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Index

Polity and Social Issues

1. First draft of the National Register of Citizens (NRC) for Assam released.....	01
2. Electoral Bonds scheme notified.....	01
3. National Medical Commission Bill 2017: All you need to know.....	02
4. Strategic tunnel to come up in Kashmir.....	04
5. Supreme Court raps Centre on lack of safety for working women.....	05
6. Tamil Nadu on top in higher education enrolment.....	06
7. Organic food to be 'labelled' henceforth.....	07
8. Gender gap in Jan Dhan accounts.....	09
9. Food poisoning in 2017.....	10
10. Electoral bonds: All you need to know.....	10
11. Virtual ID to protect your Aadhar.....	12
12. Mahadayi issue: What you need to know apart from all the noise.....	13
13. India registers significant decline in under five mortality rate.....	15
14. Intelligence Bureau background check must for appointments to regulatory bodies.....	16
15. Industries producing defence equipment given a boost.....	16
16. Union Home Ministry tightening screws against cybercrime.....	17
17. Vice President's mantra for success in agriculture.....	18
18. National Investment and Infrastructure Fund (NIIF) makes its first investment..	19

Geography, Ecology & Biodiversity

1. New species of 'night' frog discovered.....	21
2. A solution to coral bleaching? Maybe.....	22

3. Blue flag certification for Indian beaches.....	23
4. Oceans may soon stop breathing.....	24
5. Crossing: A threat to wildlife.....	25
6. Chiru cannot be captively bred.....	26
7. Ozone layer recovering says NASA.....	26
8. Majuli : India's shrinking island.....	27
9. Thermal power in big trouble says report.....	29
10. Natural grasslands of Western Ghats diminishing.....	30
11. West Bengal's rivers are in a pathetic state.....	30
12. An app to report roadkill.....	31
13. India at a pathetic 177th position in Global Environment Performance Index....	31
14. New strategy for rejuvenation of major river water systems.....	33
15. Waste Decomposer for the Development of Organic Farming.....	33

Economy

1. Public Sector Banks asked to sell and swap loan assets.....	36
2. Government set to miss fiscal deficit target, but why?.....	36
3. Ports Sector makeover.....	37
4. Centre introduces 7.75% taxable savings bonds.....	38
5. 100% Foreign Direct Investment in Single Brand Retail.....	39
6. India registers significant decline in under 5 child mortality rate.....	40
7. India at 30th place on Global Manufacturing Index.....	41
8. Non-Banking Finance Corporations.....	42
9. India ranked at 62nd place in Inclusive Development Index.....	44
10. National Investment and Infrastructure Fund (NIIF) makes its first investment.	45
11. Future of employment in India according to ILO.....	46

12. Economic Survey 2017-18 : New facts on Indian Economy.....	47
13. Pink color Economic Survey : Highlighting the gender issue.....	49
14. Economic Survey 2017-18 : Coordinated action between Government and Judiciary to boost economic activity	50
15. Economic Survey 2017-18 : Coordination among Centre and State agencies key to tackling pollution.....	52
16. Economic Survey 2017-18 : Social infrastructure is not to be neglected.....	53
17. Economic Survey 2017-18 : Government lauded on commitment to achieve SDGs for education.....	54
18. Economic Survey 2017-18 : Labour sector reforms.....	54
19. Economic Survey 2017-18 : India committed to achieve targets under SDG-3...55	
20. Economic Survey 2017-18 : Hygiene and sanitation.....	56

International Relations

1. India excludes Pakistan from SAARC initiative.....	58
2. Myanmar's 'other' problem.....	59
3. BBIN Motor Vehicles Agreement Regains Momentum.....	59
4. India-Sri Lanka's 'Gigabit connectivity'.....	60
5. India joins Australia Group.....	62
6. 25 years of India-ASEAN dialogue.....	63

Science and Technology

1. Tetanus: A deadly disease.....	66
2. Meet India's fastest supercomputer.....	66
3. ISRO to begin 2018 with a bang.....	67
4. ISRO's PSLV back in action.....	68
5. Intel joins hands with Department of Science and Technology.....	68

6. Vaccine developed by India passes WHO test.....	69
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Government Schemes and Initiatives

1. Online portal 'NARI' for women empowerment.....	70
2. Prime Minister's Employment Generation Programme: All that you need to know.....	71
3. BharatNet Phase 1 complete.....	72
4. MPLAD scheme to be continued.....	74
5. Pradhan Mantri Surakshit Matritva Abhiyan : All you need to know.....	74
6. MEITY launches Cyber Surakshit Bharat to strengthen cyber security.....	76
7. Swachh Bharat Mission-Urban launches Smart Star Rating for Garbage Free Cities.....	77
8. UDAN 2.0 to link more airports and helipads.....	78
9. Scheme for Adolescent girls.....	79
10. Boost to Atal Pension Yojana.....	80

Defence and Internal Security

1. Left Wing Extremism on the decline.....	82
2. INS Arihant: India's nuclear warrior.....	82
3. Akash Area Defence Missile System.....	83
4. Agni V soars high.....	83
5. 'Dark ships' in the Indian Ocean.....	84

Point Blank (facts for prelims)

1. New endemic ants from the Andamans.....	85
2. Ginger species found in the NorthEast.....	85
3. NASA's Parker Solar Probe.....	85
4. India's 2nd largest rooftop solar plant.....	85
5. Turkey's Bird language in UNESCO list.....	86
6. Six countries enter YNSC.....	86
7. NASA to scan border of Earth and space.....	86
8. Arunachal to have India's 2nd FTII.....	86
9. Defence Innovation Centre in Coimbatore.....	87
10. India to have LIGO observatory.....	87
11. Gujarat Tops Logistics Performance Index.....	87
12. 'Elcysma Ziroensis' discovered in AP.....	87
13. NASA discovers "SPT0615-JD".....	88
14. India, Japan hold joint naval exercise.....	88
15. Global Centre for Cybersecurity.....	88
16. India's first floating market.....	88
17. Seychelles allows India military infra.....	89

Polity and Social Issues



Smart Abhyas

JANUARY 2018



1. First draft of the National Register of Citizens (NRC) for Assam released

What is the issue?

- First draft of the National Register of Citizens (NRC) for Assam has listed 1.9 crore people out of the 3.29 crore applicants as legal Indian citizens.
- The exercise aims at identifying illegal immigrants in the state that borders Bangladesh.

About the National Register of Citizens:

- It is unique to Assam
- The last National Register of Citizens (NRC) was done in 1951 which registered 80 lakh Indians living in the state.

What is objective of updating the National Register of Citizens?

- The sole objective of updating the NRC is to filter out the unknown number of illegal migrants from the state.

What is India's concern?

- Large number of Bangladeshi foreign nationals resides in the state and their names also feature in the voters list of the state.

2. Electoral bonds scheme notified

What is the issue?

- The government notified electoral bonds scheme which was mentioned in the budget for 2017 in a bid to clean up election funding mechanism in the country.

About the scheme:

- The bonds will be a bearer instrument in the nature of a promissory note and an interest-free banking instrument.
- A citizen of India or a body incorporated in India will be eligible to purchase the bond.

- The bonds, announced in the 2017 Budget, will be an alternative to cash donations made to political parties.
- They will be issued through select branches of SBI in the denomination of Rs 1,000, Rs 10,000, Rs 1 lakh, Rs 10 lakh and Rs 1 crore.
- The Electoral Bond(s) shall be encashed by an eligible political party only through a designated bank account with the authorised bank.

Why is this move important?

- The new system will ensure clean money and a significant amount of transparency as against the present system of unclean money and no transparency.

3. National Medical Commission Bill 2017: All you need to know

The Bill attempts to tackle two main things:

1. Corruption in medical education
2. Shortage of medical professionals.

Fixing the quantity of medical education

- The demand-supply dynamic in medical education is an area for concern: India has one doctor for every 1674 people, whereas the World Health Organization's norm is one doctor for every 1000 people.
- To solve this, one of the government's most controversial proposals has been a "bridge course" for those who have been trained in traditional medicine like Ayurveda as well as homeopathy.
- However, the Bill somewhat contradicts its own definition of 'medicine'. Medicine itself is defined as "modern scientific medicine in all its branches and includes surgery and obstetrics," but does not include veterinary medicine and surgery.
- This notwithstanding, the Bill repeatedly says that the government wants "to enhance the interface between homeopathy, Indian systems of medicine and modern systems of medicine".

- An AYUSH practitioner is defined as a person who is a practitioner of homeopathy or of Indian medicine. There will be a national register of the AYUSH practitioners who have qualified the bridge course.
- Section 49(4) says that a “specific bridge course may be introduced for the practitioners of homeopathy and of Indian systems of medicine to enable them to prescribe such modern medicines”.
- Section 54(o) says the government can notify rules for “the modern medicines that the practitioners of homeopathy and of Indian medicine may prescribe”.

Fixing the quality in medical education

- The poor quality of medical education and graduates is a big challenge in the field of medical education.
- To fix corruption, the Bill recommends replacing one body with another. It proposes instituting a National Medical Commission (NMC) instead of the MCI.
- The Bill, if passed, would repeal the Indian Medical Council Act, 1956. This Act currently holds the provisions for the existence and functioning of the MCI, which oversees undergraduate and postgraduate medical education.
- The difference in the two bodies would come from the fact that the new NMC would have its members largely nominated and appointed by the government, while office bearers in the MCI were elected from among the medical fraternity.
- The NMC would have 25 members appointed by the central government.
- The NMC’s functions would include writing policies to regulate medical institutions and individuals, and also to lay down some guidelines on fees in private medical colleges.
- The Bill also prescribes for autonomous boards under the NMC, specifically for undergraduate and postgraduate education.
- The boards will come up with the curriculum, standards and necessary recognitions. Its members too will be appointed by the government.
- There will also be a medical assessment and rating board which will grant permissions for new colleges and penalise institutions which don’t follow the prescribed standards.

- Another measure to keep the quality of medical graduates in check is the common entrance exam which the government introduced last year (National Eligibility cum Entrance Test, known as NEET) and now a new exit test which this Bill proposes (National Licentiate Examination). Students will have to clear this exit exam as well in order to obtain a license for practice and also to get admission in postgraduate courses.

4. Strategic tunnel to come up in Kashmir

What is the issue?

- Construction of the strategic Zojila tunnel has been given approval by the Centre.

Who will be responsible for implementing the project?

- Ministry of Road Transport and Highways through the National Highways and Infrastructure Development Corporation Limited.

About the project:

- Will be established at an altitude of 11,600 feet
- Total project will cost approximately Rs 6800 crores

Which places will be connected through the project?

- Srinagar, Kargil and Leh

Benefits of the project once implemented:

- All weather connectivity between Srinagar and Leh which remain cutoff in winter.
- Tourism sector will be bolstered.
- Increase in employment opportunities

1. New species of 'night' frog discovered

What is the issue?

- A new species of 'night' frog has been discovered in Kerala known as Mewa Singh's night frog.

About the discovery:

- Frog belongs to a genus endemic to the Western Ghats (Malabar Wildlife Sanctuary).
- The frog's closest relative is the Athirappilly night frog which is found far away and across the Palakkad gap.
- The frog's genus *Nyctibatrachus*, commonly known as 'night frogs' are found only in the Western Ghats mountain range.
- The addition of this frog brings the total number of night frogs to 36.

IUCN Red List

- IUCN Red List is developed on precise criteria to evaluate the extinction risk of thousands of species and subspecies.
- These criteria are relevant to all species in all regions of the world.
- The aim is to convey the urgency of conservation issues to the public and policy makers, as well as help the international community to try to reduce species extinction.

Categories and their meaning:

Extinct (EX):

- A taxon is extinct when there is no reasonable doubt that the last individual has died.
- A taxon is presumed extinct when exhaustive surveys in known or expected habitat at appropriate times, throughout its historic range have failed to record an individual.

Extinct in the wild (EW):

- A taxon is extinct in the wild when it is known only to survive in captivity or as a naturalised population well outside the past range.
- A taxon is presumed extinct in the wild when exhaustive surveys in known or expected habitat, at appropriate times and throughout its historic range have failed to record an individual.

Critically Endangered (CR):

- A taxon is CR when it is facing an extremely high risk of extinction the wild in the immediate future.

Endangered (EN):

- A taxon is endangered when it is not critically endangered but is facing an extremely high risk of extinction in the wild in the near future.

Vulnerable (VU):

- A taxon is vulnerable when it is not CR or EN but is facing a high risk of extinction in the wild medium-term future

Near Threatened (NT):

- A taxon is near threatened when it has been evaluated against the criteria but does not qualify for CR,EN or VU but is close to qualifying for or likely to qualify for a threatened category in the near future.

Least Concern (LC):

- A taxon is Least Concern when it has been evaluated against the criteria but does not qualify for CR,EN, VU or NT.
- Widespread and abundant taxa are included in this category.

2. A solution to coral bleaching? May be

What is the issue?

- Scientists have identified a gene that improves the heat tolerance of the algae that live symbiotically with coral species, and could potentially help the corals adapt to some warming.

About the algae

- Symbiodinium is a unicellular algae that provides its coral host with photosynthetic products in return for nutrients and shelter.
- High sea temperatures can cause the breakdown of this symbiotic relationship and lead to the widespread expulsion of Symbiodinium from host tissues, an event known as coral bleaching.

What have the scientists found out?

- Scientists have identified special genes, called retro transposons, which could help the algae adapt more rapidly to heat stress.
- During their study, most genes commonly associated with heat stress were turned on, while a small number of retro transposons were turned on.
- Activation and replication of Symbiodinium's retro transposons in response to heat stress could lead to a faster evolutionary response.

What is the logic behind it?

- Producing more mutations increases the chance of generating a beneficial one that allows the symbionts to cope better with this specific heat stress.

3. Blue flag certification for Indian beaches?

What is the issue?

- Union Environment Ministry plans to convert 10 popular sea beaches into international quality Blue Flag destinations in 2018 to ensure cleanliness and safety of these beaches.

What is 'Blue flag' certification?

- The Blue Flag is a certification by the Foundation for Environmental Education to ensure following a set of stringent standards to clean up the popular sea side destinations.

Global scenario:

- None of the Indian beaches carry this certification, while Spain has 578 Blue Flag beaches.

- Other countries with a large number of Blue Flag beaches are Turkey (436), Greece (395), Italy (342) and Portugal (299).
- The developmental activities along the beach would include creation of toilets and proper management of the waste material generated by tourists.

4. Oceans may soon stop breathing

What is the issue?

- Warming of the earth might cause repairable damage to marine life and lead to the release of dangerous greenhouse gases according to a study.

Important take-aways from the study

- The study said that in the past 50 years, the amount of water in the open ocean with zero oxygen has gone up more than fourfold and in coastal water bodies, including estuaries and seas, low-oxygen sites have increased more than 10-fold since 1950.
- Scientists expect oxygen to continue dropping even outside these zones as Earth warms up.
- The study said in order to halt the decline; the world needs to rein in both climate change and nutrient pollution.
- The study was done by a team of scientists from GO2NE (Global Ocean Oxygen Network), a new working group created in 2016 by the United Nation's Intergovernmental Oceanographic Commission.
- Approximately half of the oxygen on Earth comes from the ocean. However, combined effects of nutrient loading and climate change are greatly increasing the number and size of 'dead zones' in the open ocean and coastal waters, where oxygen is too low to support most marine life
- In areas traditionally called "dead zones", like those in Chesapeake Bay (in the US) and the Gulf of Mexico, oxygen plummets to levels so low many animals suffocate and die. As fish avoid these zones, their habitats shrink and they become more vulnerable to predators or fishing.
- The danger due to low oxygen in oceans is manifold. For instance, as per the study, even small oxygen declines can stunt growth in animals, hinder reproduction and lead to disease or even death.

1. Public Sector Banks asked to sell and swap loan assets

What is the issue?

- Union Finance Ministry has asked PSBs to look into the possibility of selling and swapping of loan assets with other lenders to bolster their assets.

How does this work?

- If a bank has expertise in lending to small and medium sized firms, it can swap its retail loan portfolio with another bank that is good in the sector.
- Swapping and selling will help banks focus on their core competencies and reduce the burden.

How important is the MSME sector?

- MSME sector contributes 40% to India's manufacturing.
- Huge employment generator.

2. Government set to miss fiscal deficit target, but why?

What is the issue?

- Government's fiscal deficit stands at 112% of the amount budgeted for the entire financial year which ends in March.

What is meant by 'fiscal deficit'?

- The difference between total revenue and total expenditure of the government is termed as fiscal deficit. It is an indication of the total borrowings needed by the government.

Where has it gone wrong?

- There is no problem in the expenditure part of the budget.
- The problem lies with the revenue part of the budget. The revenue stands at only 53% of the year's target.

Will the government's Rs 50,000 crore borrowing worsen the issue?

- No, not according to the government. The government pointed out that additional borrowing would be offset by trimming down the collections from its Treasury Bills.

So is this 'slippage' of fiscal deficit targeting a bad thing?

- As long as it is driven by an increase in expenditure on developmental activities like low cost housing, rural roads and irrigation, there is no need to be pessimistic.

3. Ports sector makeover

What is the issue?

- To boost port construction in the country, the Union government is looking at radical change, including a change in the revenue model and the creation of a dispute-resolution mechanism.
- Union cabinet approved a new model concession agreement (MCA) for private public partnership (PPP) port projects.

About the provisions in the new Model Concession Agreement:

- The new MCA will be applicable for new projects conceived under the shipping ministry's ambitious Rs 8 trillion Sagarmala programme.
- Under Sagarmala, the government plans to construct new ports and 142 cargo terminals at major ports to harness the country's 7,157 km coastline.
- According to the new MCA, payment of royalty for the ports will be now on 'per million tonne of cargo handled' instead of percentage of gross revenue based on tariff determined by Tariff Authority for Major Ports (TAMP).
- Once affected, the port operator will pay royalty on the actual and not on notional income.
- The new norms require the promoter to be locked into the project with majority stakes only for the first two years after it is commissioned; thereafter they are free to exit and can even sell their entire stake.

- Another important feature under the new agreement is the provision of refinancing, which is aimed at facilitating availability of low-cost, long-term funds to concessionaires so as to improve the financial viability of projects.

What's next?

- According to studies carried out under the Sagarmala Programme, cargo traffic at Indian ports will grow to about 2,500 million metric tonnes per annum (mmtpa) by 2025, compared with the current cargo-handling capacity of Indian ports of 1,500 mmtpa.
- A roadmap has been prepared to increase the Indian port capacity to 3,000+mmtpa over the next few years to absorb this growth in projected traffic.

4. Centre introduces 7.75% taxable savings bonds

What is the issue?

- Centre announced the introduction of 7.75% savings bonds designed to help citizens invest in a taxable instrument, without any monetary ceiling.

About the bonds:

- Bonds are open to individuals, including joint holdings and Hindu Undivided Families (HUF).
- Non-resident Indians are not eligible to invest in these bonds.
- The bonds will be issued at par, that is, at ₹100 and would be issued for a minimum amount of ₹1,000 and in multiples of ₹1,000.
- There will be no maximum limit for investment in the bonds.
- Interest on the bonds will be taxable under the Income tax Act, 1961 as applicable according to the relevant tax status of the bond holder.
- The bonds will be exempt from wealth tax under the Wealth Tax Act, 1957.
- The bonds will have a maturity of seven years carrying interest at 7.75% per annum payable half yearly.
- The bonds are not tradable in the secondary market and are not eligible as collateral for loans from banking institutions, nonbanking financial companies or financial institutions

1. India excludes Pakistan from SAARC initiative

What is the issue?

- India has excluded Pakistan from the list of SAARC member countries with which it will be connecting its state-of-the art National Knowledge Network (NKN).
- National Knowledge Network will be a platform for sharing scientific databases and remote access to advanced research facilities.

About National Knowledge Network:

- NKN is a multi-gigabit pan-India network which facilitates the development of India's communications infrastructure, stimulates research and creates next generation applications and services.
- Enables collaboration among researchers from different educational networks such as TEIN4, GARUDA, CERN and Internet2.
- Enables sharing of scientific databases and remote access to advanced research facilities.
- NKN aims to connect all universities, research institutions, libraries, laboratories, healthcare and agricultural institutions across the country to address such paradigm shift.
- The leading mission oriented agencies in the fields of nuclear, space and defence research are also part of NKN.
- Afghanistan, Bangladesh, Bhutan, Maldives, Nepal and Sri Lanka are all a part of the initiative.

2. Myanmar's 'other' problem

What is the issue?

- Although the 'Rohingyas' crisis grabbed the world's attention in recent times, the rebels of Kachin state have also been causing trouble for the country.

About the conflict:

- Kachin is a Christian state in Buddhist majority Myanmar.

- Kachins along with Chin and Shan ethnic groups were promised autonomy according to the Panglong agreement.
- However the spirit and content of the Panglong agreement were never realised setting the stage for a civil conflict.
- Kachin Independence Army is the rebel army fighting for autonomy of the Kachin state.

Who are the Kachins:

- Kachin are tribal people parts of northeastern Myanmar and contiguous areas of India and China.
- 5,90,000 Kachins live in India
- 1,20,000 live in China and few thousand are in India
- The traditional Kachin religion is a form of animistic ancestor cult entailing animal sacrifice
- Most Indian Kachins are Buddhists
- Majority of Kachins are christians as a result of American and European missionaries arriving in Myanmar in the 19th century.

3. BBIN Motor Vehicles Agreement Regains Momentum

What is the issue?

- Bangladesh, India and Nepal have agreed on the text of the operating procedures for passenger vehicle movement in the sub-region under the Bangladesh-Bhutan-India-Nepal (BBIN) Motor Vehicles Agreement (MVA).
- The agreement was signed in June 2015, and will soon complete the internal approval processes for signing of the passenger protocol
- Bhutan is yet to ratify the agreement following which the pact will become operational.

What is BBIN?

- For seamless flow of passenger and cargo traffic in the region, BBIN motor vehicles agreement (MVA) was signed by the transport ministers of the BBIN countries in Thimphu, Bhutan on 15 June 2015. However, Bhutan could not ratify it later.
- The agreement will permit the member states to ply their vehicles in each other's territory for transportation of cargo and passengers, including third country transport and personal vehicles.
- Each vehicle would require an electronic permit to enter another country's territory, and border security arrangement between nations' borders will also remain.
- Cargo vehicles will be able enter any of the four nations without the need for trans-shipment of goods from one country's truck to another's at the border.
- Under the system, cargo vehicles are tracked electronically; permits are issued online and sent electronically to all land ports.
- Vehicles are fitted with an electronic seal that alerts regulators every time the container door is opened.

Support from Asian Development Bank:

- The Asian Development Bank (ADB) has been providing technical, advisory, and financial support to the BBIN MVA initiative as part of its assistance to the South Asia Sub regional Economic Cooperation (SASEC) program.

Importance of the pact:

- Northeast India will benefit by having better connectivity with mainland India.
- India will gain direct access to Southeast Asia, a high growth oriented sub region of Asia.
- Better connectivity and seamless flow of goods and services translates to better relations with all countries involved.
- Massive savings can be accrued both in terms of cost and in terms of time.

1. Tetanus: A deadly disease

What is tetanus?

- Tetanus, also known as Lockjaw, is an infection characterised by muscle spasms.
- It is called Lockjaw because the infection often causes muscle contractions in the jaw and neck.
- The tetanus bacteria often enters the body through a puncture wound, which can be caused by nails, splinters, insect bites, burns, skin break, and injection drug sites.
- They produce staph toxins that interfere with muscle contractions resulting in symptoms like spasms, fever, headache, trouble in swallowing, high blood pressure, and sweating.
- The onset of symptoms is typically 3 to 21 days following the infection.

Caused by?

- It is caused by bacterium clostridium tetani which is found in soil, saliva and dust.

2. Meet India's fastest supercomputer

What is the issue?

- Pratyush, India's new supercomputer can deliver a peak power of 6.8 petaflops.
- Pratyush is the fourth fastest machine in the world dedicated to weather and climate research.

What is a 'petaflop'?

- One petaflop is a million billion floating point operations per second and is a reflection of the computing capacity of a system.

Where will Pratyush be put to use?

- A key function of the machine's computing power would be monsoon forecasting using a dynamical model.

- This requires simulating the weather for a given month, say March, and letting a custom-built model calculate how the actual weather will play out over June, July, August and September.
- With the new system, it would be possible to map regions in India at a resolution of 3 km and the globe at 12 km.
- Top five fastest supercomputers in the world:
 1. Sunway TaihuLight: China
 2. Tainhe-2: China
 3. Piz daint: Switzerland
 4. Gyoukou: Japan
 5. Titan: United States

3. ISRO to begin 2018 with a bang

What is the issue?

- Indian Space and Research Organisation is set to mark its entry into the new year by launching a set of satellites aimed at fulfilling different needs.

About the satellites that will be launched in future:

1. GSAT-11: Will enable 100 gbps broadband connectivity
2. GSAT-29: Will use optical communication for the first time
3. GSAT-7A: To be used by Indian Navy and Military
4. RISAT 1A, 2A and 2B: Will enable 24x7 monitoring of land and sea. They can see objects at night, even through the clouds.
5. Cartosat-3, 3A: They can spot objects that are about as long as 25 cm from a distance of 600 km
6. Resourcesat-3: To monitor natural resources
7. Oceansat-3: To monitor ocean atmosphere and currents
8. HySIS: Can distinguish between objects with high clarity

9. Chandrayaan-2: Will be ISRO's first mission to land a spacecraft on the moon

10. XPoSAT : Used to study neutron stars

4. ISRO's PSLV back in action

What is the issue?

- PSLV C-40 is all set to put behind its previous failure and launch a total of 31 satellites in the coming days.

About the launch:

- The main payload, the 710-kg Cartosat-2F, is the seventh in the Cartosat-2 series and is built to work for five years.
- Small satellites ISRO is putting up two of its own small satellites, a 100 kg micro satellite and the 11-kg nano satellite INS-1C.
- There are also 28 smaller customers. The commercial satellites include three 100-kg class micro satellites and 25 nanosats (1-10 kg) from Canada, Finland, France, Korea the U.K. and the U.S

About Cartosat 2 series:

- Cartosat 2F is the third satellite in the series.
- It will be beam high quality images for cartographic, urban and rural applications, coastal land use and regulation and utility management like road network management.

1. Online portal 'NARI' for women empowerment

What is the issue?

- In a big leap forward to empower women, the Ministry of Women and Child Development has launched the NARI portal.
- Developed by the Ministry of Women and Child Development, the portal will provide women citizens with easy access to information on government schemes and initiatives for women.

What does NARI portal offer?

- NARI portal summarizes over 350 government schemes and other important information for the benefit of women, with more being added every day.
- It provides links to the Ministries, Departments and autonomous bodies offering these schemes as well as easy access to online applications and grievance redressal.
- NARI will provide information to women on issues affecting their lives. There are tips on good nutrition, suggestions for health check-ups, information on major diseases, tips for job search and interview, investment and savings advice, information on crimes and against women and reporting procedures, contacts of legal aid cells, simplified adoption procedures and much more.
- It will endow women with the power of information to build their life skills and facilitates them in taking full advantage of the services provided by the Government for them.

Need for such a portal:

- The Government – both Central and State – has implemented a number of schemes and legislations for women to provide them equal rights, economic opportunities, social support, legal aid, housing etc.
- However, there is often a lack of awareness of these provisions and difficulties in accessing their benefits.
- For example, many are unaware that One Stop Centres are available in 168 districts for women in difficult circumstances; PM Awas Yojana gives priority to registration of homes in the name of women and many State Governments offer financial support for the education of girl children. However, information related to women centric schemes/legislations are all scattered on different websites/portals.

2. Prime Minister's Employment Generation Programme: All that you need to know

Which Ministry is implementing the programme?

- Ministry of Micro, Small and Medium Enterprises (MSME) is implementing Prime Minister's Employment Generation Programme (PMEGP).

What is the programme about?

- A major credit-linked subsidy programme, aimed at generating self-employment opportunities through establishment of micro-enterprises in the non-farm sector by helping traditional artisans and unemployed youth.

Provisions under the programme:

- General category beneficiaries can avail of margin money subsidy of 25 % of the project cost in rural areas and 15% in urban areas.
- For beneficiaries belonging to special categories such as Scheduled Caste/Scheduled Tribe/OBC /Minorities/Women, Ex-serviceman, Physically Handicapped, NER, Hill and Border areas etc. the margin money subsidy is 35% in rural areas and 25% in urban areas.

Who is eligible?

- Any individual above 18 years of age is eligible. For setting up of projects costing above Rs.10 lakh in the manufacturing sector and above Rs. 5 lakh in the business /service sector, the beneficiaries should possess at least VIII standard pass educational qualification.
- The maximum cost of projects is Rs. 25 lakh in the manufacturing sector and Rs. 10 lakh in the service sector. Benefit can be availed under PMEGP for setting up of new units only.

Status:

- Subsidy under PMEGP Scheme is provided by the Union Government. The PMEGP Scheme was launched during 2008-09.
- Since its inception, a total of 4.47 lakh micro enterprises have been assisted with a margin money subsidy of Rs 9326.01 crore providing employment to an estimated 37.32 lakh persons from inception till 2017-18 (up to 30.11.2017).

Nodal Agency:

- Khadi and Village Industries Commission (KVIC) is the nodal agency at the national level.
- At the State/District level, State offices of KVIC, KVIBs and District Industry Centres (DIC) are the implementing agencies in the States in the ratio of 30:30:40.

3. BharatNet Phase 1 complete

What is the issue?

- Government has achieved a significant milestone under the BharatNet by completing Phase-1 of the project by connecting over one lakh Gram Panchayats (GP) across the country with high speed optical fibre network as per the declared deadline of 31 Dec 2017.

What is BharatNet?

- BharatNet network built under Phase 1 envisages delivery of high-speed broadband services in over 2.5 lakh villages benefitting more than 200 million rural Indians.

What has been achieved?

- Under Phase 1 of the project, till 31st May 2014 the work had been started in 4,918 GPs and 358 km Optical Fibre Cable (OFC) was pulled and only 59 GPs were made service ready.
- Till 30th June 2016 work had been started in 84,834 GPs and 1, 24,817 km OFC pulled covering 53,557 GPs with 7,229 GPs made Service Ready.
- As on 31st Dec 2017, 2, 54,895 km OFC has been laid covering 1, 09,926 GPs out of which 1, 01,370 GPs have been made Service Ready.

Bharat Net Project

What the government aims to achieve through this mega project:

- Upon completion of Bharat Net phase 2, the GDP would be boosted by Rs 4.5 lakh crore values as a study has suggested that every 10 per cent usage of Internet in India drives up GDP by 3.3 per cent.

- The government expects the second phase of Bharat Net to double the existing optical fibre footprint and generate employment of 10 crore mandays during the rollout of the project
- BharatNet project will be the biggest user of 'Made in India' equipment, "ruggedised" to suit the Indian rural conditions.
- Telecom providers are expected to provide atleast 2 megabit per second speed to rural households.

Rollout of project:

- BSNL will roll out optical fibre in yet-to-be covered locations of Assam, Haryana, Madhya Pradesh, Rajasthan, Uttar Pradesh, West Bengal, Jammu and Kashmir and Sikkim, which were not covered under the first phase.
- Power Grid Corporation of India has been awarded contract for Himachal Pradesh, Uttarakhand and Odisha.
- Maharashtra, Gujarat, Chhattisgarh, Andhra Pradesh, Telangana, Tamil Nadu and Jharkhand are expected to roll out the project on their own with partial funding from the central government.

Advantages of successfully implementing the project.

- Boost to e-commerce and several other services.
- It is also beneficial for telecom operators as they can shift from microwave to fibre as at present, they are on microwave due to lack of fibre.
- This will also trigger a massive services revolution, particularly in education and health in the rural areas.
- Huge boost to Make in India since all equipment are indigenously manufactured.

4. MPLAD scheme to be continued

What is the issue?

- Cabinet approves continuation of Members of Parliament Local Area Development Scheme beyond 12th Plan

About the scheme:

- The MPLAD Scheme is an ongoing Central Sector Scheme which was launched in 1993-94.
- Since the inception of the Scheme till August, 2017, a total number of 18, 82,180 works for Rs. 44,929.17 crore have been sanctioned from MPLADS fund.
- The Scheme enables the Members of Parliament to recommend works for creation of durable community assets based on locally felt needs to be taken up in their constituencies in the area of national priorities namely drinking water, education, public health, sanitation, roads etc.

Importance of the scheme:

- The entire population across the country stands to benefit through creation of durable assets of locally felt needs, namely drinking water, education, public health, sanitation and roads etc., under MPLAD Scheme.
- The MPLAD Scheme has resulted into creation of various durable community assets which have impacted the social, cultural and economic life of the local communities in one way or the other.

1. Left Wing extremism on the decline

What is the issue?

- Incidents related to left wing extremism (LWE) were below the 1000 mark for the first time in 10 years.
- 851 LWE incidents were reported in 2017 compared to 1016 in 2016.

Why the decline in LWE activity?

- Extremists deliberately laying low.
- Fall in the strength of maoists at various levels of cadre
- Ageing leadership
- Effective penetration of security forces

Which states reported the most LWE incidents in 2017?

- Chhattisgarh (353)
- Jharkhand (240)

2. INS Arihant: India's nuclear warrior

What is it?

- INS Arihant is India's only operational ship submersible ballistic nuclear (SSBN) asset.

About INS Arihant:

- Modelled after Russian Charlie class.
- Initiated as a fast attack nuclear submarine project, it was later modified into a ship submersible ballistic nuclear submarine.
- The submarine is designed to use vertical 'Tube Launch Missile' technology.
- Can be armed with 12 submarine launch ballistic (SLBM) missiles with a range of 750 km with nuclear warheads.

- Can travel at a speed of 24 knots when submerged and 12-15 knots when on the surface.
- Arihant's nuclear pressurised water reactor uses 34% to 40% enriched uranium.

Why is INS Arihant's success crucial to India's interests?

- Considering India's "no first use" policy on nuclear weapons, INS Arihant is India's best choice for a second strike considering the land based and air based alternatives.

3. Akash Area Defence Missile System

About Akash missile:

- 96% of the system has been indigenously developed
- Is a short-range surface to-air missile (SR SAM) system
- Quick reaction, fully automated and has all-weather capability
- Can handle multiple threats incoming from multiple directions
- Has 25 km range against hostile aircraft, helicopters, drones and sub-sonic cruise missiles.
- Developed by the Defence Research and Development Organisation (DRDO) as part of the Integrated Guided Missile Development Programme initiated in 1984 and is manufactured by Bharat Dynamics Ltd. (BDL).

4. Agni V soars high

What is the issue?

- Agni V, India's long range surface to surface ballistic missile was successfully tested for the fifth time.
- The missile covered 4900 km in 19 minutes of its fifth test flight

About Agni V:

- Range of over 5000 km, India's longest range ballistic missile.
- Surface to surface, nuclear capable ballistic missile

- Can carry a payload of 1 tonne
- Developed by Defence Research and Development Organisation (DRDO)

Importance of having Agni V in our arsenal:

- Agni V can reach most parts of China, making it the mainstay of India's triad to deliver nuclear weapons.
- Agni V is a testament to India's indigenous advancements in defence.

In comparison:

- Pakistan's most advanced Shaheen-2 missile is a two-stage rocket that can travel a distance of 1,200 km.
- China has a three-stage system that can travel up to a distance of 10,000 km bringing the entire India and the Pacific zones within China's reach.

1. New endemic ants from the Andamans

- Scientists have discovered 2 new ant species of the genus *Tetramorium* in the evergreen forests of the Andamans.
- Scientists of the NCBS, Bengaluru and the Okinawa Inst. of Sci. & Tech, Japan discovered the new species *Tetramorium krishnani* & *Tetramorium jarawa* in Havelock Island.
- They are named in honour of late scientist K.S. Krishnan & after the Jarawas, an indigenous people of the islands.

2. 2 Ginger species found in the northeast

- Scientists have discovered two new species of Ginger in easternmost districts, Ukhrul in Manipur and Tuensang in Nagaland.
- *Hedychium chingmeianum*, the species discovered in Tuensang district, is an epiphytic plant and grows on tall trees, while *Caulokaempferia dinabandhuensis* was found growing in rock crevices.
- Two BSI scientists, Nripemo Odyou and Dilip Kumar Roy, found the plant.

3. NASA's Parker Solar Probe

- NASA's Parker Solar Probe is scheduled for launch in 2018 to explore the Sun's outer atmosphere.
- The probe will use Venus' gravity during 7 flybys over nearly 7 years to gradually bring its orbit closer to the Sun.
- The primary goal of the mission is to trace how energy and heat move through the solar corona and to explore what accelerates the solar wind as well as solar energetic particles.

4. India's 2nd largest rooftop solar plant

- State-owned gas utility GAIL India Ltd today said it has commissioned the country's second-largest rooftop solar power plant.
- The firm has installed a 5.76 MWp (Mega Watt peak) solar plant at its petrochemical complex at Pata in Uttar Pradesh.

- The plant over the roofs of warehouses covers a total area of 65,000 square meters.

5. Turkey's Bird Language in UNESCO's List

- The unusual and very efficient whistle language used as a means of communication by villagers in remote northern Turkey entered the UNESCO list of Intangible Cultural Heritage.
- UNESCO has accepted the "bird language" of Black Sea villagers as an endangered part of world heritage in need of urgent protection.
- The UNESCO is a specialized agency of the United Nations (UN) based in Paris.