help of ultra-low latency, the system processes requests as fast as it receives them.
- The system architecture reduces latency, since the CPU does not need to process incoming requests, and allows very high throughput, with the FPGA processing requests as fast as the network can stream them.
- The system has been architected to yield high actual performance across a wide range of complex models, with batch-free execution.

### Background:

Real-time AI is becoming increasingly important as cloud infrastructures process live data streams, whether they be search queries, videos, sensor streams, or interactions with users.

Sources: et.

## Gobindobhog rice gets geographical indication status

Gobindobhog rice, a speciality from Burdwan district of West Bengal, has got the geographical indication (GI) status.

### Significance of this move:

As a result of getting the GI tag, as the certification is also called, rice from other regions or rice of other varieties cannot be branded as 'Gobindobhog'. Hence, the marketability of the rice would be strengthened, for the local, national and international markets.

### About Gobindobhog rice:

Gobindobhog is a rice cultivar from West Bengal. It is a short grain, white, aromatic, sticky rice having a sweet buttery flavor.

- It derives its name from its usage as the principal ingredient in the preparation of the offerings to Govindajiu, the family deity of the Setts of Kolkata.
- The rice has several advantages. It is cultivated late and therefore not much affected by rains. It is less prone to pests as well. The productivity per area is high and farmers get better prices for Gobindobhog rice.

About GI tag:

- **GI is covered under the Intellectual Property Rights and the Trade Related Aspects of Intellectual Property Rights.**
- **A GI tag certifies the origin of a product or produce from a particular region** as the quality or other features of the product is attributable only to the place of its origin.
- The tag helps farmers or manufacturers, as the case may be, to get a better price in the market.

Sources: et.

## ISRO to launch new navigation satellite IRNSS-1H

The Indian Space Research Organisation (ISRO) is all set to launch a new navigation satellite on August 31. IRNSS-1H will replace IRNSS-1A which failed due to deficiencies in three atomic clocks that are crucial in providing positional information to users on earth.

- **IRNSS-1H will be launched on board ISRO's PSLV-C39** The new satellite will expand the existing seven satellites of NavIC constellation.

What is a navigation satellite?

A satellite navigation is based on a network of satellites that transmit radio signals to determine the geospatial location of the receivers with high accuracy. The satellite systems can be used for providing position, navigation or for tracking the position of something fitted with a receiver.

The Indian Regional Navigation Satellite System (IRNSS) provides two types of services:

- **Standard Positioning Service:** Available to all users.
- **Restricted service:** Encrypted service available only to authorised users such as for defence forces.

What is India's navigation satellite system?

India's Rs 1420-crore satellite system called the Indian Regional Navigation Satellite System: Navigation with Indian Constellation (IRNSS: NavIC) consists of seven satellites in orbit but two others have been used as substitutes. One of the substitutes is the IRNSS-1H.

The IRNSS programme is similar to **the United States' Global Positioning System (GPS), which has 24 satellites. Other similar programmes are Glonass, Galileo, and BeiDou systems of Russia, Europe and China.**

What are the uses of navigation satellites?

NavIC is useful for fishermen to reach the potential fishing area. They can also get alert messages about bad weather conditions, high waves or when they approach international maritime boundary line. These services are provided through a software application on a smartphone.

- NavIC is useful for merchant ships for navigation and for search and rescue operations.
- In the road transport sector, NavIC helps commuters to traverse distances and also enable transport operators to track their vehicles.

Sources: the hindu.

**Paper 3 Topic:** Conservation, environmental pollution and degradation, environmental impact assessment.

## Projects worth Rs 425 crore approved by NMCG



The Executive Committee of National Mission for Clean Ganga (NMCG) has approved seven projects worth Rs 425 crore in the sector of sewage infrastructure, Ghat development and research.

- All the six projects will be provided with Operation and Maintenance cost for 15 years by Central government and 100% central assistance.
- The approved projects will be undertaken in Uttar Pradesh and Bihar.

### About National Mission for Clean Ganga:

National Mission for Clean Ganga (NMCG) acted as implementation arm of National Ganga River Basin Authority (NGRBA) which was constituted under the provisions of the Environment (Protection) Act (EPA), 1986. NGRBA was dissolved with the constitution of National Council for Rejuvenation, Protection and Management of River Ganga (referred as National Ganga Council) in 2016.

- **It now works under the control of Ministry of Water Resources, River Development and Ganga Rejuvenation.** The aim is to clean Ganga and its tributaries in a comprehensive manner.
- NMCG has a two tier management structure and comprises of Governing Council and Executive Committee. Both of them are headed by Director General, NMCG. Executive Committee has been authorized to accord approval for all projects up to Rs.1000 crore. Similar to structure at national level, State Programme Management Groups (SPMGs) acts as implementing arm of State Ganga Committees.
- The Director General(DG) of NMCG is Additional Secretary in Government of India. For effective implementation of the projects under the overall supervision of NMCG, the State Level Program Management Groups (SPMGs) are, also headed by senior officers of the concerned States.

Sources: pib.

## Putting the sun to work

A consortium of 12 Indian and British universities, including Oxford and Cambridge, has received a £7 million grant from the U.K. government to build self-sufficient solar-powered buildings in remote Indian villages. The grant is part of a **new solar project called 'SUNRISE'**.

### Key facts:

- **The programme is aimed at developing printed photovoltaic cells and new manufacturing processes which can be used to make solar energy products in India.** These will then be integrated into buildings in at least five villages of India, allowing them to harness solar power to provide their own energy and go off-grid.
- One of the key aims of the SUNRISE project for India is to provide a real-life example which proves that this technology works and that it is appropriate within communities.

- The plan is that it will encourage local industries to manufacture affordable prefabricated buildings, adapted for their environment, that can generate, store and release their own power.
- The programme is part of a project led by the Swansea University, which has plenty of experience in the field. The project is in line with the Indian government's plans to turn the country into a solar energy leader, leap-frogging fossil fuels.

Sources: the hindu.

## World Bio Fuel Day 2017

Ministry of Petroleum and Natural Gas celebrated **the World Biofuel Day 2017 on 10<sup>th</sup> August**. It aims to sensitize youths (school and college going students), farmers and other stakeholders about the benefits of biofuel and seek their involvement in Biofuel programme run by the Government.

### Government efforts in this regard:

- The government will also be coming out with the BioFuel Policy soon. The policy will taken into consideration various facets like Role of Government, Return on investment, Minimum Assurance etc.
- **Recently Ministry of Petroleum and Natural Gas has been made responsible for BioFuel Policy.** Both the Ministry of New and Renewable Energy and Ministry of Petroleum and Natural Gas will be working towards more utilisation of biofuels.

### About World Bio Fuel Day:

Every year 10th August is observed as World Bio-Fuel Day in a bid to create awareness about non fossil-fuels (Green Fuels). *On this day in 1893, Sir Rudolph Diesel (inventor of the diesel engine) for the first time successfully ran mechanical engine with Peanut Oil.* His research experiment had predicted that vegetable oil is going to replace the fossil fuels in the next century to fuel different mechanical engines. Thus to mark this extraordinary achievement, World Biofuel Day is observed every year on 10th August.



Sources: pib.

## 'Gaj Yatra' to mark World Elephant Day 2017

'Gaj Yatra', a nationwide campaign to protect elephants, was launched on the occasion of World Elephant Day. The campaign is planned to cover 12 elephant range states. The elephant is part of India's animal heritage and the Government celebrates this day to spread awareness about the conservation of the species.

- The 15 months campaign will be led by **the Wildlife Trust of India (WTI)**. The campaign aims to create awareness about elephant corridors to encourage free movement in their habitat.

### WORLD ELEPHANT DAY:

World Elephant Day is an annual global event celebrated across the world on August 12, dedicated to the preservation and protection of elephants. The goal of World Elephant Day is to create awareness about the plight of elephants and to share knowledge and positive solutions for the better care and management of captive and wild elephants.

- **African elephants are listed as "vulnerable" and Asian elephants as "endangered" in the IUCN Red List of threatened species.** As per the available population estimates, there are about 400,000 African elephants and 40,000 Asian elephants.
- World Elephant Day is celebrated to focus the attention of various stakeholders in supporting various conservation policies to help protect elephants, including improving enforcement policies to prevent illegal poaching and trade in ivory, conserving elephant habitats, providing better treatment for captive elephants and reintroducing captive elephants into sanctuaries.

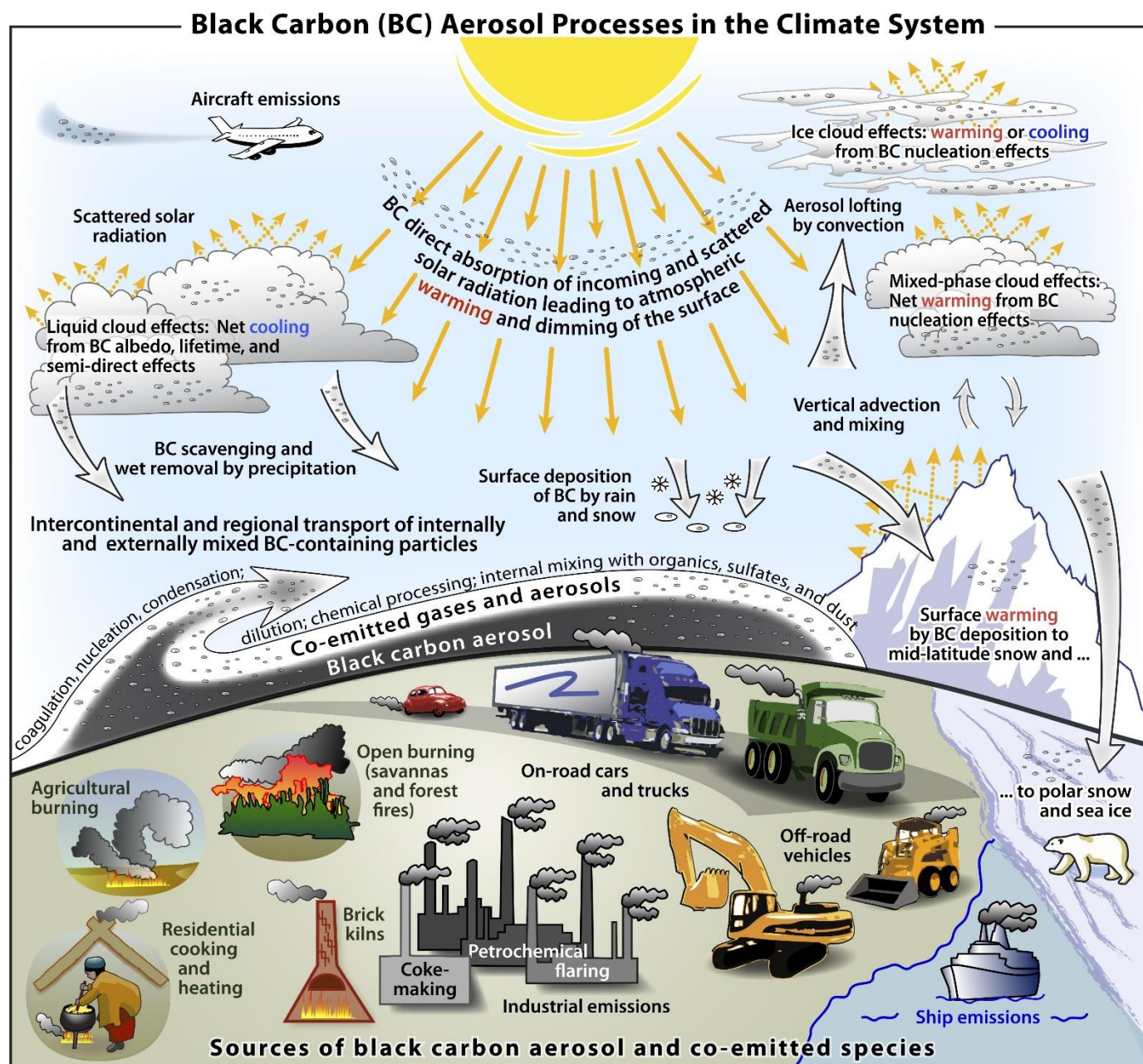
## Aeroplanes may be affecting ozone, monsoon

According to a study by researchers, Aeroplanes may be ejecting significant amounts of black carbon (BC) and this may be depleting the ozone layer. Researchers now have evidence of these particles existing up to 18 km into the stratosphere and there are about 10,000 of them in every cubic centimetre.

### How these particles affect Ozone layer?

Given the shape and location of these particles, Black Carbon could only derive from emissions from aviation fuel and they pose a problem because these black carbon particles can linger long enough to provide a fertile ground for other chemical reactions that can deplete the ozone layer.

- The stratosphere is a stable region of the atmosphere and because BC particles absorb heat, they warm the surrounding air, become lighter and rise to greater heights by a process called 'self lift' and persist in the air. The sheer volume of air travel means that the black carbon count only continues to increase.



### What is Black Carbon?

Black carbon consists of pure carbon in several linked forms. It is formed through the incomplete combustion of fossil fuels, biofuel, and biomass, and is emitted in both anthropogenic and naturally occurring soot.

Harmful effects of BC:

Black carbon (BC) is a pollutant known to aggravate breathing disorders. Because BC particles strongly absorb solar and terrestrial radiation and heats up the atmosphere it can upset the monsoon system. If deposited on snow, it could accelerate the heating of snow and quicken the melting of glaciers.

Sources: the hindu.

## India signs Global Environment Facility (GEF) Grant Agreement

A Grant Agreement from the Global Environment Facility (GEF) of the World Bank of USD 24.64 million for “Ecosystem Service Improvement Project” was recently signed between India and the World Bank. The size of Project is USD 24.64 million which entirely will be financed by the World Bank out of its GEF Trust Fund.

About Ecosystem Service Improvement Project:

Ministry of Environment, Forest and Climate Change (MoEF&CC) will implement the Project in the States of Chhattisgarh and Madhya Pradesh through Indian Council of Forestry Research & Education under the National Mission for Green India.

- The objective of the Project is **to strengthen the institutional capacity of the Departments of Forestry and Community Organisations to enhance forest ecosystem services and improve the livelihoods of forest dependent communities in Central Indian Highlands.**

Mitigation measures under the project include:

- Using only approved and safe bio-control agents and following release and documentation protocols.
- Avoiding using general bio-control agents; use host-specific ones for targeted species.
- Promoting use of bio-fertilizers and bio-pesticides.
- Ensuring that legitimate users are not denied access to resources as a result of declaration.
- Establishing village level participatory monitoring protocols and social audit arrangements for the project.
- Creating village level household beneficiary lists and identifying the most poor, farthest, marginal, and backward beneficiaries.
- Ensuring convergence for alternative employment or income for landless livestock owners during common property resources (CPR) restoration.

Sources: pib.

## Harit Diwali, Swasth Diwali

Ministry of Environment, Forest and Climate Change has launched the “**Harit Diwali, Swasth Diwali**” campaign.

- As a part of the campaign, the Environment Ministry will undertake various activities to create awareness among various stakeholders and encourage people to participate in combating air pollution.

What necessitates this move?

Diwali is an integral part of our rich tradition and a festival that embodies joy and happiness. In recent times, the pattern of celebration has changed somewhat and has got associated with excessive bursting of crackers, which contributes significantly to air and noise pollution. As a result, there has been a significant impact on the environment and health of the people.

As has been the experience in the past few years, airborne pollution has been rising above safe limits during winter in many cities. The excessive burning of crackers during Diwali aggravates the problem. The pollution levels in Delhi last year, especially post Diwali, reached such levels that the government had to declare an emergency situation, which had socio-economic consequences like closing down of schools, construction sites and power stations.

Sources: pib.

## Climate change costs India \$10 billion every year

In its recent report, a parliamentary committee has observed that extreme weather events are costing India \$9-10 billion annually and climate change is projected to impact agricultural productivity with increasing severity from 2020 to the end of the century.

### Climate change impact on agriculture:

- Productivity decrease of major crops would be marginal in the next few years but could rise to as much as 10-40% by 2100 unless farming adapts to climate change-induced changes in weather.
- Wheat, rice, oilseeds, pulses, fruits and vegetables will see reduced yields over the years, forcing farmers to either adapt to challenges of climate change or face the risk of getting poorer. Adaptation will need different cropping patterns and suitable inputs to compensate yield fluctuations.

### Food security concerns:

- By 2030, it may need 70 million tonnes more of foodgrains than the expected production in 2016-17. There may be possible decrease in yields of certain crops in traditional sown areas but an increase elsewhere due to change in weather pattern.
- Increasing food demand due to an increasing population, expanding urbanisation and rising income may require India to depend on import if it does not act on time to increase production and productivity of major food crops, pulses, oilseeds and milk by adapting to climate change.
- The ICAR-National Institute of Agricultural Economics and Policy Research has projected food demand of 345 million tonnes (MT) by 2030 – almost 30% higher than in 2011. The demand by 2030 is estimated to be 2-3 times more than that in 2011.
- Vulnerability of Indian agriculture due to vagaries associated with climate change and low adaptation capacity of majority of Indian farmers poses risk to food security of the country.

### Economic losses:

- The economic survey, in its latest mid-year report, says “estimates indicate that currently India incurs losses of about \$ 9-10 billion annually due to extreme weather events. Of these, nearly 80% losses remain uninsured”.
- The quantum of loss will increase substantially in future if one takes into account the impact of climate change on farm productivity.

### Way ahead:

Extreme weather events are not always linked to climate change but research shows that their frequency and severity is increasing and this is being increasingly read as a fallout of climate change. Though foodgrain production has increased from 259.29 MT in 2011-12 to 275.68 MT (estimated) in 2016-17, the country still needs to take multiple measures to match the projected demand of foodgrain by 2030.

Changes in approach are urgently needed. The challenge is particularly urgent for Indian agriculture where productivity for crops like rice does not compare even with neighbours like China. The possibility of a further dip due to climate change will be particularly worrying as it could turn India into a major importer of oilseeds, pulses and even milk.

Sources: toi.

| ANNUAL LOSS                              |       |
|------------------------------------------|-------|
| INDIA'S AVERAGE ANNUAL LOSS BY DISASTERS |       |
| Earthquakes                              | 19    |
| Cyclones                                 | 447   |
| Storm surge                              | 727   |
| Tsunami                                  | 1,160 |
| Flood                                    | 7,472 |
| Total                                    | 9,825 |



## 2 New Earthworm Species Found In Kerala

Scientists have discovered two new primitive species of earthworm in the Western Ghats mountain ranges in Kerala. They have named the new earthworm species **Drawida polydiverticulata** and **Drawida thomasi**.

- There had been sixteen *Drawida* species known from the state with ten of them being unique. The present discovery of two new species and five new local records further contributes to the vast species richness of the genus in Kerala.

**About Drawida polydiverticulata:**

For *Drawida polydiverticulata*, its multiple lobes, also called diverticulums – an organ located in the front of its body – are unique amongst the members of the genus. This species was found to be widespread in the protected shola grasslands of the Munnar region, including Eravikulam National Park, Pampadun Shola National Park and Chinnar Wildlife Sanctuary, researchers said.

**About Drawida thomasi:**

The second new earthworm, *Drawida thomasi*, was collected at the Kozhippara Waterfalls near Kakkadampoyil, at the border between Malappuram and Kozhikode.

**Background:**

To date, there are 73 species of the genus *Drawida* confirmed to be living in the Indian subcontinent. However, the greatest concentration (43 species) is found in the Western Ghats. The genus has an important centre of speciation in Kerala.

Sources: the hindu.

### New species of the genus Nasikabatrachus

A new species of the endemic frog genus **Nasikabatrachus** has been discovered from the eastern slopes of the Western Ghats.

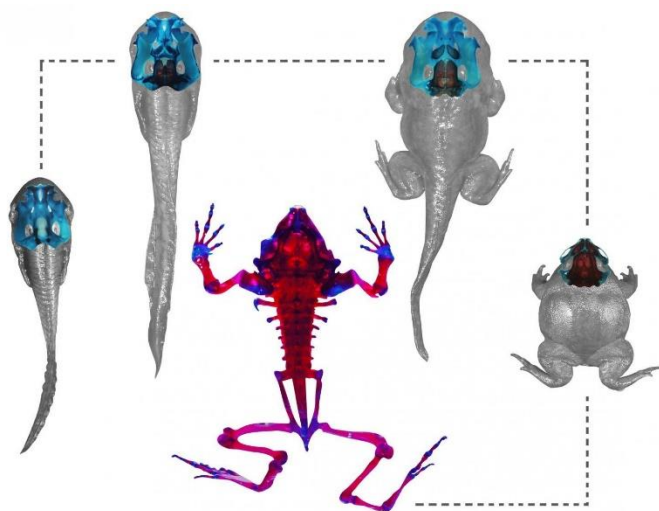
**Key facts:**

- The newly discovered frog is named ***Nasikabatrachus bhupathi***.
- It has a snout-shaped nose, just like a pig's and is a soil dwelling species of purple frog.
- It inhabits the eastern slopes of the Western Ghats, near the Srivilliputhur Grizzled Giant Squirrel Wildlife Sanctuary in Tamil Nadu.

**Significance of this discovery:**

The discovery is significant as it **constitutes additional evidence in favour of the theory of continental drift**. The frog is an inhabitant of Seychelles, and the discovery of this frog species in India suggests that the Indian subcontinent was part of the ancient landmass of Gondwana before splitting from Seychelles 65 million years ago.

Sources: the hindu.



### Moss serves as a cheap pollution monitor

As per the latest research by scientists from Japan, **delicate mosses found on rocks and trees in cities around the world can be used to measure the impact of atmospheric change** and could prove a low-cost way to monitor urban pollution.

- Researchers found that moss- the “bioindicator”- responds to pollution or drought-stress by changing shape, density or disappearing, allowing scientists to calculate atmospheric alterations.

**Significance of these findings:**

- Mosses are a common plant in all cities so this method can be used in many countries. They have a big potential to be bioindicators.
- Mosses – which generally absorb water and nutrients from their immediate environments – are often cheaper to use than other methods of environmental evaluation, and can also reflect changes to ecosystems.

About Mosses:

Mosses are small **flowerless plants** that typically grow in dense green clumps or mats, often in **damp or shady locations**. The individual plants are usually composed of simple leaves that are generally only one cell thick, attached to a stem that may be branched or unbranched and has only a limited role in conducting water and nutrients. **Although some species have conducting tissues, these are generally poorly developed and structurally different from similar tissue found in vascular plants. Mosses do not have seeds** and after fertilisation develop sporophytes with unbranched stalks topped with single capsules containing spores.

Sources: the hindu.

### NITI Aayog suggests waste to energy plants to clean up solid

The NITI Aayog has suggested setting up an authority which will take up installation of waste to energy plants in public-private partnership (PPP) mode to clean up municipal solid waste, which, it said, has become a “serious threat” to public health.

- The Aayog made the recommendations in its Three Year Action Agenda, 2017-18 to 2019-20, released recently.

Need for waste management:

Rapidly rising prosperity has resulted in generation of vast volumes of solid waste in the cities. But, Cities have been “slow to develop effective ways” to dispose municipal waste. The mountains of waste, which can now be seen in nearly all cities, have become a serious public health threat.

Proposed authority:

- **Such an authority can be called Waste to Energy Corporation of India (WECI) and placed under the housing and urban affairs ministry.**
- The WECI may set up world class waste to energy plants through PPP mode across the country.
- The authority can play a “key role in fast-tracking coverage” of waste to energy plants across 100 smart cities by 2019.

Way ahead:

As per the 2011 census, 377 million people living in 7,935 urban centres generate 1,70,000 tonnes of municipal solid waste daily. Urban local bodies spend about Rs 500 to Rs 1,500 per tonne on solid waste management. Out of this, about 60-70% is spent on the collection of waste and 20-30% on transportation but almost nothing on its treatment and disposal. The NITI Aayog said Waste to Energy is the best option to tackle the problem.

Sources: et.

### *Paper 3 Topic: Disaster and disaster management.*

### No data from China on Brahmaputra this year

Hinting at China’s responsibility for the current spate of floods across the northeastern States, India has accused Beijing of not sharing any water-related data about the Himalayan rivers in the current year.

Background:

The Brahmaputra and the Sutlej are the two major trans-border rivers that enter India directly from China. There is an existing mechanism named India-China Expert-Level mechanism started in 2006 to share hydrological data during the flood season for Brahmaputra and Satluj rivers. Under the MoUs, the hydrological data is to be shared between May 15 to October 15 every year. However, the same has not been shared this year.



Concerns:

- China's refusal so far to share the data with India this year comes amid a two-month-long stand-off between Indian and Chinese troops on the Himalayan plateau of Doklam, which is claimed by both Thimphu and Beijing. The face-off is the longest at the border between India and China in three decades.
- The breakdown of the mechanism for sharing river water data is the latest in a series of sparks threatening to set alight a carefully managed relationship that has allowed India and China to simultaneously emerge economic powerhouses despite a border dispute they once warred over.

This highlights the need for Regional cooperation to control floods.

Background:

According to the International Federation of Red Cross and Red Crescent Societies (IFRC), over 16 million people have been affected by monsoon flooding across India, Nepal and Bangladesh. This is fast becoming one of the most serious humanitarian crises this region has seen in many years and urgent action is needed to meet the growing needs of millions of people affected by these devastating floods. In India over 11 million people are affected by floods in four states across the north of the country.

Sources: the hindu.

## Ocean forecasting system unveiled

The Indian National Centre for Ocean Information Services (INCOIS) of the Ministry of Earth Sciences inaugurated the Ocean Forecasting System for Comoros, Madagascar, and Mozambique at the third Ministerial Meeting of Regional Integrated Multi-Hazard Early Warning System for Asia and Africa (RIMES), held recently at Port Moresby, Papua New Guinea.

Key facts:

- The ocean forecast and early warning information on high wave, currents, winds, tides, sub-surface ocean conditions cater to users like fishermen, coastal population, tourism sector, coastal defence officials, marine police, port authorities, research institutions and offshore industries of these countries. These ocean services are aimed towards safety at the sea.
- The system would offer oil spill advisory services, high wave alerts, port warnings, forecast along the ship routes in addition to tsunami and storm surge warnings and help in search and rescue operations.
- The INCOIS has already been providing these operational services to the Maldives, Sri Lanka and Seychelles.

Benefits for India:

- The Ocean Forecast System developed for the Indian Ocean countries and the real-time data from their territories also help to improve the ocean forecast and early warning system for the Indian coast too.
- Wave surge and coastal flooding that occurred from July 28 to August 3 in 2016 along Kerala and West Bengal were well predicted and real-time data from Seychelles were highly beneficial for predicting these incidents, as many of these remotely forced waves originated from the southern and western Indian Ocean.

Background:

The ocean forecast and early warning services were most essential for safe navigation and operations at sea and the blue economic growth of many of these Indian Ocean rim countries and island nations.

About RIMES:

The Regional Integrated Multi-Hazard Early Warning System for Africa and Asia (RIMES) is an international and intergovernmental institution, owned and managed by its Member States, for the generation and application of early warning information. RIMES provides regional early warning services and builds capacity of its Member States in the end-to-end early warning of tsunami and hydro-meteorological hazards.

Sources: the hindu.

**Paper 3 Topic:** *Security challenges and their management in border areas; linkages of organized crime with terrorism.*

### Indian Coast Guard ship 'Shaurya' commissioned in Goa

Indian Coast Guard ship "Shaurya", the fifth in the series of six 105-metre offshore patrol vessels (OPVs), was recently commissioned in Goa.

Key facts:

- The OPV, which draws 2,350 tonne and is propelled by 9100 kilowatt diesel engine, has been designed and built indigenously by Goa Shipyard Ltd and is fitted with state-of-the-art navigation and communication equipment, sensors and machineries.
- The features include 30mm CRN 91 Naval Gun, integrated bridge system, integrated machinery control system, power management system and high-power external fire fighting system.
- The ship is designed to carry one twin engine light helicopter and five high-speed boats, including two quick reaction inflatable boats for swift boarding operations, search and rescue, law enforcement and maritime patrol. The ship is also capable of carrying pollution response equipment to contain oil spill at sea.

Sources: pib.

### Commissioning of Second Ship of Landing Craft Utility MK-IV

IN LCU L52, the second ship of landing craft utility MK- IV, was recently commissioned into the Indian Navy.

Key facts:

- **IN LCU L52** is the second Landing Craft Utility (LCU) Mk-IV class to be inducted into the Indian Navy.
- The ship has been indigenously designed and built by Garden Reach Shipbuilders and Engineers, Kolkata.
- The commissioning of L-52 is yet another manifestation of the potential of the country's indigenous design and ship building capability.



Background:

**LCU MK-IV** ship is an amphibious ship with the primary role to transport and deploy Main Battle Tanks, Armoured Vehicles, troops and equipment from ship to shore. These ships would be based in the Andaman and Nicobar Command and can be deployed for multirole activities like beaching operations, search and rescue, disaster relief operations, supply and replenishment and evacuation from distant islands.

The ship is capable of transporting various kinds of combat equipment such as Main Battle Tanks Arjun, T72 and other vehicles. The ship is fitted with state-of-the-art equipment and advanced systems like Integrated Bridge System (IBS) and Integrated Platform Management System (IPMS).

Sources: pib.

**Paper 3 Topic:** *Various Security forces and agencies and their mandate.*

### Ministry of Defence approves first phase of reforms in The Armed Forces

In a first ever exercise after Independence, the Ministry of Defence in consultation with the Indian Army has decided to reform the Indian Army in a planned manner. These decisions were approved by the Defence Minister Shri Arun Jaitley after an extensive consultation with all stakeholders.

- The purpose of reforms is to enhance combat capability and also optimize and rebalance defence expenditure of Indian Army.

Background:

The Ministry of Defence had constituted a Committee of Experts under the Chairmanship of Lt Gen (Retd) DB Shekatkar with a mandate to recommend measures for enhancing of Combat Capability & Rebalancing Defence Expenditure of the Armed Forces with an aim to increase “teeth to tail ratio”. The Committee of experts had submitted its report to the Ministry in December, 2016, which was considered by the Ministry of Defence.

Major reforms concerning the following have been approved:

**Optimisation of Signals Establishments** to include Radio Monitoring Companies, Corps Air Support Signal Regiments, Air Formation Signal Regiments, Composite Signal Regiments and merger of Corps Operating and Engineering Signal Regiments.

**Restructuring of repair echelons** in the Army to include Base Workshops, Advance Base Workshops and Static/Station Workshops in the field Army.

**Redeployment of Ordnance echelons** to include Vehicle Depots, Ordnance Depots and Central Ordnance Depots apart from streamlining inventory control mechanisms.

**Others:** Better utilization of Supply and Transport echelons and Animal Transport units. Closure of Military Farms and Army postal establishments in peace locations. Enhancement in standards for recruitment of clerical staff and drivers in the Army. Improving the efficiency of the National Cadet Corps.

Sources: pib.

***Paper 3 Topic:** Challenges to internal security through communication networks, role of media and social networking sites in internal security challenges, basics of cyber security; money-laundering and its prevention.*

### Justice BN Srikrishna to head Committee for data protection framework

Justice B N Srikrishna, former judge of the Supreme Court of India will head a Committee of experts which has been formed to deliberate on a data protection framework for the country.

Key facts:

- The government led ten-member committee will “identify key data protection issues in India and recommend methods of addressing them.”
- The terms of reference of the committee include, “To make specific suggestions for consideration of the Central Government on principles to be considered for data protection in India and suggest a draft data protection bill.”

Need for data protection:

There is a need to ensure growth of the digital economy while keeping personal data of citizens secure and protected. Even though the Information Technology Act contains certain provisions about data protection and handling, experts are of the opinion that India needs a fresh data protection law with the increased digitisation led by Aadhaar, the Goods and Service Tax and the push towards a digital economy. IT Act may also be inadequate to deal with the current requirements since it was drafted almost 17 years ago in 2000 and was amended last in 2008.

Also, in the last 5-6 years there has been a quantum leap in the world of technology which has been driven by trends such as proliferation of social media, growth of ecommerce leading to boom in transactions over the Internet and demonetisation, which has pushed more people into the digital economy, so the IT act may have to be obviously reconsidered in the light of these developments.

Sources: et.

### Centre extends Assam’s ‘disturbed area’ tag for another month under AFSPA

The Centre has extended the **Armed Forces (Special Powers) Act (AFSPA)** in Assam for one more month, declaring the entire state of Assam as a “disturbed” area due to various violent activities by insurgent groups ULFA, NDFB, and others.

- The Union home ministry has also declared Meghalaya's border areas adjoining Assam, and three districts in Arunachal Pradesh as "disturbed" under the AFSPA for two more months with effect from August 3.

#### What is AFSPA?

AFSPA, enacted in 1958, gives powers to the army and state and central police forces to shoot to kill, search houses and destroy any property that is "likely" to be used by insurgents in areas declared as "disturbed" by the home ministry.

- The Act provides army personnel with safeguards against malicious, vindictive and frivolous prosecution.
- Security forces can "arrest without warrant" a person, who has committed or even "about to commit a cognizable offence" even on "reasonable suspicion".

#### What are 'disturbed' areas?

The state or central government considers those areas as 'disturbed' "by reason of differences or disputes between members of different religious, racial, language or regional groups or castes or communities.

#### How is a region declared 'disturbed'?

Section (3) of the Afspa empowers the governor of the state or Union territory to issue an official notification in The Gazette of India, following which the Centre has the authority to send in armed forces for civilian aid. Once declared 'disturbed', the region has to maintain status quo for a minimum of three months, according to The Disturbed Areas (Special Courts) Act, 1976."

Sources: the hindu.

## Cyber Coordination Centre made operational

The first phase of **National Cyber Coordination Centre**, set up to scan the country's web traffic to detect cyber security threats, has been made operational now.

### THE CONCEPT OF NCS ORGANIZATION STRUCTURE



- ❑ The Concept of Indonesia NCS organization structure consists of multi-organization.
- ❑ INCS organization contains of skilled, proficient, and experienced employees with prosperous information security knowledge inside their parts of specialization.

#### About NCCC:

- NCCC, a multi-stakeholder body, will be implemented by Indian Computer Emergency Response Team (CERT-In) at Ministry of Electronics and Information Technology.
- NCCC scans internet traffic coming into the country to detect real-time cyber threat and alert various organisations as well as internet service providers for timely action.
- The Centre will scan the cyberspace in the country for cyber security threats at metadata level to generate situational awareness.
- The Centre derives necessary powers as per provisions of section 69B of the Information Technology Act, 2000 and the Rules notified thereunder.

## Authorised joint secretary can order suspension of telecom services

The Temporary Suspension of Telecom Services (Public Emergency and Public Safety) Rules, 2017 have been notified by the government.

### Background:

The government often suspends telecom services in disturbed areas with an aim to maintain law and order. However, no comprehensive guidelines were in place to deal with such situations. This had created confusion among the law enforcing agencies.

### Important guidelines:

- It authorises **Union and state home secretary to order suspension of telecom services** in a given area in case of emergency.
- Under unavoidable circumstances, where obtaining of prior direction is not feasible, such order may be issued by an officer, not below the rank of a joint secretary to the Government of India, who has been duly authorised by the Union home secretary or the state home secretary.
- The order issued by officer authorised by either Union or state home secretary will have to be approved from the competent authority within 24 hours of such issuance and in failure of approval confirmation, the suspension order will cease to exist.
- According to the rules, a copy of any order issued for suspension of telecom services needs to be forwarded to a three-member review committee within 24 hours along with the reason.
- In the case of centre, the committee will be chaired by the Cabinet secretary and the state level review committee will be headed by chief secretary of the state.
- The new rules make it binding for the committee to meet and review the order within five working days from the date the order is issued.
- The rules also laid down that the order for suspension of telecom services will have to be communicated by an officer not below the superintendent of police or of equivalent rank in writing or by secure electronic communication to an authorised officer.

Sources: the hindu.

## MasterCard mulls using blockchain tech

Mastercard is working on a network that can incorporate the benefits of blockchain technology while meeting the requirements of a globally distributed financial network. In this regard, it has asked for a clear regulatory framework in India that lays down what blockchain can be used for.

- This platform will support a wide range of use cases, including but not exclusive to B2B inter-bank payments, tracking trade finance obligations along the value chain, exchanging KYC (Know Your Customer) or AML (Anti Money Laundering) data between trusted parties, and more.

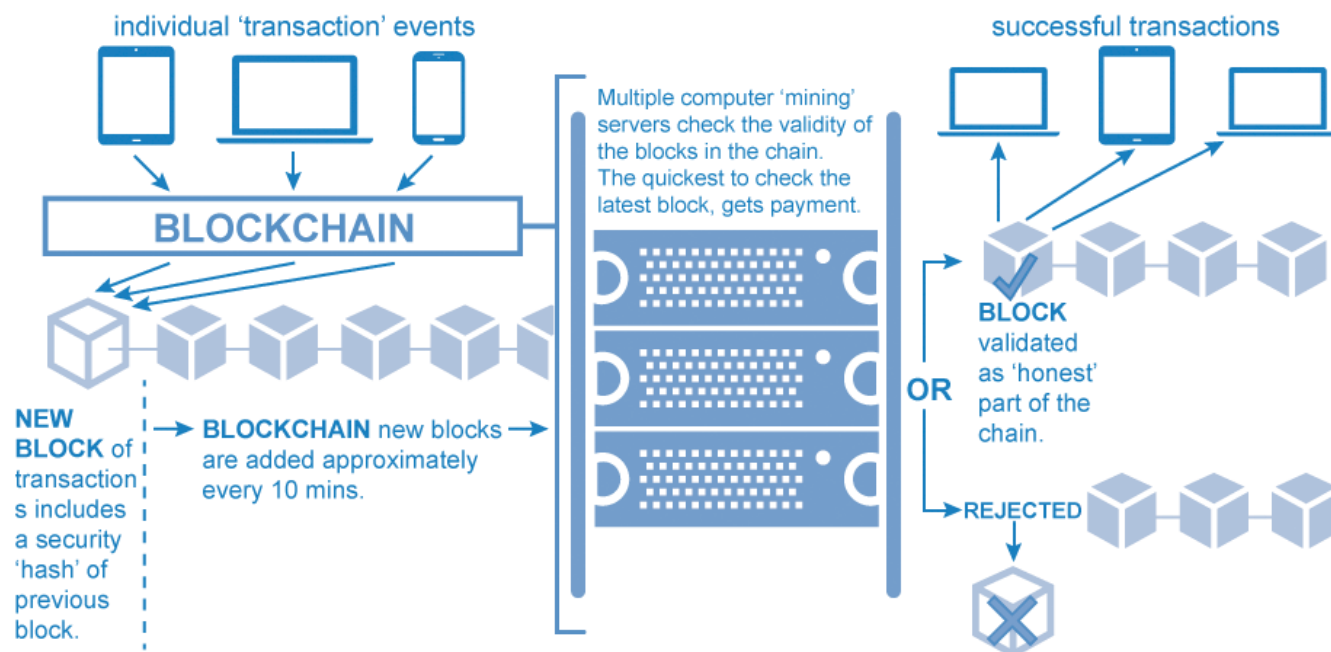
### Attempts to regulate the technology:

In India, an inter-ministerial committee is currently looking at how best to regulate blockchain technology, if it is allowed at all. One of the proposals is **to bring it under market regulator Securities and Exchange Board of India (SEBI)**.

Another option is **bringing blockchain regulation under the proposed Payments Regulatory Board in the Reserve Bank of India**. The Board is to have three members each from the central bank and the Centre.

### About Blockchain technology:

Blockchain is an emerging technology. Blockchain is the technology behind crypto-currency such as Bitcoin, which is a purely electronic currency that can also be traded on exchanges. **A blockchain is an anonymous online ledger that uses data structure to simplify the way we transact.** Blockchain allows users to manipulate the ledger in a secure way without the help of a third party.



### How it works?

Blockchain enables two entities that do not know each other to agree that something is true without the need of a third party. As opposed to writing entries into a single sheet of paper, a blockchain is a distributed database that takes a number of inputs and places them into a block. Each block is then 'chained' to the next block using a cryptographic signature. This allows blockchains to be used as a ledger which is accessible by anyone with permission to do so. If everyone in the process is pre-selected, the ledger is termed 'permissioned'. If the process is open to the whole world, the ledger is called unpermissioned.

### Benefits of blockchain technology:

A blockchain is **anonymous, protecting the identities of the users**. This makes blockchain a more secure way to carry out transactions. The algorithm used in blockchain reduces **the dependence on people to verify the transactions**.

### Where can it be used?

Use of blockchain technology is not limited to the financial sector. It is being used in many other areas. For example, Honduras government has put all land records on a public ledger – the blockchain. The minute there is a change in ownership, it gets recorded publicly. The Australian Securities Exchange (ASX) announced this year that it would move Australia's equities clearing and settlement system on to blockchain.

### Concerns:

The fact that some blockchain technologies like Bitcoin have recently been associated with **ransomware attacks** means that **regulation must be even more careful** when legislating the use of these technologies.

This technology used for recording various transactions has **the potential to disrupt the financial system**.

Sources: the hindu.

## Assam, Manipur can now decide on AFSPA

The Union Home Ministry is set to give up its power to impose the 'disturbed areas' tag on Assam and Manipur. The move effectively means it will be the States' decision to either continue the Armed Forces (Special Powers) Act (AFSPA) or revoke it.

- It would be the first time since 1990 — when the AFSPA was first invoked in Assam — that the Centre would give up its power to continue or discontinue it.

### What is AFSPA?

AFSPA, enacted in 1958, gives powers to the army and state and central police forces to shoot to kill, search houses and destroy any property that is "likely" to be used by insurgents in areas declared as "disturbed" by the home ministry.

- The Act provides army personnel with safeguards against malicious, vindictive and frivolous prosecution.
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Sources: the hindu.

## WHAT IS AFSPA?

The Armed Forces (Special Powers) Act (AFSPA), was passed on September 11, 1958, by the Parliament of India. It grants special powers to the armed forces in what the act terms as "disturbed areas" in the states of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland and Tripura. It was later extended to Jammu and Kashmir as The Armed Forces (Jammu and Kashmir) Special Powers Act, 1990 in July 1990.



## Union Home Minister launches the Digital Police Portal under CCTNS project

A digital police portal under the CCTNS project, which aims to create a national database of crimes and criminals, was recently launched by Home Minister Rajnath Singh.

### Significance of the Digital Police Portal:

The Digital Police Portal will enable citizens to register FIRs online and the portal will initially offer seven Public Delivery Services in 34 States & UTs, like Person and Address Verification e.g. of employees, tenants, nurses etc, permission for hosting Public Events, Lost & Found Articles and Vehicle theft etc. Besides, the portal will enable restricted access to law enforcement agencies on topics such as Antecedent Verification and make assessment of FIRs.

**The police portal will provide 11 searches and 46 reports from the national database for state police and central investigation agencies.** Central investigating and research agencies have also been provided logins to the digital police database to access crime statistics.

### CCTNS – Benefits to Police

- Enhanced Tools for investigation
- Centralized Crime and Criminal information Repository
- Advanced Search Capabilities
- Crime Pattern & Modus Operandi Analysis
- Accidents & other Incidents Analysis
- Faster Turnaround Time
- Reduced Police station Workload
- Enhanced tools to Optimize Resource Allocation
- Collaborative Knowledge-Oriented Environment
- Coordination & Communication with External Stakeholders

About CCTNS:

The **CCTNS project will interconnect about 15,398 police stations and additional 5,000 offices of supervisory police officers across the country and digitise data related to FIR registration, investigation and charge-sheets in all police stations.** This would lead to development of a national database of crimes and criminals.

- The CCTNS will facilitate pan-India search on complete national crime and criminal database that is accessible to the investigating officers throughout the country.
- CCTNS is a Mission Mode Project (MMP) under the National e-Governance Plan of Govt. of India.
- In 2015, an additional objective of establishing a basic platform for **an Inter-operable Criminal Justice System (ICJS)** was added to the Project.
- The project has been extended by the government for one year till March 2018. The one-year extension will help the government to comprehensively achieve the remaining goals of the CCTNS.

Sources: pib.

### RBI panel seeks rights-based data privacy in household finance

A Reserve Bank of India panel has sought **rights- based privacy in household finance than the widely prevalent consent- based approach.**

- This was suggested by the Household Finance Committee of the central bank. The panel was set up following discussions in a sub-committee of Financial Stability and Development Council on April 26 last year.

Need for rights- based privacy:

Technological advances like machine learning and big data have changed the ways in which data is processed and as a result, have made consent a less-than- effective tool to protect personal privacy. Therefore, it is imperative to deploy an alternative system to protect data privacy.

Concerns expressed by the panel:

**Lack of formal legal framework for data protection:** All financial technology solutions require the use of households' personal information, a form of wealth in itself. The panel is "worried" because the country lacks a formal legal framework for data protection.

**Absence of legal framework:** There is no formal privacy statute and the closest thing to a formal privacy law is in the rules enacted under Section 43A of the IT Act of 2000 that spell out, in general terms, privacy obligations that apply to anyone who collects and processes sensitive personal data. Continued lack of clear privacy regulations presents an ever-increasing risk to personal privacy.

Important recommendations:

**Technically skilled intermediaries:** The new law should create a class of technically skilled intermediaries authorised to review algorithms that process personal data to evaluate whether the data is being processed in a privacy-neutral manner.

**Data commissioners:** The new privacy framework should contemplate the creation of a Data Commissioner who shall be responsible for redress of grievances as well as for establishment of standards of accountability and transparency.

Steps to ensure accountability and boost transparency:

- Data controllers (financial firms) will be responsible for ensuring accountability, transparency, non-discrimination and data security while processing data. They will be held accountable for any breach.
- There should be a mandatory catastrophe insurance with automatically triggered pay-out in zones with high natural disasters like floods and earthquakes risks. This was the only mandatory suggestion made by the panel.
- The panel also suggested a set of standardised norms across regulators for financial advice, supported with a fiduciary standard for financial advisers.

Sources: et.

## Facts for Prelims

### Coconut palm declared State tree of Goa

The Goa state government has decided to include coconut palm as a tree in the Goa, Daman and Diu Preservation of Trees Act, 1984, to regulate felling of coconut trees under the act. The cabinet has also resolved to declare the coconut tree as the “state tree”.