Arctic Region: Recent developments & India’s position

Introduction: Recent developments

• US President Donald Trump’s recent offer to buy Greenland is an indicative of the emerging geopolitics of the Arctic region, where climate change and China are fast destabilizing the status quo, throwing up political, security, legal, and environmental challenges.

• Rising global temperatures are causing the frozen Arctic ocean to melt, opening up new sea routes and opportunities to extract hydrocarbons and minerals from the seabed and the newly exposed land surfaces.

• Countries of the Arctic are jockeying to take advantage of these opportunities. At the same time, China declared itself a “near Arctic” country and is making determined efforts to extend its footprint in the polar region.

• Chinese firms have tried to purchase large tracts of land in Iceland, Norway and Denmark. Chinese investments in Greenland’s natural resource economy might persuade the local population to secede from Denmark, creating a Laos-like Chinese satellite state between North America and Europe.

Taking into account emerging technology—where autonomous vehicles and robots can populate uninhabitable regions—the next few decades could see the Arctic emerge as a
hotspot of great power competition.
As the Arctic region witnesses an unprecedented rate of ice-melt because of global warming, new routes are being opened, paving the way for untapped hydrocarbon and mineral resource to be exploited.
Unlike the Antarctic, however, the Arctic is not considered a ‘global commons’ and the principle of sovereignty prevents external players from exacting significant gains in the region.

**About Arctic Council:**
- The Arctic Council is a high-level intergovernmental body set up in 1996 by the Ottawa declaration to promote cooperation, coordination and interaction among the Arctic States together with the indigenous communities and other Arctic inhabitants.
- The Council has the eight circumpolar countries (Norway, Sweden, Finland, Iceland, Denmark (Greenland and Faroe Islands), Canada, US and Russia) as member states.
- Observer status is open to Non-governmental organizations, Non-littoral states as well as to Intergovernmental and Inter-Parliamentary organizations.
- India has an observer status in the council.

**Two issues underlying Arctic politics:**
- How should the region be shared among the eight Arctic countries (Canada,
Denmark, Finland, Iceland, Norway, Russia, Sweden and the US), as there are overlapping territorial claims among them.

- Should these countries be allowed to assert territorial claims at all?

They have formed the Arctic Council to institutionalize their self-assigned rights, but many in China, the European Union, India and elsewhere are against conceding sovereignty to the Arctic countries.

**Arctic Council members:**

- Russia—the most important Arctic country—is both building up its military capabilities in the region and promoting the Northern Sea Route (NSR) as a new artery of global shipping.
- Moscow recently announced that it will impose rules on commercial and naval vessels using the route.
- China has declared that it wants to be a polar great power.

**India’s position:**

- India is one of the very few countries to set up a permanent station (named Himadri) in the Arctic for the purposes of scientific research. The station has been used to carry out a variety of biological, glaciological and atmospheric and climate sciences research projects in the last one decade.
So far, Indian involvement in the Arctic has centered around scientific and environmental studies, mostly in partnership with Norway. Indian and Russian energy companies have signed agreements worth billions of dollars on exploration and joint production.

**Way ahead:**

- India must ensure that the environment is strongly considered at the center of all debates at the Arctic Council.
- India can take the lead in pursuing scientific research in the region, to understand in particular the correlation between the Arctic ice-melt and Indian monsoons.
- The Russians are well aware of the Chinese risk and is therefore keen for India to get involved in the Russian Far East and the Arctic. Recent developments include liberalizing visa procedures for India to enter Vladivostok. India must explore this opportunity.
- Conditions are favourable for private Indian investors to explore fresh pastures in the Siberia and further North.

**Conclusion:**
While India has been active in the Arctic for over ten years, it has not fully made use of its Observer status, and it must give new energy to its activities in the region.
Connecting the dots:

- While India has been active in the Arctic for over ten years, it has not fully made use of its Observer status, and it must give new energy to its activities in the region.

Comment.
The Amazon forest fire – Consequences

Context:
Forest fire in the Amazon gave an indication for the human community about the devastating effects of deforestation, land-use change and rising fossil fuels emissions.

Climate change and its impacts
- Many cities have seen high temperatures never before experienced
- Heat waves have accelerated
- Melting of glaciers (esp. in Greenland)
- Recent floods in Mumbai, Kerala and North Karnataka

Energy and transport are mainly responsible for the accumulation of greenhouse gases (GHGs) in the atmosphere. Fossil fuel emissions and changes in land use patterns – deforestation, industrial agricultural systems and desertification – are major drivers of climate change.
IPCC Report
Intergovernmental Panel on Climate Change (IPCC) has recently brought out a special report on Climate Change and Land. It covers desertification, land degradation, sustainable land management, food security and greenhouse gas fluxes in terrestrial ecosystems.

According to the Fifth Assessment Report (AR5) of Intergovernmental Panel on Climate Change (IPCC) –

• Cumulative carbon emissions from land-use change since 1750 amounted to almost 180 Gigatons (Gt), driven largely by the more than six-fold expansion of cropland.
• Fossil fuel use contributed 375 Gigatons (Gt) since 1750, that is more than 12 times that of the net cumulative emissions from terrestrial ecosystems.

However, the AR5 report also points out that –

• The net carbon emission of terrestrial ecosystem from deforestation and land-use pattern remains neutral since 1750.
• Even though the cumulative land-use change increased the levels of carbon emission; it was absorbed from the existing vegetation, thus maintaining the carbon emission level at minimal.
According to **Global Carbon Project** reports –

- Fossil fuel emits about 9.9 Gt (Gigatonne) of carbon annually to the environment compared to 1.5Gt from land-use change. Terrestrial ecosystem absorbs ~3.8 Gt of carbon annually, indicating carbon emission from fossil fuels remain in the atmosphere compared to other sources.

**About Global Carbon Project (GCP)**

- GCP is an organisation established in 2001, working on checking the quantity of global greenhouse gas emissions mainly carbon di oxide, methane and nitrous oxide and their causes.

**Concerns:**

From the literature in IPCC AR5, carbon emission from deforestation and logging was compensated to carbon absorption from the forest re-growth, thereby keeping the overall carbon emission at 0.11 Gt per year.

But the carbon emissions from fossil fuels are majorly leading to global warming and increases the summer temperature remarkably compared to deforestation and land-use change.

The emission effect from deforestation and land-use change can be reversed by planting more vegetation, carbon absorption from untouched forest areas and biomass, but the fossil fuel emission from coal, gas, oil cannot be reversed and even cannot be
compensated from the existing vegetation.

**Conclusion:**

The forest fire in Amazon is not a first time case, but the fact is that the forest fire is increasing year after year devastating larger ecosystem every year. Similar forest fires are seen in Africa (Zambia, Angola, Democratic republic of Congo), Siberia and in Canada majorly due to increase in the summer temperatures.

The Amazon forest is a conservator of millions of species of vegetation, animals, birds, ecosystem and biodiversity but preventing deforestation is a real challenge. Use of alternate source of energy in place of fossil fuels may minimize the effects of global warming and reduce carbon emission to the atmosphere.

The efforts from developed countries to minimize the use of fossil fuel has been less and according to United Nations Framework Convention on Climate Change (UNFCCC), they have achieved only 1.3% reduction in use of fossil fuels in 26 years from 1990. So if the countries join their hands to agree on Paris’s Agreement on climate change which aims to keep the global temperature to 2% at industrial levels and 1.5% at non industrial areas may help to conserve our terrestrial ecosystems and mitigate global warming drastically.
Strengthening Local Democracy

Background:
Democratic decentralisation is barely alive in India. Over 25 years after the 73rd and 74th constitutional amendments (they mandated the establishment of panchayats and municipalities as elected local governments) devolved a range of powers and responsibilities and made them accountable to the people for their implementation, very little and actual progress has been made in this direction. Local governments remain hamstrung and ineffective; mere agents to do the bidding of higher level governments.

Devolution as per the Constitution:
• It is not mere delegation.
• It implies that precisely defined governance functions are formally assigned by law to local governments, backed by adequate transfer of a basket of financial grants and tax handles, and they are given staff so that they have the necessary wherewithal to carry out their responsibilities.
• Yet, none of this has happened, by a long shot.
Key issues:
- The volume of money set local governments for them is inadequate to meet their basic requirements.
- Much of the money given is inflexible; even in the case of untied grants mandated by the Union and State Finance Commissions, their use is constrained through the imposition of several conditions. There is little investment in enabling and strengthening local governments to raise their own taxes and user charges.
- Local governments do not have the staff to perform even basic tasks.
- Furthermore, as most staff are hired by higher level departments and placed with local governments on deputation, they do not feel responsible to the latter; they function as part of a vertically integrated departmental system.
- If these structural problems were not bad enough, in violation of the constitutional mandate of five yearly elections to local governments, States have often postponed them.

Way forward:
- Gram sabhas and wards committees in urban areas have to be revitalised. Consultations with the grama sabha should be organised through smaller discussions where everybody can really participate. Even new systems of Short Message Services,
or social media groups could be used for facilitating discussions between members of a gramasabha.

- Local government organisational structures have to be strengthened. Panchayats are burdened with a huge amount of work that other departments thrust on them, without being compensated for the extra administrative costs. Local governments must be enabled to hold State departments accountable and to provide quality, corruption free service to them, through service-level agreements.

- We cannot have accountable Gram Panchayats, without local taxation. Local governments are happy to implement top-down programmes because they know that if they collect taxes, their voters will never forgive them for misusing their funds.

**Conclusion:**

India’s efforts in decentralisation represent one of the largest experiments in deepening democracy. We have given ourselves a reasonably robust democratic structure for local governance over the last two decades and more. It is for us to give life to this structure, through the practice of a robust democratic culture.

**Connecting the dots:**

- Democracy has not been enhanced in spite of about 32 lakh peoples’ representatives being elected to them every five years. Local governments remain hamstrung and ineffective.
Right to Internet access as a fundamental right

Context:
- In *Faheema Shirin v. State of Kerala*, the Kerala High Court declared the right to Internet access as a fundamental right forming a part of the right to privacy and the right to education under Article 21 of the Constitution.
- This judgment acknowledges the role of the right to access Internet in accessing other fundamental rights.

Digital literacy:
- Digital literacy refers to the wide range of skills, which are necessary to emerge successful and adapt to the digital world.
- Skill set which is essential for access and gaining information.

Factors leading to digital inequality:
- In recent times, several government and private sector services have become digital. Some of them are only available online.
- Social and economic backwardness is exacerbated due to information poverty, lack of infrastructure, and lack of digital literacy.
- In mid-2016, digital literacy in India was less than 10%.
- In the absence of Internet access and digital literacy enabling that access, there will...
be further exclusion of large parts of the population

**Importance of digital literacy:**

- We are moving to a global economy where knowledge of digital processes will transform the way in which people work, collaborate, consume information, and entertain themselves.
- Offering services online has cost and efficiency benefits for the government and also allows citizens to bypass lower-level government bureaucracy.
- Digital literacy allows people to access information and services, collaborate, and navigate socio-cultural networks.
- Recognising the right to internet access and digital literacy will also make it easier to demand accountability from the state, as well as encourage the legislature and the executive to take a more proactive role in furthering this right.

**Measures taken by govt:**

- The Bharat Net programme, aiming to have an optical fibre network in all gram panchayats, is to act as the infrastructural backbone for having Internet access all across the country.
- The Digital Saksharta Abhiyan (DISHA) or National Digital Literacy Mission (NDLM) Scheme has been formulated to impart IT training.
Criticism:
• Moving governance and service delivery online without the requisite progress in Internet access and digital literacy also does not make economic sense.
Ex: Common Service Centres, which operate in rural and remote locations, are physical facilities which help in delivering digital government services and informing communities about government initiatives. A large chunk of citizens cannot access these services since lack of resources.
• The Bharat Net project has consistently missed all its deadlines while the costs involved have doubled.
• The National Digital Literacy Mission has barely touched 1.67% of the population and has been struggling for funds.

Conclusion:
• Internet access and digital literacy are dependent on each other, and creation of digital infrastructure must go hand in hand with the creation of digital skills.
• It is important to recognise the right to Internet access and digital literacy to alleviate this situation, and allow citizen increased access to information, services, and the creation of better livelihood opportunities.
Hindi as a national language

Home Minister Amit Shah recently asserted that the nationwide adoption of Hindi is the only way India can be united. Why?

• It is important to have a language of the whole country which should become the identity of India globally. Hindi can unite the country since it is the most spoken language.
• There is a huge influence of English on the citizens of India.

History:
• The attempt to impose Hindi on the entire country by the Congress in 1965 had led to parts of the country literally burning, with instances of self-immolation in erstwhile Madras State.
• People of southern India saw this as an attempted cultural cleansing no less.

Southern people’s perspective:
• The people of southern India hold strongly to the idea that they are Dravidian language speakers.
• Hindi belongs to the group of Indo-European languages and is no less foreign in their
reckoning than English is to them.  

- Giving a reason that Hindi is spoken by the largest number is no more than crass majoritarianism.  
- Uttar Pradesh is perceived as an area of backwardness with mob lynching erupting on the watch of a complicit state.

Recent study:  

- Study shows ‘knowledge of English’ and ‘Internet access’ turned out to be the most significant. Gender, caste and knowledge of Hindi did not matter.

Crux:  

- The ruler Ashoka of the Maurya dynasty trying to unify the peoples of his far-flung kingdom through ideals not through linguistic nationalism.(Asoka’s edicts in different languages is the proof)  
- It is a fallacy to imagine that we need a common language to feel connected. Indians already feel connected due to a shared history of several millennia.

Constitutionality:  

- According to Article-343, Hindi (in Devanagari script) is the official language of the Union.  
- Under Article-351, it is the duty of the Union to encourage the spread of the Hindi
language so that it may serve as a medium of communication.

**Conclusion:**
For Hindi to be adopted by the people of southern India today they must hold a similar view of the society of their northern cousins. There may have been some of this during the national movement, as its pre-eminent leaders came from the north, there is little to commend the region to them today.
PSB Bank merger – an idea for better policy governance

Introduction:
On 30th August 2019, finance minister Mrs. Nirmala Sitaraman announced the merging of 10 public sector banks into 4 major banks. The following are the details of the bank mergers.

- Punjab National Bank + Oriental Bank of Commerce + United Bank of India
- Canara Bank + Syndicate Bank
- Union Bank + Andhra Bank + Corporation Bank
- Indian Bank + Allahabad Bank

These banks are merged based on the operating efficiencies, better usage of equity and their technological platforms. The bank merger aims at improving the financial health and increasing their lending capacity to support the economic growth.

There are two kinds of mergers – Merging larger banks together and merging smaller regional banks with their regional banks.

Merging of banks has been under discussion from past decade but now the decision
was taken and implemented to focus more on improving economic stability and growth of our country.

**Benefits of bank merging:**

- Although our Indian banks are economically small compared to the international banks, merging banks can create risk diversification and creates competitiveness among the banks.
- Combining weaker banks (based on their balance sheets) with the stronger ones helps to reduce the risk that weak ones are going through.
- Merging with the strong banks will help to transfer better management practices with the weak banks so that these banks run successfully.

Although the merging of the banks have positive impact on the economy, care must be taken that the weak banks does not drag the stronger ones. Also care has to be taken that the weaker banks are able to cope up with the acquiring management practices as they are already facing problem dealing with under performing loans.

But this can be overcome by hiring management experts to implement the merger which requires merging all kinds of organizational structure and technical systems to run the banks smoother.
Do you know?

- In India, private sector banks like ICICI, HDFC etc., run successfully compared to public sector banks.
- The fact being, the public sector banks are operating more in the favor of politicians and financially sound people.
- On the contrary, private sector banks choose their customers wisely and make different lending strategies to maximize their profit margins.
- Even the private sector banks are influenced by political and familial connections, they run successfully compared to the public sector banks.
- So in order to maximize the profits in public sector banks, they must get less distorted from political pressures and familial connections.

What needs to be done?

- Implementation of the bank merger should constantly work on fixing the problems of nonperforming loans in the weaker ones along with fixing their organizational lacuna in loan recovery at first step.
- Another problem that needs attention among the traditional banking is the lack of digitalization.
• Government and RBI must focus on bringing digital modification in financial implementation, savings and investment needs.
• The digital modification/regulation must be well designed and properly implemented which reduces any moral hazards at work space.

Conclusion:
Although the bank mergers have taken a huge attention from the media, policy makers and economists, continuous analysis has to be done after implementation. The issues for non-performing loans has to be addressed at the grass root level and work together to achieve overall economic growth.
Role of media in fake news dispersal

Context:
• Controlling fake news is a preoccupation of the technology platforms, the political class, the news media, and an increasing tribe of citizens concerned about democracy being hijacked.

The reason for the fake news dispersal:
• The institutional news media have lost their credibility due to complicit
• The rise of social media has led to the ubiquity and difficulty in controlling/eliminating fake news.
• Governments and political actors (anyone in the business of mobilizing public opinion) have always invested in fake news campaigns to build news of their choice.

Measures to combat fake news:
• Rebuttal (Controversy)
• Removal of the fake news item
• Educating the public
• Controlling the longer political problem.
**Do you know?**

- Rebuttal is a type of fact checking wherein the fake news is removed by pointing out errors like mismatch, malicious editing and misattribution.

**Measures outlined for combating fake news discourse:**

- Companies like Facebook and YouTube are pressurized to proactively remove fake news from their platforms and rework their algorithms to ensure that such content does not gain prominence.
- The newly introduced limit on forwarding message on WhatsApp is one more example of this discourse, where accountability to address fake news is dumped on to the technology platforms.
- Educating the end users to be more precise about the news by informing them of verification tools so that they can verify the accuracy of a news item before sharing it.
- Another proposal by the government, concerns tracking the ‘source’ of fake news, primarily to address the issue at its root. But this may cause serious issues concerning invasion of privacy and free speech.
Shortcomings of these approaches:

- It is possible to rebut news on one fake instance (example of children getting abducted) but the ‘fake news factory’ will keep leaking out similar stories to advance its chosen narrative. So, it is impossible to completely ‘remove’ fake news even after rebuttal, given the decentralised nature of dissemination.
- The increasing complexity of issues, in combination with the deluge of information has made it impossible for any individual to develop a well-researched stand on all the topics.
- When the piece of information (fake news or otherwise) stands for someone’s held beliefs, it is readily accepted and shared.
- People don’t care about finding the ‘truth’ behind news item and instead look for evidence to support their preferred narrative (confirmation bias).

Steps to address the debunking of fake news:

- Addressing the weaknesses that allow the fake news narrative to take root. While pushing the fake news, they have to witness the loss of credibility which is perceived as elitist and corrupt.
- We must mobilise public opinion around an alternate narrative that makes the fake
news item irrelevant.
• Instead of poking holes in an opponent’s story, it may be more effective to replace it with a different narrative built on facts, as most of the people cannot hold multiple stories in their head.

Conclusion:
• Even if the fake news is not an electoral agenda, it is in the service of the political. So, we should not lose sight by focusing disproportionately on individual fake news items instead of the larger narrative.
BIO-TECHNOLOGY IN INDIA

Context:
• India is among the first countries to set up a specialised agency for the development of research and human resources in the biotechnology sector.
• Modern biotechnological research is expensive.
• It requires a highly trained and skilled workforce and access to expensive instruments.

What is Biotechnology?
• Biotechnology is the broad area of biology involving living systems and organisms to develop or make products, or "any technological application that uses biological systems, living organisms
• it often overlaps with the (related) fields of molecular biology, bio-engineering, biomedical engineering, bio manufacturing, molecular engineering, etc
• biotechnology has expanded to include new and diverse sciences such as genomics, recombinant gene techniques, applied immunology, and development of pharmaceutical therapies and diagnostic tests
Did you know:
Genomics is an interdisciplinary field of biology focusing on the structure, function, evolution, mapping, and editing of genomes. A genome is an organism's complete set of DNA, including all of its genes.

Did you know:
Most of the high-quality research output has come from a handful of institutions with better scientific infrastructure. Why?
• due to a “publish or perish” culture that incentivises numbers over quality.
• Over the years, the focus of research has slowly shifted from fundamental to applied research and asking for quick returns.
• Compared to the developed economies (the United States), biotechnology research in India is mainly funded by the public exchequer.

Employment:
In India, unlike the IT sector no creation of jobs in biotechnology.
• low wages of scientists (compared to the developed economies)
• research often requires access to laboratories with high-end scientific infrastructure,
• the supply of expensive chemicals and reagents with minimum shipping time between the supplier and the user
• disciplined work culture and documentation practice due to regulatory and intellectual property filing requirement
• Biotechnology products and solutions often require ethical and regulatory clearance, making the process long, expensive and cumbersome.
• nature of the work in the biotechnology sector is specialised, hence most jobs are filled with experienced and skilled scientists leaving the demand for young and inexperienced ones low.

**Chinese example:**
• Unlike India, China has many more labs with the best of scientific infrastructure;
• Chinese students and scientists outnumber Indians nearly 5:1 in most American universities in the life sciences/biology-related disciplines.
• A booming economy and a higher science budget coupled with a flexible hiring system have made Chinese universities and research labs attract many overseas Chinese scientists.

**Boston and Silicon Valley in the U.S example:**
• The availability of funding, infrastructure and skilled workforce,
• the presence of top-notch research institutions and universities in the vicinity make these two places among the most attractive locations for biotech startup
Innovation, entrepreneurship, and technology creation:

- The government has been supporting biotech entrepreneurs. Initiatives through the Biotechnology Industry Research Assistance Council (BIRAC) of the Department of Biotechnology
- The government is very encouraging and promoting entrepreneurship, but the culture of institutions and scientists to be entrepreneurial will take time.

Biotechnology Industry Research Assistance Council (BIRAC)

- is a not-for-profit Enterprise, set up by Department of Biotechnology (DBT), Government of India
- Interface Agency to strengthen and empower the emerging Biotech enterprise to undertake strategic research and innovation, addressing nationally relevant product development needs.
- BIRAC’s aim is to play a transformative and catalytic role in building a US$ 100 billion Indian bioeconomy.

Way forward:

- The fruits of applied research will only come when we start investing in basic research without asking for quick returns.
• The government should encourage and incentivise the private sector to invest substantially in applied research
• Our government needs to make the process of hiring in our universities and national labs simpler and flexible, not necessarily provide more salary, to attract the bright overseas Indian scientists.
• academia-industry linkage will do the much-required communication and understanding of the problems at both ends.

What has to be done:
• Flexible policy in the institutes to allow scientists incubate startup companies in their labs while retaining their positions.
• The government should let scientists from research institutions and universities take unpaid leave to join the industry for a fixed period.
• The government should relax rules to appoint researchers from industry in faculty positions with the freedom to teach, participate, and take students.
• A sustained effort in encouraging and promoting science-driven innovation in our academic institutions
• A robust academia-industry collaboration, biotechnology-led innovation
Conclusion:

• One needs to go beyond the traditional indicators such as the numbers of institutions formed, students and scientists trained, and the number of patents filed to judge the sector’s performance, and its impact on the economy and society as a whole.
• unlike the IT sector, a sustained innovation and product development model in the biotechnology field without enriching the academic institutions is not possible.