WEEKLY

WEEK - 1 MARCH, 2020

MAINS

Ways to measure poverty in India and why the numbers matter.

ECONOMY

Ethics in Al

ETHICS

Indo-Pacific: The Way Forward In the New Asian Dynamics India-US Relations in the light of the President Trump's India Visit INTERNATIONAL RELATIONS

> Tracking the wildlife trafficking in Southeast Asia

> > SCIENCE & TECHNOLOGY

Sustainable Fashion

SOCIETY

World Air Quality 3 Report 2019

ENVIRIONMENT

- National Technical **Textiles Mission**
- Worldwide Education for the Future Index 2019

ECONOMY

- 1000 Spring Initiatives © **GEOGRAPHY**
- Locate the grave of the **6** Mughal prince DaraShikoh
- Avvaiyar/Thiruvalluvar 🔊 **HISTORY**
 - Law Commission of India **INDIAN POLITY**

Pakistan to remain in the Grev List of FATF

INTERNATIONAL RELATIONS

- Spike protein of 2019-nCoV
- Mars Insight Mission
- SUTRA PIC

SCIENCE & TECHNOLOGY

Exercise Indradhanush **SECURITY**

PRELIMS

www.iasscore.in

- Disclaimer -

The current affairs articles are segregated from prelims and mains perspective, such separation is maintained in terms of structure of articles. Mains articles have more focus on analysis and prelims articles have more focus on facts.

However, this doesn't mean that Mains articles don't cover facts and PT articles can't have analysis. You are suggested to read all of them for all stages of examination.

CURRENT AFFAIRS ANALYST

WEEK- 1 (MARCH, 2020)

CONTENTS

Section - A: MAINS CURRENT AFFAIRS			
Area of GS	Topics in News		
ECONOMY	Ways to measure poverty in India and why the numbers matter	7	
ETHICS	Ethics in AI	9	
INTERNATINAL RELATIONS	• Indo-Pacific: The Way Forward In the New Asian Dynamics	12	
	India-US Relations in the light of the President Trump's India Visit	15	
SCIENCE & TECHNOLOGY	Tracking the wildlife trafficking in Southeast Asia	18	
SOCIETY	Sustainable fashion	22	

Section - B: PRELIMS CURRENT AFFAIRS		
Area of GS	Topics in News	Page No.
ENVIRONMENT	World Air Quality Report 2019	26
ECONOMY	National Technical Textiles Mission	27
ECONOMY	Worldwide Education for the Future Index 2019	28
GEOGRAPHY	1000 spring Initiatives	29
HISTORY	Locating the grave of the Mughal prince DaraShikoh	30
	Avvaiyar/Thiruvalluvar	31
POLITY	Law Commission of India	33
INTERNATIONAL RELATIONS	Pakistan to remain in the Grey List of FATF	34
	Spike protein of 2019-nCoV	36
SCIENCE & TECH.	Mars Insight Mission	38
	SUTRA PIC	39
SECURITY	Exercise Indradhanush	40

Section - C: MISCELLANEOUS			
Topics in News			
34 th DBT Foundation Day Celebrated	42		
Celebrating Excellence in Philanthropy' (CEP)	42		
Chatra Vishwakarma Awards 2019	43		
Exercise Ajeya Warrior-2020	43		
Indian Army Celebrates Ganga Yodha Mahotsav 2020	43		
ISRO to launch GISAT-1 on 05 March	44		
Joint IAF - RAF EX Indradhanush - V 2020	44		
Market Intelligence and Early Warning System (MIEWS) Portal	44		
New Trio of Products for marine-based users	45		
SPICe+ web form	45		
UKIERI-UGC Higher Education Leadership Development Programme	46		
US-India Tax Forum	46		

IAS MOCK INTERVIEW

India's Most Experienced Interview Panel is Here!

R.P. Aggarwal

IAS (Retd.)

Amb. Anil Trigunayat

Former Ambassadors & Secretary, Association of Indian Diplomats (Former Ambassadors)

S.B. Singh

Well known IAS Interview Mentor

G.S. Patnaik

IAS, Former Vice Chairman - DDA, Former Adviser to Governor of Arunachal Pradesh

R.P. Sinha

IAS, Former Secretary - Govt of India

B.K. Pandey

IES, Former Adviser - NITI Aayog

K.D. Singh

IFoS

Former Principal Conservator of Forests - Arunachal Pradesh

Dr. N.K. Sahu

IES, Former Joint Secretary - HRD Ministry

Devi Prasad

IES, Celebrated Budget and Economic Survey Expert

S.B.S Tyagi

IPS (Retd.)

H. Bhusan

Serving Bureaucrat, Government of India

- and many other Senior Civil Servants and Academicians who will part of the board...

ILIGHTS

Question on Debatable Topic for Self-paced Preparation

Analysis of Controversial Topics & Tips to handle

■ DAF Analysis

1 Mock Interview

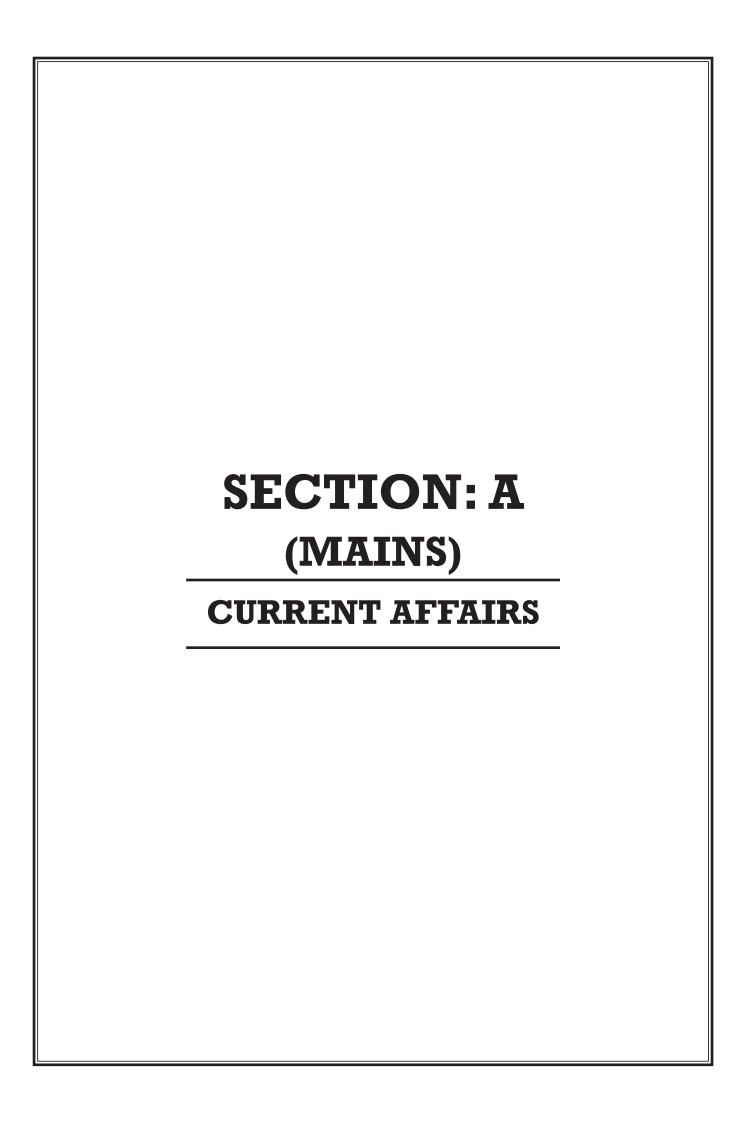
Mock Feedback

■ Video Recording

GSSCORE

An Institute for Civil Services

Registration Open www.iasscore.in



WAYS TO MEASURE POVERTY IN INDIA AND WHY THE NUMBERS MATTER

YARININIA MARININIA M

CONTEXT

• American President praised India for having lifted "over 270 million people out of poverty" in "a single decade", and said that "12 Indian citizens are lifted out of extreme poverty every single minute of every single day".

• BACKGROUND:

- Poverty can be defined as a condition in which an individual or household lacks the financial resources to afford a basic minimum standard of living.
- Economists and policymakers estimate "absolute" poverty as the shortfall in consumption expenditure from a threshold called the "poverty line".
- The official poverty line is the expenditure incurred to obtain the goods in a "poverty line basket" (PLB).
- Poverty can be measured in terms of the number of people living below this line (with the incidence of poverty expressed as the head count ratio). The "depth" of poverty indicates how far the poor are below the poverty line.
- Six official committees have so far estimated the number of people living in poverty in India
 - ➤ The working group of 1962
 - V N Dandekar and N Rath in 1971
 - ➤ Y K Alagh in 1979
 - D T Lakdawala in 1993
 - Suresh Tendulkar in 2009
 - ➤ C Rangarajan in 2014
- The government did not take a call on the report of the Rangarajan Committee; therefore, poverty is measured using the Tendulkar poverty line.
- As per this, 21.9% of people in India live below the poverty line.

What does the basket of goods include?

- The PLB comprises goods and services considered essential to a basic minimum standard of living — food, clothing, rent, conveyance, and entertainment.
- The price of the food component can be estimated using calorie norms or nutrition targets.
- Until the 1990s, the calorie norms method was used — it was based on the minimum number of calories recommended by the Indian Council of Medical Research (ICMR) for a household of five members.

- However, this method does not consider the different food groups that are essential for health
 — this is why the Tendulkar Committee targeted nutritional outcomes.
- The Lakdawala Committee assumed that health and education is provided by the state — therefore, expenditure on these items was excluded from the consumption basket it proposed.
- Since expenditure on health and education rose significantly in the 1990s, the Tendulkar Committee included them in the basket.
- As a result of revisions to the basket and other changes in the method of estimation, the percentage of people living below the poverty line in 1993-94 rose from 35.97% to 45.3%.

Why are poverty numbers important?

- The 1962 group did not consider age and genderspecific calorie requirements.
- Expenditure on health and education were not considered until the Tendulkar Committee which was criticized for setting the poverty line at just Rs 32 per capita per day in urban India (and at Rs 27 in rural India).
- And the Rangarajan Commission was criticized for selecting the food component arbitrarily — the emphasis on food as a source of nutrition overlooks the contribution of sanitation, healthcare, access to clean water, and prevalence of pollutants.
- Poverty numbers matter because central schemes like Antyodaya Anna Yojana (which provides subsidided foodgrains to households living below the poverty line) and Rashtriya Swasthya Bima Yojana (health insurance for BPL households) use the definition of poverty given by the NITI Aayog or the erstwhile Planning Commission.
- The Centre allocates funds for these schemes to states based on the numbers of their poor.
- Errors of exclusion can deprive eligible households of benefits.

In what other ways can poverty be estimated?

 Multidimensional poverty index (MPI) to capture poverty using 10 indicators: nutrition, child





mortality, years of schooling, school attendance, ownership of assets, and access to proper house, electricity, drinking water, sanitation, and clean cooking fuel.

- Poverty is measured in terms of deprivation in at least a third of these indicators.
- While the overall headcount multidimensional poverty ratio in 2015-16 was 27.9%, the number was 36.8% for rural and 9.2% for urban India.
- There were wide variations across states poverty was the highest for Bihar (52.5%), followed by Jharkhand (46.5%), Madhya Pradesh (41.1%), and Uttar Pradesh (40.8%). It was the lowest for Kerala (1.1%), Delhi (4.2%), Punjab (6.1%), Tamil Nadu (7.3%) and Himachal Pradesh (8.1%).
- The MPI is a more comprehensive measure of poverty because it includes components that capture the standard of living more effectively.
- However, uses "outcomes" rather than expenditure
 the presence of an undernourished person in

the household will result in it being classified as "poor", regardless of the expenditure on nutritious food.

So what is the current "level" of poverty in India?

- The National Statistical Office (NSO) Report on Household Consumer Expenditure for 2017-18 was junked in 2019. So there are no data to update India's poverty figures.
- Even the MPI report published by Oxford Poverty and Human Development Initiative used data from the fourth round of the National Family Health Survey, figures for which are available only until 2015-16.
- The absolute number of poor people increased from 270 million to 322.22 million over the same period, which translates to 52 million more poor people in six years.



ETHICS IN AI

CONTEXT

NITI Aayog in collaboration with Nasscom rolled out artificial intelligence modules in schools.

• BACKGROUND:

- Project: The National Association of Software and Services Companies (Nasscom), in collaboration with Niti Aayog's Atal Innovation Mission (AIM), launched an artificial intelligence (AI) based module for students of Indian schools.
- Scope: The AI-Base Module will be implemented across 5,000 Atal Tinkering Labs (ATL), empowering 2.5 million students. The module is likely to be introduced to ATL students on 27 February.
 - The AI module is targeted at young children.
 - The module contains activities, videos and experiments that enable students to work with and learn the various concepts of AI.
 - > Its is the first ever industry government academia initiative on such a scale to keep school students abreast of latest technologies.
- o Objective: The module combines play and academics, in order to make things interesting. The idea is to make artificial intelligence fun for children to enjoy it, so they can evolve, learn and take India forward.
 - The ultimate goal is to make students industry ready for a AI led Digital future.
- AI potential: By 2030 market for AI is likely to be around \$15 trillion, out of which India's share will be close to \$1 trillion.
 - AI has become a strategic lever for economic growth across nations and will continue to be one of the most crucial technologies of future.
 - ➤ According to NITI Ayog, use of machine learning and AI can up to 1.3% to India's GDP on an annual basis.

The Atal Innovation Mission (AIM)

- AIM is a flagship initiative by NITI Aayog to promote innovation and entrepreneurship at various levels of education, SME/MSME, corporate and NGOs.
- AIM will play an instrumental role in aligning innovation policies between central, state and sectoral innovation schemes.

- Long term goals of AIM include establishment and promotion of Small Business Innovation Research and Development at a national scale (AIM SBIR) for SME/MSME/startups.
 - > Rejuvenating S&T innovations in major research institutes like CSIR (Council of Scientific Industrial Research), Agri Research (ICAR) and Medical Research (ICMR), aligned to national socio-economic needs.
- Atal Tinkering Labs (ATLs): ATLs are dedicated innovation workspaces of 1200-1500 square feet where do-it-yourself (DIY) kits on latest technologies like 3D Printers, Robotics, Internet of Things (IOT), Miniaturized electronics are installed using a grant of Rs 20 Lakhs from the government for students from Grade VI to Grade XII.
 - > Atal Incubators (AICs): AICs are set up at university, NGO, SME and Corporate industry level in every sector/state of the country.
 - **Financial support:** A grant-in-aid of up to Rs. 10 crore for a maximum period of **5 years** is given to cover the capital and operational expenditures to establish the AIC.
 - Women led incubators and entrepreneurial startups are strongly encouraged by AIM.

ANALYSIS:

Artificial Intelligence

- Artificial Intelligence is intelligence exhibited by machines. The term was coined in 1956 by John McCarthy at Dartmouth conference, Massachusetts Institute of Technology.
 - ➤ Today it has gained prominence due to its multifaceted application ranging from healthcare to military devices.
- o Processes in AI: It is a simulation of human intelligence processes such as learning (acquisition of information and rules of it), reasoning (using the rules to reach approximate or definite conclusions), and self-correction by machines, especially computer systems.





Philosophy and ethics around AI: R&D of AI started with the intention of creating intelligence in machines that we find and regard high in humans. While AI offers much potential in bettering human lives, it also poses many threat to it.

Different forms of AI

- o Difference between automation and AI: Automation is basically making a hardware or software that is capable of doing things **automatically** — without human intervention.
 - ▶ AI on the other hand is the science and engineering of making intelligent machines.
- Robotic process automation: Robots can now be programmed to perform high-volume, repeatable tasks normally performed by humans. It supersedes IT automation in agility and adaptability to changing circumstances.
- Natural language processing (NLP): Detecting and processing human language. For example, spam detection, which looks at the subject line of a text/email and decides if it's junk.
- Speech/facial Recognition: Hearing and grasping different human languages in terms of sentences, while talking to humans.
 - Facial recognition can be used for unlocking phone, detecting intruders etc.
- Pattern recognition: Identifying patterns in data.
- Machine vision: Capturing and analysing visual information using a camera, analog-to-digital conversion, and digital signal processing. It is not bound by biology and can also see through walls. Its application ranges from signature identification to medical image analysis.
- Machine learning: Ability to learn by computers without being explicitly programmed. It involves use of algorithms to parse data, learn from it, and making a predictions.
- Deep learning: It is a subset of machine learning and can be thought of as automation of predictive analytics. It was inspired by the structure and function of human brain.
 - It uses Artificial Neural Networks (ANNs) algorithms which are based on the biological structure of the brain.

Benefits and uses if AI

- Healthcare Sector: Faster, cheaper and more accurate diagnosis and thus improving patient outcomes and reducing costs.
- Business Sector: Applying AI to perform highly repetitive tasks faster and more effortlessly than humans. Provision of better customer service.
- Education Sector: Smart teaching can make

- learning more engaging. Personalized learning pathways can take education beyond classrooms.
- Educational processes like grading, rewarding marks etc. can be automated.
- Financial Sector: Better analysis of finance relate data and providing financial advice.
- **Legal Sector:** Analysing cases and **reducing legal** workload.
- Agricultural sector: AI can be used to predict advisories for sowing, pest control, input control etc., and bring increased income and stability to farmers
- Manufacturing sector: Use of Robotics to ease, fasten and detail manufacturing processes. Use of additive manufacturing (3D Printing).
- **Industry 4.0:** The fourth industrial revolution is based on adoption of AI for progressive automation of production processes. It is the digital transformation of industry.
- Intelligent Robots: Can perform tasks given by humans. They better detect data from physical world, such as light, heat, temperature, movement, sound, bump, and pressure.
 - ➤ They have high memory power, learn from their errors and adapt easily.
- Digital assistants: Digital assistants and smart speakers like Siri, Alexa, Cortana, and Google **Home** use AI to personalise and automatise mundane household functions.
- Strategic games: In May 1997 for examples, an **IBM super-computer called Deep Blue** defeated world chess champion Gary Kasparov in a chess
- Military: Smart border surveillance and monitoring can be applied to enhance security infrastructure.
 - ➤ With use of **robotic army** in counter insurgency and patrolling operations, there can be less damage to human personnel.
- Social welfare: Targeted delivery of services, schemes, and subsidy. Automate government processes can maximize transparency and accountability.
- Road safety: Machine learning can be applied to monitor and control traffic.
- Weather forecasting: Weather forecasting models can become more advanced, and weather related mishaps can well be prepared for in advance.
 - Disaster management can be faster and more accessible with the help of robots and intelligent machines.





Ethical and other issues around AI

- Job loss: Decrease in demand for human labour due to machines and intelligent robots taking over jobs in manufacturing and services sectors.
- Lethal Automated Weapons (LAWs): There
 is a global arms race for LAWs. Israel Aerospace
 Industrie's Harpy, for instance crashes into the
 source of enemy radar signal, destroying the
 target and itself.
 - Algorithms used in LAWs internalize prejudices, but do not account for human suffering and, therefore, could cause extensive violence.
- Terrorist/cyber threat: Incidents show that even the most advanced security systems are susceptible to hacking. In the hands of unruly elements of society, AI can unleash great damage.
 - ➤ Terrorists or rogue states could **use such** weapons/technology on civilians.
- Breaking social codes: It may lead to moral degradation in society due to decreased human to human interactions. It can also alter social and cultural codes.
- Costly and inequitable: Much of the sophisticated AI related technology is unavailable to people on an equitable basis because its costly. For example, majority of people cannot afford technologies like Google Home, or have the requisite support infrastructure needed for it.
 - Similarly, the less developed nations fall behind in development of AI related technologies and infrastructure.
- Privacy concerns: Increasing availability of facialrecognition technology has given rise to concerns regarding privacy, security, and civil liberties.
 - ➤ Real-time tracking and facial recognition technology **can be misused** by the possessors of private information.
- Can it run without human monitoring? While robots and AI technology are deemed to be

- logical, devoid of emotions, and boasted of to make rational decisions, examples where selfdriven cars have **caused accidents and led to fatal casualties,** raise concern about capability of AI to function without human monitoring.
- Can it cause intentional harm? When the humanoid robot 'Sophie' was made to chat with another robot, after a point, the conversation became serious and even incomprehensible to human faculty. This raises question whether AI technology can go out of hand of its own creator.
- Who should be held responsible for the unintended actions? There is an accountability question as to who should be held responsible for the unintended damages caused by AI related technologies like LAWs or self-driven cars. Should it be the developer, customers, regulatory agencies who allowed it, or just no one.
- Do they deserve certain right? With such fast paced development of AI and their race to achieve mind, consciousness and emotions same human beings, the question of granting them certain rights has arisen; and in many cases citizenship too.
- Existential risks: Stephen Hawkins warned of fully developed AI taking over human race.

CONCLUSION

Despite its many threats and challenges, AI is here to stay. AI is a highly collaborative domain, and any framework aimed at promoting AI needs to be aligned accordingly. A multi-pronged approach, involving various stakeholders is required for promoting development and use of AI in different fields. It is the global responsibility of all nations to make AI-ecosystem more accurate, just, and one that is withdrawn of the many risks that it can pose.



INDO-PACIFIC: THE WAY FORWARD IN THE NEW **ASIAN DYNAMICS**

CONTEXT

The increasing geopolitical convergence between India and Japan demonstrates traditional strength, deepening trust, matured partnership and strong democratic values in addressing strategic challenges.

BACKGROUND

- The term 'Indo-Pacific' first used as a geopolitical construct by Captain (Dr.) Gurpreet S Khurana in 2007.
- In broader terms, it is a broader region that combines the Indian Ocean and the Pacific Ocean, and the land masses that surround them.
- The region is of great strategic importance as it acts like means to Asia's geopolitical ends and geo-economic opportunities.
- The region consists of sixty four countries and holds under its umbrella a large number of relevant issues.

Importance of the Region

- Recently, there has been an unprecedented shift of global interests from the West to the East.
- The Asian continent offers a large spectrum of possibilities making the West dependent on it for a credible growth in future.
- The majority of the world trade passes through these oceans.
- The Strait of Malacca being the significant economic and trade bottleneck has a strategic role to play.
- The region also acts as a consociational model for the ASEAN countries, giving them an aspiration of stake-holder ship and participation.
- Another important aspect that highlights the dominance of the Indo-Pacific in the Asian geopolitical fervour is the Quad narrative.
- The very foundation of the Quad and the interests of all the four major democratic economies (US, Japan, India and Australia) in the region are interdependent.
- The Indo-Pacific also greatly impacts the multilateral relations due to the conflict of interests in the geostrategic, geopolitical and geo-economic domains.
- Its strategic relevance compels the global powers to establish the Free and Open Indo-Pacific Policy.
- India's perspective on 'Indo-Pacific' is inclusive, open, fair and balanced for growth of all countries in the region.

- The concept of 'Indo-Pacific' being of interest to most South East Asian countries and the west is a quintessential factor in the India-China dynamics.
- Therefore the way forward needs to be such that its geopolitical spectrum unfolds in future in a beneficial manner for all in the region.

Strait of Malacca

- Significance of the Indo-Pacific lies with the Strait of Malacca being the commercial and economic lifeline.
- The strait acts as the choke point for the world trade and energy supplies.
- The Strait of Malacca is of importance for the socioeconomic development in Singapore, Thailand, Indonesia and Malaysia.
- The trading patterns across the Indo-Pacific places the region in the global highlight.

ASEAN

- The ASEAN countries are great stakeholders in the shaping of the Indo-Pacific narrative.
- The acceptance and cooperation of the ASEAN for the setting up and execution of the Indo-Pacific policy would pay dividends, in terms of a great factor for peace and stability in the region.
- It also enlightens about the aim being to enhance the organisation's community and strengthen the pre-existing ASEAN-led mechanisms (like East Asia Summit, Indian Ocean Rim Association, Pacific Islands Forum etc), as platforms for implementation and dialogue of the Indo-Pacific cooperation.
- It also mentions the 'UN Sustainable Development Guidelines 2030', economic development and engagement with other countries of the Indo-Pacific region.
- Though, what is to be closely noticed is the dependency of the ASEAN nations on the Republic of China.
- The Chinese influence makes the organisation run into ambiguity and it showcases itself as a puppet of the many favours done by China in South East Asia.



Quad

- As the name itself suggests, the Quad is the coalition and alignment of the world's four large democracies namely US, Japan, India and Australia.
- The Quad though, in simpler words is a splendid cooperation in addition to the pre-existing network of defence and security amongst the four democracies of the Indo-Pacific.
- The Quad, nevertheless is in a spiral of controversies and challenges.
- The 'China factor' is something that puts the shallow water on the freeze, not only due to the big brother dominance but also the unpredictability of a country like Australia because of its noteworthy past for the same.
- Cohesion of the four democracies, wanting to work on counter-terrorism, counter proliferation and interdependency in terms of humanitarian agendas is too farfetched a dream to be imagined in smooth functioning.
- The reason for the same is the vague and ambiguous structure of the Indo-Pacific, as a foremost stepping stone; complied by the very fact that the policies of Quad have not been formalized on a ministerial level, yet.
- The group has its own fault lines. There is ambiguity on the commitment of the nations to the "Free and Open Indo-Pacific" and there is no formalisation of the same.
- It has also been unable to showcase results in terms of great gains and performance about the on-ground deliverables due to the loosely designed rules and regulations about functioning of the Quad.

• MISCELLANEOUS

- 'Regional The Comprehensive Economic Partnership' (RCEP) can be seen as an agreement for the ASEAN gravity to reinforce its stability and security in the Indo-Pacific.
- Though, India as of now has pulled itself out of RCEP, since it wants to boost 'Make in India'. As of today, the country runs a large trade deficit with RCEP countries and seeks specific protection for its industry and farmers from a surge in imports, especially from China.
- 'Asia Pacific Economic Cooperation' (APEC), is another organisation of key importance to the Indo-Pacific region. APEC has played a principal role facilitating trade and investment liberalisation across Asia and Pacific, integrating both developed and developing countries.

 The US initiative for a 'Free and Open Indo-Pacific', and making it submerge with the Quad is perceived as accelerating economic and security connections between the Western Pacific and the Indian Ocean region to create a "single strategic system".

India-China Dynamics

YARININIA MARININIA M

- The Indo-Pacific is emerging as the chief conceptual challenge to the Belt and Road Initiative (BRI); a China-centric vision of the extended region.
- It is also reducing the salience of the late 20th century idea of the Asia-Pacific (essentially an East Asia-centric order that had come to suit China because it tended to exclude India).
- China's determination to discredit the concept of Indo-Pacific is deeply ironic and probably futile, given that it is the extension of China's own interests, capabilities, and influence in the Indian
- China's own geo-economic regional influence through infrastructure enterprise; the BRI; includes the 'Maritime Silk Road'.
- This is essentially the Indo-Pacific with Chinese characteristics. Indeed, as of today, China may be the only nation with a focused approach against the Indo-Pacific.
- China has been a threat to the Asia Pacific countries and is posing threat to Indian interests in the Indian Ocean as well.
- China has a hold over Hambantota port (Sri Lanka), which is just a few hundred miles off the shores of India.
- It is supplying military equipment to India's neighbours such as submarines to Myanmar, frigate to Sri Lanka, military hardware to Bangladesh and Thailand; thus in a way dominating the region.
- China is viewed as more of a challenge to India's stand in the Indo-Pacific than a threat to its significance in the region. Therefore, the concept of the Indo-Pacific (including the Quad) acts as prominent factor in the India-China dynamics.

India's Perspective

- India has emphasised on the ASEAN centralism in the whole concept of security in the Indo-Pacific.
- India's idea of the Indo-Pacific geographical expanse is from the shores of Africa to the shores of America in the Pacific. India's vision remains to focus on its policy for Indian Ocean ie 'SAGAR' (Security and Growth for All in the Region).
- India considers the region as an inclusive, open, integrated and balanced space. India continuously emphasises on strategic inter-connections, common challenges and opportunities between the Indian Ocean and the Pacific Ocean.





- India does not comply with the US version of the Indo-Pacific, which seeks to contain Chinese dominance.
- India is rather looking for the ways through which it can work together with China.
- India does not want hegemony of any player in the region; however, it is looking for democratising the region.

• WAY FORWARD

- All the nations that are part of the Indo-Pacific should abide by the international law and should maintain equal access to the common spaces in air and sea.
- There should be freedom of navigation, unrestricted commerce and peaceful settlement of disputes in

- accordance with the international law.
- Strong naval capabilities, multilateral international relations and economic integration with nations are essential for India to meet the challenges within the Indo-Pacific region.
- Encouragement of multi polarity with respect to peace and security, and implementation of the 'Maritime Domain Security' is a must.
- There should also be good connectivity in the region.
- The sovereignty, territorial integrity, of the countries involved should be respected, and characteristics like good governance, transparency, and sustainability should be more focused upon.



INDIA-US RELATIONS IN THE LIGHT OF THE PRESIDENT TRUMP'S INDIA VISIT

CONTEXT

Recently, the President of the USA, Donald Trump, visited India.

• BACKGROUND:

- India-U.S. bilateral relations have developed into a "global strategic partnership", based on shared democratic values and increasing convergence of interests on bilateral, regional and global issues.
- Regular exchange of high-level political visits has provided sustained momentum to bilateral cooperation, while the wide-ranging and everexpanding dialogue architecture has established a long-term framework for India-U.S. engagement.
- India-U.S. bilateral cooperation is broad-based and multi-sectoral, covering trade and investment, defence and security, education, science and technology, cyber security, high-technology, civil nuclear energy, space technology and applications, clean energy, environment, agriculture and health.

ANALYSIS

Areas of Cooperation

- **Political Relations:** The frequency of high-level visits and exchanges between India and the U.S. has gone up significantly of late. Delhi Declaration of Friendship is been adopted as Joint Strategic Vision for Asia-Pacific and the Indian Ocean Region. There is frequent interaction between the leadership of the two countries, including telephone calls and meetings on the sidelines of international summits.
- **Strategic Consultations:** There have been regular contacts at political and official levels on bilateral, regional and global issues. There have been regular contacts at political and official levels on bilateral, regional and global issues. Foreign Office Consultations, at the level of Foreign Secretary of India and U.S. Undersecretary for Political Affairs, are an important part of the dialogue structure.
- Civil Nuclear Cooperation: The bilateral civil nuclear cooperation agreement was finalized between both the countries. The two sides set up a Contact Group for advancing the full and timely implementation of the India-U.S. Civil Nuclear Cooperation Agreement, and to resolve pending issues. Culminating a decade of partnership on civil nuclear issues, the two sides have started the preparatory work on site in India for six AP 1000 reactors to be built by Westinghouse. Once

- completed, the project would be among the largest of its kind.
- **Defence Cooperation:** Defence relationship has emerged as a major pillar of India-U.S. strategic partnership with the signing of 'New Framework for India-U.S. Defense Relations', the resulting intensification in defence trade, joint exercises, personnel exchanges, collaboration and cooperation in maritime security and counterpiracy, and exchanges between each of the three services. The two countries now conduct more bilateral exercises with each other than they do with any other country. Bilateral dialogue mechanisms in the field of defence include Defence Policy Group (DPG), Defence Joint Working Group (DJWG), Defence Procurement and Production Group (DPPG), Senior Technology Security Group (STSG), Joint Technical Group (JTG), Military Cooperation Group (MCG), and Service-to-Service Executive Steering Groups (ESGs). U.S. recognised India as a "Major Defence Partner", which commits the U.S. to facilitate technology sharing with India to a level commensurate with that of its closest allies and partners, and industry collaboration for defence co-production and co-development.
- Counter-terrorism and internal security: Cooperation in counter-terrorism has seen considerable progress with intelligence sharing, information exchange, operational cooperation, counter-terrorism technology and equipment. India-U.S. Counter-Terrorism Cooperation Initiative was signed to expand collaboration on counterterrorism, information sharing and capacity building. The two sides have agreed on a joint work plan to counter the threat of Improvised Explosives Device (IED). In order to further enhance the counter terrorism cooperation between India and the U.S., an arrangement is concluded to facilitate exchange of terrorist screening information through the designated contact points.
- **Trade and Economic:** The United States seeks an expanded trade relationship that is reciprocal and fair. Bilateral trade in 2018 was 142billion, a 12.6 percent increase from 2017. S. energy exports are an important area of growth in the trade relationship. In 2018 India purchased 48.2 million barrels of U.S. crude oil, a significant increase from 9.6 million in 2017. Last year, Indian students enrolled at U.S. colleges and universities contributed over 142 billion, a 12.6 percent increase from 2017. S.

energy exports are an important area of growth in the trade relationship. In 2018 India purchased 48.2 million barrels of U.S. crude oil, a significant increase from 9.6 millionin 2017. Last year, Indian students enrolled at U.S. colleges and universities contributed over7 billion to the U.S. economy. The total number of Indian students in the United States has more than doubled over the last decade, from 81,000 in 2008 to a record high of 196,000 in

Energy and Climate Change: The U.S.-India Energy Dialogue was launched to promote trade and investment in the energy sector. There are six working groups in oil & gas, coal, power and energy efficiency, new technologies& renewable energy, civil nuclear co-operation and sustainable development under the Energy Dialogue. Investment by Indian companies like Reliance, Essar and GAIL in the U.S. natural gas market is ushering in a new era of India-U.S. energy partnership. The U.S. Department of Energy has so far given its approval for export of LNG from seven liquefaction terminals in the U.S., to countries with which the U.S. does not have a free trade agreement (FTA).

Challenges/Obstacles bilateral in the relations

- Now, India has chosen to wage battle against U.S. companies on a completely new front - Data localization.
- Reserve Bank of India told all payments companies to "store the entire data related to payments systems" solely in India.
- The government followed up with draft policies, one of which ordered e-commerce companies to store user data in India and one which tells all internet companies to store personal data of Indians in India.
- E-commerce has also been a major flashpoint. The government is going after foreign-owned e-commerce web sites such as Amazon, telling them that they can't hold any inventory or allow their platform to be used by companies they'd invested in.
- In other words, Amazon needs to find a middleman to sell Kindles or Echos on its Indian website.

- Local companies face no such restrictions.
- Intellectual Property (IP): The two sides differ on how to balance IP protection to incentivize innovation and support other policy goals, such as access to medicines. India's IP regime remains a top concern for the United States, which designated India again on its "Special 301" Priority Watch List, based on such concerns as its treatment of patents, infringement rates, and protection of trade secret.
- **Agriculture:** Sanitary and phytosanitary (SPS) barriers in India limit U.S. agricultural exports -The United States questions the scientific and riskbased justifications of such barriers. An ongoing issue is India's purported compliance with a WTO decision against its ban on U.S. poultry imports and live swine due to avian influenza concerns; the WTO held that India's measures violated WTO SPS rules. Each side also sees the other's agricultural support programs as market-distorting; India's view of its programs from a food security lens complicates matters.
- **Localization Trade Barriers:** The United States continues to press India on its "forced" localization practices. Initiatives to grow India's manufacturing base and support jobs include requirements for in-country data storage and local content for government procurement in some sectors.
- Services: The United States and India are competitive in certain services industries. Barriers to U.S. firms' market access include India's limits on foreign ownership and local presence requirements. For India, a key issue is U.S. temporary visa policies, which affect Indian nationals working in the United States. India is challenging U.S. fees for worker visas in the WTO, and monitoring potential U.S. action to revise the H-1B (professional worker) visa program. India also continues to seek a "totalization agreement" to coordinate social security protection for workers who split their careers between the two countries. The U.S. can be faulted for not seeing the bigger picture. It's China that's distorting the global playing field, and U.S. trade policy should be focused on finding and building alliances with countries such as India to combat that larger problem. India has the potential to be a giant market, which U.S. companies might need if they're slowly squeezed out of China.

Trump's India Visit: Outcomes

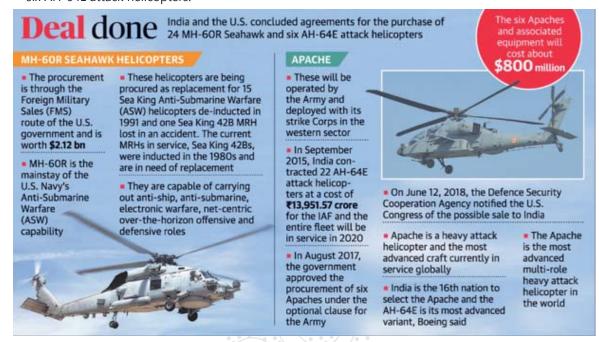
The President of the USA, Donald Trump, visited India from 24th - 25th February, 2020.

- India and the USA intended to upgrade their bilateral relationship to a Comprehensive Global Strategic Partnership (CGSP).
- The CGSP will include issues such as defence, security cooperation and revitalisation of the Indo-Pacific with quadrilateral dialogue.





- The USA has proposed the Free Trade Agreement (FTA) between the two countries.
- FTA will include the restoration of benefits of low or zero duty to certain Indian exports under the Generalised System of Preferences (GSP) and market access for each other's agricultural products.
- The Trade Policy Forum will be set up as a joint study group to facilitate smooth framing of FTA.
- **Proposed Totalisation Agreement:** The signing of this agreement will allow Indian professionals working in the USA to get a refund of social security contribution that they make while working in the USA.
- **Defence Deal:** USA and India have concluded the agreement for the purchase of 24 MH-6OR Seahawk, and six AH-64E attack helicopters.



- International Issues
- Quad Dialogue: U.S. and India stressed to revitalise the quadrilateral initiative consisting of Japan, the U.S., India and Australia.
- **Indo-Pacific Region:** Both the countries discussed to develop and evolve the Indo-Pacific region collaboratively.
- South China Sea Region:
- Both sides took note of the efforts of the ASEAN region to create a code of conduct in the South China Sea region.
- A code of conduct in the South China Sea region will be a set of rules outlining the norms and rules and responsibilities of, or proper practices for, an individual, party or organisation in the region.

• WAY FORWARD

- India should come out with well defines Strategic Policy in its western sphere, which includes maritime arena also (Western Indian Ocean).
- India should improve the competitiveness of its own industries to make its products & services attractive to consumers so that they are able to overcome obstacles imposed temporarily by foreign governments.



TRACKING THE WILDLIFE TRAFFICKING IN **SOUTHEAST ASIA**

CONTEXT

According to the recently released report 'Southeast Asia: At the heart of wildlife trade' by TRAFFIC, a new strategy is urgently needed to curb wildlife trafficking in Southeast Asia, one of the world's biggest biodiversity hotspots.

• BACKGROUND:

- Wildlife trafficking is the world's fourth-largest illegal trade after drugs, human trafficking and counterfeiting. It is valued up to US\$26 billion per year.
- Asia is an epicentre for wildlife trafficking.
- Southeast Asia is home to many iconic species. It is also a poaching hotspot.
- Animals are killed and trafficked in all forms: baby orangutans are captured to be sold as pets, tiger parts are used in medicine and turtle shells are used for ornaments.

ANALYSIS

The Hotspot:

- Southeast Asia is composed of eleven countries of impressive diversity in religion, culture and history: Brunei, Burma (Myanmar), Cambodia, Timor-Leste, Indonesia, Laos, Malaysia, the Philippines, Singapore, Thailand and Vietnam.
- Renowned not only for its animal and plant species richness but also for cultural, linguistic, political and religious diversity, Southeast Asia encompasses a range of actors that all rely in some way upon wildlife resources.
- This region covers four of the world's 25 biodiversity hotspots, forming some of the world's most biodiverse geographical regions with high species endemism:
 - Indo-Burma
 - the Philippines
 - Sundaland
 - Wallacea
- Southeast Asia, with the world's highest percountry proportion of endemic birds and mammals in a tropical region, also has the highest proportion of threatened birds, mammals, and reptiles.

Key-highlights of the Report:

The report titled'Southeast Asia: At the heart of wildlife trade' recognised and analysed thousands

- of successful seizures across the ten ASEAN countries in recent years, focusing on some of the most traded groups of terrestrial animals.
- Authors of the report noted that the statistics comprised only seizures and was just a fraction of the true magnitude of illegal wildlife trade in the region.
- The trafficking of over 895,000 pangolins during 2000-2019, 225,000 kg of African Elephant ivory during 2008-2019, 100,000 pig-nosed turtles during 2003-2019 and 45,000 songbirds seized during 2018-2019 were just a small part of the illegal trade conducted across the region.
- Organised criminal networks aided by wildlife cybercrime, poor market regulation, inadequate laws and dismal conviction rates allow illegal trade to flourish.
- Local circumstances, widespread corruption and a lack of political will were also responsible for the thriving of such trade in the 10 countries.

TRAFFIC:

- TRAFFIC is a leading non governmental organisation working globally on trade in wild animals and plants in the context of both biodiversity conservation and sustainable development.
- It aims to ensure that trade in wild plants and animals is not a threat to the conservation of nature

Why Southeast Asia is at the 'target'?

- Southeast Asia, perhaps more than any other region, encapsulates the full range of global challenges facing the management of biodiversity and trade in wildlife.
- Large disparities: Political and socio-economic disparities are large. The rapid development of infrastructure, often backed by foreign investments, and land conversion continues to challenge the region's biodiversity hotspots.
- High number of illegal activities: Levels of poaching, trafficking and consumption of wildlife products in Southeast Asia are persistent, if not





- increasing. The region's endemic species and local populations of more widely distributed taxa remain under severe threat from hunting and illegal trade.
- Global connected trade: The 10 countries of the Association of Southeast Asian Nations (ASEAN) function as source, consumer and as entrepôts for wildlife coming from within the region as well as the rest of the world—for trade that is both legal and illegal, with many inadequacies and loopholes concerning regulation, law enforcement and overall levels of sustainability.

Why this trade is increasing?

- These categories of trade and demand broadly involve:
 - species that are protected and prohibited from national or international commercial trade

- species that can be traded nationally or internationally, and for the latter, where national regulatory controls should frame implementation of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) for any international commerce of CITES-listed species
- > species that are not protected domestically but national and international trade occurs with little or no regulatory controls, often in large volumes and in violation of CITES provisions
- This globally connected trade feeds demand for wild animals, parts and products for use as trophies and trinkets (or luxury goods), traditional medicine (TM) ingredients (including formal prescriptions and informal 'health tonics'), and the multi-billiondollar live animal trade.

Key species/groups		CITES Appendix	IUCN Status
Bears	Asiatic black bear	I	Vulnerable
	Sun Bear		
Elephants	African Elephant	I/II	Vulnerable
	Asian Elephant	Ĭ	Endangered
Pangolins	Asian Pangolin	ſ	Critically Endangered/Endangered
	African Pangolin	I	Vulnerable
Rhinoceros	Asian Rhinoceros	I/II	Critically Endangered/Vulnerable
	African Rhinoceros	I/II	Critically Endangered/Near Threatened
Antelope	Saiga Antelope	II	Critically Endangered
Capricornis	Sumatran Serow	I	Vulnerable
	Chinese Serow	I	Near Threatened
Asian Big Cat	Tiger	I	Critically Endangered/ Endangered
	Leopard/Clouded Leopard	I	Vulnerable
Birds	Helmeted Hornbill	I	Critically Endangered
	African Grey Parrot	I	Endangered
	Songbirds & other	Various	Various
Frogs & Newts	Lao Warty Newt	II	Vulnerable
	Indian Bullfrog	I	Least Concern





Tortoise & Freshwater	Ploughshare Tortoise	I	Critically Endangered
Turtle	Radiated Tortoise	I	Critically Endangered
	Black Spotted Turtles	I	Vulnerable
	Indian Star Tortoise	I	Vulnerable
	Pig-nosed Turtle	II	Vulnerable
	Southeast Asian Box Turtle	II	Vulnerable
	Philippine Forest turtle	Not listed	Critically Endangered
Lizards & snakes	Reticulated Python	Various	Not assessed
	Water Monitor Lizard	II	Least Concern
	Earless Monitor Lizard	I	Not assessed
	Oriental Rate Snake	II	Not assessed
	Tokay Gecko	II	Not assessed

Wildlife Trafficking in India:

- Over the years illegal wildlife trade has emerged as a form of Organised Transnational Crime that has threatened the existence of many wild species across the globe.
- In India, it includes diverse products including mongoose hair; snake skins; Rhino horn; Tiger and Leopard claws, bones, skins, whiskers; Elephant tusks; deer antlers; shahtoosh shawl; turtle shells; musk pods; bear bile; medicinal plants; timber and caged birds such as parakeets, mynas, munias etc.
- A large part of this trade is meant for the international market and has no direct demand in India.

Legal & policy framework:

- India has a strong legal and policy framework to regulate and restrict wildlife trade.
 - Trade-in over 1800 species of wild animals, plants and their derivative is prohibited under the Wildlife (Protection) Act, 1972.
 - India is also a member of the CITES (Convention on International Trade in Endangered Species of Fauna and Flora) since 1976.

Intergovernmental frameworks governing wildlife trade in Southeast Asia

CITES:

- ➤ CITES is an international agreement between governments that aims to ensure that international trade in specimens of wild animals and plants does not threaten their survival.
- CITES works by subjecting international trade

- in specimens of selected species listed on Appendices to certain controls.
- CITES has the sole purpose of regulating commercial international trade in wildlife to prevent species from becoming both economically and ecologically extinct due to illegal and/or unsustainable trade.
- Trade is regulated through listing species in one or more of three appendices.
- Implementation can prohibit (Appendix I/III) or regulate (Appendix II/III) trade in listed species, based on export, import or re-export permits.

AWG CITES-WE & ASEANAPOL:

Under ASEAN, a number of intergovernmental law enforcement bodies have also been set up to deal with wildlife trafficking as part of a larger crime-tackling effort, such as the Association of Southeast Asian Nations – Expert Group on CITES Wildlife Enforcement (AWG CITES-WE and the ASEAN Chiefs of National Police (ASEANAPOL).

United Nations Office on Drugs and Crime (UNODC):

The UNODC Global Programme for Combating Wildlife and Forest Crime (GP) aims to link existing regional efforts in a global system, enhancing capacity-building and wildlife law enforcement networks at regional and sub-regional levels.

The World Customs Organization (WCO)

Promoting increased awareness and capacity for customs around the world to counter wildlife and timber trafficking





International Consortium on Combating Wildlife Crime (ICCWC)

 ICCWC's mission is to strengthen criminal justice systems and provide coordinated support at the national, regional and international level to combat wildlife and forest crime.

United Nations General Assembly (UNGA):

 Main deliberative, policymaking and representative organ of the United Nations. Comprising all 193 Member States of the UN, it provides a unique forum for multilateral discussion of international issues including peace and security.

Recommendations

- A selection of priority interventions to support strategic decision-making and actions by ASEAN governments and other partners have been drawn from the breadth of existing literature reviewed for this assessment. These interventions are grouped under five main thematic areas as follows:
 - ➤ **Policy:** interventions focused on ensuring that national legal frameworks and regulations are fit for purpose and that it considers trends on illegal wildlife trade over time and is improved accordingly to prevent and deter wildlife traffickers:

- Law enforcement: interventions where frontline law enforcement authorities and the judiciary can optimise their impact for the disruption of wildlife trafficking;
- Demand reduction: interventions aiming to influence the purchasing preferences, buyer behaviour and use, by current and intending consumer groups;
- ➤ Cross-sector co-operation: interventions where external parties such as the private sector and professional bodies (anti-money laundering, financial investigation), civil society organisations, conservation practitioners and research institutions can assist and facilitate effective actions;
- ➤ **Research gaps:** interventions to address knowledge gaps to improve anti-wildlife trafficking decisions and policy
- The report reinforces the position and significance of southeast Asia's footprint on biodiversity use and management. Policy interventions, closing legal loopholes, law enforcement and co-operation between civil society organisations, the private sector and government organisations can help to curb illegal trade.



SUSTAINABLE FASHION

CONTEXT

Recently the Union Textiles Minister launched Project SURE, which is a move towards sustainable fashion.

BACKGROUND

- Project SURE: SURE stands for 'Sustainable' **Resolution**'. It is the first ever holistic effort towards gradually introducing a broader framework for establishing critical sustainability goals for the Indian textile industry.
- **Objective:** The project aims to move towards sustainable fashion that contributes to a clean environment.
 - ➤ It is commitment by India's apparel industry to set a sustainable pathway for Indian fashion industry.
 - Project SURE aims to contribute to the UN Sustainable Development Goals 2030, especially **SDG-12** for responsible consumption and production.
- Partners: Clothing Manufacturers Association of India (CMAI), United Nations in India, and IMG Reliance; organizers of Lakme Fashion Week.
 - ➤ Top fashion and retail brands like Shoppers Stop, Max, Lifestyle, Raymond etc. Are signatories to the project, and have pledged to source or utilise substantial portion of their total consumption using sustainable raw materials and processes by 2025.

ANALYSIS:

Five-point Sustainable Resolution

- Environmental impact: Develop a complete understanding of the environmental impact of garments being currently produced by our brand.
- Certified raw materials: Develop a sustainable sourcing policy for consistently prioritizing and utilizing certified raw materials that have a positive impact on the environment.
- Sustainable traceability: Make the right decisions about how, where, and what we source across the value chain by selecting sustainable and renewable materials and processes and ensuring their traceability.
- Consumer awareness: Communicate sustainability initiatives effectively to consumers and media through our online and physical stores, product tags/labelling, social media, advertising campaigns and events.
- Sustainable supply chain by 2025: Through

these actions, shift a significant percentage of our supply chain to a sustainable chain by the year 2025, addressing critical global issues such as climate change, contributing to the UN Sustainable Development Goals, and building a world that is safe for the future generations, as an acceptance of a responsibility we all share.

Environmental impact of fashion industry

- The fashion industry has some startling statistics on environmental degradation. For instance, it can take 2,700 litres of water to produce the cotton needed to make a single T-Shirt.
- As per World Resources Institute, **5.9 trillion litres** of water are used each year for fabric dyeing
- Around 20% of industrial water pollution in the world comes from treatment and dyeing of
- **8,000 synthetic chemicals** are used to turn raw materials into textile.
- According to a report, every second, an equivalent of one garbage truck of textiles is either burnt or landfilled.
- As per Ellen MacArthur Foundation, the global textile industry emits 1.2 billion tonnes of CO, equivalent per-year, close to the level of emissions from the automobile industry.
- Some materials such as cotton and linen can be composted, but **petroleum-based fibres** such as polyester have little chance of reuse or biodegradation.

Need for Sustainable fashion

- High demand: With India's high share of global population and increasing purchasing power, it would be quite soon that India starts accounting for a major share in textile related environment degradation statistics.
- **Under developed recycling:** There is no credible recycling chain for the billions of tonnes of fast fashion items sold every year. Majority of them are made from non-biodegradable fibres.
 - Each year, about 60 million tonnes of new fibers are used to make garments, and no plausible concept exists on what to do with them when they are no longer needed.
 - As a result, three-quarters of these products





- are disposed off in landfills or incineration
- **Need of the hour:** India's apparel market will be worth \$59.3 billion in 2022. In order to gain a competitive edge, organisations need to follow the sustainability approach to differentiate themselves and promote growth. Sustainability is no longer an option for global organisations.
- Consumer preferences are changing: Consumers, especially millennials, are emphasising on the quality of product and sustainable manufacturing is considered as a new method for measuring quality.
 - Awareness about climatic and social changes is also leading to changing preferences for consumers.

Circular Economy Elements of a circular economy Natural capital New revenue models Paying for use instead Use of non-toxic Renewable substances and of ownership, producer energy remains the product's no depletion of natural resources Transition towards renewable energy Product design instead of fossil Taking reuse, repair, energy. Production the use of modular parts, and a different Resources production process into account. High-value reuse and recycling Longer product lifespan, longer use of product parts Supply chain collaboration and recycling of New alliances between companies and incineration in new and production chains

- Concepts such as circular economy are creating benchmarks in the apparel sector and meeting consumer
- A circular economy is an economic system of closed loops in which raw materials, components and products lose their value as little as possible, renewable energy sources are used and systems thinking is at the core. It includes:
 - Use of natural fibres, zero hazardous chemicals, recycled fabrics, sustainably grown cotton;
 - Diversity and inclusiveness at the workplace, transparency, no human rights abuses and full rights advocacy;
 - Digitisation (providing convenience through digital networks);
 - Welfare programmes for labourers and secondary and tertiary supply chains.

Other efforts in Sustainable fashion

- Khadi promotion: Khadi and Village Industries Commission (KVIC) promotes khadi products. They have tied up with leading brands—Arvind Mills and Raymonds—and are also working with Air India to promote khadi products.
- Bamboo promotion: NITI Aayog's Forum for North East has highlighted the role of bamboo in
- development of North East region. Over 60% of **India's bamboo** is grown in the North East.
- **Hemp promotion:** Uttar Pradesh and Uttarakhand governments have policies geared towards sustainability, like ones on hemp production.
 - Hemp is one of the most eco-friendly fabrics, uses less water and can be cropped multiple times a year. This helps increase farmers'



income, too.

- ➤ Certain bamboo products such as bamboo charcoal fibre can be used in fashion industry.
- Vegetable tanned leather: Vegetable tanned leather refers to the tannage, or method of tanning the cowhide into leather. It's called "vegetable" because of the natural materials used in the tanning process like tree bark. Since vegetable tanning is a natural process, it's also eco-friendly.
- Designers leading the change: H&M, a Swedish multinational retail clothing company recently unveiled a Conscious Exclusive collection made entirely from sustainable materials, including organic silk and hemp; recycled linen and glass; Tencel, a fabric made from sustainably-grown wood fibre; and Denimite, a material made out of recycled worn-out denims.
 - Mumbai-based fashion designer Anita Dongre recently presented her Earth Song collection featuring handwoven fabrics like matka and Tussar silks, hand-block printing, hand embroidery, etc. all using natural dyes and made by artisans.
- **Collaborating with farmers/artisans:** Marks & Spencer (M&S), for example, is working with Better Cotton Initiative (an NGO that works with farmers across the globe to grow cotton in a sustainable way) and World Wildlife Fund (WWF).
 - These changing dynamics of the fashion industry make a shift in consumer choices, environmental impact and also empower local artisans by creating demand fir their projects.

Policy suggestions

- **Prioritise sustainable fashion:** Sustainable fashion should find a seat whenever textiles industry is brought to the table.
- Product labelling: Government can ensure that

- industry posts details of resources consumed while producing a particular product. For example, litres of water gone in producing t-shirt.
- Campaigns for consumer consciousness: Campaigns such as #wearlocalgoglobal or #Indiaforindigenous help promote local textiles, and create consumer consciousness for purchasing environmentally sustainable products.
 - Products such as bamboo, khadi, hemp, etc, need not be washed as often, and the same can be communicated by the government.
- Leverage in international trade: The textile industry operates on global supply chains (GVCs) —where Vietnam and Bangladesh account for 6% of the market share, China for 34%, while **India accounts for 4%.** Over the years India can attempt to gain a competitive advantage in sustainable fashion.
 - Sustainable fashion can be used as a lever for FTAs, given that the West continues to push for better working conditions and resource efficiency.

CONCLUSION

Project SURE is a responsible and timely taken step by the apparel industry of India. It fits well with the Jal Shakti Ministry's vision on conservation. The pledge under project SURE sends a strong message to various stakeholders and producers in the apparel supply chain and encourages a wider sustainable approach to production that reduces the adverse environmental and social impact of textile industry. It will address the needs of an increasingly conscious consumer who would prefer to buy from a brand that is environmentally conscious and engages in environmental protection. It will also underline the need for collaboration across the sector in order to bring about innovation and transformative change.



SECTION: B (PRELIMS) CURRENT AFFAIRS

To Attempt —

Weekly Current Affairs Test, Visit

www.iasscore.in



WORLD AIR QUALITY REPORT 2019

O CONTEXT

Twenty-one of the world's 30 cities with the worst air pollution are in India, according to data compiled in IQAirAirVisual's 2019 World Air Quality Report, with six in the top ten.

ABOUT

- The ranking is based on levels of "fine particulate matter," known as PM2.5, which pose the greatest risk to human health. These tiny particles are 2.5 micrometres or smaller.
- The WHO warns, however, that the microscopically smaller particles of PM2.5 are even more dangerous to human health because they have the ability to "penetrate the lung barrier and enter the blood system."

WHO's guideline:

- The World Health Organization's guideline for annual mean exposure to fine particulate matter is 10 micrograms per cubic meter (µg/m3).
- According to IQAir, "cities in India, on average, exceed the WHO target for annual PM2.5 exposure by 500%."

Mapping the most polluted cities:

- Ghaziabad, a satellite city of the capital New Delhi in northern Uttar Pradesh state, is ranked as the world's most polluted city, with an average PM 2.5 concentration measurement of 110.2 in 2019.
- Hotan in China was the second most polluted. Delhi, the poster city of pollution, stood at the sixth position for 2019. All six most polluted cities of India that feature in the top 10 are from the National Capital Region.
- Noida, Gurugram, Greater Noida and Bandhwari are the other cities in the top 10 list.
- Total 21: In total, 21 out of 30 world's most polluted cities of 2019 are from India. The 21 Indian cities, in the order of their ranking, are, Ghaziabad, Delhi, Noida, Gurugram, Greater Noida, Bandhwari, Lucknow, Bulandshahr, Muzaffarnagar, Baghpat, Jind, Faridabad, Coraut, Bhiwadi, Patna, Palwal, Muzaffarpur, Hisar, Kutail, Jodhpur and Moradabad.
- Capital cities: Among capital cities, Delhi remains the world's most polluted capital city, with an annual average PM2.5 of 98.6 ppm in 2019.

Country-wise data:

- According to country-wise data, India ranked fifth in the world's most polluted countries with Bangladesh on top of the list followed by Pakistan, Mongolia and Afghanistan.
- Bangladesh was the most polluted country with an average PM2.5 concentration of 83.3 ppm.
- In terms of most polluted cities, however, Indian and Chinese cities occupy almost all the spots.
- Among the top 200 most polluted cities, 178 are from these two countries comprising nearly 90% of the list.
- All 30 most polluted cities are from the Asian continent.

Has India improved?

- There seems to be a silver lining in the appalling levels of pollution reported for 2019.
- Except for Nagpur, every other city in India registered a decrease in pollution levels in 2019 compared to 2018 levels.
- India saw widespread improvements in PM2.5 levels in 2019, compared to the year prior as a result of economic slowdown, favourable meteorological conditions, as well as more dedicated efforts towards cleaning the air.



- As a weighted average based on the available data, national air pollution decreased by a remarkable 20% from 2018 to 2019.
- India stands fifth in the most polluted countries list with average pollution levels of 58.1 ppm. Pakistan was the second most polluted, followed by Mongolia in the third spot.
- Mainland China stood at the 11 positions in the polluted countries list.
- Regionally, South Asia, Southeast Asia, and Western Asia carry the highest burden of fine particulate matter pollution overall.

What is Particulate Matter?

Particulate matter is categorized as PM 2.5 and PM 10.

PM 2.5	PM 10	
PM2.5 is particulate matter 2.5 micrometres or less in diameter	PM10 is particulate matter 10 micrometres or less in diameter	
PM2.5 is generally described as fine particles. By way of comparison, a human hair is about 100 micrometres, so roughly 40 fine particles could be placed on its width.	These small particles, 30 times smaller than the width of a hair on your head, are small enough to get caught up in our defensive nose hairs and into the upper airways of our lungs.	

bloodstream and causes severe respiratory problems.

The report revealed that India still has a relatively limited air quality monitoring network given its population size, with many communities and highly populated cities without access to real-time information. There is a need for some urgent actions and steps to correct the situation now, otherwise, it will be too late to manage anything.

NATIONAL TECHNICAL TEXTILES MISSION

O CONTEXT

Recently, the Cabinet Committee on Economic Affairs (CCEA) has approved the setting up of a National Technical Textiles Mission.

ABOUT

Aims:

- o to position the country as global leader in technical textiles and increase the use of technical textiles in the domestic market.
- taking domestic market size to \$40 billion to \$50 billion by 2024.
- A Mission Directorate will be operational in the Ministry of Textiles.
- It will be implemented for four years starting from 2020-202.
- It will have four components:
- First component:
 - It will focus on research, development and innovation with an outlay of Rs 1,000 crores.
 - The research will be at both fibre level and application-based in geo, agro,

Technical Textiles

- Technical textiles are functional fabrics that have applications across various industries including automobiles, civil engineering and construction, agriculture, healthcare, industrial safety, personal protection etc.
- Based on usage, there are 12 technical textile segments; Agrotech, Meditech, Buildtech, Mobiltech, Clothtech, Oekotech, Geotech, Protech, Packtech, Hometech, Indutech and Sportech.
- For example, 'mobiltech' refers to products in vehicles such as seat belts and airbags, airplane seats; geotech, which is incidentally the fastest growing sub-segment, used to hold back soil, etc.



medical, sports and mobile textiles and development of bio-degradable technical textiles.

 Research activities will also focus on the development of indigenous machinery and process equipment.

• Second component:

• It will be for the promotion and development of the market for technical textiles.

• Third component:

- It will focus on export promotion so that technical textile exports from the country reach from the Rs 14,000 crores to Rs 20,000 crores by 2021-2022 and ensure 10% average growth every year till the Mission ends.
- An export promotion council for technical textiles will be set up.

Fourth component:

- It will focus on education, training and skill development.
- The Mission will promote technical education at higher engineering and technology levels related to technical textiles and its application areas.

Data on the Indian Technical Textiles Segment:

- It is estimated at \$16 billion which is approximately 6% of the \$250 billion global technical textiles market.
- The penetration level of technical textiles in India varies between 5% and 10% against the level of 30% to 70% in developed countries.

WORLDWIDE EDUCATION FOR THE FUTURE INDEX 2019

OCONTEXT

• India jumped five ranks in the Worldwide Educating for the Future Index (WEFFI) 2019, as per a report published by The Economist Intelligence Unit.

• ABOUT

- Worldwide Educating for the Future Index (WEFFI) is the first comprehensive global index to evaluate inputs to education systems rather than outputs such as test scores.
- This is the third edition of the WEFFI, produced by The Economist Intelligence Unit and commissioned by the Yidan Prize Foundation.
- The index ranks 50 economies, which represent nearly 93% of global GDP and 89% of the world's population.
- With a focus on young people aged 15-24, it measures three pillarsas a means of readying young people to meet the challenges of work and society in future:
 - education systems--policy approaches
 - teaching conditions
 - broader gauges of societal freedom and openness
- It remains the only major ranking to assess inputs to education systems and stands in contrast to measures like the OECD's Programme for International Student Assessment, which looks at exam-like outputs.



The Economist Intelligence Unit (The EIU)

- The Economist Intelligence Unit (The EIU) was created in 1946.
- It is a British business within the **Economist Group** providing forecasting and advisory services through research and analysis, such as monthly country reports, five-year country economic forecasts, country risk service reports, and industry reports.

Key-findings of the index:

India:

- India ranked 35th on the overall index in 2019 with a total score of 53, based on three categories:
 - policy environment: In 2019, India scored 56.3 in policy environment falling from a 61.5 score in 2018.
 - ► **teaching environment:** India scored 52.2 in the teaching environment category, increased significantly from 32.2 in 2018.
 - overall socio-economic environment: India scored 50.1 in the socio-economic environment category increased significantly from 33.3 in 2018
- The country ranked 40th with an overall score of 41.2 across categories in 2018.

Global findings:

- The index is topped by Finland. Finland was first in previous year's ranking as well,
- Sweden and New Zealand ranked second and third, with Sweden advancing two places and New Zealand maintaining its third position from 2018's results.
- The Philippines, Ghana and Mexico all performed strongly among a new incomeadjusted ranking due to their ability to channel their more limited resources to implement strong policy and advance a future skills agenda.
- Among the world's largest economies, the US, UK, France and Russia all fell back in the index, while China, India and Indonesia took steps forward.

Top Ten Countries

1.	Finland	6.	Canada
2.	Sweden	7.	Switzerland
3.	New Zealand	8.	Australia
4.	Singapore	9.	Germany
5.	Netherlands	10.	Japan

1000 SPRING INITIATIVES

O CONTEXT

 Union Tribal Affairs Ministry has launched "1000 Spring Initiatives" and an online portal on GIS-based Spring Atlas with hydrological and chemical properties of the Springs on the occasion.

ABOUT

- The '1000 Springs Initiative' aims at improving access to safe and adequate water for the tribal communities living in a difficult and inaccessible part of rural areas in the country.
- It is an integrated solution around natural springs.
- It includes the provision of infrastructure for piped water supply for drinking; provision
 of water for irrigation; community-led total sanitation initiatives; and provision for water
 for backyard nutrition gardens, generating sustainable livelihood opportunities for the
 tribal people.



• It will help in harnessing the potential of perennial springs' water to address the natural scarcity of water in tribal areas.

Spring Atlas

- Springs are natural sources of groundwater discharge and have been used extensively in the mountainous regions across the world, including India.
- However, in the central and eastern Indian belt with more than 75% tribal population, it remains largely unrecognized and under-utilized.
- An online portal on GIS-based Spring Atlas has been developed to make these data easily accessible from an online platform.
- Presently, data of more than 170 springs have been uploaded on the Spring Atlas.

LOCATING THE GRAVE OF THE MUGHAL PRINCE DARASHIKOH

O CONTEXT

ABOUT

- The Ministry of Culture recently set up a seven-member panel of the Archaeological Survey of India (ASI) to locate the grave of the Mughal prince DaraShikoh (1615-59).
- The seven-member panel of ASI is headed by T J Alone, Director-Monument at ASI, the panel has senior archaeologists R S Bisht, Sayeed Jamal Hassan, K N Dikshit, B R Mani, K KMuhammed, Satish Chandra, and B M Pandey as members.
- It has been given three months.
- There are around 150 graves of the clan of the Mughal rulers in the Humayun's Tomb complex and the grave of Shikoh is said to be one among them.
- **DaraShikoh** is believed to be buried somewhere in the historical monument.
- The panel will use architectural evidence from that time, and also written history and any other information that can be used as evidence.

Who was DaraShikoh?

- Muhammad DaraShikoh was born in 1615 in Ajmer, Rajasthan.
- The eldest son of Shah Jahan, DaraShikoh is described as a "liberal Muslim" who tried to find commonalities between Hindu and Islamic traditions.
- **Titles:** Dara was designated with the title **Padshahzada-i-BuzurgMartaba** ("Prince of High Rank") and was favoured as a successor by his father and his older sister, Princess Jahanara Begum.
- Other titles given to him include- Jalal ul-Kadir, Sultan Muhammad DaraShikoh, Shah-i-BulandIqbal
- During the lifetime of his mother MumtazMahal (who was buried in the TajMahal after its completion, DaraShikoh betrothed to his half-cousin princess NadiraBanu Begum.
- He translated into Persian the Bhagavad Gita as well as 52 Upanishads.
- Dara believed in the existence of a single divine power, who is called by different names
 Brahm or Noor.
- He followed the Qadri tradition of Sufism and believed in interfaith dialogues. Benaras and Allahabad played an important role in his spiritual journey.
- Dara wrote many treaties, but his two books Majma-ul-Bahrain (The Confluence of Two Seas) and Sirr-e-Akbar (The Greatest Mystery) started a dialogue among the intelligentsia of that time.
- Majma-ul-Bahrain was the first such book to offer a comparative study of Dharma Shastra and Quran to formulate a new vision for society.



How did he die?

Dara Shikoh was killed in 1659 after losing the war of succession against his brother Aurangzeb.

- · According to the Shahjahannama, after Aurangzeb defeated Dara Shikoh, he brought the latter to Delhi in chains.
- His head was cut off and sent to Agra Fort, while his torso was buried in the Humayun's Tomb complex.

The **Shahjahannama** is a genre of works written about the Mughal Emperor Shah Jahan. Most significant work of this genre was written by Inayat Khan (historian). It was written in the 17th century. The first complete English translation from Persian appeared in the 19th century by A. R. Fuller.

AVVAIYAR/THIRUVALLUVAR

O CONTEXT

Recently, Finance Minister Nirmala Sitharaman cited some poets in her Budget speech. The famous Tamil poets, Avvaiyar and Thiruvalluvar were also among them. Also, in late 2019, the statue of Thiruvalluvar was vandalized in Pillayarpatti in Tamil Nadu.

ABOUT

- Avvaiyar's "aaathichoodi" and Thiruvalluvar's 'five jewels' was quoted by Finance Minister during her Budget 2020 presentation in the Parliament.
- The three major themes of Budget 2020 are aspirational India, a caring society and economic development for all.
- In reference to asking farmers to adopt organic fertilizers, Tamil poet Avvaiyar's advice, "aaathichoodi" was quoted.
 - It translated means one must first till one's land and then eat.
- Quote on good governance included Tamil poet and philosopher Thiruvalluvar's 'five jewels': freedom from illness, wealth generation, farm productivity, happiness, and good defences.

Facts about Avvaiyar

- Avvaiyar (literally 'Respectable Woman') was the title of more than one female Tamil **poets** active during different periods of Tamil literature.
 - According to linguists, there were three avvais one from Sangam-age, another from Chola-age, and third one belonging to contemporary times.
 - She is often imagined as an **old and intelligent** lady by Tamil people.
- Avvaiyar I: Budget 2020 refers to Sangam-age Avvaiyar. She authored various aphorisms as a guide to moral life. They are taught to children as an introduction to poetry and are recited even today by school kids in Tamil Nadu.
 - Her poems are found in Purananuru, Kurunthogai and Natrinai.
- Avvaiyar II: The second Avvaiyar was contemporary of 12th century Tamil poets, Kambar and Ottakoothar, during reign of Chola dynasty.
- Avvaiyar III: The third Avvaiyar is most widely known for her works including; 'Vinayagar Agaval', 'Aathi Soodi', 'Kondrai Vendhan', 'Nalvazhi' and 'Moodhurai'.
- Legend around Avvai: According to legend, Vinayaka bestowed young Avvai with the looks of an old woman, as she did not want to be entangled in marriage. With her poems pregnant with common sense, she could easily impress kings and commoners.
 - Kings valued her wisdom and wanted her to stay in their courts, but she refused to be bogged down. She was always on the move.

- Her moral uprightness gave her the courage to talk to kings on equal terms and correct them when they were wrong.
- Myths and theories: According to some theories, there is only one Avvaiyar and she lived during period of Kulothunga III. The Sangam Age Avvai is a myth.

- Recognition: An Avvaiyar aphorism "What you haven't learned is the size of the world" is exhibited at NASA.
 - In 1991, a 20.6 km-wide crater in Venus was named 'Avviyar crater', by the **International Astronomical Union.**

Aaathichoodi

- Aathichoodi is a collection of single-line quotations written by Avvaiyar and organized in alphabetical order.
- There are **109** of these sacred lines which include insightful quotes expressed in simple words. It aims to inculcate **good habits**, discipline and doing good deeds.
- In an attempt to push organic farming for better care of agricultural land, Aathichoodi text (Bhumi Tiruthi Unn) was quoted by in Budget speech 2020.

Facts about Thiruvalluvar

- Thiruvalluvar, also known as Valluvar, was a celebrated Tamil poet and philosopher. He is best known for Thirukkural a collection of couplets on ethics, politics, economics, and love.
 - Thiruvalluvar is thought to have lived sometime between $3^{3rd} 1^{1st}$ century BC.
- Origin: Valluvar is believed to have lived in Madurai and later in town of Mayilapuram or Thirumayilai (present-day Mylapore in Chennai), although there is no real proof.
 - He is generally thought to have belonged either to Jainism or Hinduism. However, almost every religious group has claimed him and his work as their own.
- Thiruvalluvar statue: There is a 133-foot tall statue of Thiruvalluvar erected at Kanyakumari, denoting Tirukkural's 133 Chapters. It displays a show of three fingers denoting the three themes in it; Aram, Porul, and Inbam.
- Official image of Thiruvalluvar: Tamil Nadu government's official image of Thiruvalluvar sports a white dhoti with no sacred ash on forehead.
 - Lately, there was a controversy about BJP posting a picture of Thiruvalluvar draped in saffron dhoti.
 - Thiruvalluvar is considered an icon of Tamil identity, with his teachings finding place in all Dravidian parties.

Ancient Dravidian history

- **Keeladi excavation:** Findings from Keeladi excavation site, published by state archaeological department, had **pushed back Tamil Dravidian history** in South India by at least 300 years, from 300 BCE to 600 BCE.
- The excavations are expected to throw light on a nearly **1,000-year gap between** the Indus Valley civilisation (1500 BCE) and the Sangam Era (600 BCE).
- Little association with Hinduism: The exhaustive excavation did not find symbols associated with Hinduism, which strengthened the theory that ancient Dravidian history is detached from Hinduism.

Thirukkural

- Thirukkural is one of the **most revered ancient works** in Tamil language. It is considered a 'common creed', providing a guide for human morals and betterment in life.
 - It has been translated into several languages, including a translation into Latin by Constanzo Beschi in 1730.





- Divided into three sections: Section one deals with Aram, good ethical behavior with conscience and honour ("right conduct"); section two discusses Porul, the right manner of conducting worldly affairs; and section three dwells on Inbam, love between man and woman.
 - Aram and Inbam deal with private life of an individual, while more than half of couplets are grouped under Porul, which discuss ethics in public life.
- **Kurals**: The first section has 38 chapters, second has 70 chapters, and third has 25 chapters. Each chapter consists of 10 couplets or kurals, i.e. a total of 133 chapters and 1330 couplets.
 - The book is also called the 'fifth Veda' or 'Bible of the Tamil Land'.

LAW COMMISSION OF INDIA

O CONTEXT

- The Union Cabinet has approved the constitution of the 22nd Law Commission of India, for a period of three years.
- ABOUT
- Law Commission of India is a non-statutory body constituted by the Government from time to time.

Core functions:

- Its core function is to reform laws, comprises of legal experts assigned by the government to take good care of the laws, and create maximum peace, security and justice in the society.
- It also acts as an advisory body to the Ministry of Law and Justice.

Does the Constitution provide for it?

- The Constitution of India does not say anything about the formation of law commission or what it actually is.
- However, under Article 39 A of the Indian Constitution, it is the state's duty to promote
 justice by providing equal opportunities, free legal aid through suitable schemes.
- The State has to ensure that justice is not denied to any on the basis of any disability.

Historical background:

- The first Law Commission was appointed in India in 1834 under the UK **Charter Act of 1833** for the purpose of codifying the laws of British India.
- The commission consisted of **Lord T.B. Macually**, as chairman and 4 members namely, **C.H. Cameron**, **J.M. MacLeod**, **G.W. Anderson** and **F. Millet**.
- The first 3 members represented Madras, Bombay and Calcutta respectively.
- After Independence, the government established the first Law Commission of independent India in **1955** with **MC Setalvad** as its chairman.
- Since India's independence, i.e., after 1947 there have been twenty-one law commissions.
- The 21st Law Commission of India (last) under Justice (Retd.) BS Chauhan was established in 2015 and its tenure was upto 31st August 2018.

The 22nd Commission:

- With the cabinet approval, the law ministry will now notify the new panel, which will have a term of three years.
- Composition: The panel will have
 - a full-time chairperson





- four full-time members (including a member secretary)
- law and legislative secretaries in the law ministry as ex-officio members.
- Usually, a retired Supreme Court judge or chief justice of a high court head the Commission.

Functions of the Commission:

- The Law Commission of India shall, inter-alia:
 - identify laws which are no longer needed or relevant and can be immediately repealed
 - examine the existing laws in the light of Directive Principles of State Policy and suggest ways of improvement and reform and also suggest such legislation as might be necessary to implement the Directive Principles and to attain the objectives set out in the Preamble of the Constitution
 - consider and convey to the Government its views on any subject relating to law and judicial administration that may be specifically referred to it by the Government through the Ministry of Law and Justice (Department of Legal Affairs)
 - consider the requests for providing research to any foreign countries as may be referred to it by the Government through the Ministry of Law and Justice (Department of Legal Affairs)
 - take all such measures as may be necessary to harness law and the legal process in the service of the poor
 - revise the Central Acts of general importance so as to simplify them and remove anomalies, ambiguities and inequities
 - Before finalizing its recommendations, the Commission will consult the nodal Ministry/ Department (s) and such other stakeholders as the Commission may deem necessary for the purpose.

PAKISTAN TO REMAIN IN THE GREY LIST OF FATF

O CONTEXT

In a major setback for Pakistan, the country will remain on the FATF Grey List till June 2020 and has been warned of stern action if it fails to check the flow of money to terror groups like the LeT and the JeM.

ABOUT

- The Financial Action Task Force (FATF) is an inter-governmental body established in 1989.
- The objectives of the FATF are to set standards and promote effective implementation of legal, regulatory and operational measures for combating money laundering, terrorist financing and other related threats to the integrity of the international financial system.
- The FATF is, therefore, a "policy-making body" which works to generate the necessary political will to bring about national legislative and regulatory reforms in these areas.
- The FATF has developed a series of recommendations that are recognised as the international standard for combating of money laundering and the financing of terrorism and proliferation of weapons of mass destruction.
 - They form the basis for a coordinated response to these threats to the integrity of the financial system and help ensure a level playing field.
 - First issued in 1990, the FATF Recommendations were revised in 1996, 2001, 2003 and most recently in 2012 to ensure that they remain up to date and relevant, and they are intended to be of universal application.



- The FATF monitors the progress of its members in implementing necessary measures, reviews money laundering and terrorist financing techniques and counter-measures, and promotes the adoption and implementation of appropriate measures globally.
- In collaboration with other international stakeholders, the FATF works to identify national-level vulnerabilities with the aim of protecting the international financial system from misuse.
- India became an Observer at FATF in 2006. Since then, it had been working towards fullfledged membership. On June 25, 2010, India was taken in as the 34th country member of FATF.

What as FATF 'grey list' and 'blacklist'?

- FATF has 2 types of lists:
 - Black List: Countries knowns as Non-Cooperative Countries or Territories (NCCTs)
 are put in the blacklist. These countries support terror funding and money laundering
 activities. The FATF revises the blacklist regularly, adding or deleting entries.
 - Grey List: Countries that are considered a safe haven for supporting terror funding
 and money laundering are put in the FATF grey list. This inclusion serves as a warning
 to the country that it may enter the blacklist.
 - ➤ Currently, there are 18 jurisdictions identified as having strategic deficiencies, including Mauritius and Pakistan, as per the FATF.

The decision:

No reprieve

Pakistan has been retained on the 'grey list' of the Financial Action Task Force (FATF) for four more months



deadline to February

- Pakistan is among 12 countries on the 'grey list' or 'other monitored jurisdictions' that are being reviewed for actions to stop terror financing and money laundering
- A 'black list' refers to countries for whom there has been a "call to action" or strict banking and international finance sanctions
- The Financial Action Task Force (FATF) in October decided to keep Pakistan on its Grey List for failure to curb funnelling of funds to terror groups Lashkar-e-Taiba, Jaish-e-Mohammed and others.



- It has also warned Pakistan that if it does not complete a full action plan by June, it could lead to consequences on its businesses.
- The organization noted that Pakistan addressed only a few of the 27 tasks given to it in controlling funding to terror groups like the Lashkar-e-Taiba (LeT), the Jaish-e-Mohammad (JeM) and the HizbulMujahideen, which are responsible for a series of attacks in India.
- The FATF said Pakistan has to swiftly complete its full action plan by June.
- If Pakistan fails to comply with the FATF directive, there is every possibility that the global body may put the country in the 'Black List' along with North Korea and Iran.

India's focus:

- India has been focusing on strengthening its case against Islamabad, to place it in the FATF Black List, for its failure in taking action against terror-financing and the Fake Indian Currency (FICN) menace.
- The continuing worry of the Indian security agencies is the inability so far to dismantle the sophisticated currency production machines, which produce 'high quality' FICN, close imitations of genuine Indian Currency Notes (ICN).
- New Delhi has been taking steps to gather strong evidence against Pakistan, foremost being to strengthen the FCORD (FICN Coordination Cell) set up within the Intelligence Bureau in 2010 to have effective coordination with state agencies for higher seizures.

SPIKE PROTEIN OF 2019-NCOV

OCONTEXT

Researchers in the United States have unveiled the structure of the "spike protein" of 2019-nCoV, the virus behind the current coronavirus disease outbreak.

ABOUT

- Coronaviruses are a family of viruses that cause illnesses ranging from the common cold to more severe diseases such as severe acute respiratory syndrome (SARS) and the Middle East respiratory syndrome (MERS).
- The World Health Organization (WHO) has declared the virus a global health emergency. Also, the WHO announced an official name for the disease- coronavirus disease 2019, abbreviated as COVID-19.
- In COVID-19, 'CO' stands for 'corona,' 'VI' for 'virus,' and 'D' for the disease. Formerly, this disease was referred to as "2019 novel coronavirus" or "2019-nCoV."

What is a spike protein?

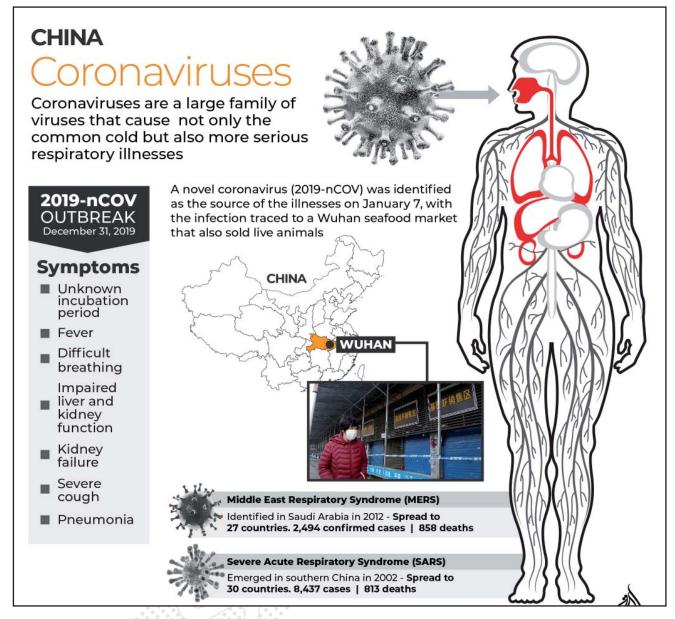
- A viral spike protein is like a key that "unlocks the door" to gain access to the cells of a specific host — humans, in this case.
- The researchers defined the structure of 2019-nCoV's spike protein using a technique called cryogenic electron microscopy, or "Cryo-EM".
- This involves cooling the protein to below -150 degree Celsius so that it crystallises and then its structure can be determined with near-atomic resolution.

Another discovery:

- They also identified the "keyhole", the host cell receptor: it is a human protein called angiotensin-converting enzyme 2 (ACE2).
- This is the same human receptor protein targeted by the earlier SARS coronavirus.







But, disturbingly, the researchers found that 2019-nCoV binds to ACE2 with much higher affinity (10-20 times higher!) than SARS.

So what about a vaccine?

- Both viruses attack the same protein on human cells, and the already available antibodies against SARS-CoV would work against 2019-nCoV.
- This means a stronger solution to this problem is still far away.
- Globally, the competition is heating up to hunt for the best anti-2019-nCoV vaccine.
- The earliest clinical trials to test a suitable vaccine will not be available until several months or even a year after a candidate vaccine is identified, and the global coronavirus outbreak may well be controlled by then.

Significance of the discovery:

- Knowing the structure of the virus's spike protein gives us crucial information about exactly how the virus infects host cells.
- The discovery of the 2019-nCoV spike protein structure, therefore, represents both good news and bad.

- The good news is now we know what it looks like, it will be easier to find the most suitable weapon against the virus.
- The bad news is the enemy is much stronger than we thought, and our current ammunition depot doesn't have anything efficient against it.

MARS INSIGHT MISSION

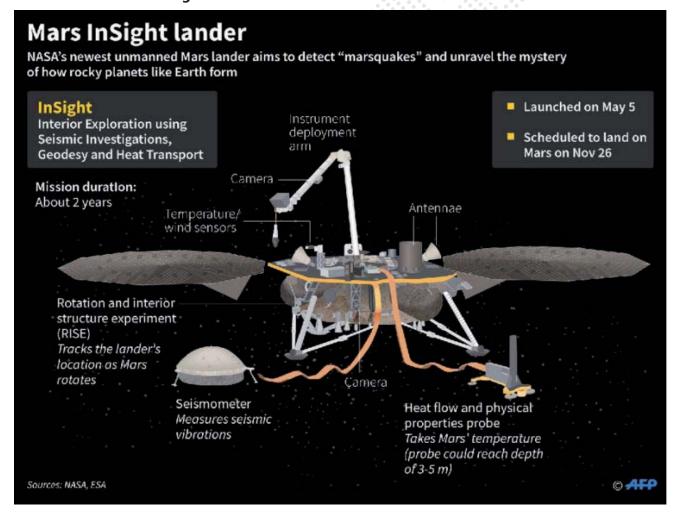
O CONTEXT

NASA's Mars Lander InSight has recorded its first 'Marsquake.' It has recorded a quake of 2 or 2.5 magnitude which is hard to predict on Earth's surface.

ABOUT

- InSight is part of NASA's Discovery Program, managed by the agency's Marshall Space Flight Center in Huntsville, Alabama.
- It will be the first mission to peer deep beneath the Martian surface, studying the planet's interior by measuring its heat output and listening for marsquakes, which are seismic events similar to earthquakes on Earth.
- It will use the seismic waves generated by marsquakes to develop a map of the planet's deep interior.

Significance of the mission:



The findings of Mars' formation will help better understand how other rocky planets, including Earth, were and are created. But InSight is more than a Mars mission - it is a terrestrial planet explorer that would address one of the most fundamental issues





- of planetary and solar system science understanding the processes that shaped the rocky planets of the inner solar system (including Earth) more than four billion years ago.
- InSight would delve deep beneath the surface of Mars, detecting the fingerprints of the processes of terrestrial planet formation, as well as measuring the planet's "vital signs": Its "pulse" (seismology), "temperature" (heat flow probe), and "reflexes" (precision tracking).
- InSight seeks to answer one of science's most fundamental questions: How did the terrestrial planets form?
- Previous missions to Mars have investigated the surface history of the Red Planet by examining features like canyons, volcanoes, rocks and soil. However, signatures of the planet's formation can only be found by sensing and studying its "vital signs" far below the surface.
- In comparison to the other terrestrial planets, Mars is neither too big nor too small. This means that it preserves the record of its formation and can give us insight into how the terrestrial planets formed. It is the perfect laboratory from which to study the formation and evolution of rocky planets. Scientists know that Mars has low levels of geological activity. But a lander like InSight can also reveal just how active Mars really is.

SUTRA PIC

O CONTEXT

The government recently unveiled SUTRA PIC programme to research on 'indigenous' cows.

ABOUT

- SUTRA PIC: It stands for Scientific Utilization Through Research Augmentation-Prime Products from Indigenous Cows.
- Funding: The initiative is led by the **Department of Science and Technology (DST).** It is to be funded by **multiple scientific ministries.**
- Partners: Department of Biotechnology, CSIR, the Ministry for AYUSH, Indian Council of Medical Research (ICMR), among others.
- **Objective**: The initiative aims to perform **scientific research** on complete characterization of milk and milk **products derived from Indian indigenous cows.**
 - It will implement scientific research on nutritional and therapeutic properties of curd and ghee prepared from indigenous breeds of cows by traditional methods.
 - It also aims to develop standards for traditionally processed dairy products of Indian-origin cow

Themes:

- Uniqueness of Indigenous Cows
- o Prime-products from Indigenous Cows for Medicine and Health
- Prime-products from Indigenous Cows for Agricultural Applications
- Prime-products from Indigenous Cows for Food and Nutrition
- Prime-products from indigenous cows-based utility items

Livestock census

- According to the 20th livestock census, livestock population in India rises 4.6% to nearly 536 million.
 - The indigenous cattle has decreased by 8.94%.
 - The exotic/crossbred population has increased by 20.18%.





- Reasons for decline of indigenous breed: Cross-breeding with exotic breeds; being economically less viable; losing utility; reduction in herd size; large-scale mechanisation of agricultural operation.
- Implications of decline in indigenous cattle:
 - Due to continuous fall in productivity, indigenous breeds of cattle have become liabilities.
 - Farmers find other animals such as buffaloes, goats and sheep more productive.
 - Unlike cows, if they become unproductive, they can be sold and slaughtered for further processing.
 - Fall in indigenous breeds can have long term health and environmental impact; because the milk of indigenous breed has higher nutritional value than that of
 - There is also danger of losing these indigenous breeds.
 - This has caused disruption in cattle economy which may adversely impact farm incomes also.

EXERCISE INDRADHANUSH

O CONTEXT

The Indian Air Force (IAF) and Royal Air Force (RAF) jointly commenced the fifth edition of Exercise Indradhanush at Air Force Station Hindan.

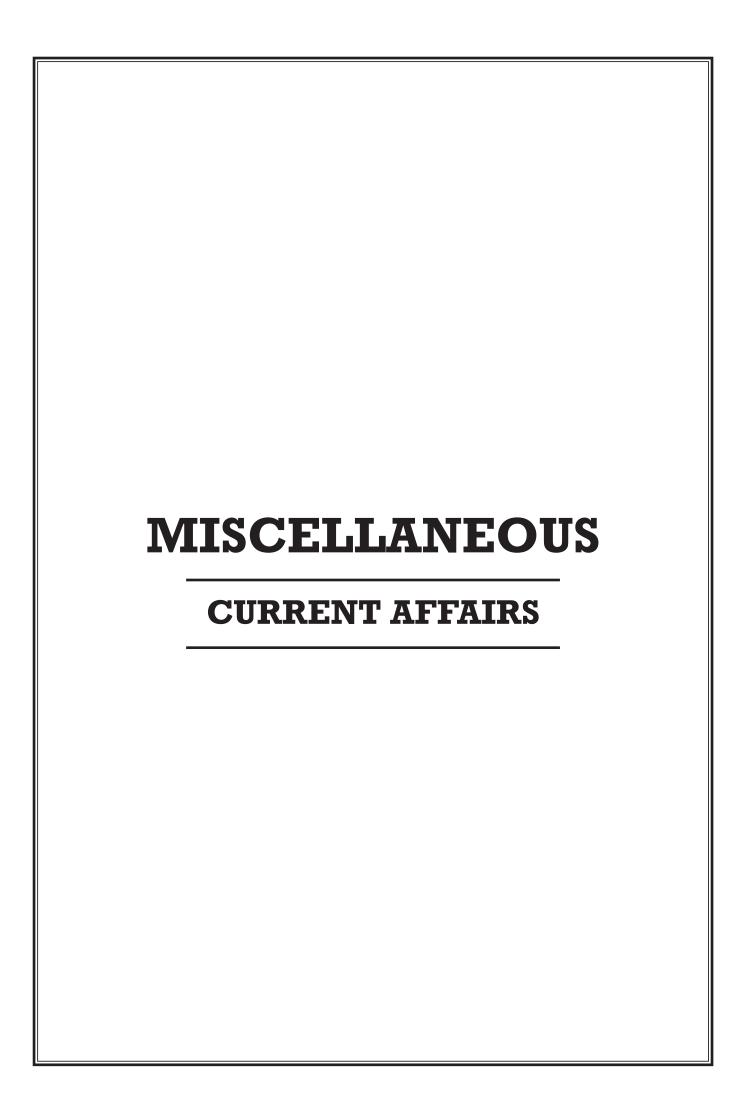
ABOUT

- It is a joint air force exercise conducted by the Royal Air Force (RAF) of United Kingdom and the Indian Air Force (IAF) being held since 2006.
- The exercise is tasked to enhance mutual operational understanding between the two air forces via close interaction.
- The theme of this edition of the exercise is 'Base Defence and Force Protection'.
- This theme is of significance considering the recent threats to military establishments from terror elements.
- The RAF team include 36 specialised combatants of the RAF Regiment, whereas the IAF team comprises of 42 combatants of the GARUD Force.
- Other joint exercises between India and UK are
 - Exercise Konkan: It is an annual maritime bilateral exercise between Indian Navy and the Royal Navy of Britain.
 - Exercise Ajeya warrior: It is a joint military exercise between India and the UK. It was held for the first time in 2013.

Significance

- Indradhanush will allow the IAF and RAF to strategise and share information, as well as learn from each other's operational experience.
- Through this exercise, the two airforces can plan scenarios and train on tactics to counter terror threats and protect their installations.
- The forces will share their training philosophies and best practices along with contemporary technologies.







34TH DBT FOUNDATION DAY CELEBRATED

- Department of Biotechnology, Ministry of Science & Technology, celebrated its 34th Foundation Day on 26th
 February 2020 at the National Institute of Immunology (NII), New Delhi.
- The Minister for S&T, Earth Sciences and MoH&FW, Dr. Harsh Vardhan will be the Chief Guest and give away the awards.
- Department since its inception has instituted various awards to encourage and recognize the contribution of scientists working in various research institutes, universities, scientific organizations, national laboratories, etc at different levels across the country.
- Various awards instituted by DBT are now considered under an overarching umbrella as DBT BRITE Awards [Biotechnology Research Innovation and Technology Excellence Awards].
- DBT BRITE Awards constitutes the following awards hosted by DBT:
 - HarGobind Khorana-Innovative Young Biotechnologist Award
 - S. Ramachandran-National Bioscience Award for Career Development
 - Janaki Ammal National Women Bioscientist Award
 - Tata Innovative Fellowship Award
 - Biotechnology Social Development Award
- The Minister announced launching of "M K Bhan Young Investigators' Research Award" in Prof. Bhan's memory by DBT to promote young investigators working in challenging areas of research.

CELEBRATING EXCELLENCE IN PHILANTHROPY (CEP)

- CWAT and ECOMO are organizing an event called 'Celebrating Excellence in Philanthropy' at The Lalit, Mumbai.
- The event is designed with the thought process of honouring senior philanthropists and encouraging and felicitating young philanthropists under the categories of Human Welfare, Animal Welfare, and Environment.
- The honours and felicitations will be presented by The Nargis Dutt Foundation and Mrs Priya Dutt.
- CEP (Celebrating Excellence in Philanthropy) aims at celebrating and showcasing the great work done by philanthropists in their respective fields and provides a platform for individuals as well as organizations to connect and grow a socially beneficial ecosystem.
- CEP will also witness the introduction/launch of 4 socially impactful IP's CWAT App (beta version), CWATY, ECOMO and TAG ME GREEN.
- The CWAT APP is a first of its kind Social Impact Media app that makes the act of doing charity Free, Fun and Rewarding. CWATY is the world's first digital animal influencer for animal welfare. She donates 100% of her profits to Animal NGO's in India.
- EcoMo is an Initiative by Gratitude Entertainment and Media Inc to make the Minds Green, launched on 18th Dec 2019. It aims at inculcating lifestyle changes in students through workshops, projects and activities. It also aims at making the premises Green through plantation, waste management etc.
- "TagMeGreen" campaign is an initiative of Buzz On Earth Media powered by GAIA-The Earth Foundation. The campaign aims to raise awareness and community engagement on sustainability as part of Individual Social Responsibility.





CHATRAVISHWAKARMA AWARDS 2019

- Union Minister of Human Resources Development (HRD) presented the Vishwakarma Awards 2019 to the winners in New Delhi.
- The valedictory function of the Awards was organised in the All India Council for Technical Education (AICTE).
- A total of 23 teams under various subcategories were recipients of the Chatra Vishwakarma Awards (CVA).
- Six institutes were felicitated by the Union Minister under the Utkrisht Santhan Vishwakarma Award (USVA).
- AICTE has been organizing Vishwakarma Awards since 2017.
- The awards have been instituted for promoting an innovative spirit and scientific temperament for the holistic development of society through stakeholders of its approved institutes.
- Indian Society of Technical Education (ISTE) and Atal Innovation Mission of NITI Ayog also agreed to collaborate with AICTE for the Vishwakarma Awards 2019.
- Applications were called in 2 categories: Chhatra Vishwakarma Awards (CVA) for Outstanding Innovative Team (for Students & Mentor), and Utkrisht Sansthan Vishwakarma Award (USVA) for exemplary Institutional intervention.

EXERCISE AJEYA WARRIOR-2020

- Exercise AJEYA WARRIOR 2020, a joint military training exercise between India & United Kingdom (UK) culminated at West down Camp, Salisbury Plains Training Area, UK.
- The closing ceremony was attended by Brigadier Tom Bewick, Commander of UK 7 Infantry Brigade and Brigadier Gavin, Defence Attache of UK in India.
- The fifth edition of the exercise included joint training in urban and semi urban areas.

INDIAN ARMY CELEBRATES GANGA YODHA MAHOTSAV 2020

- The Indian Army hosted a concert by eminent musician Kailash Kher, to create awareness about the immense work being done by the armed forces towards the effective abatement of pollution, conservation and rejuvenation of river Ganga.
- The concert was organized by the Territorial Army to create awareness about the immense work being done by 137
 Ecological TA Battalion under the leadership of Colonel Amit Pandey, NM. The event was held on the scenic banks
 of the Ganges in Varanasi.
- To make the Ganga Yodha Mahotsav a success, the Territorial Army have also organised for the post event clean-up drive to encourage and convey a message to keep the surroundings clean.
- With the announcement of the Namami Gange project in 2014, the efforts for Ganges rejuvenation gained national importance and the government also invited the Army to contribute.
- The Army formed a special battalion for this purpose in April 2018, with units located at Kanpur, Varanasi and Prayagraj.
- Popularly known as the Ganga Task Force, the 137 CETF Bn (TA) 39 GR was raised with the budgetary support of the 'Ministry of Water Resources, River Devp and Ganga Rejuvenation' and functions in close coordination with the National Mission for Clean Ganga.





ISRO TO LAUNCH GISAT-1 ON 05 MARCH

- Geosynchronous Satellite Launch Vehicle (GSLV-F10) will launch Geo Imaging Satellite (GISAT-1) from the Second Launch Pad of SatishDhawan Space Centre (SDSC) SHAR, Sriharikota.
- Weighing about 2275 kg, GISAT-1 is a state-of-the-art agile Earth observation satellite which will be placed in a Geosynchronous Transfer Orbit by GSLV-F10.
- Subsequently, the satellite will reach the final geostationary orbit using its onboard propulsion system.
- A 4 metre diameter Ogive shaped payload fairing is being flown for the first time in this GSLV flight. This is the fourteenth flight of the GSLV.
- Operating from geostationary orbit, GISAT-1 will facilitate near real time observation of the Indian sub continent, under cloud free condition, at frequent intervals.

JOINT IAF - RAF EX INDRADHANUSH - V 2020

- The Indian Air Force (IAF) and Royal Air Force (RAF) of the UKjointly commenced the fifth edition of Ex Indradhanush at Air Force Station Hindan on February 24.
- The focus of this edition of the exercise is 'Base Defence and Force Protection'. This theme is of significance considering the recent threats to military establishments from terror elements.
- Indradhanush provides a platform for the IAF and RAF to share and jointly validate strategies and tactics to counter terror threats to their installations.
- The RAF team comprises of 36 specialised combatants of the RAF Regiment while the IAF will comprise of 42 combatants of the GARUD Force.
- Both teams will execute missions based on jointly worked out plans and scenarios. Special missions will encompass airfield seizure, base defence and anti-terror operations in urban built up zones.
- These exercises would include para drops from C-130J aircraft, tactical insertions by Mi-17 V5 helicopters and use
 of various airborne sensors.
- The exercise would formaly conclude on 29 Feb 2020.

MARKET INTELLIGENCE AND EARLY WARNING SYSTEM (MIEWS) PORTAL

- Union Minister of Food Processing Industries, launched the
 – Market Intelligence and Early Warning System (MIEWS)
 Web Portal. The portal can be accessed at http://miews.nafed-india.com.
- The MIEWS Dashboard and Portal is a 'first-of-its-kind' platform for 'real time monitoring' of prices of tomato, onion and potato (TOP) and for simultaneously generating alerts for intervention under the terms of the Operation Greens(OG) scheme.
- The portal would disseminate all relevant information related to TOP crops such as Prices and Arrivals, Area, Yield and Production, Imports and Exports, Crop Calendars, Crop Agronomy, etc in an easy to use visual format.
- As per the terms of the OG Scheme, during a glut situation, evacuation of surplus production from producing areas to consumption centres will be undertaken as determined by the following:
 - When the prices fall below preceding 3 years' average market price at the time of harvest;
 - When the prices fall more than 50% compared to last year's market price at the time of harvest;
 - When the prices fall less than the benchmark, if any, fixed by the State / Central Government for a specified period.
- For decision makers, the MIEWS system will help in:





- monitoring of supply situation for timely market intervention,
- assist in rapid response in times of glut to move produce from glut regions to deficit/consuming regions and
- providing inputs for export/import decision making.
- The salient features of the MIEWS portal include:
 - A dashboard that would indicate low price and high price alerts as well as price forecasts for 3 month forward
 - Prices and arrivals of TOP crops across the country including interactive charts and comparisons with previous seasons
 - Area, Yield and Production of TOP crops
 - Crop Agronomy and Trade Profile of each of the TOP crops
 - Regular and special reports on the market situation of the TOP crops.

NEW TRIO OF PRODUCTS FOR MARINE-BASED USERS

- The Indian National Centre for Ocean Information Services (INCOIS), Hyderabad has launched a trio of products to better cater to its diverse users.
- INCOIS provides a number of free services for users in the marine realm. The institute is an autonomousorganisation under the Ministry of Earth Sciences. INCOIS prioritises requests for specific services from its diverse user community that ranges right from fishermen to offshore oil exploration industries.
- One of these new products is the **Small Vessel Advisory and Forecast Services System (SVAS)**, to improve operations on the numerous small marine vessels, particularly fishing vessels that ply the coastal waters of India.
- The **Swell Surge Forecast System** was also launched, which will provide forewarnings for the coastal population of India's vast shoreline, which experiences a slew of damages caused by the swell waves that actually originate from the distant southern Indian Ocean.
- The final new product in this trio is the **Algal Bloom Information Service (ABIS)**, providing timely information on harmful algal blooms, which are detrimental to coastal fisheries and also tend to induce respiratory problems within the coastal population from time to time.

SPICE+WEB FORM

- As part of the Government of India's Ease of Doing Business (EODB) initiatives, the Ministry of Corporate Affairs
 (MCA) has notified a new web form christened Simplified Proforma for Incorporating Company Electronically
 Plus (SPICe+) replacing the existing SPICe form.
- SPICe+ will offer 10 services by 3 Central Govt Ministries & Departments (Ministry of Corporate Affairs, Ministry of Labour, and Department of Revenue in the Ministry of Finance) and one State Government (Maharashtra).
- Registration for EPFO and ESIC shall be mandatory for all new companies to be incorporated through SPICe+ and no EPFO & ESIC registration nos. shall be separately issued by the respective agencies.
- Registration for Profession Tax shall also be mandatory for all new companies to be incorporated in the State of Maharashtra through SPICe+.
- This will save procedure, time, and cost for starting a business in India and will be applicable for all new company incorporations.
- India had improved its ranking to the 63rd spot on the World Bank's Ease of Doing Business (EODB) survey, out of 190 countries.
- The Reserve Unique Name (RUN) web service will now only be applicable for a change of name with SPICe+ coming in.





In the 2019 EODB rankings, the World Bank had placed India at the 136th spot for ease of starting business. The country was ranked 154th and 115th for paying taxes and enforcing contracts in the survey.

UKIERI-UGC HIGHER EDUCATION LEADERSHIP **DEVELOPMENT PROGRAMME**

- The Union Minister for Human Resource Development launched the 'Higher Education Leadership Development Programme for Administrator'.
- It is a joint initiative of UGC and British Council under the auspices of UK India Education and Research Initiative (UKIERI), which aims to deliver a leadership development programme for middle and senior level administrative functionaries in Indian Universities.
- The training for 300 participants is aimed at capacity building for senior leaders, mid-senior level functionaries and academic faculty across Indian higher education institutes (HEIs).
- The University Grants Commission (UGC) will conduct this programme in collaboration with Advance HE as the training partner with globally recognized institutional expertise and leadership excellence from the UK, which is being enabled by the British Council in India.
- The programme will provide 300 participating leaders at the level of Joint/Deputy/ Assistant Registrar and Registrar in Indian Universities with improved leadership capacity in terms of knowledge, competencies, skills and behaviours.
- Since 2006, UKIERI has been driving internationalisation in higher education sectors of Indiaand the UK by focusing on three key aspects: institutional partnerships (for research and academics), student mobility, and leadership development (for academic leaders)

US-INDIA TAX FORUM

- During President Trump's maiden India visit, the US-India Strategic Partnership Forum (USISPF)will launch the US-India Tax Forum, an initiative designed for industry and government to engage on global and local tax policy issues.
- The USISPF Tax Forum will bring over 50 tax experts from Fortune 500 companies together with senior officials from Ministry of Finance, Central Board Direct Tax (CBDT), GST Council and Customs Board Indirect Tax & Customs (CBIC).
- The Forum will meet on a regular basis with the government to share feedback on transparency and efficiency in tax policy.
- It will also work with the government to ensure tax policy harmonization between multilateral and unilateral tax
- On Feb 25th, USISPF together with Federation of Indian Chambers of Commerce and Industry (FICCI) and Observer Research Foundation (ORF) will also convene the U.S.-India Forum.

