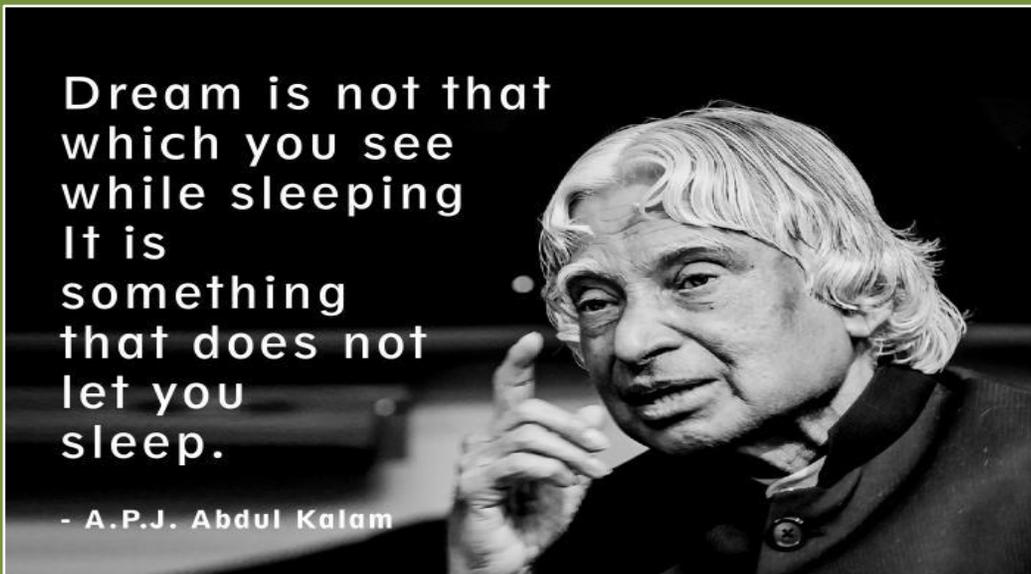


CURRENT AFFAIRS

July 2019

Dream is not that
which you see
while sleeping
It is
something
that does not
let you
sleep.

- A.P.J. Abdul Kalam



SESHAN'S ACADEMY
THIRUVANANTHAPURAM

POLITY & GOVERNANCE

1. DRAFT NATIONAL EDUCATION POLICY UNVEILED

CONTEXT

The Committee led by Dr K. Kasturirangan has presented New Draft of National Education Policy. The Draft Policy is built on foundational pillars of Access, Equity, Quality, and Affordability & Accountability

Fresh focus Key differences between the existing system and the NEP recommendations

Current system	Draft policy recommendations
<ul style="list-style-type: none">▪ RTE covers Class 1 to Class 8	<ul style="list-style-type: none">▪ RTE from preschool (age 3 onwards) till Class 12
<ul style="list-style-type: none">▪ Anganwadis, preschools cover 3 to 6 age group	<ul style="list-style-type: none">▪ Integrated primary school framework from age 3 to 8
<ul style="list-style-type: none">▪ Focus on health and nutrition in anganwadis	<ul style="list-style-type: none">▪ Anganwadis, preschools to be linked to local primary schools
<ul style="list-style-type: none">▪ Rote learning, formal teaching in preschools	<ul style="list-style-type: none">▪ Focus on play and discovery-based learning
<ul style="list-style-type: none">▪ WCD Ministry oversees anganwadi system	<ul style="list-style-type: none">▪ MHRD to oversee educational aspects



BACKGROUND

The Government of India has initiated the process of formulating a New Education Policy to meet the changing dynamics with regard to quality education, innovation and research, aiming to make India a knowledge superpower by equipping its students with the necessary skills and to eliminate the shortage of manpower.

The extant National Policy on Education, 1986 (modified in 1992) required changes to meet the contemporary and futuristic needs of our large youth population. In this context, a **'Committee for Evolution of**

the New Education Policy' under the **Chairmanship of Late Shri T.S.R. Subramanian**, former Cabinet Secretary, was constituted. It submitted its report in May, 2016. Based on this report, the Ministry prepared 'Some Inputs for the Draft National Education Policy, 2016'.

To build on the extensive work already done by the TSR Subramanian Committee, the Ministry of Human Resource and Development set up a **Committee to draft a new National Education Policy in June 2017 under the Chairmanship of Dr Kasturirangan**, former chief of ISRO.

HIGHLIGHTS IN THE NEWS

Right to Education (RTE) Act

- Extend the RTE Act, which currently applies to classes I to VIII, to the entire school system from pre-school to class XII, it will, thus, cover children of age 3 to 18 (preschool to senior secondary level).
- Review Clause 12(1) (c). That provides for mandatory 25% reservation for economically weaker section students in private schools, in the wake of its alleged misuse.

Three Language Formula

- The Draft makes a strong pitch for multilingualism in the classroom and proper implementation of the three-language formula in schools across the country.
- The three-language formula means students in Hindi-speaking states should learn a modern Indian language, apart from Hindi and English, and in non-Hindi-speaking states, Hindi along with the regional language and English.
- Increased use of languages native to India should be made, and these languages be given the space and respect they deserve (particularly in hiring, societal events, educational institutions, etc.).

School Education

- Restructuring of school curriculum to **5+3+3+4 design**. The first five years of schooling of children in the age from up of 3 to 8 years would be marked as Foundational Stage (it includes three years of pre-primary plus Grade 1 and Grade 2). The next three years of schooling, to be marked as a Preparatory Stage for the children in the age group of 8 to 11 years (will include grades 3 to 5). Middle Stage (grades 6 to 8) for the students in the age group of 11-14 years. Secondary Stage (Grades 9-12) for students in the age group of 14-18 years.
- Schools will be reorganised into **school complexes** to bring about a new culture of sharing common resources in an optimal way.
- School students should be allowed to take board examination in a given subject whenever they think they are ready.
- There will be **no separation of learning areas** in terms of curricular, co-curricular or extracurricular areas and all subjects, including arts, music, crafts, sports, yoga, community service, etc. will be curricular.

Higher Education

Restructuring of higher education institutions by placing them under **three categories**: The first primarily focussed on research; second providing high-quality teaching across disciplines with significant contribution to research; and third providing quality teaching focussed on undergraduate education.

This will be driven by two Missions-**Mission Nalanda & Mission Takshashila**. Restructuring of undergraduate programs (e.g. BSc, BA, BCom, BVoc) of 3 or 4 years duration and having multiple exit and entry options. Increase the number of offshore campuses of Indian institutions abroad and permit the world's top 200 universities to set up branches in India.

Transformation in Teacher Education

- Shut down sub-standard teacher education institutions.
- Move all teacher preparation/education programmes into large multidisciplinary universities/colleges.

- The 4-year integrated stage-specific B.Ed. programme will eventually be the minimum degree qualification for teachers.
- A national programme for the professional development of faculty members of the higher education institutions.

New Bodies

- **Rashtriya Shiksha Aayog** (National Education Commission), chaired by the Prime Minister, to enable a holistic and integrated implementation of all educational initiatives and to coordinate efforts between the Centre and States.
- The **National Research Foundation** for creating a strong research culture and building research capacity across higher education.
- **National Higher Education Regulatory Authority (NHERA)** as the only regulator for all higher education including professional education.
- Revamped **National Assessment and Accreditation Council (NAAC)** to lead the accreditation ecosystem.
- **Higher Education Grants Commission (HEGC)** to replace University Grants Commission (UGC).
- Bodies - such as Medical Council of India, Bar Council of India, AICTE, National Council for Teacher Education - will become **Professional Standard Setting Boards** in their respective fields, without regulatory powers in professional education.

Others

- Rename Ministry of Human Resource and Development (MHRD) as Ministry of Education (MoE).
- Public investment in higher education to be raised from the current 10% of overall public expenditure in education to 20%, over a 10-year period.
- Promotion of Indian and Classical Languages and set up three new National Institutes for Pali, Persian and Prakrit and an Indian Institute of Translation and Interpretation (IITI).
- Private schools are free to set their fees but they shall not increase it (taken under any head) arbitrarily. The percentage fee increase permissible based on inflation, etc.
- Private schools to not use the word 'public' in their names. 'Public' schools will only be those that are funded fully or partially by the government.

Issues involved

- ✓ The functions of regulation, provision of education, accreditation, funding, and standard setting has been recommended to be done by separate entities. This will eliminate conflicts of interest and the concentration of power.
- ✓ The functioning of educational institutions is often influenced by vested interests motivated by political and commercial factors. This often translates into corruption element that distorts governance of education.

- ✓ The Draft states that large sections of society are marginalised because the privileged use English as a criterion to determine if someone is educated and as a prerequisite for the jobs that they control.
- ✓ The states like Tamil Nadu, Puducherry and Tripura were not ready to teach Hindi and Hindi-speaking states did not include any south Indian language in their school curriculum. State governments often do not have adequate resources to implement the three-language formula.
- ✓ As per the Annual Status of Education Report (ASER), many children in elementary classrooms cannot read and write proficiently. This affects other school-based learning, as well as functioning in societies and economies that prize literacy.

WAY FORWARD

The approach should be to ensure that both political initiatives and administrative systems serve the goal of transforming the education system, and eliminating the power of vested interests, improving the transparency and efficiency. For equity and inclusion in society, the power structure of language must be stopped.

The failure of children to learn, read and write is, *inter alla*, connected to factors like health and nutritional status of children, high student-teacher ratios, and so on. This needs to be addressed. There is growing significance to '**emergence literacy**' whereby even very young children are capable of using early forms of reading, writing and drawing to express themselves and to communicate. This entire body of scholarship needs to be emphasised.

Teachers need to know how to differentiate instruction for learners at different levels and how to provide specific help to students who are struggling

2. JAN SHIKSHAN SANSTHAN

CONTEXT

The government has waived the fees for SC/ST candidates, who join vocational training under Jan Shikshan Sansthan.

HIGHLIGHTS IN THE NEWS

- Jan Shikshan Sansthan (formerly known as Shramik Vidyapeeth) are established for providing vocational skills to non-literate, neo-literates as well as school dropouts by identifying skills that have a market in the region of their establishment.
- Formerly under the Ministry of Human Resources Development, Jan Shikshan Sansthans were transferred to the Ministry of Skill Development and Entrepreneurship in 2018.
- The scope of work in Jan Shikshan Sansthans (JSSs) includes the following:
 - Develop/source appropriate curriculum and training modules covering vocational elements, general awareness and life enrichment components.
 - JSS's are encouraged to undertake training equivalent to courses designed by the Directorate of Adult Education, National Institute of Open Schooling and Director General, Employment & Training.

- Provide training to a pool of resource persons and master trainers for conducting training.
- Administer simple tests and award certificates.
- Network with employers and industries for trained to get suitable placement.

3. NITI AAYOG RECONSTITUTED

CONTEXT

Government has approved the reconstitution of National Institution for Transforming India (NITI) Aayog.

DIFFERENCE BETWEEN NITI AAYOG & PLANNING COMMISSION	
NITI AAYOG	PLANNING COMMISSION
Financial Clout	To be an advisory body, or a think-tank. The powers to allocate funds might be vested in the finance ministry
Full-time members	Enjoyed the powers to allocate funds to ministries and state governments
States' Role	The number of full-time members could be fewer than Planning Commission
Member Secretary	The last Commission had eight full-time members
	States' role was limited to the National Development Council and annual interaction during Plan meetings
	Secretaries or member secretaries were appointment through the usual process
	To be known at the CEO and to be appointed by the prime minister

HIGHLIGHTS IN THE NEWS

- As earlier, the Prime Minister will serve as the Chairman.
- Vice-Chairman Rajiv Kumar contributes in his post along with Permanent members VK Saraswat, Ramesh Chand and VK Paul.
- The ex-officio members now include Defence Minister, the Home Minister, the Finance Minister and Agriculture Minister.
- Special invites to NITI Aayog include Minister of Road, Transport and Highways, Minister of Social Justice and Empowerment, Minister of Railways and Minister of Statistics.

4. FIRST NATIONAL PARTY FROM NORTH-EAST

CONTEXT

The Election Commission (EC) has recognised the National People's Party (NPP) as the eighth national party, making the first regional party of the north-east to be accorded the status.



HIGHLIGHTS IN THE NEWS

- The National People's Party (NPP) was formed in 2013 by the current Meghalaya Chief Minister Conrad K Sangma's father and former Lok Sabha Speaker, late Purno Agitok Sangma.

- With the recognition, NPP became the eighth political party to be recognised as a national party.
- The other national parties include Bahujan Samaj Party (BSP), Bharatiya Janata Party (BJP), Communist Party of India (CPI), Communist Party of India (Marxist) (CPM), Indian National Congress (INC), Nationalist Congress Party (NCP) and All India Trinamool Congress (AITC).

BACKGROUND

The Election Commission registers political parties for the purpose of elections and grants them recognition as national or state parties on the basis of their poll performance. The other parties are simply declared as registered unrecognised parties.

The recognition granted by the Commission to the parties determines their right to certain privileges like allocation of the party symbols, provision of time for political broadcasts on the state-owned television and radio stations and access to electoral rolls. Every national party is allotted a symbol exclusively reserved for its use throughout the country.

Similarly, every state party is allotted a symbol exclusively reserved for its use in the state or states in which it is so recognised. A registered-unrecognised party, on the other hand, can select a symbol from a list of free symbols.

The national parties and state parties are also known as all-India parties and regional parties respectively. A party is recognised as a national party if any of the following conditions is fulfilled.

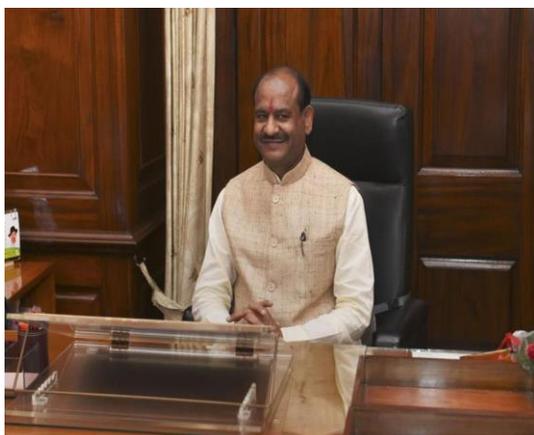
- ✓ If it secures 6% of valid votes polled in any four or more states at a general election to the Lok Sabha or to the legislative assembly; and, in addition, it wins four seats in the Lok Sabha from any state or states; or
- ✓ If it wins 2% of seats in the Lok Sabha at a general election; and these candidates are elected from three states; or
- ✓ If it is recognised as a state party in four seats.
- ✓ A party is recognised as a state party in a state if any of the following conditions is fulfilled:
 - ✓ If it secures 6% of the valid votes polled in the state at a general election to the legislative assembly of the state concerned; and, in addition, it wins 2 seat in the assembly of the state concerned; or
 - ✓ If it secures 6% of the valid votes polled in the state at a general election to the Lok Sabha from the state concerned; and, in addition, it wins 1 seat in the Lok Sabha from the state concerned; or
 - ✓ If it wins 3% of seats in the legislative assembly at a general election to the legislative assembly of the state concerned or 3 seats in the assembly, whichever is more; or
 - ✓ If it wins 1 seat in the Lok Sabha for every 25 seats or any fraction thereof allotted to the state at a general election to the Lok Sabha from the state concerned; or
 - ✓ If it secures 8% of the total valid votes polled in the state at a General Election to the Lok Sabha from the state or the legislative assembly of the state. This condition was added in 2011.

5. ONE NATION, ONE ELECTION

CONTEXT

Recently, the Prime Minister convened a meeting with the presidents of some political parties over the simultaneous elections.

HIGHLIGHTS IN THE NEWS



Om Birla
Speaker of Lok Sabha

- The idea of holding simultaneous elections or 'one nation, one poll' means conducting polls to the Lok Sabha and the state assemblies together on a single day or in a phased manner, once in five years.
- The initiative will need a constitutional amendment, which will have to be ratified by 50% of the states.
- After the adoption of the Constitution in 1950, polls to the Lok Sabha and all state assemblies were held simultaneously every five years between 1951 and 1967.
- Premature dissolution of some legislative assemblies in 1968 and 1969 disrupted the cycle.
- One question being raised is what happens to the common cycle if any one of the simultaneously elected legislatures is brought down by a no-confidence motion.
- In a democratic country, an election is the core thread through which people can express their views about the government. Frequent elections ensure that the politicians have to show their faces to voters regularly.
- Another important consideration is the federal spirit, which, inter alia, requires that local and national issues are not mixed up. But in simultaneous elections, the chances of voters voting together for the same party for the State and the Centre are high.

BACKGROUND

Being in continuous election mode is a roadblock to good governance; it distracts politicians from addressing real issues and adds populism to the character of governance. Having simultaneous parliament and Assembly polls once every five years and completed within a month or so would save money, resources and manpower. The Law Commission has recommended simultaneous elections to Lok Sabha, Vidhan Sabha and the local bodies as far back as in 1999.

WAY FORWARD

- 'One Nation One Election' is a serious and sensitive subject that requires much deliberation. Cooperative federalism is a key feature and if it is to be implemented, there needs to be a solid political consensus.
- In Germany, the provision of **constructive vote of no-confidence** allows withdrawal of confidence from a government only if there is a majority in favour for a prospective successor. It narrows the scope of the Opposition to overthrow the government at will and necessitate elections before the government ends its term.
- Another way to make 'one nation, one election' work in case of premature dissolution is to provide flexibility in terms of tenure. For example, if a government falls before completing its terms of five years, then there can be a re-election with the new government holding power only for the remaining period.
- Moreover, any step forwards simultaneous elections should be supplemented with comprehensive electoral reforms like electoral funding, decriminalisation of politics etc.

6. GLOBAL PEACE INDEX 2019

CONTEXT

Recently, the Australia-based think tank Institute for Economics & Peace released the Global Peace Index (GPI) 2019, the thirteenth edition of the index.



HIGHLIGHTS IN THE NEWS

- GPI ranks countries according to their level of peacefulness based on three thematic domains—the level of *Societal Safety and Security*; the extent of *Ongoing Domestic and International Conflict*; and the degree of *Militarisation*.
- This year's report includes new research on the possible effects of climate change on peace.
- The results this year show that the average level of global peacefulness improved very slightly in the 2019 GPI. This is the first time the index has improved in five years.
- India's is ranked 141 among 163 countries. The ranking of India in 2018 was the 136.

- Iceland remains the most peaceful country in the world, a position it has held since 2008.
- Afghanistan is now the least peaceful country in the world, replacing Syria, which is now the second least peaceful.
- Among the South Asian countries, Bhutan topped the index with 15 rank, Sri Lanka 72, Nepal 76, Bangladesh 101 and Pakistan 153.
- India together with the Philippines, Japan, Bangladesh, Myanmar, China, Indonesia, Vietnam and Pakistan are the nine countries with the highest risk of multiple climate hazards. India has the 7th highest overall natural hazard score.
- The US, China, Saudi Arabia, Russia and India are the top five countries with the largest total military expenditure.

7. TRAFFIC INDEX 2018

CONTEXT

Recently, the Traffic Index 2018 was published by TomTom, an Amsterdam based company that offers traffic solutions by using location technology to collect traffic information.

WORLD TRAFFIC INDEX 2018

WORLD RANK	CITY	COUNTRY	CONGESTION LEVEL
1	Mumbai	India	65% ↓ 1%
2	Bogota	Colombia	63% ↑ 1%
3	Lima	Peru	58% ↑ 8%
4	New Delhi	India	58% ↓ 4%
5	Moscow	Russia	56% ↓ 1%
6	Istanbul	Turkey	53% ↓ 6%
7	Jakarta	Indonesia	53% ↓ 8%
8	Bangkok	Thailand	53% ↓ 2%
9	Mexico City	Mexico	52% - 0%
10	Recife	Brazil	49% ↑ 2%

Source: TOMTOM

IANS GRAPHICS

HIGHLIGHTS IN THE NEWS

- The latest index ranks 403 cities across 56 countries on traffic congestion.
- Congestion has been defined in terms of the additional time taken to reach a destination as opposed to when the road would have been clear of traffic.
- Mumbai has been ranked as the most traffic-congested city in the world for the second consecutive year. Bogota (Colombia) and Lima (Peru) were ranked second and third on the list respectively.

- Delhi is the fourth most traffic congested cities in the world while the Russian capital Moscow ranked fifth.
- Mumbai's extra travel time is 65% more than an average trip would take during uncongested conditions and Delhi's extra travel time is 58% more.

WAY FORWARD

- Road expansions and overpass construction projects must be taken up by the government.
- Improvement in public transport and additional schemes like the Bus Rapid Transport (BRT). The BRT is implemented in some cities like Pune, and it can be very helpful if implemented efficiently.

Effects of traffic congestion

Environmental concerns like increasing air and noise pollution. In 2016, a World Health Organisation (WHO) study found that fourteen of the twenty world's most polluted cities belonged to India. India experiences 120,000 deaths per year due to traffic fatalities, more than any other country. Delhi has the highest accident rate in India and third-highest in the world.

Economic loss is concerned with the monetary value of the time spent sitting in traffic. Blocked traffic also interferes with the passage of emergency vehicles etc. On the positive side, traffic congestion indicates a strong emerging economy.

- Proper road network planning and traffic engineering and management with strict and stringent measures (through fines and penalties) against traffic violators.
- Provision of commuter subsidies for public transport, carpooling or ridesharing. There is a need for a shift from car-centric policy to a restriction imposed over the purchase of cars or four wheelers. Preferred parking locations can be provided to those who choose to carpool.
- A free shuttle service from nearby metro stations to all corporate offices can address the issue of last mile connectivity.

8. 16TH ASIA MEDIA SUMMIT

CONTEXT

The 16th Asia Media Summit 2019 was held in Siem Reap province, Cambodia to deliberate on issues pertaining to media & broadcasting industry.

HIGHLIGHTS IN THE NEWS

- Asia Media Summit is an annual conference organised by Asia-Pacific Institute for Broadcasting Development (AIBD) in collaboration with its partners and international organisations.



UNESCO Headquarters, Paris- France

- **The theme of the 16th Summit was 'Media Digitalization Focusing on Developing Markets'.**
- The summit has addressed concerns caused by digital media, which requires relevant authorities to make regulations on cybercrimes, fake news, and training people to raise awareness and enhance the media profession.
- It was attended by decision makers, media professionals, scholars, and stakeholders of news and programming from Asia-Pacific, Africa, Europe, Middle East and North America.
- Asia Media Summit provides a unique opportunity for broadcasters in the region to share their thoughts on Broadcasting and information and is supported by all regional and international Broadcasting Unions and Associations.

Asia-Pacific Institute for Broadcasting Development (AIBD)

AIBD was established in 1977 under the auspices of UNESCO. It is a unique regional inter-governmental organisation servicing countries of the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) in the field of electronic media development.

Its secretariat is located at Kuala Lumpur and is hosted by the Government of Malaysia. AIBD is mandated to achieve a vibrant and cohesive electronic media environment in the Asia-Pacific region through policy and resource development.

The United Nations Development Programme (UNDP), the United Nations Educational, Scientific Cultural Organisation (UNESCO), the International Telecommunication Union (ITU) and the Asia-Pacific Broadcasting Union (ABU) are founding organisations of AIBD and they are non-voting members of the General Conference. Broadcasters from 26 countries in the Asia Pacific region including India are its full members. India was elected as President of AIBD in 2018 for the duration of two years.

9. FIRE SAFETY

CONTEXT

A recent fire incident at a coaching centre in Surat has resulted in the death of several students.

HIGHLIGHTS IN THE NEWS

- As per National Crime Records Bureau, 17,700 Indians died - 48 people every day - due to fire accidents in 2015. Of those who died, 62% were women.
- Maharashtra and Gujarat, the two most highly urbanised states, account for about 30% of the country's fire accident deaths, hence there is a direct correlation between the deaths due to fire-related accidents and population density associated with urbanisation.
- According to India Risk Surveys 2018, outbreak of fire poses risks to business continuity and operations and ranks India at 3rd position in fire incidents, especially in Northern and Western regions of India.
- Based on a **2011 study, 65% deficiency was reported in fire stations.**

- According to Ministry of Home Affairs, in 144 towns with population over 1 lakh, there is a **huge deficiency of fire fighting infrastructure**.
- **78% of the budget allocated** to buying fire safety equipment and rescue vehicles went **unused across the state between 2010 and 2015**.

Causes of fire accidents in India

- ✓ **Violation of safety norms and lack of standardisation and regulation** is a major cause of fire accidents. Large scale construction of false roofs in commercial buildings and multiplexes is against the national building construction code.
- ✓ **High rise buildings are more prone to fire accidents** as they lack adequate in-built fire protection system that makes salvaging operations difficult.
- ✓ **Poorly stored goods**, even though they are not flammable, helps to spread fire and hinder fire fighters gain access to the seat of the fire or **reduce the effectiveness of sprinkler systems**.
- ✓ **Unclear provisions of fire safety audit** in terms of scope, objective, methodology and periodicity of a fire safety audit.
- ✓ **Lack of adequate resources, preparedness and poor fire services** fail to ensure fire safety cover to the population.
- ✓ **Lack of awareness about the safety arrangements** before purchasing or hiring a flat in an apartment or before starting an institution.
- ✓ **Faculty Wiring** as PUF (Poly Urethane Foam) used for plastic insulation carries a **high risk of accidental fire** as most of the times it is exposed to electrical wiring which on becoming heated due to overloading or short circuit catches fire immediately.

WAY FORWARD

The government should provide financial support and assistance in augmenting and **modernising the fire departments**. **Proper designing of electrical fittings** and regular maintenance of wiring, **Building awareness** among citizens about fire prevention and protection measures by organising fire fighting workshop once in six months in localities/schools with the involvement of local councillors/ elected representatives.

Fire service departments should audit critical fire prone installations (like high rise building, multiplexes in congested areas) periodically (once in six months) and take appropriate actions against erring establishments. **Proper demarcation of entry and exit points** in crowded buildings, installation of **fire fighting equipment** and their regular maintenance, periodic renewal of no-objection certificates by building owners in order to ensure fire preparedness.

ECONOMICS

1. Kerala to Impose Flood Cess

CONTEXT

Recently, the Kerala government has decided to impose an additional cess of 1% on goods and services with GST slab of above 5%.

HIGHLIGHTS IN THE NEWS

- Kerala is the first state to impose such an additional cess on GST.
- The flood cess is aimed at raising the funds to rebuild the state, which was struck by devastating floods in August 2018.
- It will be imposed for 2 years starting from June 2019.
- In order to minimise the burden of cess, there will be no additional tax on products sold by small traders, with an annual turnover of less than Rs.1.5 crore.
- The cess will be applicable only on transactions within Kerala and not inter-state transactions.
- The government has also decided to levy 0.25% as flood cess on gold and silver.

WHAT IS CESS?

Cess is a tax on tax and is usually levied for specific purposes. Once its purpose is achieved, they are stopped. Unlike the other taxes that have to be shared with other Indian states, the Centre keeps the entire amount raised from the cess. Cess fund is to be kept in the Consolidated Fund of India, before being transferred to the dedicated accounts.

At the Central level, currently, there are 6 cesses which continue to be levelled by the Central Government namely, Primary Education Cess, Secondary Education Cess, Cess on Crude Petroleum Oil, Road Cess, NCCD on tobacco and tobacco products, Education Cess on imported goods. Some cesses have been subsumed under the GST with effect from 1 July 2017, like Krishi Kalyan cess, Swachh Bharat Cess, Clean energy cess, Cess on Tea, sugar and Jute etc.

2. GDP GROWTH RATE DECLINES TO FIVE YEAR LOW

CONTEXT

The GDP Growth rate of India has declined to a five year low of 6.8% according to the data released by the Central Statistics Office.

HIGHLIGHTS IN THE NEWS

- The slowdown was caused because of low GDP growth in the fourth quarter of the financial year 2018-19. The GDP growth rate in the fourth quarter stood at 5.8%.
- Growth in Gross Value Added (GVA), which is GDP minus taxes and subsidies, also fell to 6.6% in 2018-19, pointing to a serious slowdown.
- The growth in core sector output - a set of eight major industrial sectors - fell to 2.6%.
- The decline was due to a sharp slowdown in investment and manufacturing growth as well as a contraction in agricultural production.
- Growth in the Gross Fixed Capital Formation (GFCF), which denotes investments, declined to 3.4%, the lowest in several quarters.
- India has fallen behind China as the fastest-growing large economy due to the sluggish growth rate.
- The sharp decline in the GDP has elevated concerns about the credibility of the past GDP numbers.
- Former Chief Economic Adviser to the Ministry of Finance, Arvind Subramanian has argued in working paper that India's GDP growth between 2012 and 2016 likely averaged between 3.5 and 5.5% yielding an average growth of 4.5% instead of the official growth rate of 7%.

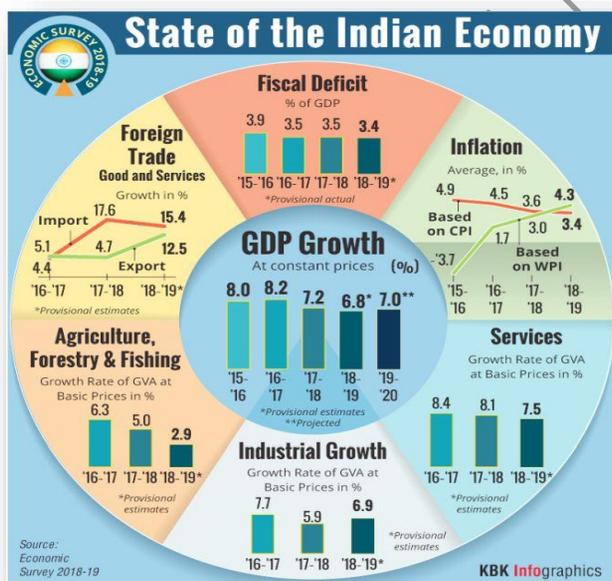
BACKGROUND

The Government has taken several steps to ensure the credibility of the GDP data. It has, in the recent years, introduced several structural changes in the economy such as GST tax regime and to factor in the changes Base Years of various indices like the Consumer Price Index, Index of Industrial Production (IIP), GDP have also been revised.

The Base year of the GDP Series was revised from 2004-05 to 2011-12 after adaptation of the sources and methods in line with the **System of National Accounts 2008 (SNA)**. India adopted the **United Nations Fundamental Principles of Official Statistics (UNFPOS)** in May 2016 and is thus bound to ensure and secure the autonomy and independence of the statistical system to produce appropriate and reliable data by adhering to internationally agreed professional and scientific standards.

In 2018, the Cabinet has approved several new activities including the conduct of new surveys on the **Annual Survey of Services Sector** for a more elaborate

coverage of the services sector), **Annual Survey of Unincorporated Enterprises** (to get a better understanding of these enterprises, primarily in the informal sector), **Time Use Survey** (for



assessing the time disposition of household members) and the Economic Census of all establishments. In addition, India has subscribed to the **Special Data Dissemination Standard (SDDS) of the International Monetary Fund (IMF)** and an Advance Release Calendar is decided for release of estimates.

The IMF had raised certain issues on the usage of **double deflation** in the Indian GDP series but the Advisory Committee on National Accounts Statistics (ACNAS) had not agreed to the use of the double deflation at present stage. Double deflation is used in only a few countries that have a Producers Price Index (PPI) to deflate the inputs. It is used to estimate real value added of an industry. In the double-inflation method, real value added is the difference between real gross output and real intermediate inputs.

SYSTEM OF NATIONAL ACCOUNTS 2008 (SNA)

- ✚ SNA 2008 is the latest version of the international statistical standard for the national accounts, adopted by the United Nations Statistical Commission (UNSC) in 2009 and is an update of the earlier 1993 SNA.
- ✚ The System of National Accounts (SNA) is the internationally agreed standard set of recommendations on how to compile measures of economic activity.
- ✚ The SNA describes a coherent, consistent and integrated set of macroeconomic accounts in the context of a set of internationally agreed concepts, definitions, classifications and accounting rules.
- ✚ In addition, the SNA provides an overview of economic processes, recording how production is distributed among consumers, businesses, government and foreign nations. It shows how income originating in production, modified by taxes and transfers, flows to these groups and how they allocate these flows to consumption, saving and investment.
- ✚ Consequently, the national accounts are one of the building blocks of macroeconomic statistics forming a basis for economic analysis and policy formulation.

United Nations Fundamental Principles of Official Statistics (UNFPOS)

UNFPOS brings professional independence, impartiality, accountability and transparency in methods of collection, compilation and dissemination of official statistics. Endorsed by the UN General Assembly, the UNFPOS are total ten in numbers.

➤ **Principal 1:** Official statistics that have practical utility are to be **compiled and made available on an impartial basis** by official statistical agencies to honour citizen's entitlement to public information.

➤ **Principal 2:** To retain trust in official statistics, the statistical agencies need to decide according to strictly professional considerations, including scientific principles and professional ethics, on the methods and procedures for the collection, processing, storage and presentation of statistical data.

➤ **Principal 3:** To facilitate a correct interpretation of the data, the statistical agencies are to **present information according to scientific standards** on the sources, methods and procedures of the statistics.

- **Principal 4:** The statistical agencies are entitled to comment on erroneous interpretation and misuse of statistics.
- **Principal 5:** Data for statistical purposes may be drawn from all types of sources, be they statistical surveys or administrative records. Statistical agencies are to choose the source with regard to quality, timeliness, costs and the burden on Respondents.
- **Principal 6:** Individual data collected by statistical agencies for statistical compilation, whether they refer to natural or legal persons, are to be strictly confidential and used exclusively for statistical purposes.
- **Principal 7:** The laws, regulations and measures under which the statistical systems operate are to be made public.
- **Principal 8:** Coordination among statistical agencies within countries is essential to achieve consistency and efficiency in the statistical system.
- **Principal 9:** The use of statistical agencies in each country of international concepts, classifications and methods promote the consistency and efficiency of statistical systems at all official levels.
- **Principal 10:** Bilateral and multilateral cooperation in statistics contributes to the improvement of systems of official statistics in all countries.

SPECIAL DATA DISSEMINATION STANDARD (SDDS) OF THE IMF

SDDS was established in 1996 to guide members that have, or might seek, access to international capital markets in providing their economic and financial data to the public. SDDS subscription indicates that a country meets the test of “good statistical citizenship”. Subscribing countries commit to:

- a. Disseminate the data required by the SDDS punctually and with the prescribed periodicity on a national webpage which is hyperlinked to the Dissemination Standards Bulletin Board (DSBB).
- b. Provide to the IMF an Advance Release Calendar (ARC) containing release dates for the current month and at least the following three months for each prescribed category of data for posting on the DSBB.
- c. Provide detailed information about their statistical practices, or metadata, for dissemination on the DSBB.
- d. Certify accuracy of the metadata on an annual basis.
- e. Use standardized electronic reporting procedures to monitor more effectively their observance of the SDDS.

3. MONETARY POLICY COMMITTEE MEET

CONTEXT

The Monetary Policy Committee (MPC) of the Reserve Bank of India (RBI) has released its second bi-monthly monetary policy statement.

HIGHLIGHTS IN THE NEWS

- It has decided to reduce the repo rate by 25 basis points to 5.75% from 6%. It has also changed its stance to accommodative.
- The reverse repo rate under the Liquidity Adjustment Facility (LAF) has been adjusted to 5.5%, and the Marginal Standing Facility (MSF) rate and the bank rate to 6%.

- The GDP growth for 2019-20 has been revised downwards from 7.2% in the April policy to 7%.

WAY FORWARD

- ✚ To **spur economic activity**, which decelerated sharply in the January-March quarter?
- ✚ The Rate cut will ensure that **adequate liquidity is available in the system** for all productive purposes. Moreover, an accommodative stance basically **means that there will be no rate increase in the near future**.
- ✚ The **headline inflation trajectory remains below the target** mandated to the MPC even after taking into account the expected transmission of the past two policy rate cuts.
- ✚ Hence, **there is scope for the MPC to accommodate growth concerns** by supporting efforts to boost aggregate demand, and in particular, reinvigorate private investment activity, while remaining consistent with its flexible inflation targeting mandate.

MONETARY POLICY

Monetary Policy is a policy employed by the central bank of country (RBI in India) to control money supply through interest rates and other monetary tools like cash reserve ratio, statutory liquidity ratio, open market operations etc. The ultimate objective of monetary policy is to ensure price stability in the economy while supporting growth.

The Monetary Policy Committee (MPC) is a committee of Reserve Bank of India (RBI), headed by its Governor, which is entrusted with the task of fixing the benchmark policy interest rate (repo rate) to contain inflation within the specified target level. The committee was created in 2016 through amendments to RBI Act 1934, to bring transparency and accountability in deciding monetary policy.

The committee comprises six members - three officials of the Reserve Bank of India and three external members nominated by the Government of India. The current mandate of the committee is to maintain 4% annual inflation (Consumer Price Index) until March 31, 2021 with an upper tolerance of 6% and a lower limit of 2%. The committee is answerable to the government if the consumer inflation is out of the prescribed range for three consecutive quarters.

BASIC ECONOMIC TERMS

- ✚ **Liquidity Adjustment Facility (LAF):** allows banks to borrow money from RBI through repurchase agreements. LAF consists of repo and reverse repo operations. This agreement allows banks to respond to liquidity pressures and is used by governments to assure basic stability in the financial markets.
- ✚ **Repo Rate:** It is also known as the benchmark interest rate and it is the rate at which the RBI lends money to the banks for a short term. If RBI wants to make it more expensive for the banks to borrow money, it increases the repo rate, similarly, if it wants to make it cheaper for banks to borrow money it reduces the repo rate.

- ✚ **Reverse Repo Rate:** It is the short term borrowing rate at which RBI borrows money from banks. The Reserve Bank uses this tool to tighten liquidity in the banking system. An increase in the reverse repo rate means that the banks will get a higher rate of interest from RBI. Repo Rate signifies the rate at which liquidity is injected in the banking system by RBI, whereas Reverse Repo rate signifies the rate at which the central bank sucks liquidity from the bank.
- ✚ **Call Rate:** The interest rate applied to interbank loans, or loans between financial institutions.
- ✚ **Marginal Standing Facility (MSF):** It is a special window for banks to borrow from RBI against approved government securities in an emergency situation like an acute cash shortage. MSF rate is higher than Repo rate.
- ✚ **Bank Rate:** This is the long term rate (Repo rate is for short term) at which central bank (RBI) lends money to other banks or financial institutions. Bank rate is not used by RBI for monetary management now. It is now same as the MSF rate.
- ✚ **Cash Reserve Ratio (CRR):** Banks are required to hold a certain proportion of their deposits in the form of cash. This minimum ratio (that is the part of the total deposits to be held as cash) is stipulated by the RBI and is known as the CRR. Currently the CRR is 4%.
- ✚ **Statutory Liquidity Ratio (SLR):** Banks are required to maintain at the class of business every day, a minimum proportion of their NDTL (Net Demand and Time Liability) as liquid assets in the form of cash, gold and free approval securities. The ratio of liquid assets to demand and time liabilities is known as Statutory Liquidity Ratio (SLR). Currently the SLR is 19.5%.

4. GST COUNCIL MEET

CONTEXT

Recently, the Goods and Services Tax (GST) Council meeting was held.

HIGHLIGHTS IN THE NEWS

- The GST Council introduced more stringent norms to check tax evasion and extended the tenure of the National Anti-Profitteering Authority (NAA) by two years to November 2021.
- It also provided approval to the electronic invoice system for Business-to-Business (B2B) transactions from January 2020.
- The Council also decided to use Aadhaar as the identity and address proof required for registration for GST. No other documents will be required, and authentication can be done using a onetime password.
- Aadhaar-based registration will simplify the registration process and improve ease of doing business.

National Anti-profiteering Authority (NAA)

NAA was constituted under **Section 171 of the Central Goods and Services Tax Act, 2017**. It is the institutional mechanism under GST law to **check the unfair profit-making activities** by the trading community.

The Authority's core function is to **ensure that the benefits on the reduction in GST rates on goods and services made by GST Council and proportional change in the input tax credit passed on to the ultimate consumers** and recipient respectively by way of reduction in the prices by the suppliers.

NAA comprises of Chairman, four Technical members, a **Standing Committee, Screening Committees** in every State and the **Directorate General of Safeguards** in the Central Board of Excise & Customs (CBEC). The orders of the NAA can be appealed against only in the high court.

5. NILEKANI COMMITTEE ON DIGITAL PAYMENTS

CONTEXT

Recently, the Reserve Bank of India (RBI) appointed committee on digital payments, headed by **Nandan Nilekani**, has made recommendations for strengthening the **digital payments ecosystem** in India.

HIGHLIGHTS IN THE NEWS

- **Removal of transaction charges** on digital payments made to the government. There should be **no convenience fee on consumers for digital payments** made to state-run entities and central departments.
- **Merchant Discount Rates (MDR) pricing structure**: 15 basis points (100 bps = 1% point) cut on the interchange rate on card payments which is borne by the merchants.
- **Removal of existing 18% import duty** on POS (point of sale) machines for a period of three years.
- **Reduce the Goods and Services Tax (GST)** on digital transactions so that the acceptance of digital payments can be improved among the customers.
- Mechanism to **Monitor the digital payment systems**:
 - a. **Digital Financial Inclusion Index** so that progress in an area can be measured along a common scale, indicating the evolution of the users and steps taken for correcting the imbalance.
 - b. Aggregated **information** based on **blocks** and **PIN codes**, must be available to all players on a monthly basis.

WAY FORWARD

- ✚ **Reduce the overall cost of the consumers** such as KYC (Know Your Customer) process at multiple stages of the transaction and service charges for digital payments.

- ✚ **Protection from fraud and risk:** payment systems must rely on machine-driven, online dispute resolution systems to handle complaints.
- ✚ Setting up an **Acceptance development fund:** This will be used for developing new merchants in poorly served areas.
- ✚ **Reduce gap between “digital credits” and “digital debits”:** There is a need for improvement on demand or acceptance side of the ecosystem as, high-cost structures, including interchange fees, as well as limited financial service offerings, impede merchants from accepting digital payments.
- ✚ Target for additional growth of **volume of digital payments by 10 times in three years** and the growth will be driven by a shift from **high-value, low-volume, high-cost transactions to low-value, high-volume, low-cost transactions.**

6. UK SINHA COMMITTEE ON MSMES

CONTEXT

The UK Sinha Committee on Micro Small and Medium Enterprises has recently submitted its report to the Governor of the Reserve Bank of India (RBI). The Committee was constituted in January 2019 to suggest long-term measures for the economic and financial sustainability of the MSME sector.

HIGHLIGHTS IN THE NEWS

- It has proposed the **creation of a Distressed Asset Fund** with a corpus of Rs.5,000 crore and a **Fund of Funds (FoF)** of Rs. 10,000 crore to support venture capital and private equity firms investing in the struggling MSME sector.
- The distressed fund should be structured to assist units in clusters where a change - like a ban on plastics or dumping - in the external environment has led to a large number of MSMEs becoming non-performing assets (NPAs).
- This fund could then operate on the lines of the Textile Up gradation Fund Scheme (TUFS).
- In order to provide loan portability in a seamless manner to MSMEs, the committee recommended that the RBI should come out with measures on portability of MSME loans with a lock-in-period of one year.
- Banks that wish to specialise in MSME lending, their sub-targets for farm loans under the priority sector lender could be waived off, and instead can be given a target for loans to the SME sector.
- Small industries face problems of delayed payments and hesitate to enforce legal provisions available to them under the MSME Development Act due to their weak bargaining power.

BACKGROUND

Small businesses have been facing a spate of disruptions since the demonetisation in November 2016 which was followed by the implementation of the Goods and Services Tax in 2017. The crisis intensified further when a liquidity crunch was triggered by a series of debt defaults by group companies of Infrastructure Leasing and Financial Services Ltd in 2018.

WAY FORWARD

- ✚ The Committee has proposed doubling the limit on collateral-free loans to Rs. 20 lakh from the current level of Rs. 10 lakh to boost the fund requirement of the MSME sector.
- ✚ The proposal is to provide the loans under the MUDRA scheme of the central government as working capital and term loans for business enterprises in manufacturing, trading, services and agriculture activities.
- ✚ The Committee has also recommended expanding the role of the Small Industries Development Bank of India (SIDBI).
- ✚ SIDBI can deepen credit markets for MSMEs in underserved districts and regions by handholding private lenders, such as Non-Banking Financial Companies and microfinance institutions.
- ✚ It recommended an amendment to the Act, requiring all MSMEs to mandatorily upload from time to time all their invoices above an amount to be specified by the government to an information utility.
- ✚ This mechanism will entail automatic display of the names of defaulting buyers and also act as moral suasion on them to release payment to these suppliers.

7. SEBI TIGHTENS DISCLOSURE

CONTEXT

The capital market watchdog, **Securities and Exchange Board of India (SEBI)**, has asked **debenture trustees (DTs) to enhance their disclosures for listed debt securities** to protect investor interest.

HIGHLIGHTS IN THE NEWS

- The debenture trustee shall **disclose the nature of compensation arrangements with its clients on their websites**, including the minimum fee to be charged (in absolute terms or as a percentage of the issue size) and factors determining the same.
- DTs will have to display on their websites the **details of interest and redemption due on debenture holders** in respect of all the issues during a financial year **within five working days from the start of a financial year**.
- They will also have to update such details for any new issues handled during the financial year within five days of closure of the issue.
- The **status of payments has to be updated within one day of the due date**, which effectively means that any **default or delay will be disclosed** within a day of the due date.
- **For privately-placed debt securities**, SEBI has made it mandatory for the inclusion of a clause starting that **at least 2% per annum interest would be paid over the coupon rate in case of a default** in meeting the payment obligations. The additional interest would be payable by the company for the tenure of the defaulting period.

Debenture

It is an instrument of debt executed by the company acknowledging its obligation to repay the sum at a specified rate and also carrying an interest. It is one of the methods of raising loan capital of the country. ***The basic distinction being, when one buys the shares of the company he becomes the part owner of the company, but when one buys debentures issued by the company he becomes a creditor to the company.*** It is a kind of formal loan given to the company by another individual. The company is under obligation to repay the loan within a specified period of time with interest.

Debenture Trustee

- ✓ A debenture trustee is one that serves as the holder of debenture stock for the benefit of another party.
- ✓ When a company is looking to raise capital, one method of accomplishing this is by issuing stock as a form of debt with obligation to repay the debt at a specific interest rate. The trustee serves as a liaison between the company that issued the debentures and the debenture holders that collect interest payments.

8. CONSUMER CONFIDENCE SURVEY

CONTEXT

The Reserve Bank of India (RBI) has released the **Consumer Confidence Survey** for the month of May 2019.

HIGHLIGHTS IN THE NEWS

- The CCS was conducted in 13 Indian cities - Ahmedabad; Bengaluru; Bhopal; Chennai; Delhi; Guwahati; Hyderabad; Jaipur; Kolkata; Lucknow; Mumbai; Patna; and Thiruvananthapuram.
- Responses were collected on households' perceptions and expectations on the general economic situation, the employment scenario, the overall price situation and their own income and spending.
- The Survey found that after a sharp upsurge in the March 2019 round, consumer confidence fell in the May 2019 round.
- Weakening confidence is primarily attributable to the deterioration in sentiments on the economic situation and employment.

CONCLUSION

- Despite a marginal increase in spending on essential items, a sharp fall in the discretionary spending, such as on consumer durables, travel etc., led to lower Private Final Consumption Expenditure (PFCE) and a somewhat less optimistic outlook for the year ahead.

- However, consumer's perception of the general economic situation remained in optimistic territory, despite a sharp lowering of sentiments in the current round.
- The net share of respondents who think they will spend more, either now or a year from now, on non-essential items has fallen to an all-time low since September 2015.

9. UNCTAD WORLD INVESTMENT REPORT 2019

CONTEXT

Recently the United Nations Conference on Trade and Development (UNCTAD) has released its "World Investment Report 2019".

HIGHLIGHTS IN THE NEWS

- The global FDI flows declined for the third consecutive year. It slid by 13% in 2018 to 51.3 trillion from 51.5 trillion the previous year.
- Globally, the contraction in FDI flows was largely precipitated by United States multinational enterprises (MNEs) repatriating earnings from abroad, making use of tax reforms introduced by the country in 2017.
- FDI inflows to developing countries in Asia rose by about 4% to 551.2 billion in 2018.
- The Asian region remained the world's largest FDI recipient, absorbing 39% of global inflows in 2018, up from 33% in 2017.
- India ranks 10th amongst the top recipients of FDI in 2018, a notch down from last year

UNCTAD

UNCTAD is a **permanent inter-governmental body** established by the United Nations General Assembly in **1964**. Its headquarters are located in Geneva, Switzerland. It is **part of the UN Secretariat**. It supports developing countries to access the benefits of a globalized economy more fairly and effectively.

WAY FORWARD

- ✚ Developing and transition economies capture 45% of all innovation-related FDI. Projects in developing Asia are transforming some economies, including Singapore, Hong Kong (China), India and Malaysia, into global hubs of applied research.
- ✚ The report also noted that the largest share of the world's special economic zones is in Asia (Of the 5,400 special economic zones (SEZs) in the world, more than 4,000 are in developing countries in Asia).
- ✚ China hosts the most, at more than 2,500, followed by Philippines (528), India (373) and Turkey (102).

- ✚ Foreign Direct Investment (FDI) to India grew by 6% to \$42 billion in 2018, with strong inflows in the manufacturing, communication and financial services sectors, and cross-border merger and acquisition activities like Flipkart Walmart merger.
- ✚ India attracted over 77% of the total foreign direct investments that came to the South Asian region.

10. GLOBAL ECONOMIC PROSPECTS REPORT

CONTEXT

The World Bank has released its Global Economic Prospects report. The title of the report was *Heightened Tensions, Subdued investment*.

HIGHLIGHTS IN THE NEWS

- The World Bank has downgraded global real GDP growth to 2.6% for 2019, down by 0.3% points from its previous forecast in January.
- Advanced economies are expected to slow down in 2019, particularly the Euro Area, due to weaker investments and exports.
- Weaker-than-expected international trade and investment at the start of 2019 are behind the decline in the growth rate.

CONCLUSION

- ✚ Rising trade barriers, a build-up of government debt and slowdowns that were deeper than expected in several major economies are some of the risks to global growth.
- ✚ South Asia's growth remained robust in the face of global economic headwinds and weakening trade and manufacturing.
- ✚ India's growth forecasts are projected to be 7.5% per annum in 2019, 2020 and 2021 supported by credit growth and an accommodative monetary policy.
- ✚ The continuing weakness in corporate and financial sector balance sheets remains a constraint for growth despite recent improvements in the Ease of Doing Business in India.
- ✚ The Report has warned that re-escalation of India-Pakistan tensions such as the one in February could increase uncertainty and impact investments in South Asia.
- ✚ "Uncertainty" about Brexit, Britain leaving the European Union, are among other key challenges and risks confronting India and other South Asian countries.

11. NATIONAL CONSUMER DISPUTES REDRESSAL COMMISSION

CONTEXT

The National Consumer Disputes Redressal Commission (NCDRC) has granted compensations to farmers who lost their crops due to sell of defective Guar seeds by the Indian Farmers Fertiliser Cooperative Limited (IFFCO).

- Guar is cultivated as a vegetable and for its gum which is India's major agricultural export to the United States.

National Consumer Disputes Redressal Commission

It was established to provide inexpensive, speedy and summary redressal of consumer disputes. It is a quasi-Judicial body, set up in 1988 under the **Consumer Protection Act of 1986**. The commission is chaired by a sitting or retired judge of the Supreme Court of India.

The Commission has jurisdiction to entertain a complaint value **more than one crore** and also has appellate and revisional jurisdiction from the orders of State Commissions or the District for as the case may be. Any people aggrieved by an order of NCDRC can filled an appeal against such order in the Supreme Court within a period of 30 days. **Head Office:** New Delhi

INTERNATIONAL RELATIONS

1. OPERATION SANKALP

CONTEXT

The Indian Navy has launched 'Operation Sankalp' in the Persian Gulf and the Gulf of Oman as a measure to assure the safety and security of the Indian vessels, following the recent maritime incidents in the region.



HIGHLIGHTS IN THE NEWS

- The operation has been launched in the wake of escalating tension in the Gulf of Oman, where two oil tankers were attacked recently.
- The US considers Iran responsible for the attacks, heightening tensions between the two countries.
- Indian Navy Ships Chennai and Sunayna have been deployed in the Gulf of Oman and Persian Gulf to undertake maritime security operations.
- In addition, a serial surveillance is also being undertaken in the area.
- The Information Fusion Centre - Indian Ocean Region is also keeping a close watch on the movement of ships in the Gulf region.

Gulf of Oman

- The Gulf of Oman, northwest arm of the Arabian Sea, lies between the eastern portion of the Arabian Peninsula (Oman) and Iran.
- It is 560 km long and connects with the Persian Gulf through the Strait of Hormuz.
- It is a shipping route for the oil-producing area around the Persian Gulf.
- It offers the only entrance from the Arabian Sea and the Indian Ocean into the Persian Gulf, thus the world's major oil exporters and importers have a joint interest in its security.

Persian Gulf

It is also called the Arabian Gulf; it is a shallow marginal sea of the Indian Ocean that lies between the Arabian Peninsula and the South Western Iran. Its length is around 990 km and its width varies from a maximum of around 340 km to a minimum of 55 km in the Strait of Hormuz.

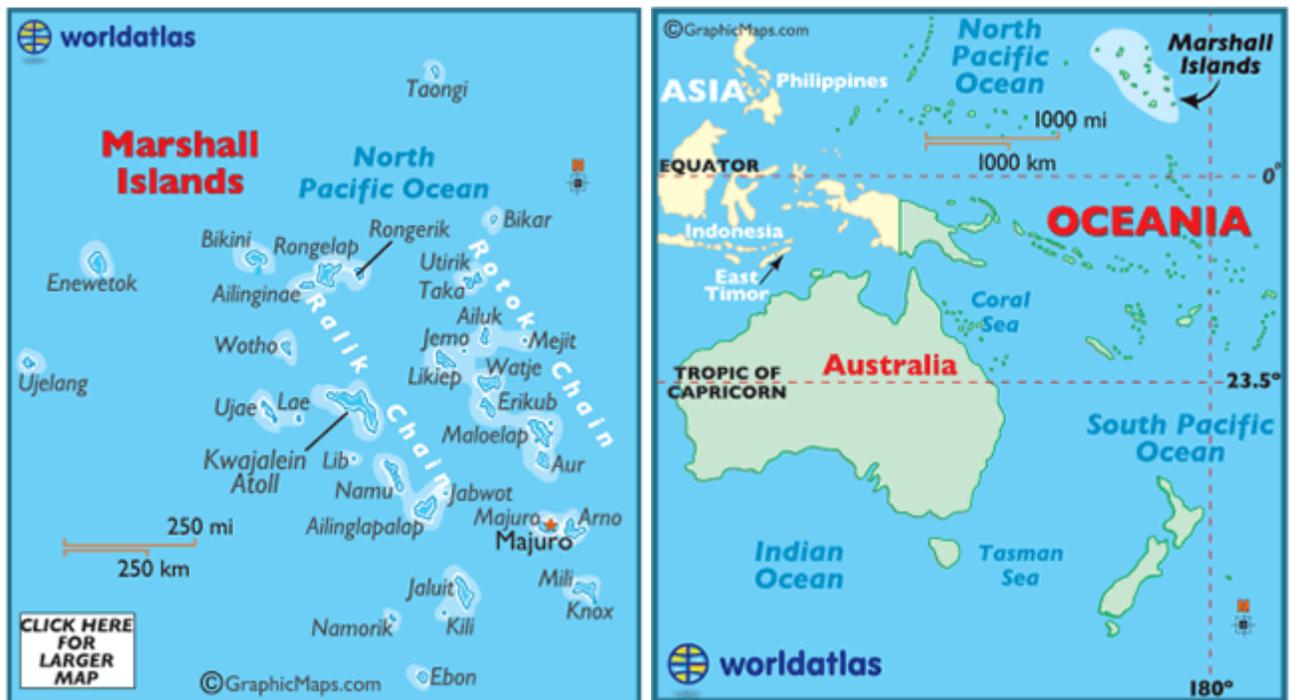
It is bordered on the north, northeast, and east by Iran; on the southeast and south by part of Oman and the United Arab Emirates; on the southwest and west by Qatar; Bahrain, and Saudi Arabia; and on the northwest by Kuwait and Iraq. The area has approximately two-thirds of the world's estimated proven oil reserves and one-third of the world's estimated proven natural gas reserves.

A considerable amount of sea trade passes through the gulf, leading to heavy traffic in the region. There remains an incessant traffic of large tankers that carry oil from the large marine terminals situated in Iran, Kuwait, Saudi Arabia, Bahrain, United Arab Emirates and other locations to all parts of the world.

2. INDIA-MARSHALL ISLANDS TIEA

CONTEXT

Recently, India has notified the Tax information Exchange Agreement (TIEA) signed with the Marshall Islands in 2016.



HIGHLIGHTS IN THE NEWS

- The Marshall Islands are a chain of volcanic islands and coral atolls in the Pacific Ocean, between Hawaii and the Philippines.
- The Agreement enables the exchange of information, including banking and ownership information, between the two countries for tax purposes.
- It is based on international standards of tax transparency and exchange of information and enables the sharing of information on request.
- The Agreement also provides for representatives of one country to undertake tax examinations in the other country.
- The Agreement will enhance mutual cooperation between India and the Marshall Islands by providing an effective framework for the exchange of information in tax matters which will help curb tax evasion and tax avoidance.

3. G20 MINISTERIAL MEETING

CONTEXT

The G20 Ministerial Summit on Trade and Digital Economy was held at Tsukuba, near Tokyo in Japan.

HIGHLIGHTS IN THE NEWS

- The meeting focused on the ways to promote trade and cooperation among the G20 countries in order to harness the potential of the digital economy.
- The G20 trade ministers' deliberations form part of the G20 summit leader's agenda in the formal discussions and will also be a part of the summit declaration.

- Although there are no binding commitments in G20, it sets the agenda for multilateral trade relations.

CONCLUSION

- ✚ Greater participation of the medium and small scale enterprises (MSMs) in developing countries to boost the domestic as well as global trade.
- ✚ Digital taxation: India has urged for the adoption of “significant economic presence” concept for taxing global digital companies.
- ✚ **Fugitive Economic Offenders**: It has asked for close cooperation among the G20 member nations to deal with fugitive economic offenders who flee their countries to escape the consequences of the law.
- ✚ **Non-Compliant Tax**: Also pitched for development of a common defensive toolkit of measures to deal with non-compliant tax jurisdictions that refuse to share tax-related information. The G20 should further expand the network of automatic exchange of financial account information (AEOI), by identifying jurisdiction, including developing countries and financial centres that are relevant but have not yet committed to any timeline.

Digital Taxation

Internet heavyweights like Google and Facebook take advantage of low-tax jurisdictions in places like Ireland and pay next to nothing in other countries where they make huge profits. There is an urgency to fix the issue of determining the right nexus and profit allocation solution for taxing the profits made by digital economy companies. The G20 has tasked the Organisation for Economic Co-operation and Development (OECD) to fix the system of proper tax distribution.

What is the G20?

- The G20 is an informal group of 19 countries and the European Union, with representatives of the International Monetary Fund and the World Bank.
- The G20 membership comprises a mix of the world’s largest advanced and emerging economies, representing about two-thirds of the world’s population, 85% of global gross domestic product, and 80% of global investment and over 75% of global trade.

Fugitive Economic Offenders

- A fugitive economic offender is an individual who has committed some specified offence(s) involving an amount of Rs.100 crore or more and has absconded from India or refused to come back to India to avoid or face criminal prosecution of India.
- A person is declared a Fugitive Economic Offender by a ‘Special Court’ set up under the Prevention of Money Laundering Act (PMLA), 2002, against whom an arrest warrant has been issued in respect of the economic offences provided in the Fugitive Economic Offenders Act, 2018.

Automatic Exchange of Information (AEDI)

- Automatic Exchange of Information (AEDI) provides for the exchange of non-resident financial account information with the tax authorities in the account holder's country of residence. It reduces the possibility of tax evasion.
- AEDI will enable the discovery of formerly undetected tax evasion. It will enable governments to recover tax revenue lost to non-compliant taxpayers, and will further strengthen international efforts to increase transparency, cooperation, and accountability among financial institutions and tax administration.

4. NATO ALLY STATUS TO INDIA

CONTEXT

Two top American lawmakers have moved a key legislation in the Senate which seeks to advance the US-India strategic relationship.

- The legislation will amend the Arms Control Export Act to bring India at par with the US' NATO allies-Israel, Australia, New Zealand and South Korea for purposes of selling military items under the ITAR (International Traffic in Arms Regulations) list.

North Atlantic Treaty Organisation

North Atlantic Treaty Organisation (NATO) is a military alliance established by the North Atlantic Treaty (also called the Washington Treaty) of April 4, 1949, by the United States, Canada, and several Western European nations to provide collective security against the Soviet Union.

A key provision of the treaty, the so-called Article 5, states that if one member of the alliance is attacked in Europe or North America, it is to be considered an attack on all members. This effectively put Western Europe under the "nuclear umbrella" of the US.

NATO has only once invoked Article 5, on September 12, 2001 following the 9/11 attacks on the World Trade Centre in the US. As of 2019, there are 29 member states, with Montenegro becoming the latest member to join the alliance in 2017. France withdrew from the integrated military command of NATO in 1966 but remained a member of the organisation. However, it resumed its position in NATO's military command in 2009.

WAY FORWARD

- ✚ The amendment is moved as part of the National Defence Authorisation Act, 2020 of the USA, giving a big boost to India-US defence trade.
- ✚ This would remove current legislative barriers to export of major high-tech defence equipment to India which is normally shared with only a few countries.

- ✚ Although, it is an important signal of US political support for enhancing defence ties but is unlikely to have tangible impact on trade flows in the near term.
- ✚ The amendment needs to be passed by both the Senate and the House of Representatives before it can be signed by the US President into law.

5. UN REPORT ON MYANMAR ROHINGYA CRISIS

CONTEXT

The UN Secretary General has accepted an independent report on how the UN System operated in Myanmar, leading up to the mass exodus of the Rohingyas following serious human rights abuses.

HIGHLIGHTS IN THE NEWS

- The report concluded that there were “systemic and structural failures” that prevented a unified strategy from being implemented.
- It covers the period 2010-2018; encompassing the UN’s responsibility to the systematic and brutal abuse of hundreds-of-thousands of mainly Muslim Rohingyas in Rakhine state, by the national army and security forces, which began in August 2017.
- It was described by the UN human rights chief at the time as a textbook example of ethnic cleansing.



FINDINGS OF THE REPORT

- ✓ **Fragmented strategy:** The report has expressed displeasure over the functioning of the UN agency in handling the violence against the Rohingyas. It observes that serious errors were committed and opportunities were lost in the UN system following a fragmented strategy rather than a common plan of action.
- ✓ **Improper reporting:** There appear to have been instances of deliberately de-dramatizing events in reports prepared by the Resident Coordinator, as well as instances of various UN

entities, including the Office for the Coordination of Humanitarian Affairs (OCHA), of not sharing their analysis with other entities of the UN System.

- The report also emphasises the impact of competing strategies between some UN agencies and individuals while dealing with the Rohingyas crisis.
- ✓ **Polarisation:** It appears that the increasing polarisation among officials and staff was fuelled, at least in part, by the emotional reactions to the horrific events taking place on the ground. The foundation of **systematic and structural shortcomings** of the UN's represents in Myanmar.
 - Insufficient inter-governmental support.
 - The absence of a clear and unifying strategy.
 - The weakness of a clear no deal point for coordination.
 - Dysfunctional actions at the level of the Country Team.
 - Shortcomings of systematic and unified analysis from the field.

CONCLUSION

- ✚ Shared responsibility: It was the shared responsibility on part of all the parties to protect the Rohingyas.
- ✚ The agencies involved have not been able to accompany the Government's political process with constructive actions.
- ✚ The report says that the UN Security Council should bear some responsibility, "for not providing enough support to the Secretariat when such backing was required and continues to be essential.
- ✚ The key lesson was to foster an environment encouraging different entities of the UN System to work together to reinforce a "broader, system-wide strategy".

ROHINGYAS

The Rohingya people are stateless, Indo-Aryan ethnic group who reside in Rakhine State, Myanmar. There were an estimated 1 million Rohingyas living in Myanmar before the 2016-17 crises. An estimated 625,000 refugees from Rakhine, Myanmar; had crossed the border into Bangladesh since August 2017. The majority are Muslim while a minority are Hindu.

Described by the United Nations as one of the most persecuted minorities in the world, the Rohingya population is denied citizenship under the 1982 Myanmar nationality law. Although Rohingya history in the region can be traced back to the 8th century, Myanmar law does not recognize the ethnic minority as one of the eight national indigenous races.

ENVIRONMENT AND ECOLOGY

1. WORLD DAY TO COMBAT DESERTIFICATION AND DROUGHT

CONTEXT

The World Day to Combat Desertification and Drought is observed every year on June 17. India for the first time will host the 14th session of the Conference of Parties (COP-14) of the United Nations Convention to Combat Desertification (UNCCD) in September, 2019).

HIGHLIGHTS IN THE NEWS

- The World Day to Combat Desertification and Drought is observed every year to promote public awareness of international efforts to combat desertification.
- The day is a unique moment to remind everyone that land degradation neutrality is achievable through problem-solving, strong community involvement and cooperation at all levels.
- **The theme of 2019 is “Let’s Grow the Future Together”.**

WHAT IS DESERTIFICATION?

It is the degradation of land in arid, semi-arid and dry sub-humid areas. It is caused primarily by human activities and climatic variations. Desertification does not refer to the expansion of existing deserts. It occurs because dry land ecosystems, which cover over one-third of the world’s land area, are extremely vulnerable to overexploitation and inappropriate land use.

Poverty, political instability, deforestation, overgrazing and bad irrigation practices can all undermine the productivity of the land.

United Nations Convention to Combat Desertification (UNCCD)

- ✓ Established in 1994, it is the sole legally binding international agreement linking environment and development to sustainable land management.
- ✓ The Convention addresses specifically arid, semi-arid and dry sub-humid areas, known as the dry lands, where some of the most vulnerable ecosystem and peoples can be found.
- ✓ **UNCCD 2018-2030 Strategic Framework:** It is the most comprehensive global commitment to achieve **Land Degradation Neutrality (LDN)** in order to restore the productivity of vast expanses of degraded land, improve the livelihoods of more than 1.3 billion people, and reduce the impacts of drought on vulnerable populations to build.
- ✓ The Convention’s 197 parties work together to improve the living conditions for people in dry lands, to maintain and restore land and soil productivity, and to mitigate the effects of drought.

- ✓ The UNCCD is particularly committed to a bottom-up approach, encouraging the participation of local people in combating desertification and land degradation. The UNCCD secretariat facilitates cooperation between developed and developing countries, particularly around knowledge and technology transfer for sustainable land management.
- ✓ As the dynamics of land, climate and biodiversity are intimately connected, to meet these complex challenges with an integrated approach and the best possible use of natural resources. The UNCCD collaborates closely with the other two Rio Conventions:
 - The Convention on Biological Diversity (CBD).
 - The United Nations Framework Convention on Climate Change (UNFCCC).
- ✓ The Bonn Challenge is a global effort to bring 150 million hectares of the world's deforested and degraded land into restoration by 2020 and 350 million hectares by 2030.
- ✓ At the UNFCCC Conference of the Parties (COP) 2015 in Paris, India also joined the voluntary Bonn Challenge pledge to bring into restoration 13 million hectares of degraded and deforested land by the year 2020, an additional 8 million hectares by 2030.
- ✓ India's pledge is one of the largest in Asia.

2. COLOR MORPHS OF WILD CAT

CONTEXT

Recently, Indian scientists from the Zoological Society of London (ZSL) and University College London (UCL) have discovered six color morphs of the golden cat in Dibang Valley of Arunachal Pradesh. The six color morphs include tightly-rosetted, cinnamon, melanistic, gray, golden, and ocelot types.

HIGHLIGHTS IN THE NEWS

- Color morphs are basically occurrence of two or more discrete colour forms of the animal within a population. For example, Black Panther is a color morph of the common leopard.
- Color morphs are thought to arise from random genetic mutations and take hold in the population through natural selection.
- Diband Valley hosts the world's most diverse range of colour morphs of a wild cat species ever reported in one site.

Significance

Understanding the evolutionary theory of color morphs could help scientists to understand how quickly species can adapt and evolve to changing environments. This would help scientists to gain better insight into the resilience capacity of the species to climate change or habitat degradation and destruction, which is also the reason for decreasing population of these species.



Color Morphs could help in conservation of Asiatic Golden Cats, as it provides ecological benefits to cats like:

- occupying different habitats at different elevations from wet tropical lowland forests to alpine scrubs.
- Providing camouflage while preying on pheasants and rabbits.

Asiatic Golden Cat

Asiatic Golden Cat is a medium-sized wild cat native to north-eastern Indian subcontinent. The Asiatic golden cat (*Catopuma temminckii*) is listed as near threatened on the International Union for Conservation of Nature's Red List of threatened species. Asiatic cats are mentioned in Wildlife Protection Act's schedule 1. Wild cats are also included in the Convention of International Trade in Endangered Species of Wild Fauna and Flora (CITES) Appendix I.

Dibang Valley

Dibang Valley District is located in the North-Easternmost corner of Arunachal Pradesh. It is the largest district of Arunachal Pradesh with the lower density of population of India. India's first 'snow tigers' were spotted in upper reaches of Dibang Valley.

3. PEOPLE'S INGESTION OF PLASTIC

CONTEXT

The World Wide Fund for Nature's (WWF) study has revealed that people worldwide could be ingesting five grams of microscopic plastic, particles (measuring 5 mm in size or smaller) every week, which is equivalent in the weight of a credit card.

HIGHLIGHTS IN THE NEWS

- **Sources of plastic ingestion:**

- (a) **Drinking water** is one of the largest sources of plastic ingestion (with plastic particles found in bottled, tap, surface and groundwater)
- (b) **Shellfish** account for as much as 0.5 g.a. week.
- (c) Inhalation represents a negligible proportion of micro plastics entering the human body.
- Indoor air because of its limited circulation is more heavily polluted with plastic than the outdoors. Major sources of Indoor airborne micro plastics are synthetic textiles and household dust.

BACKGROUND

In the last two decades, the world has produced as much plastic as during the rest of history, and the industry is set to grow by 4% a year until 2025. Ocean will contain one metric tonne of plastic for every three metric tonnes of fish by 2025. About one-third of waste plastics are dumped or leached into nature, polluting land, rivers and the sea.

Plastic pollution and wildlife

- Animals get entangled in large plastic debris, leading to injury or death.
- Animals also ingest large quantities of plastic that they cannot pass through their digestive systems, resulting in internal abrasion, digestive blockage, and death.
- Toxins from ingested plastic also harm breeding and impair the immune system of animals.

Curbing plastic pollution

- Political and economic actions to reduce the amount of plastic being disposed of into the environment.
- Minimize the use of plastics and encourage recycling of plastics instead of taking stringent acts of total ban or zero plastic.
- Legally binding agreement to combat marine plastic pollution. It should be a stand-alone treaty like the Montreal Protocol or the Paris Agreement.
- Binding national commitments and protocols or restricting commercial and household use of plastics.

Threats from plastic pollution

- The dumping of plastic items had interrupted free flow of monsoon run-off.
- Around two-thirds of all forms of plastic getting accumulated, degrades slowly and leaches into the land and water.
- Plastic causes serious environmental pollution, affecting the basic life support system such as soil, water and air.
- Plastic pollution also results in health ailments such as eye irritation, vision failure, difficulty in breathing, liver dysfunction and cancer.

Recommendations

- Prior to plastic ban, it is necessary to adopt daily usage of alternative packing items.
- Encourage people to identify and manufacture alternative packing items.

- Hoteliers should be encouraged to shift to banana leaf, teak leaf, vanathula leaf and mantharai leaf for serving and packing food.
- Skill development in producing alternate packing materials should be encouraged.
- Enforcement of rules and regulations for the production and use of plastic.

WAY FORWARD

- ✚ Under the government’s renovation plan the region near the lake will be made litter free so that it becomes favourable of the migratory birds.
- ✚ The lake region will be declared as no horn and plastic free zone.

4. UN-HABITAT ASSEMBLY

CONTEXT

Recently, India was elected to the Executive Board of the first UN-Habitat Assembly at the Plenary Session of the Assembly being held in Nairobi.

- Theme for the UN-Habitat Assembly is **“Innovation for Better Quality of Life in Cities and Communities”**.

WHAT IS THE UN-HABITAT?

The United Nations Human Settlements Programme is the United Nations programme for human settlements and sustainable urban development. It was established in 1978 as an outcome of the First UN Conference on Human Settlements and Sustainable Urban Development (Habitat I) held in Vancouver, Canada, in 1976.

UN-Habitat maintains its headquarters at Nairobi, Kenya. It is mandated by the United Nations General Assembly to promote socially and environmentally sustainable towns and cities with the goal of providing adequate shelter for all.

The mandate of UN-Habitat derives from the Habitat Agenda, adopted by the United Nations Conference on Human Settlements (Habitat II) in Istanbul, Turkey, in 1996. The twin goals of the Habitat agenda are:

- Adequate shelter for all.
- The development of sustainable human settlements in an organizing world.

Outcome of the UN-Habitat Assembly

- ✓ Contributions of more than \$152 million towards making cities more inclusive, safe, resilient and sustainable, by the member countries.
 - ✓ Communities, cities or towns that improve their solid waste management and reduce their waste management expenditure will be publicly recognised as ‘Waste-Wise Cities’.
 - ✓ The initiative asks communities, cities and towns around the world to “rethink, reduce, recycle, refuse and reuse waste”.

- ✓ The strategic plan of the UN human settlements programme for the period 2020-2025 is presented. The plan aims to advance sustainable urbanisation as a driver of development and peace, to improve living conditions for all.
- ✓ Participating nations also presented their statements on efforts to promote the New Urban Agenda (NUA) and sustainable urban development.
- ✓ Asian and African countries like India, Pakistan, Indonesia, Rwanda and Uruguay presented an overview of the national policies and practices.
- ✓ Venezuela suggested considering social housing as an important public good.
- ✓ Korea stressed the potential of artificial intelligence and virtual reality technology to address urban problems.

5. WATER CONSERVATION: TRADITIONAL APPROACH

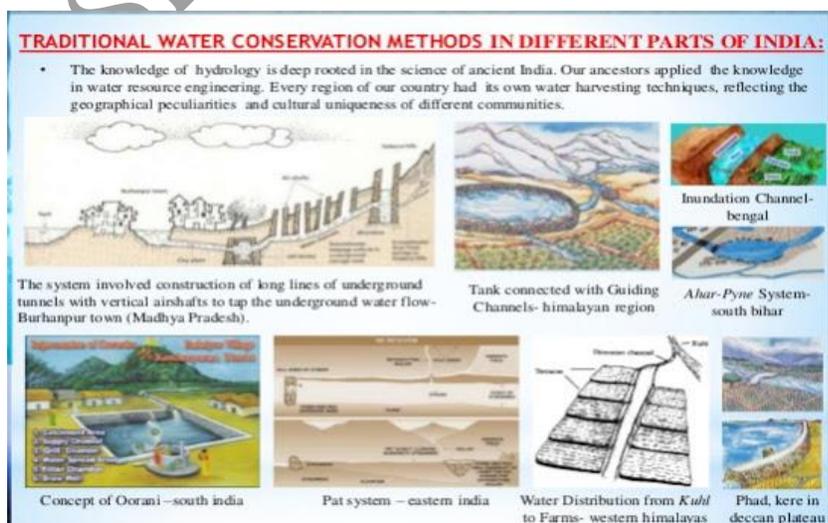
CONTEXT

According to experts, traditional knowledge of water conservation is the only sustainable way to counter the dangers of National Water Emergency. India with its rich culture and heritage in terms of images, rituals, traditional knowledge to conserve water, cultural practices and metaphors on water wisdom can suffice the efforts of water conservation.

Traditional ways of water conservation

- ❖ **Women's Role:** In ancient times, women were considered as the gatekeepers of water ecologies and were responsible for:
 - a. Building water bodies like step-wells, tanks and even ponds such as the world heritage site of Queens Step-well (Rani Ki Vav) in Patna, Gujarat, and the Rani and Padam Sagar in Jodhpur, Tank Nagamandala in Karnataka.
 - b. Cleaning and Maintenance of water bodies.
- ❖ **Performance of dances and songs like:**

Girja Devi singing the story of a woman making her way to fetch water, tales of Vidyadhari Bal of Varanasi practising to capture in her voice the friction of the rope against the stone wall of the well, songs like "Ganga Geet" in Uttarakhand, Bhawai dance of Rajasthan.



❖ **Performance of water rituals like:**

- Worship of water body
- Jal Yatras on Ghagwat Pooja.
- Jal Yajna etc.

❖ **Sacred aspect of water bodies can be utilised for cleaning and maintenance of water bodies**

In Uttarakhand it is believed that the water spirit (masaan) is present in all irrigation channels and it needs to be mollified to protect the crops. Rajasthan's pre-monsoon ritual called Lasipa ensures gathering, cleaning and desalting of a water bodies by all villagers. During fertility festivals of Gangaur and Akha Teej, women come together to clean lakes and tanks.

❖ **Tribal Practices:**

Irrigation of the paddy fields in the entire Ziro valley (where the main source of water for households and irrigation is from a single small river and some spring wells) is carried out through a network of irrigation canals.

❖ **Heritage knowledge:**

Irrigation is also practised in the remote cold desert of Spiti. The Khuls (channels) are designed to carry long distances the water from glaciers to villages. On reaching a village the water falls in a central tank and the use is regulated by the community.

❖ **Community ownership:**

Traditionally, the water management was a community responsibility. Neeruganti and Karnataka was a person who controlled and managed distribution of water. System of water ownership is still prevalent in Spiti and Arunachal and few desert areas.

Examples of traditional water knowledge

- (a) Rain water harvesting such as building tanks.
- (b) Rejwani system where water percolates through sand, settles on the gypsum layer, and is brought for use by a complex capillary system called Beri.
- (c) Patali pani which are the deep aquifers that is determined by geological formation.

7. HUMANS DRIVE A MILLION SPECIES TO EXTINCTION: AN OVERVIEW

CONTEXT

Nature is declining globally at rates unprecedented in human history, warns the first-ever Global Assessment Report on Biodiversity and Ecosystem Services.

HIGHLIGHTS IN THE NEWS

- The report is published by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), an independent intergovernmental body with 130 member states that was set up in 2012.
- 15% of the 8 million animals and plant species on Earth are under extinction threat.

- These include - 40% of the amphibians, 33% of marine mammals and 10% of the insects species.
- World has already lost 30% global terrestrial habitat integrity due to habitat loss and deterioration.

Human Induced Activities : Main Driver of Extinctions

- ✓ One third of the marine fish stocks in 2015 were harvested at unsustainable levels.
- ✓ More than half of the ocean area is covered by industrial fishing.
- ✓ 40% of marine environment is severely altered.
- ✓ Three fourth of the terrestrial environment has severely altered by human actions.
- ✓ Nearly half of agricultural expansion has occurred at the expense of forests.
- ✓ A 100% growth urban area is observed since 1992.
- ✓ Around 1 degree Celsius increase in the average global temperature is recorded between preindustrial levels and 2017.

MICROPLASTICS RAIN OVER PRISTINE FRENCH MOUNTAINS

- ✓ Tiny pieces of plastic are raining from the sky above the Pyrenees Mountains in southern France.
- ✓ What's surprising is that there is no human habitation nearly 100 km from the mountains.
- ✓ Still researchers have found a daily rate of 365 microplastic particles per square metre falling from the sky.
- ✓ The first-of-its kind study which is published in Nature Geoscience, establishes two things succinctly.
- ✓ First is establishes the sheer scale of microplastics in our atmosphere.
- ✓ Second is the fact that microplastics can travel to distant parts through the atmosphere.

WESTERN GHATS LOSE TREE COVER TO URBANISATION

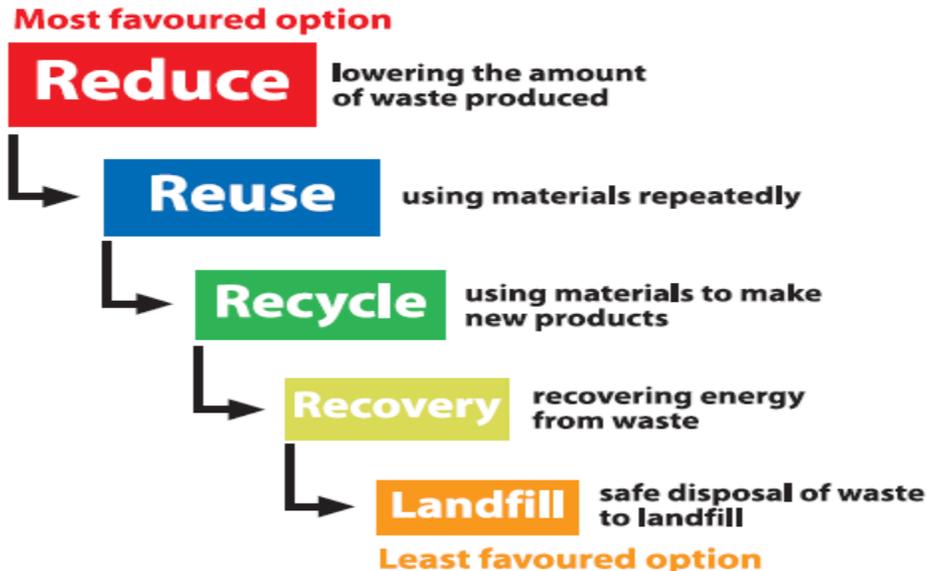
- ✓ The Western Ghats have lost some 20,000 hectares (ha) of trees in the past 17 years, suggests data from Global Forest Watch, an open source of non-profit World Resources Institute.
- ✓ Of this, 10,000 ha was lost in the past five years in the four Karnataka districts that form the core of the Western Ghats-Dakshin Kannada, Uttara, Kannada, Kodagu and Udupi.
- ✓ The repercussions are already visible as the Cauvery River, which originates from this region has started drying up.
- ✓ The river is crucial for the life and livelihood of over 100 million people in Karnataka and Tamil Nadu.
- ✓ The rapid tree loss has also resulted in 0.2 million tonnes of carbon emissions, says Global Forest Watch.
- ✓ Rapid urbanisation, that has prompted mindless development activities, is the primary reason for the alarming decline in tree cover.
- ✓ The region is important for the entire Indian subcontinent because it influences the southwest monsoon weather pattern during late summers.
- ✓ The United Nations Educational, Scientific and Cultural Organization (UNESCO), while conferring the status of World Heritage Site, listed the region as the world's eight "hottest hotspots" of biological diversity.
- ✓ Besides Karnataka, the Western Ghats are spread across Kerala, Tamil Nadu, Goa, Maharashtra and Gujarat.

PRIORITIZING WASTE MANAGEMENT: AN URGENT NEED FOR INDIA

- ✓ In 1992, 178 countries came together and adopted Agenda 21 that emerged from the Earth Summit in Rio de Janeiro.
- ✓ The agreement was a global partnership to encourage countries and make a transition to sustaining life on Earth.
- ✓ It pointed at the unsustainable patterns of production and consumption, and recognised the need to develop effective ways to dispose mounting waste.
- ✓ Developed countries started discussing ways to move from a linear flow of materials (resource-product-waste) to a circular flow (resource-product-recycled resources).
- ✓ But the picture is different in India, which is still struggling to only manage its waste.
- ✓ Poor implementation of rules is creating a waste burden which may soon become a huge liability.

Severity of Situation

- ☐ Only 2.2% anthropogenic wastewater receives treatment in India.
- ☐ 1.3 kg is per capita e-waste is generated in the country.
- ☐ Due to these factors, there occurs 6.2 kg per capita production of sulfur dioxide emissions from this waste.
- ☐ Around 190 million kg of biomedical waste was generated in the country in 2016.
- ☐ Shockingly, nearly half of the country's municipal solid waste remains untreated.



KEY ASPECTS TO TACKLE WASTE MANAGEMENT

Inclusive waste management

- ✚ The three “Rs”__ recycle, reuse and reduce__ are most talked about in waste management conversations.
- ✚ In most waste regulations, recycling has received attention because of mandatory segregation, collection, treatment and disposal.

- ✚ At present, whether you generate one kg or 100 g of waste, the money you pay to the waste collector is the same.
- ✚ There is no incentive to reduce waste.
- ✚ Promoting sustainable design through green tax or green reward systems can help reduce the use of toxic materials as well as make products have a longer life.
- ✚ Through pay-as-you-throw programmes, agencies can bill waste generators depending on the quantum of waste they generate.

Implementation

- ✚ The country has a near-perfect regulatory framework on waste.
- ✚ Under the Environment Protection Act (EPA), 1986, seven rules on waste have been notified.
- ✚ But there is a lack of implementation and enforcement.
- ✚ It can be sorted out by building competencies of state and central agencies involved in monitoring.
- ✚ The coordination between regulatory bodies should be improved and there is a need to impose strict punitive measures under EPA.

SCIENCE AND TECHNOLOGY

1. INDIA TO SET UP ITS OWN SPACE STATION

CONTEXT

India is planning to launch its own space station by 2030, joining the league of US, Russia, and China to an elite space club.

HIGHLIGHTS IN THE NEWS

- A space station is a habitable spacecraft capable of supporting human crew-members and designed to remain in space.
- As of now, the International Space Station (ISS) is the only fully functioning space station and largest human-made body in low earth orbit.

Indian Space Station

- The Indian space station will be much smaller (mass of 20 tonnes) than the International Space Station and will be used for carrying out microgravity experiments (not for space tourism).
- Preliminary plan for the space station is to accommodate astronauts for up to 20 days in space, and the project will be an extension of the Gaganyaan mission.
- It will orbit Earth at an altitude of around 400 km.
- ISRO (Indian Space Research Organisation) is working on space docking experiment (Spadex), a technology that is crucial for making the space station functional.
- Space docking is a technology that allows transferring humans from one spacecraft to another.

Significance

- Space station is essential for collecting meaningful scientific data, especially for biological experiments.
- Provide platforms for greater number and length of scientific studies that available on other space vehicles (as Gaganyaan will take humans and experiments in microgravity for few days only).
- Each crew member stays abroad the station for weeks or months, but rarely more than a year.

2. CHANDRAYAAN-2 MISSION

CONTEXT

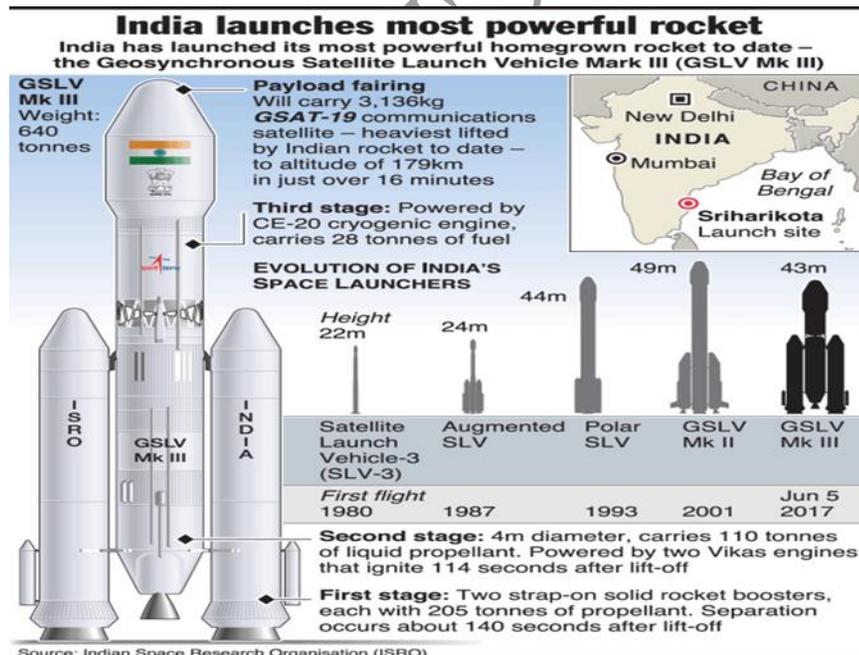
The first time in the history of Indian Space Research Organisation (ISRO), two women will head the Chandrayaan-2 mission. **Ritu Kridhai** and **M Vanitha** are leading as project and mission directors respectively for Chandrayaan-2 Mission.

WHAT IS CHANDRAYAAN-2 MISSION?

Chandrayaan-2 is India's second lunar exploration mission after Chandrayaan-1, developed by ISRO.

Objectives

- Quantity the water available on the moon's surface.
- Map its topography; explore chemicals and minerals such as magnesium, iron, and helium.
- Study topmost part of the lunar atmosphere.



Significance

- **Global power:** If successful, India will be the fourth country (After Russia, China, and the USA) to land a rover on the moon.

- **First Country:** India will be the first country to land on the southern pole of the moon. This would give ISRO opportunity to name that site on the moon.
- **Indigenous mission:** 13 instruments from India, one instrument from US space agency, NASA.
- **Future space exploration:** mission will also expand the country's footprint in space as moon is the perfect test-bed for providing technologies required for future space exploration.

Complexities involved in a moon landing

- ✓ **Trajectory accuracy:** Ensuring trajectory accuracy while navigating 3.844 lakh km has its own challenges.
- ✓ **Communication hurdle:** Owing to the large distance from Earth, radio signals, which need to be picked up, would be weak.
- ✓ **Lunar dust:** Firing engines close to the lunar surface result in the backward flow of gases and dust, causing hindrance to deployment mechanism and damaging sensors.
- ✓ **Extreme temperatures:** A lunar day or night lasts 14 earth days, resulting in extreme surface temperature.
- ✓ **Trans-lunar injection, capture:** Series of engine burns to get close to the moon, intersection of probe and moon must be predicted in advance with accuracy.
- ✓ **Orbiting:** The lumpy lunar gravity influences the orbit of the spacecraft.

2. SPECTRUM-ROENTGEN-GAMMA TELESCOPE

CONTEXT

A joint team of German-Russian scientists will be launching a Spectrum-Roentgen-Gamma (SRG) space telescope. It will create a three-dimensional (3D) X-ray map of the universe and unveil unknown supermassive black holes, dark energy and stars.



HIGHLIGHTS IN THE NEWS

- The SRG telescope aims to detect up to 3 mn supermassive black holes from the Milky Way.
- The telescope will be launched into space on a Russian-built Proton-M rocket from Baikonur Cosmodrome in Kazakhstan.
- The four-year mission will survey the entire sky eight times and track the evolution of the universe and dark energy.

- This is the first telescope which is sensitive to high energy hard X-rays.
- The mission will have two independent telescopes.
- Each of them covers X-ray bands stretching to relatively much higher energies: 0.2 - 10 kilo electron volts (keV) for eROSITA, and 5-30 keV for ART-XC.

3. LIBRA CRYPTOCURRENCY

CONTEXT

Facebook has unveiled its own cryptocurrency named “Libra”. Based on the Libra Blockchain, it’s backed by the Libra Reserve.

HIGHLIGHTS IN THE NEWS

- Facebook has also officially announced a digital wallet service named Calibra.
- The name is inspired by the origins of money in Ancient Rome, where the Libra was a unit of weight used to mint coins.
- Libra also evokes the French libre (“free”) and reflects the corresponding astrological symbol—the scales of justice, relevant in theory because the crypto is meant to make financial inclusion standard around the globe.
- The new crypto’s symbol, a wave, “represents the energy that flows between us, the borderless nature of water, and the movement between people, places, and money.”

Cryptocurrency

A cryptocurrency is a digital or virtual currency that uses cryptography for security. Cryptocurrencies use decentralized technology to let users make secure payments and store money without the need to use their name or go through a bank. They run on a distributed public ledger called blockchain, which is a record of all transactions updated and held by currency holders. The most common cryptocurrencies are Bitcoin, Ethereum, Ripple and Litecoin.

4. BARCODING OF MEDICINE

CONTEXT

The government plans to make barcoding mandatory on all medicines sold locally in a bid to offset India’s growing reputation as a source of counterfeit medicines.

BACKGROUND

In its annual ‘Special 301 Report’ on intellectual property protection and review of ‘notorious markets’ for piracy and counterfeiting released in April, the office of the United States Trade Representative (USTR) highlighted that India has a growing problem of counterfeit medicines. According to the USTR report, almost 20% (\$4.3 billion in 2013-14) of all pharmaceutical goods sold in the Indian market were counterfeit.

Pharmaceutical sector in India

- India is one of the leading global producers of low-cost generic medicines due to its high domestic demand and inexpensive manufacturing costs.

- The country's pharmaceutical market is the world's third largest in terms of volume, but the thirteenth largest in value.
- While counterfeiting is a global issue, it is much more prevalent in low and middle-income countries with an estimated 10 to 30% of medicines in these countries being counterfeit, compared to just 1% of medicines in high-income countries.

Classification of spurious and substandard drugs in India

- ☐ As per Drug and Cosmetic Act, 1940, poor quality drug comprises of misbranded, spurious and adulterated drugs.
- ☐ Central Drugs Standard Control Organisation (CDSCO) under Directorate General of Health Services, Ministry of Health & Family Welfare has categorised not of standard quality (NSQ) products in three categories A, B and C.

Category A

It incorporates spurious and adulterated drug products; which conceal the real identify of the product or formulation and be similar to some well-known brand.

These products may or may not contain active ingredients and generally manufactured by unlicensed antisocial people or sometimes by incensed manufactures.

Category B

It includes grossly substandard drugs in which product falls the disintegration or dissolution test and where active ingredient assay get below 70% and 5% of permitted limit.

Category C

It involves products with minor defects like emulsion cracking, change in formulation colour, small variation in net content, and sedimentation in clear liquid preparation, falling of weight variation test, spot or discolouration on product, uneven coating, and presence of foreign matter and labelling errors.

WAY FORWARD

- ✚ **Raising public awareness:** Approximately 78% of India's 650 million mobile phone users have access to the Internet, and online education about counterfeit and spurious medicine may be an effective way to tackle the issue quickly and efficiently.
- ✚ **Implementing innovative anti-counterfeiting measures:** New generation anti-counterfeiting technologies, such as the use of forensic markets (chemical, biological and DNA taggants), cloud-based supply chain data repositories, and blockchain technology in supply chains can be used to fight the menace of counterfeit drugs.
- ✚ **Barcoding for domestic sales of drugs will ascertain the authenticity of medicine, ability to monitor their ready availability, expiration, and track and trace their recalls when needed.**

5. 5G TECHNOLOGIES

CONTEXT

Global telecom industry body GSMA expects India to have 920 million unique mobile subscribers by 2025 which will include 88 million 5G connections. This will leave

India trailing regional peers such as China, which is set to see almost 30% of its total connection base on 5G by 2025.

HIGHLIGHTS IN THE NEWS

- The term 5G is used to describe the next generation of mobile networks beyond Long Term Evolution (LTE) mobile networks.
- **Applications:** It is a mix of telecom technology delivering much higher data speeds on more extensive connectivity, using much lower power, with extended battery life, and emitting less radiation.
 - It is also designed to be the network for the Internet of Things (IoT)
 - Not only will people be connected to each other but so will utility machines, industrial equipment, automobiles, city infrastructure, public safety and more
- **The technology used:** In order to support a huge number of devices, many of which require longer battery life, the 5G network will be building off of the LTE Advanced Pro platform.
- **It will use the two narrowband technologies platforms:**
 - Enhanced machine-type communication (e-MTC) and narrowband IoT (NB-IoT), to scale down the device and network complexity to reach these support goals.

WAY FORWARD

- ✚ 5G network speeds will have a peak data rate of 20 GB/s for the downlink and 10 GB/s for the uplink.
- ✚ Latency in a 5G network could get as low as 4 milliseconds in a mobile scenario and can be as low as 1 millisecond in ultra-reliable low latency communication scenarios.

6. TECHNOLOGY INNOVATION FOR SAFE DRINKING WATER SUPPLY

CONTEXT

Water quality has emerged as a major issue in the rural drinking water supply.

HIGHLIGHTS IN THE NEWS

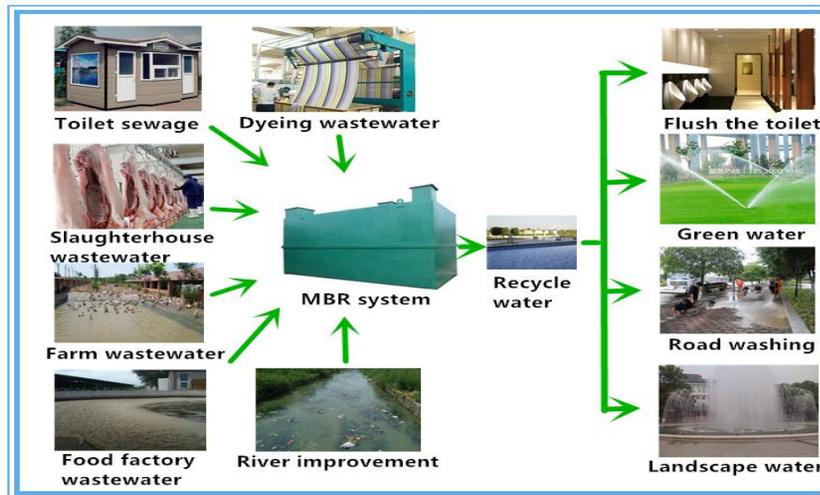
- The World Bank and UNICEF sponsored study shows that there is huge drinking water insufficiency in rural India.
- It has also a high degree of imbalance and is very diverse across the country.
- Both human activities and natural processes cause water contamination.
- The technology used to decontaminate will depend on water quality, future requirements and economies.
- These technologies remove contaminants that may be organic, physical or chemical in nature.

Prevalent Technologies

- **Capacitive deionization (CDI)**
 - It is a technology in which a separator channel (with a porous electrode on each side) removes ions from water.
- **Ozonation**
 - A technique which is based on the ozone infusion into the water for chemical water treatment.

- **Chlorination**

- Disinfection using chlorine has been a common practice in various water supply systems. Being a strong oxidant, chlorine is used to remove taste and odour, as well as biological contamination. It can be used for community water supply system as well as at the individual household level.



- **Ultraviolet technology**

- In this technique ultraviolet light is used to kill micro-organisms in water.

- **Reverse Osmosis (RO)**

- A large majority of contaminants are removed in reverse osmosis technology through a semi permeable membrane.

- **TERAFIL**

- It is a burnt red clay porous media which is used for filtrations & treatment of raw water into clean drinking water. This technology has been developed by the Council of Scientific & Industrial Research (CSIR)

- **OS-Community scale Arsenic Filter**

- It is an organic arsenic filter which is developed by the IIT Kharagpur.

- **Filtration methods**

- These may include rapid/slow sand filters which remove rust, slit, dust and other particular matter from water.

- **Solar water purification systems**

- This decontamination system is a water purification system at household level. It is based on solar radiation treatment and water distillation with additional use of solar heating. It is a combination of two water purification processes, the Solar Water Disinfection System (SODIS) and the solar distillation process.

INNOVATION: KEY TO RESOLVE DRINKING WATER CRISIS

- ✓ To address problems related to drinking water, the United Nations included it among the Millennium Development Goals (MDGs).
- ✓ It set the objective of halving the number of people lacking adequate access to clean water by 2015.
- ✓ Introduction of Sustainable Development Goals (SDG) is the MDGs next edition. In SDG, 17 Global Goals have been identified.
- ✓ Clean water and sanitation is the sixth goal of SDGs.

Global Goals under SDGs by 2030

- Universal and equitable access to safe and affordable drinking water for all.
- Access to adequate and equitable sanitation and hygiene for all and end open defecation.
- Paying special attention to the needs of women and girls and those in vulnerable situations.
- Improve water quality by reducing pollution, eliminating dumping and minimizing the release of hazardous chemicals and materials.
- Halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.

HEALTH

1. ACUTE ENCEPHALITIS SYNDROME

CONTEXT

Recently, several children have died in Muzaffarpur district of north Bihar, due to Acute Encephalitis Syndrome (AES), which is locally known as Chamki bukhar (Brain fever).

Acute Encephalitis Syndrome

- It is severe case of encephalitis transmitted by mosquitoes and is characterised by high fever and inflammation of the brain.
- The disease not commonly affects children and young adults and can lead to considerable morbidity and mortality.
- High temperature during summer, along with humidity, is considered to be an ideal situation for the outbreak of Acute Encephalitis Syndrome.

Causative Agents: Viruses are the main causative agents in AES cases, although other sources such as bacteria, fungi, parasites, spirochetes, chemicals, toxins, and non-infectious agents have also been reported over the past few decades. It is not vaccine-preventable.

DIAGNOSIS:

The National Vector Borne Disease Control Programme in India has set up countrywide surveillance for AES through sentinel sites with a focus on detecting Japanese encephalitis (JEV).

- Japanese encephalitis virus (JEV) is the major cause of AES in India (ranging from 5%-35%).
- Herpes simplex virus, Nipah virus, Zika virus, Influenza A virus, West Nile virus, Chandipura virus, mumps, measles, dengue, scrub typhus, S.pneumoniae are also found as causative agents for AES.
- Symptoms include confusion, disorientation, coma, or inability to talk, high fever, vomiting, nausea, and unconsciousness.

National Programme for Prevention and Control of Japanese Encephalitis (AES)

- ✚ Several government initiatives have been undertaken to educate and improve the hygiene of people living in the JE endemic zones.
- ✚ Government and non-government organisations have been instrumental in providing proper nutrition to the AES-affected population as most of the affected people belong to the lower economic strata of the society.
- ✚ Govt. of India, as part of the National Programme for Prevention & Control of JE/AES, follows a multi-pronged strategy encompassing:
 - Preventive (sanitation, safe drinking water, improvement in nutrition etc.)
 - Case management (capacity building of medical and Para-medical staff, referral etc.)
 - Rehabilitation (physical and social rehabilitation of disabled children)

2. VACCINE FOR ALZHEIMER'S DISEASE

CONTEXT

Recently, Dr Kiran Bhaskar (an Indian-American scientist) led team has developed an early version vaccine for Alzheimer's disease.

- ✚ India houses more than 4 million people suffering from some form of dementia and this number is set to triple by 2050.

HIGHLIGHTS IN THE NEWS

- Vaccine intervention could rescue memory impairments and prevent neurons from dying by reducing tau tangles in parts of the brain that are critical to memory and learning.
- Tau is a protein which occurs in tangled formations in the brain of Alzheimer patients. It disrupts the ability of neurons to communicate with one another in the brain.
- Body's immune system is capable of generating antibodies that are responsible for eliminating tau tangles.

What is Alzheimer's?

Alzheimer's disease is a neurological disorder which causes brain cells to degenerate and die. This leads to loss of memory, problems with words in speaking or writing, poor judgement, changes in mood and personality, confusion with time or place, etc. At the first stage, these symptoms are mild but they become more severe with time.

Alzheimer's is the most common cause of dementia among older adults. It is caused by the build-up of proteins known as tangles or plaques within the brain and is also known as the third type of diabetes. Ageing is the greatest risk factor for Alzheimer's disease but sometimes symptoms may occur at the age of 30s or so because of rare genetic changes in the people.

Alzheimer's is an incurable disease, as the death of brain cells cannot be reversed. Women have a higher risk of having Alzheimer's disease than men. According to the US Department of Health and Human Services nearly twice as many women have Alzheimer's disease as men.

3. AROGYAPACHA: 'MIRACLE PLANT'

CONTEXT

Scientists have decoded the genetic make-up of Arogyapacha (*Trichopus zeylanicus*), a highly potent medicinal plant endemic to the Agasthya hills.



HIGHLIGHTS IN THE NEWS

- This 'miracle plant' is known for its traditional use by the Kani tribal community to combat fatigue.
- Studies have also proved its varied spectrum of pharmacological properties such as antioxidant, aphrodisiac, anti-microbial, anti-inflammatory, immune modulatory, anti-tumour, anti-ulcer, anti-hyperlipidemic, hepatoprotective and anti-diabetic.
- The project is bound to open up a new window to the plant's molecular secrets, the genome and annotation data will be a valuable resource to expedite research on Arogyapacha, particularly its secondary metabolism, genetic breeding, and comparative studies.

Kani Tribe

Traditionally Kani tribes are a nomadic people. They are indigenous to tropical forests of the Agasthyamalai hills of the Western Ghats, a mountain range in Kerala. They have a population of almost 25,000.

Kani has a rich tradition of using wild plants found in the region for health reasons. The tribal physicians, known as Plathi - are the exclusive holders of the traditional medicinal knowledge of the tribe. According to Kani tribal customs, only the Plathi have the right to transfer and disseminate their traditional medicinal knowledge.

AGASTHYA HILLS

- ✚ Agasthya hills are a 1,868 metre (6,129 ft) tall peak within Neyyar Wildlife Sanctuary. In the Western Ghats of Kerala. The peak lies on the border of Kerala and Tamil Nadu. This

peak is a part of the Agasthyamala Biosphere Reserve which lies on the border between the states of Kerala and Tamil Nadu.

- ✚ Seven rishis (Saptarishi) of Hindu Puranas. It is pilgrimage centre for devotees.
- ✚ The Thamirabarani River is a perennial river which originates from the eastern side of the range and flows into the Tirunelveli district of Tamil Nadu.
- ✚ In Tamil traditions, Agastya is considered as the father of the Tamil language and the compiler of the first Tamil grammar called Agattiyam. The Malayalam language is considered to be born from Agasthya.
- ✚ Agasthyamala Biosphere Reserve is among 20 new sites added by UNESCO to its World Network of Biosphere Reserves in March 2016.

4. CHINA'S GENE EDITING RULES

CONTEXT

Recently, China has decided to introduce new Gene-editing rules that would require researchers to obtain prior approval from the government before undertaking clinical trials.

GENE EDITING

Gene editing is also called as genetic modification, genetic manipulation or genetic engineering. Genome editing is a group of technologies that give scientists the ability to change an organism's DNA (Deoxyribonucleic acid). These technologies allow genetic material to be added, removed, or altered at particular locations in the genome. Gene editing is widely practised in agriculture, to increase productivity or resistance to diseases, etc.

What is CRISPER?

Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR) is a gene editing technology, which replicates natural defence mechanism in bacteria to fight virus attacks, using a special protein called Cas9. CRISPER-Cas9 technology behaves like a cut-and-paste mechanism on DNA strands that contain genetic information.

The specific location of the genetic codes that need to be changed, or edited, is identified on the DNA strand, and then, using the Cas9 protein, which acts like a pair of scissors, that location is cut off from the strand. A DNA strand, when broken, has a natural tendency to repair itself. Scientists intervene during this an auto-repair process, supplying the desired sequence of genetic codes that binds itself with the broken DNA strand.

CRISPR-Cas9 is a simple, effective, and incredibly precise technology with potential to revolutions human existence in future.

BACKGROUND

There is a general consensus in the scientific and ethics communities that the CRISPR-Cas9 gene-editing technique should not be used clinically in embryos. Importantly, human clinical trials have not been carried out anywhere in the world to test whether disabling the gene completely prevents HIV infection. In the absence of any clinical trial data as well as consensus to use this tool to prevent HIV infection, performing it on babies as a form of medical intervention is unethical.

CCR5

- ✓ C-C chemokine receptor type 5, also known as CCR5 or CD195, is a protein on the surface of white blood cells that is involved in the immune system as it acts as a receptor for chemokines.
- ✓ CCR5, which encodes a protein that allows HIV to enter and infect cells. The CCR5 gene protective role against the West Nile virus is well established.
- ✓ The CCR5 gene also helps to protect the lungs, the liver and the brain during certain serious infections and chronic diseases.
- ✓ The gene is known to prompt the immune system to fight the influenza virus in the lungs.

5. GENE EDITING TO HALT HUMAN FLU PANDEMIC

CONTEXT

Recently scientists in Britain have used gene-editing techniques to stop bird flu, spreading in chicken cells.

HIGHLIGHTS IN THE NEWS

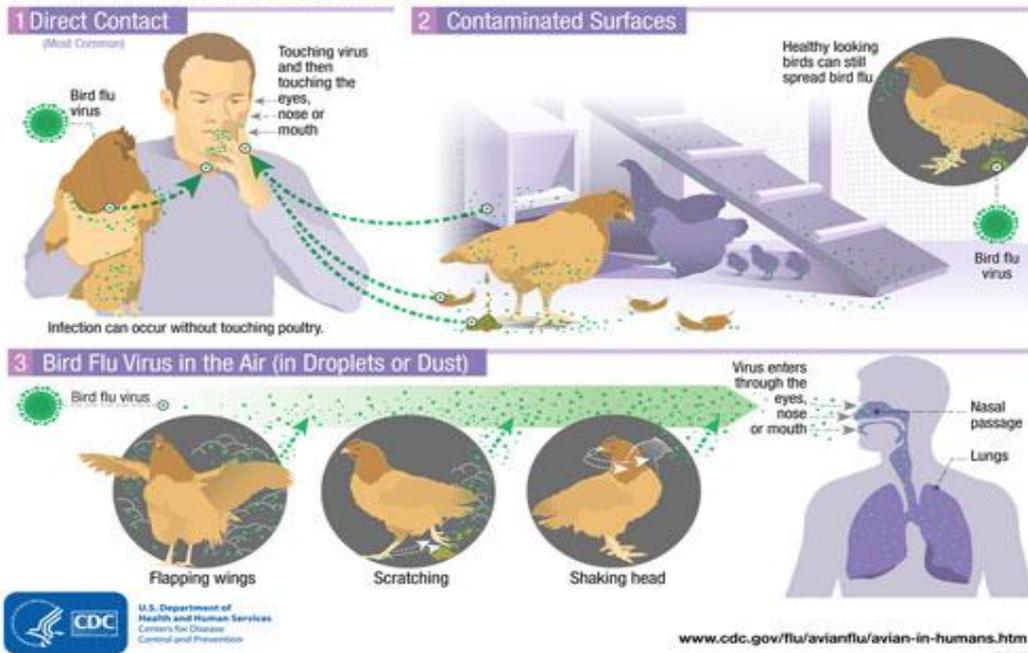
- The technique was successful for the cells grow in a lab. The next step will be to produce chickens with the same genetic change.
- However, this is a key step toward making genetically altered chickens that could halt a human flu pandemic.
- Further, the scientists will use the gene editing technology, known as CRISPR, to remove a section the birds' DNA responsible for producing a protein called ANP32.
- ANP32 is protein on which all flu viruses depend to infect a host.
- The lab tests of cells engineered to lack ANP32 showed they resist the flu virus by blocking its entry and halting its replication and spread.

What is Bird Flu?

- Bird Flu (H5N1) is a type of influenza virus that causes a highly infectious, severe respiratory disease in birds called avian influenza.
- Human cases of H5N1 avian influenza occur occasionally, but it is difficult to transmit the infection from person to person.
- When people do become infected, the mortality rate is about 60%.
- There is no evidence that the disease can be spread to people through properly prepared and thoroughly cooked food.

How Infected Backyard Poultry Could Spread Bird Flu to People

Human Infections with Bird Flu Viruses Rare But Possible



- Candidate vaccines to prevent H5N1 infection have been developed, but they are not ready for widespread use. Seasonal influenza vaccination does not protect against H5N1 infection.
- World Health Organisation (WHO) collaborates with global health partners and agencies, including the World Organisation for Animal Health (OIE), and the Food and Agriculture Organisation of the United Nations (FAO-UN), to control and prevent the spread of animal diseases.
- Whose global laboratory system, the Global Influenza Surveillance and Response System (GISRS), identifies and monitors strains of circulating influenza viruses, and provides advice to countries on their risk to human health and available treatment or control measures.

6. SCHEMES TO CONTROL FMD AND BRUCELLOSIS

CONTEXT

Recently, the Union government has announced special schemes for control of Foot and Mouth disease (FMD) and Brucellosis.

HIGHLIGHTS IN THE NEWS

- The entire cost of scheme is to be borne out by the Central Government.
- The scheme includes vaccination coverage to 30 crore bovines, 20 crore sheep or goat, and 10 million pigs.
- Brucellosis control programme shall extend to cover 100% vaccination coverage of 3.6 crore female calves.

Foot and Mouth Disease & Brucellosis

- ✓ Foot and mouth disease (FMD) is a severe, highly contagious viral disease of livestock that has a significant economic impact.
- ✓ The disease affects cattle, swine, sheep, goats and other clovenhoofed ruminants.

- ✓ FMD virus belongs to (risk group 4 as per World Organisation for Animal Health (OIE) Aphthovirus genus of the picornaviridae family.
- ✓ FMD can spread when infected animals bring the virus into physical contact with susceptible animals.
- ✓ Virus contaminated facilities, contaminated vehicles, raw or improperly cooked garbage containing infected meat or animal products can also spread the virus of FMD.
- ✓ In rare cases, humans are also susceptible.

Brucellosis

- ✓ Brucellosis is a bacterial disease caused by various Brucella species, which mainly infect cattle, swine, goats, sheep and dogs.
- ✓ Humans generally acquire the disease through direct contact with infected animals, by eating or drinking contaminated animal products or by inhaling airborne agents.
- ✓ The majority of cases are caused by ingesting unpasteurized milk or cheese from infected goats or sheep.
- ✓ Person to person transmission is rare.
- ✓ The disease causes flue like symptoms including fever, weakness, Malaise and weight loss.

Threats of FMD and Brucellosis

- National FMD serosurveillance has estimated that 21% of cattle and buffalo did experience in recent past FMD virus infection.
- Brucellosis is an uncontrolled serious public health problem in many developing countries including India.
- Brucellosis in India is yet a very common but often neglected disease.
- Economic impact of foot and Mouth disease and Brucellosis: Both the diseases have a direct negative impact on the trade of milk and other livestock products.
- Direct loss due to milk and meat could amount to Rs. 20,000 crore per annum due to FMD.
- Indirect losses due to reduced work capacity, abortions, subsequent infertility and sterility (that account for the reduced milk production subsequently).

Government initiatives

- ☐ FMD Control Programme (FMDCP), was initiated in 10th plan period and was extended to 11th and 12th plan period. Presently, it covers 351 districts in 13 states and 6 UTs.
- ☐ The Ministry of Agriculture, Department (of Animal and Husbandry) had initiated 'FMD Mukh Bharat' under Rashtriya Krishi Vikas Yojana (RKVY) during 2016-17, a programme to cover all the states which were not covered under the six monthly vaccination scheme.

Alternative System of Medicine in India: An Overview

Evolution of Medicine Since Antiquity

• Indian Medicine

Medicine in India originated around 3000 BC, when the practice of Auyrveda is considered to have started. In addition, the Siddha system of medicine is also Indian in origin. The period of 800 BC to 600 AD is regarded as the golden period for Indian Medicine. Atreya

(about 800 BC) is considered as the first great Indian physician and teacher. Charaka (200 AD) wrote Charaka Samhita and was the most popular physician of the time. Sushruta is referred to as the father of Indian surgery. He wrote Sushruta Samhita, a treatise on surgery (between 800 BC and 400 AD). Around 800 AD, the Charaka and Sushruta Samhitas were translated into Persian and Arabic and Indian medicine had spread to Indo-China, Indonesia, Tibet, Central Asia and Japan.

- **Egyptian Medicine**

It had well-advanced medicine, which is reported to have reached its peak in the days of Imhotep (2800 BC).

- **Chinese Medicine**

There are well-documented records of Chinese medicine since 2700 BC and some of the medicinal practices of those times are still followed in various forms.



- **Mesopotamian Medicine**

The codes of Hammurabi, in the name of King of Baby Lone, were formulated around 2000 BC in the Mesopotamian civilization to govern the conduct of physicians to guide death practices.

- **Greek Medicine**

Greek Medicine was most evolved between 460 BC - 136 BC and Aesculapulus (around 1200 BC) and Hippocrates (460 - 370 BC) were amongst the leaders in Greek Medicine. Hippocrates is often termed as "Father of Medicine" and the oath drafted by him guides medical ethics even now.

- **Roman Medicine**

It emerged from Greek Medicine and was more about overall health with focus on disease prevention and control. Galen (130-205 AD) was a famous Roman medical teacher, whose teaching lasted till mid of sixteenth century.

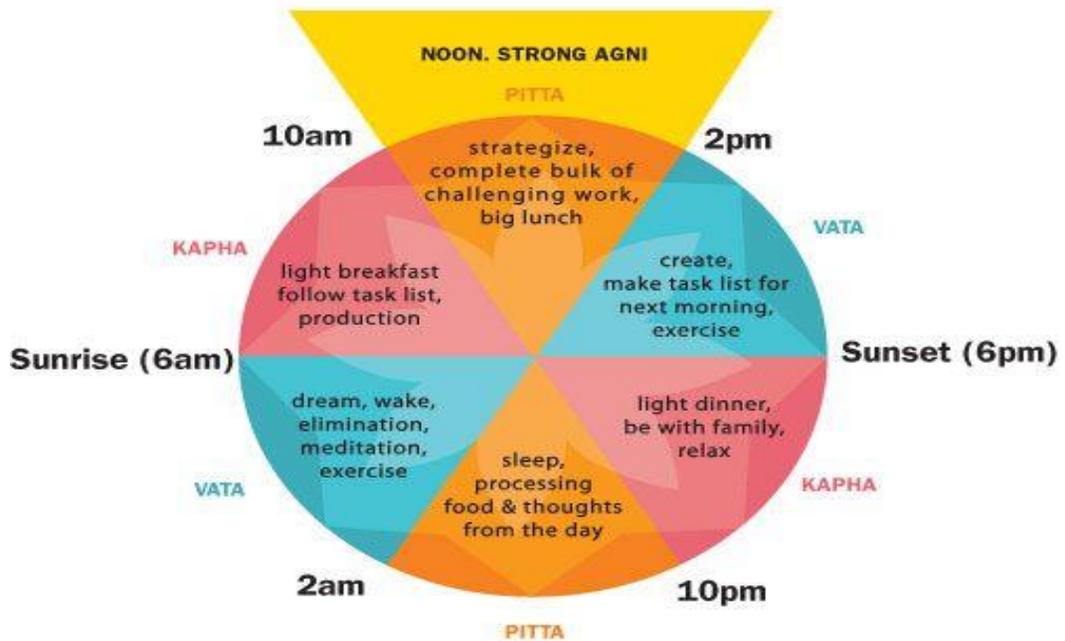
- **Arab Medicine (Unani Medicine)**

From 500 AD to 1500 AD, Greco-Roman medical literature was translated into Arabic. The local adaptation gave birth to the Unani system of medicines in schools of medicines and hospitals. In Baghdad, Damascus and Cairo. The period of 800 - 1300 AD is often referred to as the golden period of Arabic medicine. Abu Becr (865 AD - 925 AD; also known as Rhazes and Ibn Sina (980 AD - 1037 AD; also known as Avicenna) are known as two leaders of Arabic medicine.

Traditional/Indigenous/Alternative Systems of Medicine in India

- **Ayurveda**

The Ayurvedic System of medicine evolved nearly 5000 years ago (3000 BC). The word Ayurveda derived from AYU and VEDA. AYU means life VEDA means science or knowledge. Ayurveda means the 'science of life' and employs treatment modalities, such as purification, palliation, prescription of various diets, exercises and the avoidance of disease causing factors. It is commonly used for preventive and health and immunity boosting activities. It is widely used in India and is more popular in Kerala. Himachal Pradesh, Gujarat, Karnataka, Madhya Pradesh, Rajasthan, Uttar Pradesh and Orissa.



- **Unani Medicine**

Unani system originated in the Arab world and it got enriched by imbibing what was best in the contemporary systems of traditional medicines in Egypt, Syria, Iraq, Persia, India, China and other Middle East countries. It was introduced in India around the 10th century AD and at present it is popular in the states of Andhra Pradesh, Karnataka, Tamilnadu, Bihar, Madhya Pradesh, Maharashtra, Uttar Pradesh, Delhi and Rajasthan.

- **Homeopathy**

The word 'Homoeopathy' is derived from two Greek words, 'Homois' meaning similar and 'pathos' meaning suffering. It originated in Germany and was introduced in India around 1810-1839. Homeopathy is based on the law of healing-Similia SimilibusCruantur' which means 'likes are cured by likes'. In India it is the second most popular system of medicine. It is practiced all over the country system of medicine. It is practiced all over the country and is popular in Uttar Pradesh, Kerala, West Bengal, Odisha, Andhra Pradesh, Maharashtra, Punjab, Tamil Nadu, Bihar, Gujarat and North-Eastern States.

- **Siddha**

This system has originated in India and is amongst the oldest system of medicine in the country. Siddha system uses minerals, metals and alloys, drugs and inorganic compounds to treat the patients. Siddha literature is in Tamil and it is practiced largely in Tamil speaking part of India, i.e., Kerala and abroad.

- **Sowa-Rigpa**

It is considered one of the oldest living and well-documented medical traditions of the world. It originated from Tibet and is widely practiced in India, Nepal, Bhutan, Mongolia and Russia. In India, this system is practiced mainly in Sikkim, Arunachal Pradesh, Darjeeling (West Bengal), Dharmashala, Lahaul and Spiti (Himachal Pradesh), Ladakh region (Jammu and Kashmir) and in parts of Delhi.

- **Yoga and Naturopathy**

Direct Benefits (spiritual development)	Indirect Benefits (personal development)
Facilitates spiritual/transpersonal development.	Facilitates psychological healing and reintegration.
Develops "mind" qualities such as creativity, intuition and wisdom.	Calms the body and mind, and improves the clarity of thought.
Develops "heart" qualities such as compassion, courage, peace and joy.	Increases feelings of peace, happiness and contentment.
Develops "body" qualities such as will, resilience and presence.	Reduces stress, anxiety, depression and anger.
Systematically activates higher levels of consciousness.	Increases efficiency and productivity in our daily lives.
Increases presence and purifies awareness.	Subdues automatic ego reactions and conditioned behaviours.
Develops a deeper understanding of Self and the true nature of reality.	Can reduce our biological age by 5 to 10 years (i.e. health benefits).

The concepts and practices of Yoga are reported to have originated in India. It is widely practiced across India and has spread to many other parts of the world. The United Nations (UN) has designated 21st June as "International Yoga Day". Naturopathy or naturopathic medicine is a drugless, non-invasive system of medicine imparting treatments with natural elements based on the theories of vitality, toxemia and the self-healing capacity of the body, as well as the principles of healthy living. The common naturopathy modalities include counselling, diet and fasting therapy, mud therapy, hydrotherapy, massage therapy, acupressure, acupuncture, magnet therapy and yoga therapy.

DEFENCE

1. VARUNA STRA

CONTEXT

The Indian Navy has decided to induct an indigenously (95%) developed heavyweight torpedo "Varunastra" into its arsenal.

HIGHLIGHTS IN THE NEWS

- This induction will put India in a group of eight countries that have the capability to manufacture heavyweight torpedoes.
- Varunastra is a ship-launched, electrically-propelled underwater weapon equipped with one of the most advanced automatic and remote-controlled guidance systems. The weapon

system uses its own intelligence in tracing the target. It can high stealth submarines underwater.

- The weapon has been jointly developed by the Naval Science and Technology Laboratory (NTSL), Visakhapatnam and the Bharat Dynamics Limited-BDL (Hyderabad).

MISCELLANEOUS

1. ANTHROPOCENE EPOCH

CONTEXT

Recently, Anthropocene Working Group (AWG) voted in favour of designating a new geological epoch i.e., the Anthropocene.

HIGHLIGHTS IN THE NEWS

- The term 'Anthropocene' was coined by Nobel Laureate **paul Crutzen** and **Cugene Stoermer** to denote the present geological time interval in which human activity has profoundly altered many conditions and processes on Earth.
- The word combines the root "anthro", meaning "human" with the root "cene", the standard suffix for "epoch" in geological time.
- The Anthropocene is distinguished as a new period either after or within the Holocene, the current epoch, which began approximately 10,000 years ago (about 8000 BC) with the end of the last glacial period.
- Anthropocene epoch is characterized as the time in which the collective activities of human beings (Homo sapiens) began to substantially alter Earth's surface, atmosphere, oceans, and systems of nutrient cycling.
- Scientists argue that the Anthropocene Epoch should follow the Holocene Epoch (11,700 years ago to the present) and begin in the year 1950. The name Anthropocene is derived from Greek and means the "recent age of man".
- International Union of Geological Sciences (IUGS) voted to recommend the Anthropocene as a formal geologic epoch at the 35th International Geological Congress. In order for this interval to be made official, it first must be adopted by the IUGS and the International Commission on Stratigraphy.

Geologic Marker or Golden Spike

It is technically called the Global Boundary Stratotype Section and Point (GSSP) that is used to define the lower boundary of a stage on the geologic time scale. Some of the geological markers used in declaring Anthropocene epoch are:

- **Artificial radionuclides:** spread across the world by atomic bomb tests from the early 1950s would serve as the golden spike. The radionuclides are present almost everywhere from marine sediments to ice layers and even stalagmites and stalactites.
- **Soil erosion:** The rising air temperatures have caused glaciers and polar ice to melt and seawater to expand, both of which have contributed to a measurable rise in global sea level. Rising waters will change the stratigraphy in some places by submerging low-lying areas and allowing the ocean to deliver sediments farther inland than they do at present.

- **Global warming:** The rising air temperatures have caused glaciers and polar ice to melt and seawater to expand, both of which have contributed to a measurable rise in global sea level. Rising waters will change the stratigraphy in some places by submerging low-lying areas and allowing the ocean to deliver sediments farther inland than they do at present.
- **Decline in seawater PH:** The depth at which carbonate minerals (e.g. limestone and chalk) form in the ocean will be shallower than it was during pre-industrial times. Many pre-existing carbonate formations will dissolve in response to increases in ocean acidity, leaving a signature of striking dark layers of the carbonate-depleted rock.
- **Rapid extinction rate:** The extinction rate is the most significant evidence of the Anthropocene in rock strata. Several ecologists have noted that the rate of species extinction occurring since the middle of the 20th century has been more than 1,000 times that of the preindustrial period, comparable to the pace of other mass extinctions occurring over the course of Earth's history.
- **Deforestation:** The conversion of forests and other natural areas to agriculture and urban land and accelerated climate change resulting from alterations to the carbon cycle. As a result, it is expected that there will be stark differences in the fossils in layers of rock deposited worldwide during preindustrial times and those that follow.



When did Anthropocene begin?

Although the scale of humanity's influence over Earth is large in modern times, there is much debate in the scientific community surrounding when human activities began to dominate the planet's natural systems.

- **Extinction of large Pleistocene mammals** is considered as the first signs which occurred approximately 14,000 years ago. Though the incontrovertible proof linking humans to the demise of those mammals is lacking.

- **Rise of Agriculture:** Others note that the rise of agriculture between 10,000 and 15,000 years ago might mark the onset of the Anthropocene, however, this start time may be problematic since it roughly coincides with the beginning of the Holocene Epoch.
- **Dawn of the Industrial Revolution:** A period of rapid change that brought about the advances in medicine, food production, and other technologies that fuelled the recent growth in the world's human populations is also considered as the popular views among those who push for the formalization of the Anthropocene Epoch.
- **Anthropocene Working Group,** in 2016, recommended that the year 1950 serve as the starting point of the interval. This recommendation was based upon the idea that by this point in Earth's history, plutonium isotopes caused by nuclear weapons testing fallout would be concentrated enough to serve as an observable signal in rock strata.

GSSP

A Global Boundary Stratotype Section and Point, abbreviated GSSP, is an internationally agreed upon reference point on a stratigraphic section which defines the lower boundary of a stage on the geologic time scale. The effort to define GSSPs is conducted by the International Commission on Stratigraphy, a part of the International Union of Geological Sciences. Most, but not all, GSSPs are based on paleontological changes.

In July 2018, the ICS ratified a proposal to divide the Holocene into three stages: the Greenlandian stage (11,770 to 8,200 years ago), the Northgrippian stage (8,200 to 4,200 years ago), and the Meghalayan stage (4,200 years ago to the present), with GSSPs separating one stage from another.

HISTORY, ART & CULTURE

1. KANDUKARI VEERESALINGAM PANTULU

CONTEXT

Recently, the death centenary of an eminent social reformer, Kandukuri Veerasalingam Pantulu, who was popularly known as Andhra Raja Ram Mohan Roy, was observed.

ABOUT

- Born in 1848 in Andhra Pradesh, he was a strong advocate of widow remarriage, opposed dowry and caste systems as also child marriage and batted for empowering women through education.
- Inspired by the principles of Brahmo Samaj leaders like Raja Rammohan Roy, Pandit Ishwar Chandra Vidyasagar, & Keshab Chandra Sen, he started his own **Brahmo Mandir in Rajamundry in 1887** and founded **Hitkarini Samajam** in 1905.

- He performed the first widow remarriage in Andhra Pradesh. His novel ***Rajasekhara Charitramu*** is considered to be the first novel in Telugu literature.
- Pantulu also started a journal called ***Viveka Vardhini*** and published articles about women's issues.
- He was one of the few members who attended the first meeting of the Indian National Congress (INC) in 1885.
- '**Rao Bahadur**' title was conferred on him by the British Government of India 1893.

2. ARCHITECTURAL HERITAGE OF ORCHHA

CONTEXT

The architectural heritage of **Orchha** town of Madhya Pradesh has been included in the tentative list of UNESCO's world heritage sites.

Orchha city



- The town, located on the banks of the river Betwa was built by **King Rudra Pratap Singh of Bundela dynasty** in the 16th century.
- Orchha has a peculiar style of architecture used by the Bundela dynasty. Orchha architecture has **blend of Bundelkhandi and Mughal influences**.
- The river Betwa divides the city into two parts. **Min city** towards the western bank and **Fort Palace Complex** towards the eastern bank of the river.
- The main city comprises the Ram Raja temple, Chaturbhuj temple, Phool Bagh etc. strong and wide fortification walls made of large square stone boulders surrounds the whole settlement.
- The Fort Palace Complex is the most magnificent structure. The Jahangir Mahal, Raja Mahal, Sheesh Mahal, Jan Bhawan garden and Hamams are situated within the palace enclosure.

UNESCO's World Heritage Sites

United Nations Educational, Scientific and Cultural Organization (UNESCO) seek to build peace through international cooperation in Education, Sciences and Culture. It has its headquarters in Paris, France. UNESCO seeks to encourage the identification, protection and preservation of cultural and natural heritage around the world.

This is embodied in the Convention on the Protection of the World Cultural and Natural Heritage, adopted by UNESCO in 1972. UNESCO first provided inscription for monuments in India in 1983, with the Agra Fort, the caves in Ajanta and Ellora, and the Taj Mahal getting the tag of World Heritage site.

Providing the heritage tag essentially makes the government duty-bound to protect these monuments. There are, at present, 37 UNESCO World Heritage Sites in India.

3. KUTIYATTAM

CONTEXT

Kutiyattam is one of the oldest traditional **theatre forms of Kerala** and is based on **Sanskrit** theatre traditions.

HIGHLIGHTS IN THE NEWS

- The word “**Kuti**” in the Malayalam language primarily means “**combined**” or “**together**”, and “**Attam**” means “**acting**”.
- Originating more than 2,000 years ago, Kutiyattam represents a synthesis of Sanskrit classicism and reflects the local traditions of Kerala.
- In its stylized and codified theatrical language, *Netra abhinaya* (eye expression) and *Hasta abhinaya* (the language of gestures) are prominent. They focus on the thoughts and feelings of the main character.
- It is traditionally performed in theatres called **Kuttampalams**, which are located in the Hindu temples.
- Kutiyattam is performed by a community of **male actors** called **Chakyars** and **female performers** called **Nangiars**, assisted by **drummers** called **Nambiar**.
- **Pakarnattam** is an aspect of Kutiyattam that involves embodying and emoting male and female roles. Switching between the masculine and feminine and interpreting multiple roles at the same time is considered a challenging skill within the repertoire.
- **Nangiar Koothu** is the solo section of female performance in Kutiyattam.
- Kutiyattam includes the plays of almost all the major **Playwrights in Sanskrit**, including Bhasa, Harsha, Saktibhadra, Kulasekhara, Neelakantha, Bodhayana and Mahendravikramavarman. However, notable exceptions are Kalidasa and Bhavabhuti, whose plays are not traditionally part of its repertoire.
- Kutiyattam has been **declared as an intangible Heritage of Humanity by UNESCO**.

4. INTERNATIONAL YOGA DAY

CONTEXT

Recently, the fifth annual international Yoga Day was observed on June 21.

HIGHLIGHTS IN THE NEWS

- June 21 is observed as International Day of Yoga every year since the **United Nations** declared it in 2015. It **coincides with the summer solstice**.
- The theme for the fifth international yoga 2019 day was '**Yoga for Heart**'. Jharkhand's capital **Ranchi** hosted the main yoga day event.
- Yoga is inscribed in the list of UNESCO Intangible Cultural Heritage of Humanity.
- Yoga is **one of the six systems of Vedic philosophy**. The word 'Yoga' derives from Sanskrit and means to unite symbolizing the union of body and consciousness.

YOGA

The concepts and practices of Yoga originated in India about several thousand years ago. Maharishi Patanjali, "The Father of Yoga", compiled and refined various aspects of Yoga systematically in his "**Yoga Sutras**".

He advocated the eight folds path of Yoga, popularly known as "**Ashtanga Yoga**" for all-round development of human beings. The eightfold paths are Yama, Niyama, Asana, Pranayama, Pratyahara, Dharana, Dhyana and Samadhi.

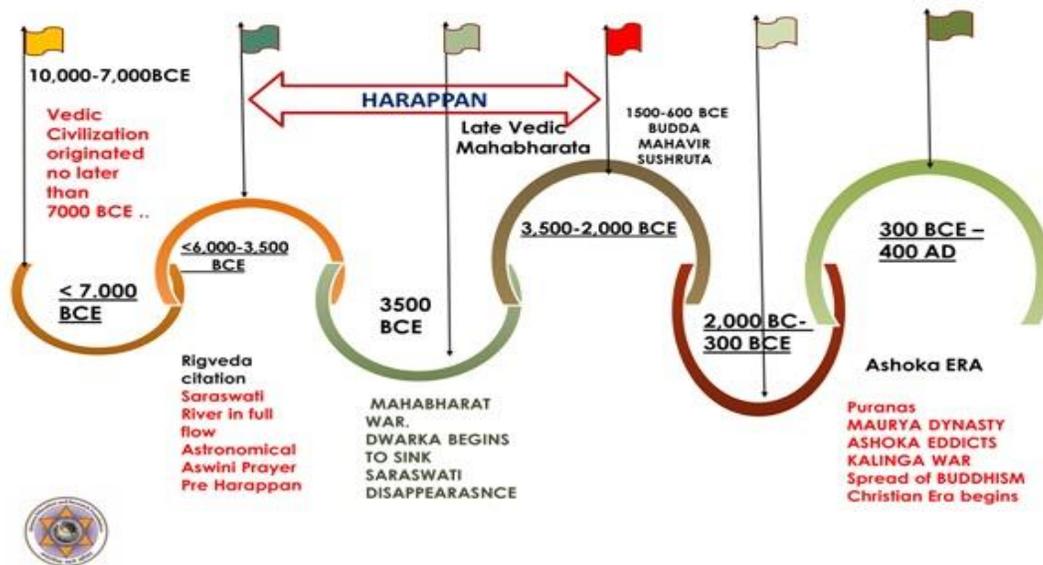
These components advocate certain restraints and observances, physical discipline, breath regulation, restraining the sense organs, contemplation, meditation and samadhi.

VEDIC PHILOSOPHIES

The Vedas are the source of Vedic philosophies also known as Orthodox Schools of philosophies. They are total six in numbers. The six systems of Vedic philosophies are **Sankhya, Yoga, Nyaya, Vaisheshik, Purva Mimansa & Uttar Mimansa**.

- **Sankhya**: It was founded by **Kapila**. It postulates that everything, in reality, stems from *purusha* (self, soul or mind) and *prakriti* (matter, creative agency, energy). *Purusha* cannot be changed while *prakriti* brings change in all objects.
- **Yoga**: It admits the existence of God as a teacher and guide.
- **Nyaya**: Nyaya philosophy was founded by **Gautam Muni**. It states that nothing is acceptable unless it is in accordance with reason and experience.
- **Vaisheshika**: It was introduced by sage **Kanaad**. It believes that all objects in the physical universe are reducible to a finite number of atoms and *Brahman* is regarded as the fundamental force that causes consciousness in these atoms.
- **Purva Mimansa**: It was propounded by **Jaimini**. According to it, *Vedas* are eternal and possess all knowledge. The essence of *Vedas* is dharma. By the execution of *dharma*, one earns merit which leads one to heaven after death.

TIME LINE OF VEDIC CIVILIZATION



Vedanta or **Uttar Mimansa**: It concentrates on the philosophical teachings of the Upanishads (mystical or spiritual contemplations within the *Vedas*). The school is classified into six sub-schools.

- **Advaita**: Propounded by Adi Shankara, it states that both the individual self (Atman) and Brahman are the same and knowing this difference causes liberation.
- **Visishtadvaita**: It was proposed by Ramanuja. Vishishtadvaita believes that all diversity is subsumed to a unified whole.
- **Dvaita**: Dvaita was founded by Madhvacharya. It considers Brahman and Atman as two different entities and Bhakti as a route to eternal salvation.
- **Dvaitadvaita**: Nimbarkar founded Dvaitadvaita. It states that Brahman is the highest reality, the controller of all.
- **Shuddhadvaita**: It was founded by Vallabhacharya. It states that both God and the individual self are the same and not different.
- **Achintya Bheda Abheda**: Chaitnya Mahaprabhu was the founder of this philosophy. It emphasises that the individual self (Jivatman) is both different and not different from Brahman.

5. KALBELIA DANCE

CONTEXT

Kalbelia dance is performed by the Kalbelia tribe of Rajasthan.

HIGHLIGHTS IN THE NEWS

- Traditionally, Kalbelia tribe was known for its frequent movement from one place to another and the occupation of catching snakes and trading snake venom. The songs are based on mythology and it involves composing lyrics spontaneously.
- Women in flowing black skirts dance and swirl, replicating the movements of a serpent, while men accompany them on the "*khanjari*" instrument and the "*poongi*", a woodwind instrument traditionally played to capture snakes.



- The dancers wear **traditional tattoo designs**, jewellery and garments richly embroidered with small mirrors and silver thread.
- Kalbelia songs disseminate **mythological knowledge** through stories, while special traditional dances are performed during Holi, the festival of colours.
- Transmitted from generation to generation, the songs and dances form part of an **oral tradition** for which no texts or training manuals exist.
- Song and dance are a matter of pride for the Kalbelia community and a marker of their identity at a time when their traditional travelling lifestyle and role in rural society are diminishing.
- They demonstrate their Community's attempt to revitalize its cultural heritage and adapt it to changing socioeconomic conditions.
- Kalbelia is inscribed into the list of UNESCO Intangible Cultural Heritage of Humanity.

SOCIAL ISSUES

1. Women in Business and Management

CONTEXT

The **International Labour Organisation (ILO)** recently released its second global report, titled **Women in Business & Management: the Business Case for Change**.

HIGHLIGHTS IN THE NEWS

- The female talent pool is widening globally with women surpassing men in tertiary education, and more women are entering into science, technology, engineering and mathematics (STEM) disciplines.
- Globally, the share of women's participation in the labour force has grown, albeit with differences from region to region and within regions. The report also finds that the share of women in managerial positions across the globe is growing.
- The average global labour force participation rate of women in 2018 stood at 48.5% while that of men was 75%
- Just for Asia and the Pacific, the average female labour force participation rate has declined from 52.9% in 1991 to 45.3% in 2018.
- If the global gender gap in labour market participation closes by 25% by 2025, an additional \$5.3 trillion would be added to GDP globally.

Issues involved

- Improving gender diversity in the workplace not only benefits women but also it is a boon to societies, economies and enterprises themselves. Gender diversity is a smart business strategy; the lack of gender diversity may act as a barrier to enhanced business performance.

- A board with few or no women is more likely to have a male-dominated culture and greatly reduced chances of achieving gender equilibrium. When enterprises have gender-balanced boards, the positive effects on enhanced business outcomes are the largest.
- Enterprises with equal employment opportunity policies and gender-inclusive cultures are over 60% more likely to have improved profits and productivity, and they are almost 60% more likely to experience enhanced reputation, greater ease in attracting and retaining talent, and greater creativity and innovation.
- According to the report, most businesses do not have ample level of gender diversity due to the following factors:
- **Leaky pipeline** whereby the representation of women decreases as the level of management increases, resulting in continued male dominance of the chief executive level and boards.
- **Glass Walls** whereby managers are segregated by gender and women are more often managers in support functions, such as human resources, finance and administration, while men dominate functions that are considered to be more strategic, such as research and development, operations and profit and loss.
- To a large extent, the gender pay gap is also related to the **segmentation of the labour market** along gender lines and how women's and men's jobs are perceived and valued.
- Additionally, Enterprise cultures that predominantly require 'anytime, anywhere' availability create an unfair impact on women, who generally carry greater household and family responsibilities.



WAY FORWARD

- ✚ **Goal 5** of Sustainable Development Goals (SDG) seeks to advance gender equality and women's empowerment. All businesses, Governments and other stakeholders shall take a proactive and considered approach to achieve this goal.
- ✚ Given the changing nature of work as well as current and future skills shortages, it is imperative for enterprises to make a strategic, choice to develop their organisations into a workplace where talented women and men want to be and create enabling conditions that lead to success.
- ✚ There are tried and tested ways to close the leaks in the pipeline and remove the glass walls. It starts with a gender-balanced workforce (40-60% of each sex).
- ✚ The goal of working towards a gender diverse and inclusive business needs to be a strategic one for the entire company and not limited to human resources management alone.

- Enterprises need to proactively ensure equal opportunities for all staff - so that career paths do not diverge at early stages and there is a healthy pipeline of women right up to the top.
- ✚ Importantly, practising gender diversity is more than ensuring that human resources policies are adequately aligned. It is also about creating an inclusive, respectful culture that is not dominated by one gender and that delivers the diversity of thinking.
 - ✚ There is no 'one size fits all' approach. Employer plays a key role in guiding their member companies to the right tools and advocating the message that gender diversity is good for business development and sustainability. Governments & private institutions can work together to remove traditional barriers for women.
 - ✚ There are many ways enterprises can reap the **gender diversity dividend** and leverage the benefits of gender diversity. Introducing a set of strategy gender initiatives and practices in an enterprise can go a long way in effecting positive change. Reviewing procedures for merit-based recruitment and promotion and controlling for gender bias is one of the most effective ways of ensuring that men and women are placed on an equal footing in their career paths.

2. SDG GENDER INDEX

CONTEXT

The SDG Gender Index has been developed by **Equal Measures 2030**.

HIGHLIGHTS IN THE NEWS

- It accounts for 14 out of 17 SDGs (Sustainable Development Goals) that cover aspects such as poverty, health, education, literacy, political representation and equality at the workplace.
- A score of 100 reflects the achievement of gender equality in relation to the targets set for each indicator.

EQUAL MEASURES 2030

Equal Measures 2030 is an independent civil society and private sector led partnership that envisions a world where gender equality is achieved. The partnership is a joint effort of leading regional and global organisations including African Women's Development and Communication Network, Asian-Pacific Resource and Research Centre for Women, Bill and Melinda Gates Foundation, and International Women's Health Coalition.

It works towards providing actionable data to the stakeholders to effectively influence policymakers and decision makers. With an overall score of 56.2 India is ranked at 95th among 129 countries. India's highest goal scores are on health (79.9), hunger & nutrition (76.2), and energy (71.8), female students enrolled in primary education (95.3). Its lowest goal scores are on partnerships (18.3) industry, infrastructure and innovation (38.1), & climate (43.4), seats held by women in legislatures (23.6).

2. Disability Summit, 2019

CONTEXT

The Government of Argentina, International Alliance Disability (IDA) and the Latin American Network of Non-Governmental Organisations of Persons with Disabilities and their Families (RIADIS) hosted the second Disability Summit, 2019 in Buenos Aires (Argentina)

HIGHLIGHTS IN THE NEWS

- The Summit brought together governments, organisations of people with disabilities, civil society organisations, international cooperation agencies, academia and the private sector, with the hope of achieving real change for people with disabilities.
- The Summit provided an opportunity to reflect on the formulation and strengthening of public policies and good practices in the different discussion panels, with the voices of people with disabilities to be at the forefront.
- The first 'Global Disability Summit' was held in London in 2018.

International Disability Alliance (IDA)

IDA was established in 1999 as an umbrella organisation focused on improving awareness and rights for individuals with disabilities around the globe. It is an alliance of over 1,100 organisations of persons with disabilities. It advocates at the UN for a more inclusive global environment for persons with disabilities and their organisations.

United Nations Convention on the Rights of Persons with Disabilities (UNCRPD)

- The UNCRPD was adopted by the United Nations General Assembly on 13 December 2006.
- The Convention seeks to promote, protect and ensure the full and equal enjoyment of all human rights and fundamental freedoms by all persons with disabilities, and to promote respect for their inherent dignity.
- India signed and ratified the UNCRPD in 2007, India has passed, the Rights of Persons with Disabilities Bill, 2016.
- The International Day of Persons with Disabilities is observed on 3rd December.

3. JOURNALISM IN HUMANITARIAN SITUATION

CONTEXT

In a situation of humanitarian crisis, like the recent deaths of children in Bihar due to Acute Encephalitis Syndrome (AES), the role and significance of journalists gains importance.

HIGHLIGHTS IN THE NEWS

- The most pertinent question during such a scenario is whether the journalists should be given access to the affected areas where there might be crunch of resources. This is a choice that must be made responsibly after considering whether the Journalists are hampering or aiding relief efforts. This holds significance given that the media has a responsibility in bringing information to the public.
- Additionally, facilitating the media in humanitarian situations does serve a larger purpose. With the increase in news coverage, assistance in terms of donations, manpower and ideas also increase.
- However, on the part of the journalists, it is for them to cover the story with '**a personal ethical consciousness**'. Under it information is seen as a social good, not a commodity, and in a way that doesn't obstruct health workers and doctors from doing their jobs. The dignity and privacy of all patients, victims and their families must also be maintained.



Alan Kurdi, Symbol of Refugee Crisis

- The journalists should also keep the **value of journalism** - truth, objectivity, accuracy, credibility, fairness, impartiality, humanity and accountability - in high regard. Vested interests and mischievous elements will always try to spread false stories and thus harm the socio-political fabric of the society. The media houses need to follow a code of conduct and be extra careful while transmitting information.

WHAT THE CODE OF CONDUCT SHOULD INCLUDE?

- ❖ **Seek truth and report it:** Be honest and courageous in gathering, reporting and interpreting information.
 - Identify sources clearly. The public is entitled to as much information as possible to judge the reliability and motivations of sources.
 - Be vigilant and courageous about holding those with power accountable. Give voice to the voiceless.
- ❖ **Minimise harm:** Treat sources, subjects, colleagues and members of the public as human beings deserving respect.
 - Balance the public's need for information against potential harm or discomfort.

- Consider the long-term implications of the extended reach and permanence of publication.
- ❖ **Act Independently:** Avoid conflicts of interest.
 - Be wary of sources offering information for favours or money; do not pay for access to news.
 - Distinguish news from advertising and shun hybrids that blur the lines between the two.
- ❖ **Be accountable and transparent:** Take responsibility for the work and explain one's decisions to the public.
- Respond quickly to questions about accuracy, clearly and fairness.
- Acknowledge mistakes and correct them promptly.

SPORTS NEWS

1. INDIA'S WOMEN HOCKEY TEAM WINS FIH SERIES FINALS

CONTEXT

India clinched the women's FIH Series Finals Hockey Tournament by beating hosts Japan (3-

HIGHLIGHTS IN THE NEWS

- The 2018-19 Women's FIH Series Finals that were held in June 2019 are 2nd stage of 2018-19 editions of Hockey Series.
- The event saw the participation of 24 teams (From 5 confederations) and matches played were 52.
- **The venue was in three host cities:** Horishima (Japan), Banbridge (Ireland) and Valencia (Spain).

2. ASIAN GYMNASTIC CHAMPIONSHIPS

CONTEXT

Pranati Nayak of India won a bronze medal in the vault event held at Senior Asian Artistic Gymnastic Championships 2019 in Ulaanbaatar, Mongolia.



Asian Gymnastic Championships

AGC is organized by Asian Gymnastic Union (AGU) for each of the FIG (International Gymnastics Federation) gymnastic disciplines for both men's and women's.

3. FOLKSAM GRAND PRIX 2019

CONTEXT

India's PU Chitra won a gold medal in the women's 1500 m at Folksam Grand Prix 2019 held in Sollentuna, Sweden

Folksan Grand Prix

It is a series of international athletics meetings created in 2009. Since then it is organized every year in Sweden by the Swedish Athletics Federation.

4. INDIA WOMEN'S RUGBY

CONTEXT

Indian Women's Rugby team claimed their first ever international women's victory after beating Singapore in the Asian Women Rugby Championship (Division 1) in Manila, Philippines.

Rugby's Future in India: India has a big following for Rugby game. India, China and the USA together constitute 33% of 800 million followers of game globally.

5. ASIAN SNOOKER CHAMPIONSHIP: PANKAJ ADVANI



CONTEXT

India's Pankaj Advani defeated Thanawat Tirapongpalboon of Thailand with 6-3 in final to clinch the 35 men's Asian Snooker Championship.

HIGHLIGHTS IN THE NEWS

- India's ace cueist Pankaj Advani won men's Asian Snooker Championship to complete a career grand slam in cue sports.
- With this win Advani has now become the only player to win Asian and World championships in all formats and also the only one to do it in both billiards and snooker.

ACBS Asian Snooker Championship

It is the premier non-professional snooker tournament in Asia that started from 1984. The Asian Confederation of Billiards Sports, sanctions the event series. In most of the seasons winner of tournament qualifies for next season of Professional Snooker Tour.

IN NEWS

1. ADMIRAL KARAMBIR SINGH



Admiral Karambir Singh has assumed command of the Indian Navy as the 24th Chief of the Naval Staff. The “Grey Eagle” (senior-most serving naval aviator) of the Navy, Karambir Singh is the first helicopter pilot to become chief of Naval Staff.

2. CABINET RANK TO NIRPENDRA MISHRA, PK MISHRA AND AJIT DOVAL



The Government has given cabinet rank to Nirpendra Mishra, PK Mishra and Ajit Doval, Nirpendra Mishra and PK Mishra have been reappointed as Principal Secretary and Additional Principal Secretary to the Prime Minister respectively. Ajit Doval has been reappointed as the National Security Advisor (NSA).

DEMISE

1. GIRISH KARNAD



Recently, the noted actor, filmmaker and playwright Girish Karnad passed away. He was 81. He was a recipient of the 1998 Jnanpith Award, the highest literary honour conferred in India. He was also conferred the Padma Shri and Padma Bhushan and had won several accolades for direction in Kannada cinema.

He worked with mythology and history and gave them a contemporary resonance in plays such as *Tughlaq* and *Hayavadana*. He wrote his first play *Yayati* in 1961.

2. MOHAMED MORSI



Former Egyptian President Mohamed Morsi, aged 67, passed away. Morsi, a top figure in the Muslim Brotherhood, was toppled by the military in 2013 after mass protests against this rule. He was Egypt's first democratically elected President.

Muslim Brotherhood is a religio-political organisation founded in 1928 at Ismailia, Egypt, by Hasan al-Banna. It advocated a return to the Quran and the Hadith as guidelines for a healthy modern Islamic society.