

16th round of military talks between India and China (GS Paper 2, International Relation)

Why in news?

- The 16th round of military talks between India and China held recently, to discuss **disengagement at the remaining friction points along the Line of Actual Control (LAC)** in eastern Ladakh **particularly Patrolling Point 15 (PP15)**, the Hot Springs area, hit a stalemate once again.
- India and China agreed to maintain dialogue to arrive at a mutually acceptable resolution at the earliest.



Key Highlights:

- Both sides, **reaffirmed that the resolution of the pending issues** would help in the restoration of peace and tranquility along the Line of Actual Control (LAC) in the region and enable progress in bilateral relations.
- At the talks, **India strongly pressed for early disengagement of troops from all the remaining friction points** in the region and **demanding the restoration of the status quo ante as of April 2020**, before the start of the military standoff.
- The joint statement said the two sides agreed to maintain security and stability on the ground in eastern Ladakh and agreed to stay in "close contact" and maintain dialogue through military and diplomatic channels to work out a mutually acceptable resolution to the remaining issues 'at the earliest'.

15th & 16th 15th round of military dialogue:

- The 15th round of military dialogue took place on March 11 and it too failed to yield any significant outcome.
- Indian delegation also sought resolution of pending issues in Depsang Bulge and Demchok. India has been consistently maintaining that peace and tranquillity along the LAC were key for the overall development of the bilateral ties.
- The 16th round of military talks was held 10 days after External Affairs Minister S Jaishankar met his Chinese counterpart Wang Yi in Bali.
- At the one-hour meeting on the sidelines of a conclave of foreign ministers of the G20 nations, he Jaishankar conveyed to Wang the need for early resolution of all the outstanding issues in Eastern Ladakh.

Background:

- The eastern Ladakh border standoff erupted on May 5, 2020, following a violent clash in the Pangong lake areas.

- Both sides gradually enhanced their deployment by rushing in tens of thousands of soldiers as well as heavy weaponry.
- As a result of a series of military and diplomatic talks, the two sides completed the disengagement process in 2021 on the north and south banks of the Pangong Lake and in the Gogra area.
- Each side currently has around 50,000 to 60,000 troops along the Line of Actual Control (LAC) in the sensitive sector.

Marburg virus (GS Paper 3, Science and Tech)

Why in news?

- Recently, two cases of the deadly Marburg virus have been identified in Ghana, the first time the Ebola-like disease has been found in the West African nation.
- No treatment or vaccine exists for Marburg, which is almost as deadly as Ebola.
- The WHO said Guinea had confirmed a single case in an outbreak declared over in September 2021.



Symptoms of Marburg:

- According to the *Centre for Disease Control and Prevention*, once a patient is affected by the virus after an incubation period of two to 21 days, the person might suffer with nausea, chest pain, a sore throat, abdominal pain and diarrhoea.
- Symptoms can become more severe over time and can cause jaundice, inflammation of the pancreas, weight loss, delirium, shock, liver failure, haemorrhaging and even multi organ dysfunction.

Transmission:

- The virus **can be transmitted to humans as a result of long exposures in mines or caves** that are inhabited by **Rousettus bat colonies**, which are considered to be the natural hosts of Marburg.
- Detection of the Marburg virus can be difficult as many of the signs and symptoms of the virus are similar to other infectious diseases such as malaria or typhoid.
- The average case fatality rate of Marburg is around 88 per cent.

Previous outbreaks:

- Marburg virus was **first detected in 1967**, when the outbreak occurred in Marburg and Frankfurt in Germany and in Belgrade, Serbia.
- Previous outbreaks and sporadic cases of Marburg in Africa have been reported in Angola, the Democratic Republic of the Congo, Kenya, South Africa and Uganda, according to the World Health Organization.

How can the virus be treated?

- While there are no vaccines or antiviral treatments available for Marburg virus, monoclonal antibodies that are used to treat Ebola virus can also be tested for Marburg.
- Apart from this, rehydration with oral or intravenous fluids as well as treatment of specific symptoms might increase the chances of survival, according to *Mayo Clinic*.

Scientists on the curious case of Himalayan glaciers resisting global warming

(GS Paper 3, Environment)

Why in news?

- Researchers have taken a significant leap toward solving the mystery of **why few pockets of glaciers in the Karakoram Range are resisting glacial melt** due to global warming, defying the trend of glaciers losing mass across the globe, with the Himalayas being no exception.
- They have attributed this phenomenon called '**Karakoram Anomaly**' to recent revival of western disturbances (WDs).



Significance of Himalayan glaciers:

- **Himalayan glaciers** are of paramount importance in the Indian context, especially for the millions of dwellers living downstream who rely on these perennial rivers for their day-to-day water needs.
- They are **fast receding under the impacts of global warming**, and stifling stress on the water resources is inevitable in the coming decades.

Glaciers of Karakoram Range:

- In contrast, the **glaciers of central Karakoram have surprisingly remained unchanged** or slightly increased in the last few decades. This phenomenon has been puzzling glaciologists and providing climate deniers with a very rare straw to clutch at.
- Researchers found this peculiar because the behaviour seems to be confined to a very small region, with only Kunlun ranges being another example of showing similar trends in the whole of Himalaya.
- A recent study has postulated a new theory to explain this defiance of the impacts of global warming in certain pockets as opposed to other glaciers of the region.

Revival of western disturbance:

- It claimed that the **recent revival of western disturbance has been instrumental in triggering and sustaining the Karakoram Anomaly** since the advent of the 21st century.
- It is for the first time that a study brought forth the importance that enhanced WD-precipitation input during the accumulation period plays in modulating regional climatic anomaly.
- WDs are the **primary feeder of snowfall for the region during winters**. The study suggests they constitute about around 65% of the total seasonal snowfall volume and about 53% of the total seasonal precipitation, easily making them the most important source of moisture.
- The precipitation intensity of WDs impacting Karakoram has increased by around 10% in last two decades, which only enhances their role in sustaining the regional anomaly.

Role of snowfall:

- The group applied a tracking algorithm to three separate global reanalysis datasets to track and compile a comprehensive catalog of WDs impinging the Karakoram-Himalayan region in the last four decades.
- The analysis for the tracks passing through the Karakoram reveals the **role of snowfall** as a crucial factor in mass balance estimations.
- Calculations by the scientists reveal that contribution of WDs in terms of snowfall volume over the core glacier regions of Karakoram have increased by about 27% in recent decades, while precipitation received from non-WD sources have significantly decreased by around 17%, further strengthening their claims.

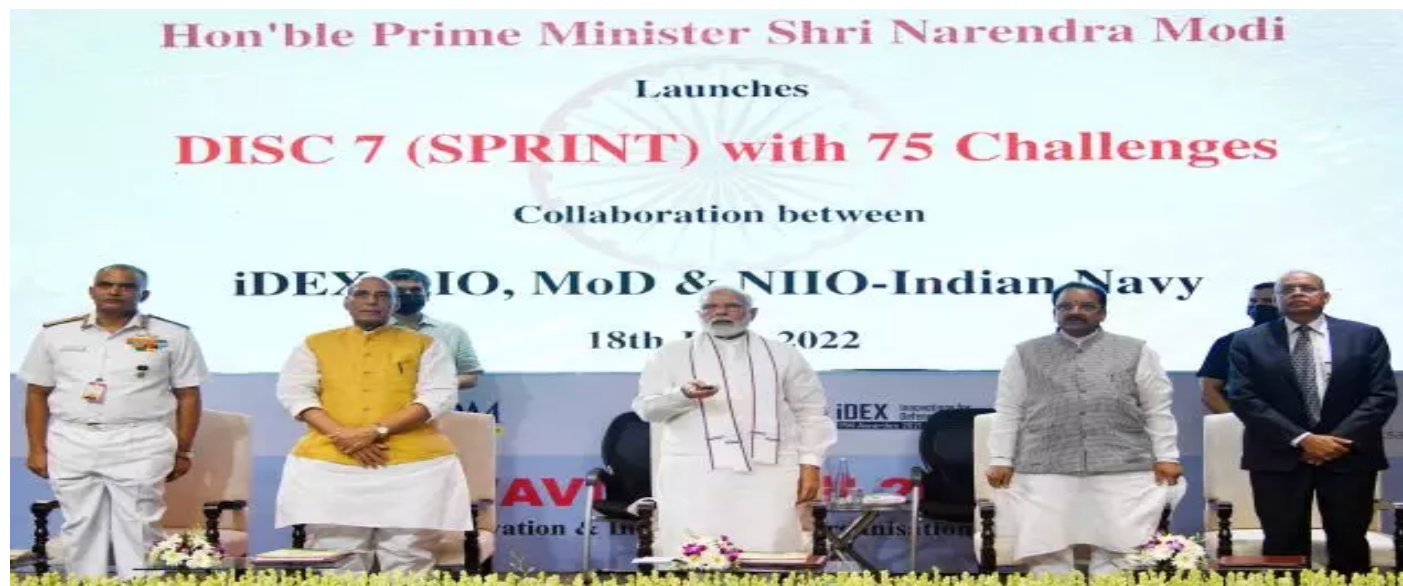
Way Forward:

- While previous studies have highlighted the role of temperature in establishing and sustaining the anomaly over the years, it is for the first time that the impact of precipitation in feeding the anomaly has been highlighted.
- The researchers have also quantified the impact of precipitation in feeding the anomaly.
- The anomaly provides a very bleak but nonetheless a ray of hope towards delaying the inevitable. After recognising the importance of WDs in controlling the anomaly, their future behaviour might very well decide the fate of Himalayan glaciers as well.

PM Modi unveils ‘SPRINT challenges’ for Indian Navy (GS Paper 3, Defence)

Why in news?

- Recently, Prime Minister unveiled ‘SPRINT Challenges’, aimed at giving a boost to the usage of indigenous technology in Indian Navy, during **Naval Innovation and Indigenisation Organisation (NIO) seminar ‘Swavlamban’** in New Delhi.



What is SPRINT?

- In a bid to achieve 'Aatmanirbharta' in defence and as part of 'Azadi ka Amrit Mahotsav', **NIIO, in conjunction with the Defence Innovation Organisation (DIO)**, aims to induct at least 75 new indigenous technologies/products into the Indian Navy.
- This collaborative project is named SPRINT — **Supporting Pole-Vaulting in R&D** through iDEX (Innovations for Defence Excellence), NIIO and TDAC (Technology Development Acceleration Cell).

Background:

- In line with the 'Aatmanirbhar Bharat' campaign, the Indian Navy spent over 64% of its capital budget in domestic procurement in the last financial year and it is expected to increase to 70% in the current financial year.
- With active participation of the private sector, MSMEs and start-ups, innovation in the defence sector is being promoted through several projects under the iDEX initiative and 'Technology Development Fund'.