

27 FEBRUARY 2019

Disappearance of Marine Clouds

- Marine clouds could break up and vanish if CO₂ in the atmosphere triples.
- It protects us from hothouse Earth conditions by reflecting sunlight back into space.
- It is the stratocumulus clouds that cover about 20 % of subtropical oceans, mostly near western seaboard such as the coasts of California, Mexico and Peru.
- These clouds cool and shade the earth as they reflect the sunlight that reflects them back into space.
- Due to the rise in Carbon Dioxide it may become unstable and disappear.
- The consequence will trigger a spike in global warming.

Sampriti - 2019

- It is an India-Bangladesh joint Military exercise conducted in Bangladesh.
- It is an important bilateral defence cooperation endeavour between India and Bangladesh.
- It will be the 8th edition of the exercise which is hosted alternately by both countries.
- It is aimed to strengthen and broaden the aspects of interoperability and cooperation between the Indian and Bangladesh Armies.
- It will involve tactical level operations in a counter insurgency and counter terrorism environment under the UN mandate.

Heat Wave

- The **National Disaster Management Authority (NDMA)** is conducting a two-day national workshop on heat wave risk reduction on 27-28 February, 2019.
- This workshop **aims to sensitise the States to the need of preparing and implementing specific Heat Action Plans**. Some of the most vulnerable States, which have done a commendable job in mitigating the impact of heat waves, will share their experiences and best practices to help other stakeholders draw lessons.
- **The Lancet Countdown 2018 report** has asked the Indian policy makers to take a series of initiatives to mitigate the increased risks to health, and the loss of labour hours due to a surge in exposure to **heatwave events in the country over the 2012-2016 period**.
- From 2014-2017, the **average length of heatwaves in India ranged from 3-4 days compared to the global average of 0.8-1.8 days**, and Indians were exposed to almost **60 million heatwave exposure events in 2016**, a jump of about 40 million from 2012.
- A recent report has placed India amongst the **countries who most experience high social and economic costs from climate change**. Overall, across sectors India lost almost 75,000 million hours of labour in 2017, from about 43,000 million hours in 2000.
- **The agriculture sector was more vulnerable compared to the industrial and service sectors** because workers there were more likely to be exposed to heat.
- **The India Meteorological Department had reported that from 1901 to 2007, there was an increase of more than 0.5°C in mean temperature**, with considerable geographic variation, and

climate forecasts by research groups project a 2.2-5.5°C rise in temperatures in northern, central and western India by the end of the 21st century.

- Heat wave is considered **if maximum temperature of a station reaches at least 40°C or more for Plains, 37°C or more for coastal stations and at least 30°C or more for Hilly regions.**
- **Following criteria are used to declare heat wave:**
 1. Based on Departure from Normal:
 2. Heat Wave: Departure from normal is 4.5°C to 6.4°C.
 3. Severe Heat Wave: Departure from normal is >6.4°C.
 - Based on Actual Maximum Temperature (for plains only):
 1. Heat Wave: When actual maximum temperature $\geq 45^\circ\text{C}$.
 2. Severe Heat Wave: When actual maximum temperature $\geq 47^\circ\text{C}$.
- **To declare heat wave, the above criteria should be met at least in 2 stations in a Meteorological sub-division for at least two consecutive days** and it will be declared on the second day.

Health Impacts of Heat Waves:

- The health impacts of Heat Waves typically involve dehydration, heat cramps, heat exhaustion and/or heat stroke.
- Children, the elderly and those with pre-existing morbidities are particularly vulnerable.
- Vegetable vendors, cab drivers, construction workers, police personnel, road side kiosk operators and mostly weaker sections of the society have to work in the extreme heat to make their ends meet and are extremely vulnerable to the adverse impacts of heat waves such as dehydration, heat and sun strokes.

Reasons why India is experiencing more heat waves are:

- Magnified effect of paved and concrete surfaces in urban areas and a lack of tree cover.
- Urban heat island effects can make ambient temperatures feel 3 to 4 degrees more than what they are.
- More heat waves were expected as globally temperatures had risen by an average 0.8 degrees in the past 100 years. Night-time temperatures are rising too.
- Higher daily peak temperatures and longer, more intense heat waves are becomingly increasingly frequent globally due to climate change.
- High intensity of UV rays in medium-high heat wave zone.
- Combination of exceptional heat stress and a predominantly rural population makes India vulnerable to heat waves.

Dealing with Heat Waves

- Identifying heat hot-spots through appropriate tracking of meteorological data and promoting timely development and implementation of local Heat Action Plans with strategic inter-agency co-ordination, and a response which targets the most vulnerable groups.
- Review of existing occupational health standards, labour laws and sectoral regulations for worker safety in relation to climatic conditions.
- Policy intervention and coordination across three sectors health, water and power is necessary.
- Expedite the rollout of the National Action Plan on Climate Change and Health.
- Preventing temperature-related morbidity and mortality could be a key programme under this mission.
- Ensure an adequate supply of water. Timely access to drinking water can help mitigate this escalation.
- Further research using sub-district level data to provide separate indices for urban and rural areas to enable more targeted geographical interventions.

- Provision of public messaging (radio, TV), mobile phone-based text messages, automated phone calls and alerts.
- Promotion of traditional adaptation practices, such as staying indoors and wearing comfortable clothes.
- Popularisation of simple design features such as shaded windows, underground water storage tanks and insulating housing materials.
- Advance implementation of local Heat Action Plans, plus effective inter-agency coordination is a vital response which the government can deploy in order to protect vulnerable groups.

Quick Reaction Surface-to-Air missiles (QRSAM)

- India has successfully test-fired two indigenously developed **Quick Reaction Surface-to-Air missiles (QRSAM)** from a test range off the Odisha coast.
- It has been developed to replace the 'Akash' missile defence system, and has 360-degree coverage.
- It uses solid fuel propellant and has a strike range of 25-30 km with capability of hitting multiple targets.
- It is capable of hitting the low flying objects.

Warming imperils clouds that deter 'hothouse' conditions

- A study by **California Institute of Technology** has found that Marine clouds that protect us from hothouse Earth conditions by reflecting sunlight back into space could break up and vanish if CO₂ in the atmosphere triples. Computer modeling shows that **marine stratus clouds could disappear if atmospheric CO₂ levels climb high enough, raising global temperatures.**
- Stratocumulus clouds cover about 20% of subtropical oceans, mostly near western seabords such as the coasts of California, Mexico and Peru. **When they disappear, Earth warms dramatically, by about eight degrees Celsius — in addition to the global warming that comes from enhanced greenhouse concentrations alone.**
- A temperature increase of that magnitude would **melt polar ice and lift sea levels tens of metres.**
- The last time the planet was that hot, some 50 million years ago during the Eocene Epoch, crocodiles roamed the Arctic. Even half that much warming would overwhelm humanity's capacity to adapt.
- Stratocumulus clouds are **low-level clumps or patches of cloud varying in colour from bright white to dark grey.** They are the most common clouds on earth recognised by their well-defined bases with some parts often darker than others. They usually have gaps between them, but they can also be joined together.
- Stratocumulus clouds usually form from a layer of stratus cloud breaking up. They are indicators of a change in the weather and are usually present near a warm, cold or occluded front.
- Stratocumulus clouds can be present in all types of weather conditions, from dry settled weather to more rainy conditions, but they themselves are often not the culprit. Stratocumulus are often mistaken for rain clouds, when in reality it is quite rare to get anything more than the lightest drizzle from them, if anything at all.

UN Women

- The government of Odisha has been applauded by **The United Nations Entity for Gender Equality and the Empowerment of Women (UN Women)** for proposing 33% reservation for women in Parliament and the State Assemblies.

- The Odisha Assembly, in November 2018, passed a resolution by unanimous voice vote for providing 33% reservation for women in Legislative Assemblies and Parliament. Chief Minister Naveen Patnaik had initiated discussion on the motion.

UN Women: The United Nations Entity for Gender Equality and the Empowerment of Women:

- UN Women is the **UN entity dedicated to gender equality and the empowerment of women**. UN Women was established to accelerate progress on meeting their needs worldwide.
- **In July 2010, the United Nations General Assembly created UN Women, the United Nations Entity for Gender Equality and the Empowerment of Women.**
- It merges and builds on the important work of four previously distinct parts of the UN system, which focused exclusively on gender equality and women's empowerment:
- Division for the Advancement of Women (DAW).
- International Research and Training Institute for the Advancement of Women (INSTRAW).
- Office of the Special Adviser on Gender Issues and Advancement of Women (OSAGI).
- United Nations Development Fund for Women (UNIFEM).
- **The main roles of UN Women are:**
- To support inter-governmental bodies, such as the Commission on the Status of Women, in their formulation of policies, global standards and norms.
- To help Member States to implement these standards, standing ready to provide suitable technical and financial support to those countries that request it, and to forge effective partnerships with civil society.
- To hold the UN system accountable for its own commitments on gender equality, including regular monitoring of system-wide progress.

Banks may set repo rate as benchmark for lending

- Most commercial banks in India are likely to select **RBI's repo rate as the external benchmark to decide their lending rates, from April 1**. The repo rate is the key policy rate of the Reserve Bank of India (RBI).
- The marginal cost of fund based lending rate (MCLR) is currently the benchmark for all loan rates. Banks typically add a spread to the MCLR while pricing loans for homes and automobiles.
- The RBI has mandated that the spread over the benchmark rate to be decided by banks at the inception of the loan should remain unchanged through the life of the loan. It should remain unchanged unless the borrower's credit assessment undergoes a substantial change and as agreed upon in the loan contract.
- **If the lending rates are linked to the repo rate, any change in the repo rate will immediately impact the home and auto loan rates, since RBI has mandated the spread to remain fixed over the life of the loan.**
- **Benefits of setting Repo Rate as benchmark for lending:**
- It will make the system more transparent since every borrower will know the fixed interest rate and the spread value decided by the bank.
- It will help borrowers compare loans in a better way from different banks.
- There shall be standardisation and ease of understanding for the borrowers. This would mean that same bank cannot adopt multiple benchmarks within a loan category.
- Repo stands for 'Repurchasing Option'. It refers to **the rate at which commercial banks borrow money from the RBI in case of shortage of funds**.
- It is one of the main **tools of RBI to keep inflation under control**.
- The Marginal Cost of Funds based Lending Rate (MCLR) system was introduced by the Reserve Bank to provide loans on minimal rates as well as market rate fluctuation benefit to customers. This system has modified the existing base rate system of providing home loans. In this system,

banks have to set various benchmark rates for specific time periods starting from an overnight to one month, quarterly, semi-annually and annually.

- MCLR replaced the earlier base rate system to determine the lending rates for commercial banks. RBI implemented it on 1 April 2016 to determine rates of interests for loans.

MCLR aims:

- To improve the transmission of policy rates into the lending rates of banks.
- To bring transparency in the methodology followed by banks for determining interest rates on advances.
- To ensure availability of bank credit at interest rates which are fair to borrowers as well as banks.
- To enable banks to become more competitive and enhance their long run value and contribution to economic growth.

Citizenship (Amendment) Bill, 2016

- The **Nagaland Assembly** has passed a resolution rejecting the contentious **Citizenship (Amendment) Bill, 2016**.
- The resolution denounced the proposed Bill stating that **it cannot be implemented in Nagaland as it will impact the “unique history and status of the Nagas under the Constitution”**.
- The resolution also expressed **solidarity with the States and communities of the Northeast in opposing the Bill, as it has the potential of “changing the demographic profile, which will be against the interest of indigenous tribes and can divest them of their constitutionally guaranteed political, cultural and economic rights”**.
- The Citizenship Amendment Bill 2016 seeks to **allow illegal migrants from certain minority communities in Afghanistan, Bangladesh and Pakistan eligible for Indian citizenship**. In other words, **it amends the Citizenship Act of 1955**.
- The Bill provides that the **registration of Overseas Citizen of India (OCI) cardholders may be cancelled if they violate any law**.
- The Citizenship Amendment Bill seeks to allow illegal migrants belonging to the Hindu, Sikh, Buddhist, Jain, Parsi or Christian religious communities coming from Afghanistan, Bangladesh or Pakistan to not be imprisoned or deported.
- It also appeals for the minimum years of residency in India to apply for citizenship to be lessened from at least 11 to six years for such migrants.
- The Bill, however, does not extend to illegal Muslim migrants. It also does not talk about other minority communities in the three neighbouring countries, such as Jews, Bahais etc.
- Critics say it violates the basic tenets of the Constitution.
- Here, illegal immigrants are distinguished on the basis of religion.
- It goes against the fundamental right to equality under Article 14.
- Article 14 applies equally to both citizens and foreigners.
- **What is the Citizenship Act 1995?**
- **Under Article 9 of the Indian Constitution**, a person who voluntarily acquires citizenship of any other country is no longer an Indian citizen.
- **Citizenship by descent:** Persons born outside India on or after January 26, 1950, but before December 10, 1992, are citizens of India by descent if their father was a citizen of India at the time of their birth.
- From December 3, 2004, onwards, persons born outside of India shall not be considered citizens of India unless their birth is registered at an Indian consulate within one year of the date of birth.
- In Section 8 of the Citizenship Act 1955, if an adult makes a declaration of renunciation of Indian citizenship, he loses Indian citizenship.

- According to the Citizenship Act (1955), an illegal immigrant is defined as a person who enters India without a valid passport or stays in the country after the expiry of the visa permit. Also, the immigrant who uses false documents for the immigration process.

Guidelines to become an Indian citizenship

- Citizenship is granted to an individual by the government of the country when he/she complies with the legal formalities, so it's like a judicial concept.
- In India, the Citizenship Act, 1995 prescribes five ways of acquiring citizenship:
 - Birth
 - Descent
 - Registration
 - Naturalization
 - Incorporation of the territory.

PCA framework

- Three more banks — Allahabad Bank and Corporation Bank, from the public sector, and Dhanlaxmi Bank from the private sector — are now out of the Reserve Bank of India's (RBI) prompt and corrective action (PCA) framework. Earlier, such restrictions were taken off Bank of India, Oriental Bank of Commerce and Bank of Maharashtra.
- **There are another six banks that are still under PCA framework.**
- PCA norms allow the regulator to place certain restrictions such as halting branch expansion and stopping dividend payment. It can even cap a bank's lending limit to one entity or sector. Other corrective action that can be imposed on banks include special audit, restructuring operations and activation of recovery plan. Banks' promoters can be asked to bring in new management, too. The RBI can also supersede the bank's board, under PCA.
- The PCA is invoked when certain risk thresholds are breached. There are three risk thresholds which are based on certain levels of asset quality, profitability, capital and the like. The third such threshold, which is maximum tolerance limit, sets net NPA at over 12% and negative return on assets for four consecutive years.
- **There are two type of restrictions, mandatory and discretionary.** Restrictions on dividend, branch expansion, directors compensation, are mandatory while discretionary restrictions could include curbs on lending and deposit.
- Banks are not allowed to re new or access costly deposits or take steps to increase their fee-based income. Banks will also have to launch a special drive to reduce the stock of NPAs and contain generation of fresh NPAs. They will also not be allowed to enter into new lines of business. RBI will also impose restrictions on the bank on borrowings from interbank market.
- Small and medium enterprises will have to bear the brunt due to this move by RBI. Since the PCA framework restricts the amount of loans banks can extend, this will definitely put pressure on credit being made available to companies especially the MSMEs.
- Large companies have access to the corporate bond market so they may not be impacted immediately. It has been predicted that if more state-owned banks are brought under PCA, it will impact the credit availability for the MSME segment.

World's largest Bhagavad Gita:

- The Prime Minister recently inaugurated **the world's largest and heaviest Bhagavad Gita at the Delhi ISKCON temple.**
- The book measures 2.8 meters by 2 meters and has 670 pages and weights at 800 kg.
- It is also the world's largest sacred book.

- The book has been printed in Milan, Italy, on YUPO synthetic paper so as to make it untearable and waterproof.
- The **International Society for Krishna Consciousness (ISKCON)**, known colloquially as the Hare Krishna movement, is a worldwide confederation of more than 400 temples and runs 100 vegetarian restaurants and a wide variety of community-serving projects.

‘riceXpert’:

- The ICAR-NRRI ‘ricexpert’ App provides information to farmers in real time on insect pests, nutrients, weeds, nematodes and disease-related problems, rice varieties for different ecologies, farm implements for different field and post-harvest operations.
- It is a web-based application systems which facilitates flow of information from the farmer to the farm scientist and get their instant solution. Farmers can use this App as a diagnostic tool in their rice fields and make customize queries for quick solution of their problems by sending text, photo and recorded voice and solution received through SMS.

Exercise Sampriti – 2019:

- **Context:** As part of the ongoing India Bangladesh defence cooperation, a joint military exercise Sampriti-2019 will be conducted at Tangail, Bangladesh.
- **Exercise Sampriti-2019 is an important bilateral defence cooperation endeavour between India and Bangladesh** and this will be the eighth edition of the exercise which is hosted alternately by both countries.
- The exercise is **aimed to strengthen and broaden the aspects of interoperability and cooperation between the Indian and Bangladesh Armies**. The exercise will involve tactical level operations in a counter insurgency and counter terrorism environment under the UN mandate.

‘Delhi Declaration’ on digital health:

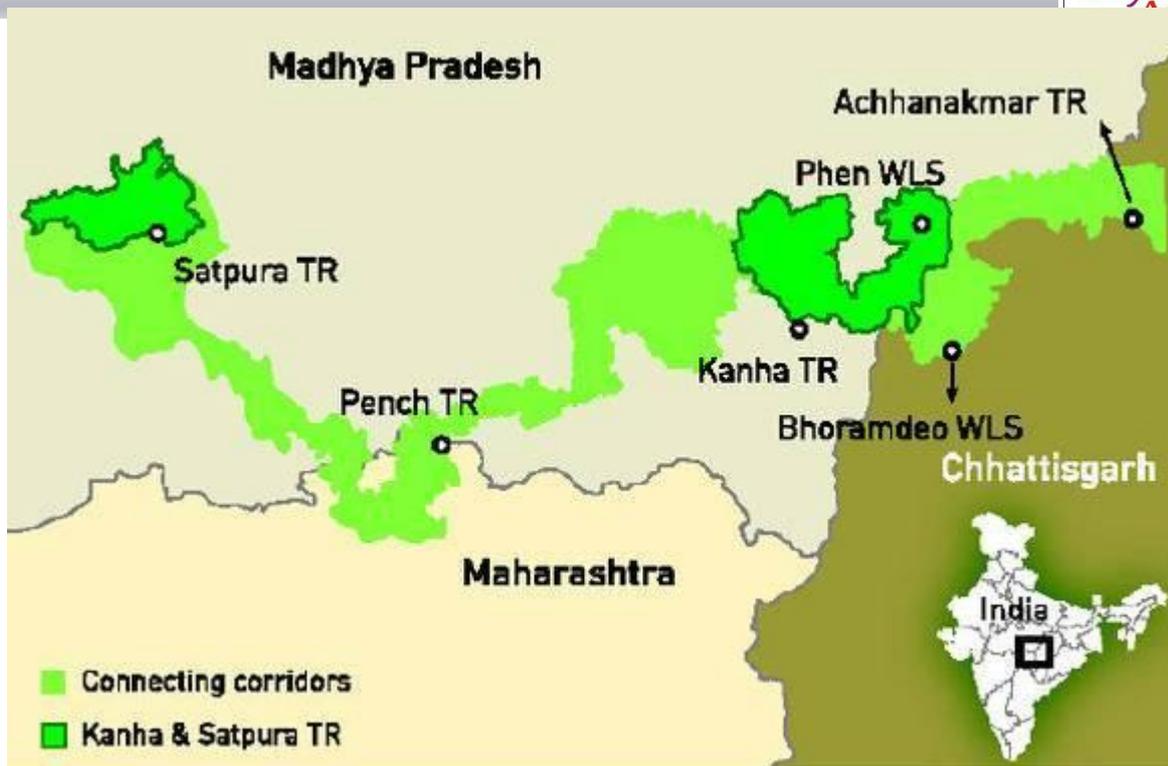
- **Delhi Declaration on digital health** was adopted at the concluding session of the ‘4th Global Digital Health Partnership Summit’. It calls for WHO’s leadership in digital health and for it to establish a specific mechanism to centrally coordinate digital health to assist its Member States.

Angkor

- According to a study Angkor has suffered a gradual decline rather than a catastrophic collapse.
- It is one of the most important archaeological sites in Cambodia’s northern province of Siem Reap, South-East Asia.
- It is the ancient capital of the Khmer empire.
- Angkor Archaeological Park contains the magnificent remains of the different capitals of the Khmer Empire, from the 9th to the 15th century.
- They include the famous Temple of Angkor Wat and, at Angkor Thom, the Bayon Temple with its countless sculptural decorations.

Phen Wildlife Sanctuary

- It is a popular buffer zone of Kanha national park, Madhya Pradesh.
- It lies in Southern region of Kanha tiger reserve, close to Madhya Pradesh and Chhattisgarh state borders.



- It was declared as a wildlife sanctuary in year 1983 by Government of Madhya Pradesh.
- The Fauna at this sanctuary mainly consists of the Tiger, Leopard, Wild boar, Cheetal, Sambar etc

Drug residue in fresh water

- Concentrations of pharmaceuticals have increased in freshwater sources all over the world over the past 20 years.
- The environmental risks of Carbamazepine and ciprofloxacin were found to be 10 to 20 times higher in 2015 than in 1995.
- Carbamazepine is an anti-epileptic drug and ciprofloxacin is an antibiotic.
- The concentrations of these antibiotics can be harmful for bacteria in the water.
- These bacteria found in the fresh water in turn play an important role in various nutrient cycles.
- It provides an insight into the environmental risks posed by pharmaceuticals all over the world.

Quick Reaction Surface-to-Air missiles (QRSAM)

- The indigenously developed Quick Reaction Surface-to-Air missile (QRSAM) was successfully test fired from ITR Chandipur, off the Odisha Coast.
- It has been developed by the Defence Research and Development Organisation (DRDO) for the India Army
- It has a strike range of 30 km and is capable of engaging multiple targets.
- It uses solid fuel propellant.
- It is an all-weather weapon system that is capable of tracking and firing with precision.
- It is also an all-terrain missile with electronic counter measures against jamming by aircraft radars.