



C.A Dated On 16-04-2019

GS-1

Intense Thunderstorm activity over Northwest India

Analysis of Weather Conditions

Numerical model products, satellite information, and analysis of weather observations are indicating that a strong western disturbance is approaching and would adversely affect weather over Northwest India including Delhi-NCR during **15-17 April with peak activity on 16 April.**

What does it Mean?

- The western disturbance on approaching Northwest India will draw fresh moisture from Arabian Sea as well as from Bay of Bengal, with both the streams confluence over central India and neighbourhood.
- The thermodynamic atmospheric conditions would become favorable for development of instability in the atmosphere and occurrence of widespread Thunderstorm activity over the region.

What is Western Disturbance?

- A *Western Disturbance* is an [extratropical storm](#) originating in the [Mediterranean region](#) that brings sudden winter rain to the northwestern parts of the Indian subcontinent.
- It is a non-[monsoonal](#) precipitation pattern driven by the [westerlies](#).
- The moisture in these storms usually originates over the [Mediterranean Sea](#) and the [Atlantic Ocean](#).
- Extratropical storms are a global phenomena with moisture usually carried in the upper atmosphere, unlike their [tropical counterparts](#) where the moisture is carried in the lower atmosphere.
- In the case of the Indian subcontinent, moisture is sometimes shed as rain when the storm system encounters the [Himalayas](#).
- Western Disturbances are important for the development of the [Rabi crop](#), which includes the locally important staple [wheat](#).

GS-2



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Government E Marketplace (GeM)

Government e Marketplace (GeM), the national public procurement portal offering end to end solution for all procurement needs of Central and State govt. departments and PSUs has closed the FY 2018-19 on a high note.

Success Achieved:

- The year witnessed a four-fold increase in total value of transactions on the portal and doubling of number of sellers in the marketplace.
- There has also been an overall growth in other dimensions like number of categories, products and buyers.
- Despite such phenomenal growth in transactions, average rejection rate of supplies remained below one percent, which is proof of high quality of products/services offered on the portal.
- During the year, GeM was awarded Digital India Platinum Award for 'Exemplary Online Service' by the Ministry of Electronics & IT (MeitY).
- It was also nominated for the prestigious UN-ITU WSIS.
- Another programme like SWAYATT- an initiative to promote Start-ups, Women and Youth Advantage Through e-Transactions, was launched in February 2019.

Impact:

- Since its inception on 9th August 2016, GeM has transformed public procurement in the country by leveraging technology and making procurement contactless, paperless, and cashless.
- GeM facilitates procurement at the right price, right quality and right quantity in a transparent and efficient manner.
- The platform reduces manual process inefficiencies and human interventions in procurement and enables increased coverage, access, and efficiency of faceless standardised public procurement.

MoU between India and Bolivia on Cooperation in the Field of Traditional Systems of Medicine and Homoeopathy



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The Union Cabinet chaired by Prime Minister Narendra Modi has given ex-post facto approval to the Memorandum of Understanding (MoU) between India and Bolivia in the Field of Traditional Systems of Medicine and Homoeopathy. The MoU was signed in Bolivia in March, 2019.

Impact:

- The MoU will provide a framework for cooperation, and will be mutually beneficial between the two countries for promotion of traditional systems of medicine and homoeopathy. I
- It will lead to promotion and propagation of Traditional Systems of Medicine and Homoeopathy in Bolivia, and will boost the importance of AYUSH (Ayurveda, Yoga, Unani, Siddha and Homoeopathy) systems of Medicine in Bolivia.
- The MoU will further facilitate exchange of experts for training for the practitioners and Scientists undertaking collaborative research, which will lead to new innovations in drug development and practice in Traditional Systems of Medicine.

GS-3

Ceasefire with NSCN/NK, NSCN/R & NSCN/K-Khango extended for a year

A Ceasefire is in operation between Government of India and National Socialist Council of Nagaland (Neopao Konyak/Kitovi) (NSCN/NK) and National Socialist Council of Nagaland/Reformation (NSCN/R).

It was decided to extend the Suspension of Operation with NSCN/NK & NSCN/R for a further period of one year with effect from 28th April, 2019 i.e., till 27th April, 2020.

National Socialist Council of Nagaland/K-Khango has also re-entered into a fresh Ceasefire Agreement with the Government of India with effect from 15th April, 2019 for a period of one year.

About NSCN:



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- The **National Socialist Council of Nagaland** ([abbreviated NSCN](#)) is a Greater Naga Revolutionary, Christian [Naga nationalist insurgent group](#) operating mainly in [Northeast India](#), with minor activities in northwest [Myanmar](#) (Burma) until 2012.
- The main goal of the organisation is to establish a sovereign Naga state, "Nagalim", which would consist of all the areas inhabited by the [Naga people](#) in Northeast India and Northwest [Myanmar](#).
- According to the NSCN manifesto, their slogan is "Nagaland for Christ".
- The group is accused of kidnapping, assassination, forced conversion and committing terrorist activities.
- Two major factions of NSCN include NSCN (K), led by Khaplang; and NSCN (I-M), led by Isak Chishi Swu and Thuingaleng Muviah.
- On November 6, 2015 in response to an attack on an army convoy in Manipur [India](#) designated The NSCN (K) a terrorist organization under the [Unlawful Activities \(Prevention\) Act](#).
- India's [Ministry of Home Affairs](#) labels NSCN a major insurgent group.

Nirbhay' Sub-Sonic Cruise Missile

Why in News?

Defence Research & Development Organisation (DRDO) today successfully test fired indigenously designed & developed Long Range Sub-Sonic Cruise Missile "Nirbhay" from the Integrated Test Range (ITR), Chandipur Odisha.

About the Test:

- It is the sixth development flight trial with objective to prove the repeatability of boost phase, cruise phase using way point navigation at very low altitudes.
- The missile took off vertically turning horizontally into desired direction, booster separated, wing deployed, engine started, cruised all the intended waypoints.
- The missile demonstrated its sea-skimming capability to cruise at very low altitudes.



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- The entire flight was fully tracked by a chain of Electro Optical Tracking Systems, Radars and Ground Telemetry Systems deployed all along the sea coast.
- All the mission objectives were met.

About the Missile:

THE DESI TOMAHAWK

NIRBHAY MISSILE:

- > Indigenous cruise missile
- > 1,000-km strike range
- > Carries nuclear warhead
- > Can loiter & cruise at Mach 0.7 (sub-sonic) at altitudes as low as 100-metre
- > 1st test in Mar 2013 failed
- > 2nd test in Oct 2014 was a partial success
- > 3rd & 4th tests in Oct 2015 & Dec 2016 also flopped

CRUISE VS BALLISTIC:

- > Ballistic missiles follow parabolic path, leave & re-enter atmosphere to hit target
- > Ballistic missiles have longer ranges & predetermined targets
- > Cruise missiles fly at low-altitudes, hugging terrain to evade radars
- > Cruise missiles loiter before striking targets

BRAHMOS MISSILE:

- > Cruise missile jointly produced by India & Russia
- > Only 290-km range inducted. Extended range missile (450-km) undergoing trials
- > Carries conventional (not nuclear) warhead
- > Supersonic, flies at Mach 2.8

INDIA'S BALLISTIC MISSILES:

- > Agni-I (750-km), Agni-II (2,000-km) & Agni-III (3,000-km) inducted
- > 2 years to induct Agni-IV (4,000-km) & Agni-V (5,000-km)
- > Prithvi-II & Dhanush (150-350-km) inducted
- > Submarine-launched ballistic missiles K-15 (750-km) & K-4 (over 3,000-km) being tested

Geosynchronous Satellite Launch Vehicle (GSLV)



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Why in News?

The Union Cabinet, chaired by the Prime Minister Shri Narendra Modi, has approved ongoing GSLV continuation programme Phase-4 consisting of five GSLV flights during the period 2021-2024.

The GSLV Programme - Phase 4 will enable the launch of 2 tonne class of satellites for Geo-imaging, Navigation, Data Relay Communication and Space Sciences.

Financial implications:

The total fund requirement is Rs. 2729.13 Crores and includes the cost of five GSLV vehicles, essential facility augmentation, Programme Management, and Launch Campaign along with the additional funds required for meeting the scope of the ongoing GSLV Continuation Programme.

Benefits:

- The GSLV Continuation Programme - Phase 4 will meet the launch requirement of satellites for providing critical Satellite Navigation Services, Data Relay Communication for supporting the Indian Human spaceflight programme and the next interplanetary mission to Mars.
- This will also ensure the continuity of production in Indian industry.

Implementation Strategy and targets:

The GSLV Continuation Programme - Phase 4 will meet the demand for the launch of satellites at a frequency up to two launches per year, with maximal participation by the Indian industry. All the operational flights would be completed during the period 2021-24.

Major impact:

- The operationalization of GSLV has made the country self-reliant in the launching capability of 2 tonne class of satellites for communication & meteorological satellites.
- The GSLV Continuation Programme will sustain & strengthen the capability and self-reliance in the launching of similar satellites for national



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requirements including next generation navigation satellites, data relay communication satellites and interplanetary missions.

Background:

- GSLV has enabled independent access to space for 2 tonne class of satellites to Geosynchronous Transfer Orbit (GTO).
- One of the very significant outcomes of the GSLV Continuation Programme is the mastering of the highly complex cryogenic propulsion technology, which is an essential technological capability to launch communication satellites to GTO.
- This has also paved the way for the development of a high thrust Cryogenic engine & stage for the next generation launch vehicle i.e. GSLV Mk-III.

GSLV Continuation Programme was initially sanctioned in 2003, and two phases have been completed and the third phase is in progress and expected to be completed by Q4 of 2020-21.