

TODAY NEW PAPER ANALYSIS

Talanoa Dialogue

- Enhancing climate action every five years, informed by periodical progress and identifying new opportunities for action, is a fundamental premise of the Paris Agreement on climate change.
- The 2018 facilitative dialogue for stocktaking exercises on climate change is called the Talanoa Dialogue.
- The dialogue will assess global progress towards meeting the Paris long-term goals.
- It will also highlight opportunities to step up action, and help spur countries to move forward on enhancing their nationally determined contributions (NDCs) by 2020.
- This dialogue will be launched as a pivotal change, with a new momentum to drive the investment and action needed to achieve a climate resilient future.

India's State Action plan on Climate Change

- India's State Action Plan on Climate Change is implemented by Ministry of Environment, Forest and Climate change.
- It supports the integration of national climate change goals into subnational policies.
- India has committed to meet its current target of 33% reduction in emission intensity of the 2005 level by 2030, by generating 40% of its energy from renewables.
- States are important for the realisation of this goal and they are considered as Sub national modules.
- The Under2Coalition, a MoU by subnational governments to reduce their greenhouse gas (GHG) emissions towards net-zero by 2050, is generating a unique precedent for bold climate leadership, with its member states and regions surpassing 200 in number.
- Currently, Telangana and Chhattisgarh are signatories to this pact from India.

ISRO's 100th satellite

- India is likely to launch ISRO's its indigenously built 100th satellite along with 30 others in a single mission.
- 31 spacecrafts, including weather observation Cartosat-2 series satellite, will be launched by PSLV-C40
- Cartosats are earth observation satellites indigenously build in India.
- It will be launched from the first launch pad of the SatishDhawan Space Centre at Sriharikota.

1st PIO Parliamentary Conference

- The 1st PIO(Persons of Indian Origin) Parliamentary Conference was held in New Delhi.
- This conference was hosted by the Ministry of External affairs.
- PIOs are honoured through this conference as have an important position in the Action Agenda till 2020, drafted by the NITI Aayog.
- Parliamentarians of Indian Origin from over 20 Democracies of the World gathered to share Parliamentary best practices and mutually enrich each other with their experiences.

Equal pay at workplace

- Iceland becomes the first country to legalise equal pay at workplace
- Iceland imposed a new law under which all kinds of firms will have to prove that they pay equally to all their employees, irrespective of gender

Akash Missile

- Recently Indian army planned to procure Akash Missiles.
- Akash was developed by the Defence Research and Development Organisation (DRDO) as part of the Integrated Guided Missile Development Programme.
- It is indigenously developed short-range surface-to-air missile (SR SAM) with a range of 25 km.
- It can simultaneously engage multiple targets in all weather conditions and has a large operational envelope from a low altitude of 30 metres to a maximum of up to 20 km.

Source: Business Line, PIB, the Hindu

Paper 1:

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

Madhubani paintings



Context:

The folk painting of Madhubani will soon be seen decorating the walls of various government buildings in Bihar, the eastern Indian state where the art hails from. The idea behind painting the town in Madhubani is to give visitors a firsthand experience of how the paintings are blended with the region's culture.

About Madhubani paintings:

Madhubani, which means 'forest of honey', is a style of folk painting old enough to find mention in some of the ancient Indian texts like the holy Ramayana. It is also known as Mithila, for its origin is said to be the Mithila region in Bihar.

- Traditionally, the Madhubani paintings are created using fingers and twigs, and items like matchsticks have come to be used in their creation in recent times.
- Their various styles include Bharni, Katchni, Tantrik, Godna, and Kohbar, which would historically be painted only by women from the upper

strata in the caste system, who would make them on mud walls on special occasions.

- The norms have now changed and the paintings can be enjoyed by anyone and in various forms. Madhubani is now found on apparel, paper, canvas, and other products, which boast of designs inspired by Hindu deities such as Krishna, Rama, Lakshmi, Shiva, Durga, Saraswati, all of whom have been painted in Madhubani since ancient times. Other subjects of Madhubani paintings include peacocks, fish and human connection with nature.

Topic: Role of women and women's organization, population and associated issues.

Haryana becomes first state to launch High Risk Pregnancy portal

Haryana has achieved the distinction of becoming the first state in the country to launch High Risk Pregnancy (HRP) Portal. The Union ministry of health and family welfare and Niti Ayog have acknowledged the portal as a good practice to be implemented.

About the HRP portal:

What is it? This innovative web application has been designed to track every high risk pregnant woman till 42 days after delivery, so that she receives adequate treatment during the ante-natal period for healthy outcome of pregnancy. This portal not only helps in early identification of high-risk pregnant cases up to the grass-roots level but also ensures their timely referral to the civil hospitals for further management and delivery by specialists.

Background: The High Risk Pregnancy Policy has been implemented across the state since November, 2017, for identifying 100 per cent name-based high-risk pregnancy cases, and ensuring their delivery by specialists at civil hospitals. This initiative is aimed at increasing the pace of decline in Maternal Mortality Rate (MMR), Infant Mortality Rate (IMR) and Still Birth Incidence as morbidity and mortality is quite high in high risk pregnant cases.

Facts for Prelims:

Birth companion strategy: Haryana is also implementing birth companion strategy under which one female attendant would be allowed during delivery in the labour room. The presence of a female birth companion during delivery is a step towards improving the quality of care in labour rooms for improving the maternal and neo-natal outcome and for respectful maternity care.

Paper 2:

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

The Committee for the Purpose of Control and Supervision of Experiments on Animals (CPCSEA)

CPCSEA Functions

- Inspection & Approval of Animal House Facilities
- Registration of Institutional Animal Ethics Committee (IAEC) for animal experiments or breeding
- Appointment of CPCSEA nominees in IAECs
- Permission for experiments on large animal
- Inspection & prohibition of experiments, if violations
- Action against establishments, if non-compliance

Context:

A one-day National Conference on Welfare of Laboratory Animals was recently organised by CPCSEA, Ministry of Environment, Forest and Climate Change, with the theme of “Implementation of 3Rs (Replacement, Reduction and Refinement) while using animals in academic research and regulatory testing in India.

The conference laid emphasis on the issue of ethical use of animals in academics and regulatory testing in India. The discussions were focussed on evaluating the possibilities of exemption of animal experiments in academics and regulatory testing.

About CPCSEA:

What is it? The Committee for the Purpose of Control and Supervision of Experiments on Animals(CPCSEA) is a statutory Committee, which is established under Section 15(1) of the Prevention of Cruelty to Animals Act 1960. All establishments engaged in research and education involving animals, are required to comply with the various guidelines, norms and stipulations set out by CPCSEA.

Background: India is one of the pioneering countries to institute Prevention of Cruelty to Animals Act in 1960 whereas such Act was instituted in France in 1963 and in USA in 1966. The detailed rules for experimentation on animals were first enacted by the Ministry of Agriculture in 1968 and were implemented by CPCSEA.

The main functions of CPCSEA are:

- Registration of establishments conducting animal experimentation or breeding of animals for this purpose.
- Selection and appointment of nominees in the Institutional Animal Ethics Committees of registered establishments.
- Approval of Animal House Facilities on the basis of reports of inspections conducted by CPCSEA.
- Permission for conducting experiments involving use of animals.
- Recommendation for import of animals for use in experiments.
- Action against establishments in case of violation of any legal norm/stipulation.

Sources: pib.

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

[No viable alternative to hanging, Centre tells court](#)



Context: Considering the “dynamic progress” made in modern science to adopt painless methods of causing death, the court had asked the government to explore viable methods other than hanging to execute condemned prisoners.

Centre’s response:

The centre has said that there is no viable method at present other than hanging to execute condemned prisoners.

Need for review:

The court has favoured a re-look at the practice of hanging to death as “the Constitution of India is an organic and compassionate document which recognises the sanctity of flexibility of law as situations change with the flux of time”. The court notes that a condemned convict should die in peace and not in pain. A human being is entitled to dignity even in death.

Also, execution was not only “barbaric, inhuman and cruel”, but also against the resolutions adopted by the United Nations Economic and Social Council (ECOSOC).

Background:

The court is hearing a writ petition which has sought the court’s intervention to reduce the suffering of condemned prisoners at the time of death. The petitioner notes that a convict should not be compelled to suffer at the time of termination of his or her life. When a man is hanged to death, his dignity is destroyed, the petition says.

The petitioner has also referred to Article 21 (Right to Life) of the Constitution and said it also included the right of a condemned prisoner to have a dignified mode of execution so that death becomes less painful.

Constitutionality of death penalty:

Constitutionality of death penalty has been well-settled by the apex court, including in Deena versus Union of India and earlier in the Bachan Singh case reported in 1980. Section 354 (5), which mandates death by hanging, of the Code of Criminal Procedure has already been upheld.

Law commission's observations:

The Law Commission in its 187th Report had noted that there was a significant increase in the number of countries where hanging has been abolished and substituted by electrocution, shooting or lethal injection as the method of execution. It had categorically opined that hanging is undoubtedly accompanied by intense physical torture and pain.

Alternatives:

The present procedure can be replaced with intravenous lethal injection, shooting, electrocution or gas chamber in which death is just a matter of minutes. While in hanging, the entire execution process takes over 40 minutes to declare prisoner to be dead, the shooting process involves not more than few minutes. In case of intravenous lethal injection, it is all over in 5 minutes.

Paper 3:

Topic: Conservation, environmental pollution and degradation, environmental impact assessment.

Microbeads ban takes effect

Context: A UK-wide ban on the manufacture of products containing microbeads has come into force on 9 January. Manufacturers can no longer add tiny pieces of plastic to wash-off cosmetic and personal care products (such as exfoliating scrubs, shower gels and toothpaste).

Exemption: However, this isn't a complete ban – 'leave-on' products (such as sunscreen and makeup) will still be allowed to contain microbeads following the cosmetic industry's resistance.

What are microbeads?

In a nutshell, microbeads are tiny pieces of plastic found in many beauty products, such as exfoliating scrubs, toothpastes and more.

Why are microbeads bad for the environment?

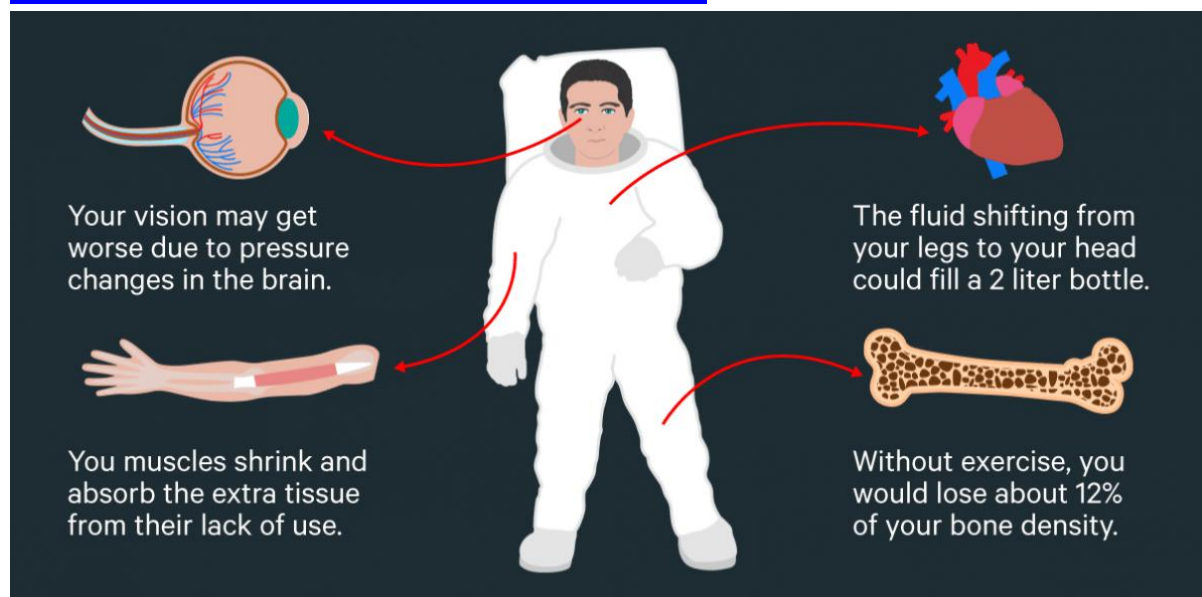
Evidence has shown that microbeads can find their way from your bathroom to the sea. Trillions of tiny pieces of plastic are accumulating in the world's oceans, lakes and estuaries, harming marine life and entering the food chain.

Where else are they banned?

The United States passed the Microbead-Free Waters Act of 2015, which required companies to stop using microbeads in beauty and health products by July 2017, and Canada's ban on manufacturing the pellets took effect at the beginning of this year. New Zealand's ban on microbeads is to take effect in June. Several countries in the European Union have campaigned for a similar ban.

Topic: Awareness in the fields of IT, Space.

What happens to the human body in space?



Context:

Space is a dangerous and unforgiving place, and spending time away from gravity takes its toll on the human body, as many astronauts have found out after returning to Earth.

Recently, Japanese astronaut Norishige Kanai announced that he had stretched a staggering 9cm (3.5in) in just three weeks onboard the International Space Station (ISS). However, he later admitted he had miscalculated the figure and it was actually just 2cm (0.9in), but significant height changes are actually normal for astronauts spending time in space.

Why do they stretch?

The effect happens as the astronauts' spines stretch out, because of the reduced gravity on board the floating lab. Because the vertebrae aren't being pushed together as much as they are on Earth, they are able to float apart and lead to the strange stretching phenomenon. They shrink back down to their usual size once back on Earth and affected by its gravity.

Health issues for astronauts to overcome:

- Living in isolation and confinement can cause behavioural and psychological issues. Without a natural body clock, depression and sleep disorders can develop. The space station uses LED technology to imitate light on Earth to improve body rhythms.
- Radiation exposure is far higher in space than it is on Earth. Without the shielding of Earth, you could be more at risk of cancer and damage to the nervous system. Space radiation can also cause sickness and fatigue. The ISS sits just within the protective field on Earth to reduce risks, but missions further afield will need to overcome this.

Facts for Prelims:

Ancient Rock Art in India Is Oldest Depiction of Supernova:

Scientists in India have discovered rock art that appears to depict a supernova and the surrounding stars, buried inside the wall of an ancient dwelling place.

Thought to date from 3,600 BC, the carving would be the oldest-known depiction of such a cosmic event.

Where was it found? The carving was found in the Burzahama region in Kashmir, India.

NEW, A PAPER ANALYSIS

1. Playing of national anthem in cinema halls made optional

{Gs-2 Social Justice, Polity}

A matter of choice

The Supreme Court on Tuesday reversed a ruling that ordered the national anthem to be played before movie screenings while the audiences stood up. Further clarity on the issue will emerge after six months following a report from a committee

Sallent features

- Theaters can choose whether to play the national anthem or not

- If theaters play the national anthem, the audience will have to stand up

- Exemption granted earlier to disabled

persons will remain in force

- A 12-member inter-ministerial committee has been established to recommend further actions

- The panel will submit its report within six months, after which the guidelines may get updated



- It is optional for cinema halls to play the 52-second national anthem before every show
- The Court left the Choice of whether to play the anthem or not to the discretion of individual cinema hall owners
- The Court clarified that the exception granted to the disabled person "Shall remain in force on all occasions "
- Playing the of the Anthem is directive ,but showing respect is mandatory

The court took note of its judgment in the Bijoe Emmanuel versus State of Kerala, which dealt with three children belonging to the Jehovah Witnesses sect who refused to sing the anthem in the school assembly though they stood up in respect, to drive home the point that standing up was a sign of "proper respect" to the anthem. "Proper respect is shown to the National Anthem by standing up when the National Anthem is sung," the Bench quoted Justice O. Chinnappa Reddy's words in the verdict.

Back ground : in past

- Supreme Court has mandated that it is mandatory to **play National Anthem in cinema halls at the beginning of the movie and all those present in the cinema hall should stand up as a mark of respect.** There use to be a similar kind of practice earlier when at the end of the movie National Anthem was played. This practice was discontinued about 40 years ago because of some disrespect showed by some people in the cinema hall towards National Anthem.
- The Supreme Court judgement is welcomed by all political parties. Maharashtra in 2002 framed rules and laws that the National Anthem will be played in all movie halls. Tamil Nadu had also a similar kind of a law.

Observation on the issue

- There are two observations to make. One is that the people in the country respect National Anthem. People stand up spontaneously when the moment National Anthem is sung.
- **During the Chinese aggression it was made compulsory for all cinema halls to play National Anthem** and the National Flag will be displayed which was done for a purpose. During that time the emotions were aroused and the **government wanted to inculcate the patriotic feelings.**
- If the younger generation has been oblivious about national symbols then the fault lies elsewhere. This problem can't be solved by insisting in cinema theatres to sing National Anthem. One can't say if we don't play National Anthem in the cinema theatres we will become less patriotic or less nationalistic.
- There is no empirical evidence to show that people have become less nationalistic or less patriotic. Whenever nation faces a crisis people rise as one man and defends the nation as we have seen in these many years. This shows people are patriotic.

What the Constitution says?

- **Article 51A of the Constitution says that the citizen must show respect to the constitution, National Flag, National Anthem and so on.**
- Constitution says the citizens should respect National Anthem. **There is no law which compels the citizens to sing National Anthem.** There is no clarity under what rule or law the Supreme Court has given this direction. Article 51A is not judicially enforceable, these are the duties laid down for citizens.
- The **1986 judgement by Justice O. Chinnappa Reddy and Justice M.M Dutt** had observed that **"there is no provision of law which obliges any one to sing National Anthem and our tradition,**

philosophy and constitution teaches and preaches tolerance. So let's not dilute it."

What the Critics say?

- This is the domain of the executive and the legislature and not of the Supreme Court.
- Many have called this as the **judicial overreach**. The question remains is what if a person can't sing due to some reasons or a person is dumb.
- Under Article 142 the Supreme Court decrees and orders are enforceable throughout the country but those are in respect of a cause or matter which comes up for the Supreme Court. There are doubts whether this particular order comes under that category.
- **People have inherent feeling and respect for national symbols, that's the reasons people spontaneously stand up whenever National Anthem is sung.** No one should be enforced or compelled to do that and respect should come within.
- Former Attorney-General of India Soli Sorabjee has also said he doesn't agree with Supreme Court order.
- The Supreme Court used an expression "**Constitutional Patriotism**" but patriotism cannot be constitutional. Patriotism is something which is belongingness to a particular nation, an inherent feeling within the citizen of the country.
- Compulsion from an outside source will create certain feelings and adverse reaction which is not good.
- Our founding fathers of constitution were aware and that is why they also observed that the respect for the nation and its symbols should not be enforced by the state.

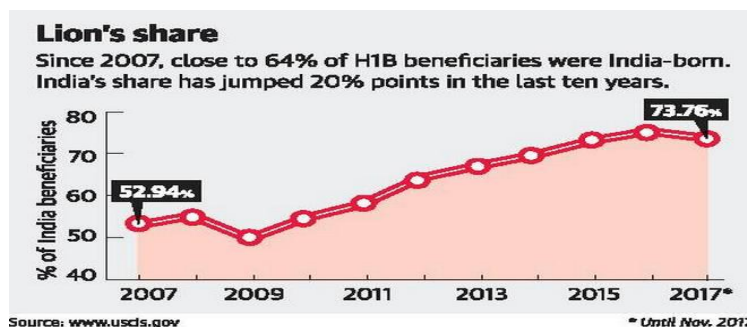
Need of the Hour

- The moral values and the national pride is not the obligation of only the armed forces, this is the fundamental duty of all citizens. The Children in the country should be taught lessons in nationalism and patriotism right from the beginning.
- Right from childhood we should inculcate in the minds of our children respect to the great National symbols. **If the nation doesn't exist, we don't exist.** These symbols are the symbols of sovereignty and honor of the nation. Every citizen has the right to uphold it and respect it and that is the reason it has been mentioned in the constitution under Article 51A.

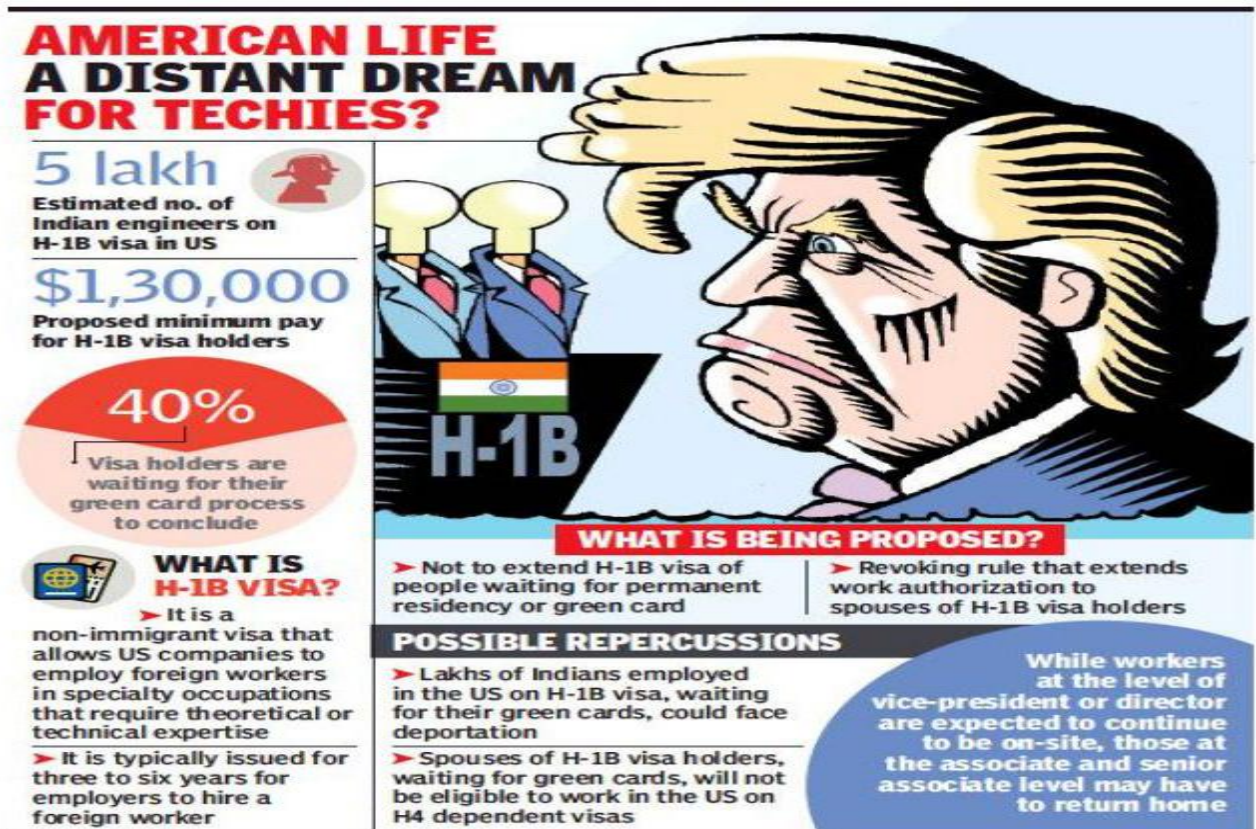
One can presume that the Supreme Court order when analyzed and interpreted it may lead to some kind of change in the way children are taught in schools and the need to inculcate these values right from the beginning of school days. If we do this certainly we will have a generation growing up respecting the great symbols.

The order created major controversy as people who did not sing the anthem were roughed up by so-called nationalists.

2 .No change in H-1B rules: U.S **{ GS-2 International Relation }**



Back ground



With a hard stance on immigration, the High-Skilled Integrity and Fairness Act of 2017 that will overhaul the popular H1B and L1 visas has been tabled in the US Congress. This reform bill, if passed, would mean significant changes in the way the H1B visas are granted to companies and allocated to employees by them. Some of the worst hit by the new H1B bill will be Indian companies such as Infosys, TCS, and Wipro, as well as US tech giants like Apple, Facebook and Google, who use the H1B visa to fill positions that cannot be filled by American workers.

What is H1B visa?

The H1B visa is a non-immigrant visa that allows companies to employ foreigners for a period of up to six years. This visa is aimed at helping companies employ foreigners in positions for which they have been unable to find American employees. The minimum salary for an employee holding the H1B visa is set at \$60,000 per year. H1B visa

holders are allowed to apply for permanent residency in the US as well as buy or sell property in the country.

Why is H1B visa programme criticised?

The aim of the H1B visa programme was to supplement the US workforce with high-skilled workers to do jobs that Americans are not skilled to do, not to replace the US workers. But over time, there have been many grumblings that many companies use the H1B visa to replace American workers with foreign ones, as the latter can be hired at lower salaries without compromising on the skill sets. In some cases, American employees have alleged that they were made to train H1B holders to do their own jobs, and then fired.

What does the new H1B reform bill propose?

- The new H1B visa reform bill proposes a radical overhaul of the process, increasing the minimum salary for visa holders to be \$130,000, more than double the current minimum. This would mean that companies would have to either pay rather highly for the skilled workers, or not choose foreign employees in favour of American citizens.
- The new visa reform bill also eliminates the category of lowest pay, and raises the salary level at which H1B dependent employer are exempt from non-displacement and recruitment attestation requirements to greater than \$130,000.
- The H1B visa bill removes the 'per country' cap for employment-based immigrant visas.
- It sets aside 20% of the annually allocated H1B visas for small companies and startup employers (50 or fewer employers) to ensure small businesses have an opportunity to compete for high-skilled workers.
- The Bill encourages companies to recruit American workers. This provision would crack down on outsourcing companies that import large numbers of H-1B and L-1 workers for short training periods and then

send these workers back to their home country to do the work of Americans.

- It explicitly prohibits replacement of American workers by H1-B or L-1 visa holders.
- The Bill seeks to give the Department of Labour enhanced authority to review, investigate and audit employer compliance as well as to penalise fraudulent or abusive conduct.

Who will be impacted by the H1B visa reform if it passes?

Among the biggest recipients of H1B visas each year are Indian IT firms, such as Infosys, TCS, Wipro, HCL, Igate, Cognizant, as well as global giants IBM, Accenture, Microsoft, Google, and Amazon, among others. If this bill passes, they will to bear significantly higher costs for employing highly-skilled foreign citizens. The visa reform may even create a gap in demand and supply for talent for smaller companies that cannot afford incurring high costs to employ skilled workers.

- It will eliminate the Master's Degree exemption for employers. The current H-1B visa program has an annual limit of 65,000 visas each fiscal year, and the first 20,000 visas for U.S. master's degree holders are exempt from that cap. These visas fill up pretty quickly and if the applications exceed the cap, a lottery system is used to allot them further.
- The new rules are expected to overturn the existing duration of the optional practical training work visas known as OPTs, which are issued to students after the completion of their studies to gain work experience.
- The new rules may bring back restrictions on the spouses of H1B visa holders who until recently were not allowed to work in the US and these draconian restrictions were seen as career killers, but in 2015, those work restrictions were removed to allow H4 visa holders to legally work.

How will this affect the US?

Skilled foreign workers who come to work in the United States on H1-B visas don't just directly supplement the US IT industry with specialised skillsets, they also contribute indirectly to other industries in the US. Often H1-B workers bring their families along and thereby bring additional business for other industries like real estate, Banking, hospitality, to name a few. The effects of this announcement will impact the GDP and the overall business economy and growth of US. While 20% of H1-B visa quotas have been set aside for start-ups and small employers with 50 or fewer employees, there is no denying that this will be a dampener to the spirit of innovation and entrepreneurship.

In midst of all this, it's critical to remember that most US-based companies (including many Fortune 500s) are highly dependent on IT Services Providers. These companies actively outsource for both skills and cost advantages – important to note, it's not just the latter that drives the decisions. Changes in the H1-B visa arrangement will add immense cost pressures on these organisations.

How is India responding?

The Indian government appears to have taken notice of the reports but it is unclear if it's going to escalate the matter as a diplomatic issue. India has been largely silent on Trump administration's recent immigration ban barring foreign nationals from seven Muslim-dominated countries.

However, India's interests and concerns have been conveyed both to the US administration and the US Congress at senior levels.

What had to be done?

Using wage as it's only pivot, the bill has more than doubled the minimum wage requirement of H1-B visa holders from \$60,000 to \$130,000. There is no mention of any skills based criteria/requirement. In addition, the High-Skilled Integrity and Fairness Act of 2017 prioritises

market-based quota of H1-B visas to companies willing to pay 200 percent of a fixed wage. In light of the STEM (Science, Technology, Engineering and Math) skills gap currently prevailing in the US, a thorough on-the-ground study of multiple factors, with skills being the primary factor, should have been the foundation of the Act.

As labour and capital quit American shores, the more they try to protect their jobs, the more it will affect the rest of the world. But India being one of the fastest growing markets, has plenty of opportunities to stand up to it and deliver, but that require persistent mending of ways things function. While there may be a temporary plug on legal issues in the US, it will lose the perception battle internationally. Since it is arguably inevitable, this gives a lot of chance to India, to introspect and build its own infrastructure.

When it comes to the IT industry, initially the Indian companies will be pressurised to hire Indian talent, but eventually, it will help in overall growth. Additionally, Make in India and Buy American can work together too, which can only improve bilateral trade between the nations. While there may or may not be much logic in the events to come, the unpredictability can also be the sole reason for India to improve internally.

A spokesperson of the U.S. Citizenship and Immigration Services, which administers the non-immigrant, temporary worker visa programme, said in a statement: "USCIS is not considering a regulatory change that would force H-1B visa holders to leave the United States by changing our interpretation of section 104(c) of AC-21, which provides for H-1B extensions beyond the six-year limit."

3.India, U.K. to ink illegal migrants pact
{GS-2 International Relation}

India will sign a pact with the United Kingdom for a return of **illegal Indian migrants** within a month of them being detected by British authorities.

The U.K has consistently raised the issue of return of illegal migrants — said to number in thousands — with India.

The memorandum of understanding comes ahead of Prime Minister Narendra Modi's proposed visit in March.

During her maiden visit to India on November 7, 2016, British Prime Minister Theresa May had said the U.K. would consider an improved visa deal "if at the same time we can step up the speed and volume of returns of Indians with no right to remain in the U.K."

UK visit

An Indian delegation, led by Minister of State for Home Kiren Rijiju, is visiting the U.K. this week. The delegation is expected to ask Westminster to "**spell out the position**" it is going to take in court on businessman **Vijay Mallya's** extradition.

Mr. Modi's visit to the U.K. coincides with the hearing in Mr. Mallya's case when the court takes up the "**admissibility of evidence**". A senior Home Ministry official said, "Till now U.K has assured us of all possible help in the extradition requests placed by India, but we would like to know the stand they are going to take in court in Mallya's case."

A senior official said the MoU will streamline the return of illegal migrants to India.

3. 'Vizag could become a top scuba diving destination'

{ GS-3 Bio-diversity, Environment }

Newly-discovered wreck site in Bheemunipatnam appears accessible to non-swimmers too

The quaint fishing village of Bheemunipatnam, about 45 km from Visakhapatnam, may soon be the next big scuba diving destination of the country, following the rare discovery of a centuries old shipwreck.

Located at a depth of just six metres below the sea surface, it was first spotted by scuba divers Balaram Naidu and dive master Anil Kumar on December 21.

The team made their second exploration to the wreck site on Monday and the recent findings have excited the scuba diving community. "Preliminary observations revealed the shipwreck site to be covered over a vast area. Our findings indicate the ship to be around 200 years old and measures as long as 150 metres.

The scuba diving team spotted parrot fish, yellow back snappers, sweet lips, ribbonfish, moray eel and lion fish among other rich aqua life surrounding the shipwreck.

According to experienced scuba divers, this is probably the only shipwreck site in the world located at such a shallow depth, making it accessible for even novice scuba divers and non-swimmers. "Most of the world's famous shipwreck sites are located deep in the ocean bed where only experienced and certified scuba divers can go.

According to historian Edward Paul, the location of the shipwreck is said to be towards the north of Bheemunipatnam where '**Santhapalli rocks**' exist, an area that has previous records of ships sinking due to its dangerously rocky sea bed. The British, later, built a light house at the Santhapalli coast in 1840.

The scuba diving team will be giving a presentation to **the AP Tourism Authority** to tap this huge potential of turning Visakhapatnam into a hot scuba diving destination. “We want to establish an international scuba diving academy in the city with infrastructure like swimming and diving pools and classrooms for training with the support of the State government. My ultimate goal is to mark Visakhapatnam in the global map of scuba diving,” **said Mr Naidu.**

4. PIOs make ‘mini-world Parliament’

As lawmakers of Indian origin across the world gather, India seeks support for global power status

India on Tuesday reached out to lawmakers of Indian origin spread across the world seeking support for its emerging status as a global power.

Speaking at the “First PIO Parliamentary Conference”, External Affairs Minister Sushma Swaraj urged the legislators and political figures to consider what kind of contribution they could make for India’s global ambition.

“This conference will be a mix of two dimensions on your present situation and past struggle, and what you can do to promote the emerging India in the global scene,” she said.

Global leaders

Introducing the theme of the event, Ms. Swaraj reminded the guests of the contribution of former Prime Minister Atal Bihari Vajpayee in starting the annual Pravasi Bharatiya Divas, and appreciated the political awareness of the people of Indian origin in various countries.

“A total of 141 lawmakers confirmed their attendance and 134 leaders have made to this event today despite massive weather disturbance [in the West],” Ms. Swaraj said.

The PIO Parliamentarian forum was planned last year during a conversation with Prime Minister Narendra Modi to connect the lawmakers of Indian origin with their ancestral land, the Minister said.

Cultural link

Inaugurating the conference and highlighting the cultural link with the diaspora, Mr. Modi said, “Your ancestors had to leave India under various circumstances and that is why when you return to an Indian airport, you are reminded of your ties with this country. You have a desire to return to India and I understand your feelings very well. On the one hand, you have preserved Indian culture. On the other hand your people have excelled in sports, arts, cinema in the global platforms and have contributed to your adopted country’s welfare,” Mr. Modi said in Hindi.

He mentioned the presence of former Guyanese President Bharat Jagdeo, and noted that from Mauritius to Guyana, there were several Indian-origin individuals who had become leaders of their countries. “We have a mini-world Parliament in front of us today,” Mr. Modi said.

“For enhancing our pride and dignity, you all deserve our appreciation,” he said noting that India was experiencing aspirational and societal changes.

He noted that there was an “irreversible change” sweeping India, and urged the leaders to come forward to join hands.

Ms. Swaraj made special mention of the Indian community in Mauritius which had emerged as the leading player in the island nation. “Gandhiji inspired people in Mauritius to get education and increase political awareness and that is why after a few generations, they have achieved political leadership,” she said congratulating the girmitiyas living abroad for their success.

5. ISRO mulls launching 65 satellites for a slew of uses

Back Ground

The Indian Space Research Organisation (ISRO), by launching 104 satellites from a single rocket, has now set the global standard in a field in which only a few nations even dare to dabble.

Its launch of 104 satellites from a single rocket was a world record most satellites launched at the same time from a single rocket. The country that comes second to us in this aspect is Russia, who is far behind with a maximum of 37 satellite launches from a single rocket.

Key facts:

- With the launch, India moves past Russia in terms of the sheer number of satellites launched by a single rocket. Russia now stands far second with 37 satellites in one single go, which it had achieved in 2014 using a modified inter-continental ballistic missile.
- This was India's first space mission of 2017 and the most complicated one yet, considering the sheer number of satellites it carried.
- Of the 104 satellites that go into space, the PSLV-C37 rocket also carries a Cartosat-2 satellite which will be used to produce high-resolution images of the India. This will help in security and warn us against natural disasters.
- An earth observation Cartosat-2 series satellite and two other nano satellites were the only Indian satellites launched: the remaining were from the United States, Israel, the UAE, the Netherlands, Kazakhstan and Switzerland. Of the 101 foreign satellites launched, 96 were from the U.S. and one each from the other five countries.
- Till now Russia held the record of launching 37 satellites in a single mission, in 2014, while the National Aeronautics and Space Administration of the U.S. launched 29 satellites in one go in 2013. Last

June, ISRO had come close to NASA's record by launching 20 satellites in one mission.

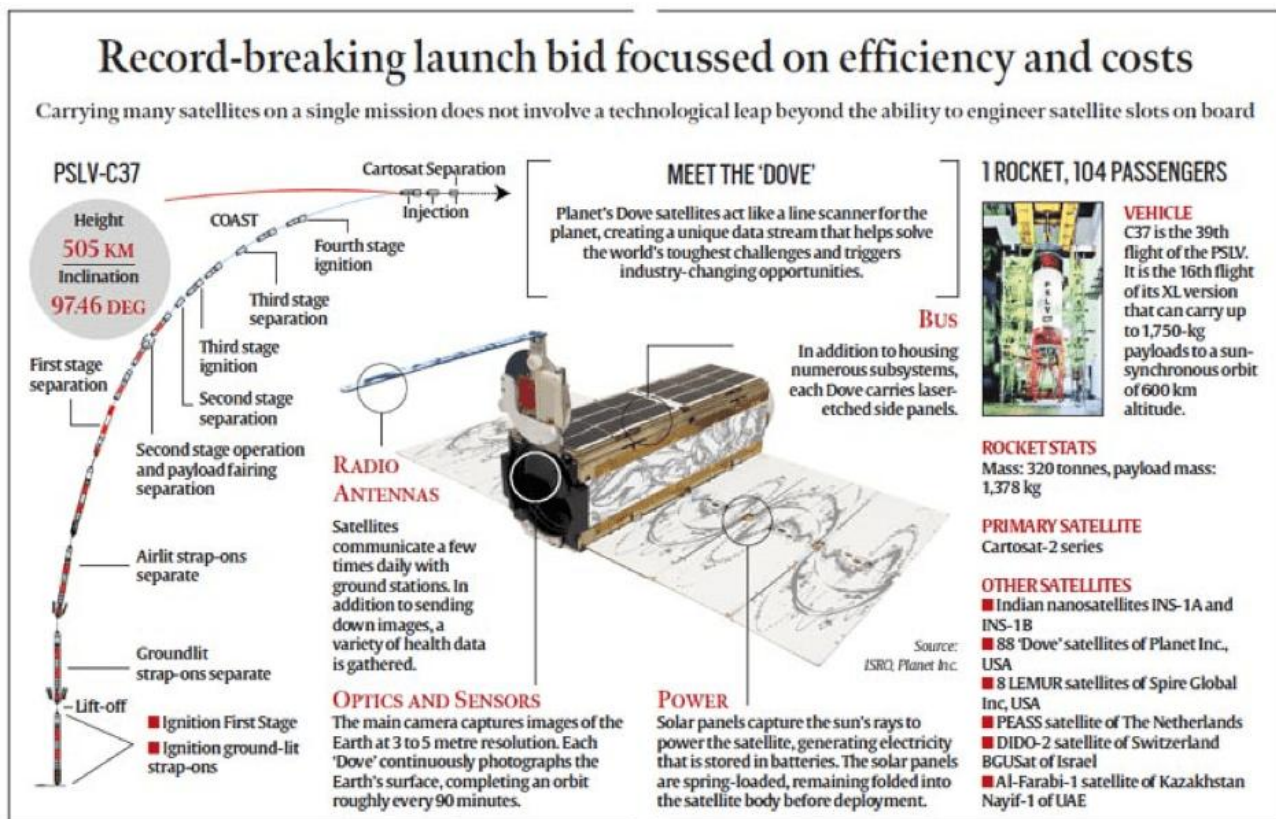
About the launch vehicle:

The XL version of the that was used for the satellite launch is known to have a 100% success rate. It had earlier been used in India's Mars Orbiter Mission (MOM) after it had debuted in 2008 in India's first attempt to reach moon, Chandrayan-I.

This is also not the first time that the PSLV has carried multiple satellites — it has achieved this feat 18 times. Before today, PSLV's personal payload record was in June 2016 when it carried 20 satellites to space at once. The first time it carried a multiple satellite payload was in 1999, when a satellite each of South Korea and Germany along with an Indian satellite.

Comparison of ISRO with other space organisations:

ISRO has consistently been in the headlines over the last few years for its rapid developments in space technology, including the cheapest Mars mission ever designed and its indigenously built cryogenic engine that will be the first step towards putting heavier loads including humans and large satellites into space.



But how does ISRO stack up against other space organisations, both government and private?

There are two ways to assess this: technological developments and commercial growth.

- The Cold War era of intense rivalry between the US and the Union of Soviet Socialist Republics led to a “space race” after the USSR launched Sputnik I, the world’s first satellite, in 1957. The two countries pushed each other to the limits to send ever-larger satellites and finally humans into space and to the moon.
- The European Union, Japan, Canada, Russia and the US jointly operate the International Space Station, a habitable artificial satellite. These countries also have the world’s premier space organisations that conduct both research and launches. While the US and Russia have scaled back on

human spaceflight, China is still pursuing this technology. It sent its first astronaut into space in 2008. Neither the European Space Agency nor the Japan Aerospace Exploration Agency have independently sent humans into space.

- Along with these five, India's is only the sixth space agency in the world to have complete launch facilities, to operate cryogenic engines and to send probes to extraterrestrial bodies.
- However, India still has a long way to go. Although it successfully sent an orbiter to Mars in 2013, and was the first country to achieve this on its first attempt, India is only just beginning to harness the potential of its cryogenic engine to launch Geosynchronous Satellite Launch Vehicles into space. These vehicles travel into higher orbit than PSLVs and can carry satellites weighing more than 2,000 kilogrammes.

But what is it about ISRO that makes it stand for excellence when a plethora of government agencies suffer from severe challenges in terms of capacity and execution?

Autonomy: ISRO is fortunate that it reports to the Prime Minister and his office rather than a line ministry. This has been critical to its success. ISRO, therefore, has a real autonomy that most other government agencies do not.

Geographical location: The geographical location of the organisation also matters in terms of creating an appropriate ecosystem to nurture excellence. Being located in Delhi will leave government agencies particularly vulnerable to the diktats of the parent ministry and the slow-moving, cautious culture of an omnipresent bureaucracy. ISRO, headquartered in Bengaluru, is distant from Delhi and immune from the capital's drawbacks. More importantly, it is located in the appropriate geography in what is India's science and technology hub. It has the right ecosystem to attract talent and build its knowledge capabilities more than most government agencies do.

Human capital: Human capital is critical to the success of an organisation. Unlike many government agencies which are staffed by generalists, ISRO is staffed by specialists right from its technocratic top management. ISRO is also more agnostic than most government agencies about cooperating with and working with the best in the private sector. The building blocks of many of ISRO's successes come from outside the government system.

Way ahead:

Learning the right lessons from ISRO's example is crucial for India. The conventional view is that the government is poor in project execution and if one looks at the state of infrastructure or of the quality of public services that is not an unreasonable conclusion to reach. What ISRO shows is that it is possible, indeed feasible, for the government to build high-performing organisations/agencies.

Cutting-edge research and development in spheres where there may not be ready profits is one area the government should focus on building ISRO-like institutions. Defence could be one such. A completely reformed Defence Research and Development Organisation based out of Pune or Bengaluru (not Delhi) which reports to the PMO and which actively collaborates with the private sector would be worth considering. Or a central vaccine agency, based in Ahmedabad or Pune, which focusses on solutions to under-researched diseases.

The creation of high performing government bodies requires starting from scratch and focussing on a few basics: real autonomy from ministries, right geographical location/appropriate ecosystem, a team of specialists, partnership with the private sector and operating only in spheres where there is no alternative to government. The creation of a handful of such agencies could have a transformative effect.

They are planned to be realised over the period from 2017 to 2021

The Indian Space Research Organisation (ISRO) has set itself an ambitious to-do list of making and launching around 65 satellites for a

slew of uses. They are planned to be realised over the period from 2017 to 2021, according to a top official.

This post-12th Five-Year Plan pace is stupendous as the number of satellites made in India over the last 40-odd years hit a century only a few days ago.

The last three, including two small ones, were rolled out of its Bengaluru centre in late December and are slated to be launched this month.

Jump in output

M. Annadurai, Director of ISRO Satellite Centre (ISAC), where spacecraft are assembled, told The Hindu that the new goal puts ISAC's annual asking rate at around 18 satellites a year: ISAC would now need to come out with three satellites every two months.

Since ISAC was set up in 1972 and until a few years ago, this used to be its average yearly output.

Dr. Annadurai said ISAC's 45-year tally peaked in 2017 with a record 12 spacecraft. "We rolled out Cartosat-2F, Microsat and INS-1C on December 20 [and shipped them out to Sriharikota for launch.] With these three satellites, we have made the maiden century of rolling out spacecraft from this centre," he said in a New Year's Day address to ISAC employees. "We can be counted in the league of Tendulkars and Virat Kohlis," he said.

ISAC's spacecraft are meant for communication, navigation and Earth observation (EO), for both general and strategic purposes, while new emerging applications are getting added. In the four-year list, ISAC counts 26 for communication, 28 for EO and seven for navigation besides the scientific missions Aditya-L1 and XPoSat, apart from a few small experimental satellites.

Awaiting approval

A few proposals that were made during 2017 are awaiting approval. A satellite launch costs Rs. 200-Rs. 300 crore depending on its size and the level of technology.

Dr. Annadurai said the centre was ready to rise to the challenge; its staff was routinely working almost 24/7. Last year, ISAC started to outsource some of the large and critical activities of satellite assembly and testing to Indian industry. The second such project for the ninth navigation satellite, IRNSS-1I, is under way at an ISAC campus.

He said ISRO expected industry to give them the additional six satellites a year beyond the 12 that they would build.

On mission mode

ISRO's 100th satellite will be launched along with 30 others, in a single mission on January 12. A look at important features in the satellites set to be launched in the future:

GSAT-11: Will enable 10 gbps broadband connectivity

GSAT-29: Will use optical communication for the first time

GSAT-7A: Will primarily be used by the Indian Navy and the military

RISAT 1A, 2A, 2B: Will enable 24/7 monitoring of land and sea. They can 'see' objects during night, through clouds

Cartosat-3, 3A: They can spot objects that are about as long or wide as 25 cm from a distance of some 600 km



Resourcesat-3: To monitor natural resources

Oceansat-3: To monitor ocean atmosphere and currents

HySIS (Hyperspectral Imaging Satellite): Can distinguish between objects with high clarity

Chandrayaan-2: Will be ISRO's first mission to land a spacecraft on Moon and explore its surface with a rover

XPoSAT: Used to study neutron stars

OPINION

6.The Iranian crisis is not yet over

The largest public display of discontent since 2009, the current protests signal a new period of uncertainty

When revolutionary regimes stagnate, confusion and chaos reign, and both are palpably true of the Islamic Republic of Iran today. Amid a deep economic, political and now social crisis, many on the ground in Iran and even more observing from abroad don't know what to think or to do. The recent protests which spread around Iran in the waning days of 2017 and early 2018 represented the largest public display of discontent in Iran since the 2009 Green Movement.

Beyond Tehran

Unlike the 2009 Green Movement, which was largely a product of the urban middle class youth in Tehran, the recent unrest in Iran seems to reflect the economic grievances of the lower and working classes, alienated from institutional politics and suffering heavily from the consequences of an unjust and unequal management of the Iranian economy. As a result, these protests have been largely driven by disaffected young people in rural areas, towns and small cities who seized a pretext to express their frustrations with economic woes that are caused by Iran's foreign policy, as the country has been largely involved in both the Syrian conflict and turmoil in Yemen.

Political fragmentation

A large segment of the youth in Iran have access to 'satellite television and the Internet and see how their counterparts in the rest of the world, particularly in the West, are living, and they long for the same lifestyle'. Recent events indicate the impact of a long-term demographic problem which has no short term remedies and which foretells certain unavoidable truths for the Iranian regime — that undeniably, a young and restless population can only be contained and repressed for so long. For the past 40 years the Islamic regime has continuously searched for an 'appropriate approach to cope with the challenge of governance while contending with a perpetual struggle for power between competing tendencies and grave regional and international challenges'. Political fragmentation within Iran has never been more evident, and the clerical elite have never been challenged more clearly, both at the domestic and international level.

OPINION

7. Agriculture needs a reforms package

Only an overhaul resembling the industrial liberalisation of 1991 will work

With rural economic anxieties acquiring a political voice, the expectation is that the Budget will focus on agriculture. For some time, the country has been in denial over the extent of the mess in the sector.

Farm incomes are unattractive for a variety of reasons; the absurdity of policies features among them. The overriding objective of price stability, over time, has tilted farm policy in favour of the consumer, the numerically larger vote bank. Trade and price controls are highly restrictive, and mostly anti-farmer. Protection afforded to the inefficient fertilizer industry ensures that input costs are high. The farmer is forced to sell in the domestic market where prices tend to be lower than global agricultural prices. Research papers have quantified the degree of anti-agriculture bias in the system. Farmers' economic viability is rarely the primary consideration, although political rhetoric would suggest otherwise. Increasingly though, incompetence and politics have ensured that policies are failing to serve even consumers.

MSP) is a form of market intervention by the Government of India to insure agricultural producers against any sharp fall in farm prices. The minimum support prices are announced by the Government of India at the beginning of the sowing season for certain crops on the basis of the recommendations of the Commission for Agricultural Costs and Prices (CACP).

MSP is price fixed by Government of India to protect the producer - farmers - against excessive fall in price during bumper production years. The minimum support prices are a guarantee price for their produce from the Government. The major objectives are to support the farmers from distress sales and to procure food grains for public distribution. In case the market price for the commodity falls below the announced

minimum price due to bumper production and glut in the market, government agencies purchase the entire quantity offered by the farmers at the announced minimum price.

A bias

Agricultural economist Ashok Gulati's calculations show that even after four years of systematically aggressive hikes, Indian MSPs of rice and wheat are less than support prices in China and other Asian countries, betraying India's bias in favour of consumers.

This bias explains the deepening economic divide between the farm-dependent and the rest of the population, reflected in insecurities of even traditionally land-owning people.

OPINION

8. We the censors

A simple solution to getting around the issue of film censorship

We have a pretty healthy tradition now of almost anyone and everyone taking exception to a film. In that sense, we are all equal rights censors. There are some groups which don't like a film because of some very genuine reasons. These could range from an incorrect portrayal of an ancestor (fictional or otherwise), of a politician (living or dead), a religious figure (god forbid), a professional occupation (lawyers) and so on. On the religious front, Hindus, Muslims, Sikhs, and Christians have been equal rights censors when it comes to defending their faith. We are not talking castes here as that would get too complex. On the political front, almost all have united in their call to censor a film without watching it. With so many non-state censors, where does that leave the official 'censor board'?

Pressure points

Back in 2005, the chief of the Central Board of Film Certification (CBFC), Sharmila Tagore, invited the Indian Air Force chief to watch Rang De Basanti in the capital's Mahadev auditorium. What a sight it was to see uniformed men sharing their reservations on the fictional take-off on angst-ridden youth. Somewhere in the film, a "faulty" MiG crashes, necessitating an intervention from the defence force

OPINION

9.Question of equality

The Supreme Court has an opportunity to reconsider its 2013 order criminalising gay sex

The time has come to undo the judicial wrong done to homosexual individuals in 2013, when the Supreme Court upheld the validity of Section 377 of the Indian Penal Code, which criminalises gay sex. A reconsideration of the flawed verdict in Suresh Kumar Koushal is now in prospect. A three-judge Bench has opened up an opportunity to reconsider that verdict, which came to the disturbing conclusion that the LGBT community was just a "minuscule fraction" of the population and also ruled that those having sexual intercourse "against the order of nature" constituted a separate class on which the law could validly impose penal sanctions. Although the matter is already before a Constitution Bench by way of a curative petition against the earlier judgment, the latest order is on a fresh petition challenging Section 377. It draws from the observations in the nine-judge Bench judgment in the 'right to privacy' case. The majority observed in Justice K.S. Puttaswamy v. Union of India that "equality demands that the sexual orientation of each individual in society must be protected on an even platform. The right to privacy and the protection of sexual orientation lie at the core of the fundamental rights guaranteed by Articles 14, 15 and 21 of the Constitution." The

Bench has rightly observed that social morality changes from age to age, that “the morality that public perceives, the Constitution may not conceive of,”

and that what is “natural to one may not be natural to another”.

LIFE

10.Goa bird festival to offer pelagic avian tour

Naturalists, guides and other resource persons will host workshops at Cotigao Wildlife Sanctuary

The second edition of the Goa Bird Festival will be held from January 12 to 14 at Cotigao Wildlife Sanctuary, Canacona.

The State Forest department is organising the event with the support of Goa Tourism, the Goa Bird Conservation Network (GBCN) and Birderpics.com, said Ajai Saxena, Principal Chief Conservator of Forests. Oceanic bird tours would be on offer.

Goa is said to have over 440 species of birds out of over 1,200 in the country. Some of the birds are endemic to the region as the State offers a unique confluence of two diverse ecosystems — tropical forests and marine, said Mr. Saxena.

The festival will host some of the country’s top naturalists, photographers and artists as resource persons.

Guided walks

Bird walks are being planned with experts and guides in Cotigao and the adjoining Netravali Wildlife Sanctuary.

The pelagic birds tour will be on the Arabian Sea.

Vibhu Prakash, scientist, Bombay Natural History Society will deliver the keynote address on conservation of vultures.

Some of the other lectures are: “Recording Bird Calls” by Pratap Singh; “Bird Calls and Songs” by Sharad Apte; “Science behind Superstitions” by Satish Pande and “Pelagic Birds of Western Coast and Birds of Western Ghats” by Shiv Shankar.

Camping in the wild

Rohan Chakraborty from Nagpur will conduct a session on “Drawing of Birds” while Karthikeyan from Jungle Lodges and Resorts, Karnataka, will hold a discussion on “Organising Nature Camps – the JLR experience.”

An origami workshop by Coralie D’ Lima from WWF, a talk on green humour by Rohan Chakraborty, guided walks by the Goa Bird Conservation Network and film shows on nature are also on the agenda.

A special edition of Indian Birds with articles on the birds of Goa will be released. The findings of the long-term bird survey and monitoring in Cotigao Wildlife Sanctuary, undertaken by the Forest Department and GBCN, will also be released.