

DAILY PT POINTERS

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The Hindu : _GS 3/Environment–Page-9

Future investments in India's EV space

Why is the government considering extending the EV policy? How does the revised policy align with India's goals of enhancing local manufacturing and technology adoption in the EV industry? In what ways can the policy's focus on localisation and production volume increase competition and lower costs?

EXPLAINER

Saptarnob Ghosh

The story so far:

According to media reports, the government is looking to expand the scope of its electric vehicle (EV) policy, announced in March, to include a retrospective effect. This means that the policy, that endorses to prompt global players to localise production and invest in the domestic ecosystem, will now extend benefits to entities who have already made their investments. Earlier, entities were eligible for incentives only if they set up local facilities within three years of receiving approval. The revised policy is expected to be formally announced in August, the publications learnt from people familiar with the development.

What was the March policy's focus on investment and localisation about?

The policy announced in March aimed to provide Indian consumers with access to the latest technology and strengthen the EV ecosystem by encouraging healthy competition among EV players by attaining higher volumes of production, economies of scale and lower cost of production. All in all, better the electric vehicle economics for Indian consumers, and in a commercially viable manner for the ecosystem. The policy also mandated that half of the value addition in the overall manufacturing be done domestically within five years. To maintain commercial viability and retain a foothold in the Indian market, the import duty on EVs as completely built units (CBUs) with a minimum cost, insurance, and freight (CIF) value of \$15,000 was reduced from 70%-100% to 15%.

The policy document held India, being the third-largest automotive market in the world, could potentially "lead the global transition" from internal combustion



Towards change: A person uses an electric vehicle charging station, in Hyderabad. [SAGARA GOWD](#)

engine (ICE) to decarbonised electric counterparts. Overall, the policy was potentially a recognition that import substitution for EVs would require a layered and longer-sustained approach. To this effect, for a commercially viable transition, it further provided mechanisms for manufacturers to address the imperative affordability paradigm of Indian consumers.

Why does the ecosystem need investment and intervention?

A Niti Aayog report in 2022 argued that purchasing a vehicle is a "major investment decision" for most Indian consumers. Thus, it was essential to ensure viable economics for owning, as well as maintaining and running the same - the total cost of ownership.

The report suggested that a sharper decline in costs would prepose the EV adoption timeline. It is essential to note that the report points to India's structural unit cost disadvantages in the production of select cell components such as CAM NMC (8-10%) and electrolyte (2-3%). Furthermore, as per the report, certain cell components such as separators, copper foil and anode active material

(AAM) require sizeable capital investment - about \$200-500 million for a 20-30 GWh plant. The commission thus recommended it was imperative to offset the dynamics and "create an enabling eco-system to attract large-scale capex investment vis-à-vis other geographies".

The other essentiality for a comprehensive ecosystem stems from the observed experience of after-sales service. Bain & Company's India EV Report (2023), observing the two-wheeler EV segment, had pointed to after-sales service being a "big pain point" for EV customers. It also cast apprehensions about the scalability of business models that had OEMs partnering with standalone breakdown service providers (such as Amperex with ReadyAssist).

The report also held that India would require "significant investor support" to realise the \$100 billion-plus EV opportunity.

"As the landscape evolves, investors need to evaluate potential assets based on five criteria, namely, sustainable competitive advantages, go-to-market and distribution capabilities, customer feedback and brand perception, talent and culture as well as manufacturing and

supply chain strategy," it held.

Does all of it address the paradigm?

The EV policy announced in March shares similar priorities with those in the U.S., China and Europe, where incentives have been endowed on a case-by-case basis to different companies for setting up capacity for EV value chain manufacturing. They entail land and infrastructure, capital subsidies, financing support, fiscal incentives and subsidised utilities. However, unrelatedly, the International Energy Agency (IEA)'s Global EV Outlook for 2024 pointed out that electric cars remain 10% to 50% more expensive than combustion engine equivalents in Europe and the U.S., depending on the country and car segment.

Notably, Europe and the U.S. meet 20% and 30% of their EV battery demands through imports, according to the report. This also forms a case for the necessity for integrated production lines.

Dinesh Ahrol, a retired professor at the Institute for Studies in Industrial Development and a long-time observer of industry and trade told *The Hindu*, that in a broader context, foreign investments have not always been known to deliver. He held that such policies should be able to dictate the type of production that must take place. It must not be restricted to do-risking and de-leveraging, he said.

"If FDI is to reap its potential fully, the focus must be on ensuring that it is towards building a core country, such that the critical components are made here, there is the transfer of technology and local manufacturing is built here," states Prof Ahrol, adding, "If FDI does not enable one to be a core country, you will not be to progress towards an enabling capacity to establish yourself as a core player. Instead, you shall stand inserted as a peripheral player in the larger supply manufacturing chain." according to Mr. Ahrol, the way forward is to strengthen the domestic players in the creation of capabilities for critical components and make the foreign automakers use the domestic suppliers' networks.

THE GIST

The Indian government plans to expand its electric vehicle (EV) policy announced in March to include retrospective benefits, incentivising both current and future investments in the domestic EV ecosystem.

Earlier, incentives were tied to setting up local facilities within three years of approval; the revised policy will extend benefits to entities that have already invested in local EV production.

The policy aims to encourage localisation of EV production, boost technology adoption, and enhance competitiveness in the Indian EV market.

The move is expected to stimulate investment in manufacturing capacity, reduce costs, and accelerate the adoption of electric vehicles in India.

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- The policy document held India, being the third-largest automotive market in the world, could potentially "lead the global transition" from internal combustion engine (ICE) to decarbonised electric counterparts. Overall, the policy was potentially a recognition that import substitution for EVs would require a layered and longer-sustained approach.

The Hindu :GS2-IR(Page -10)

Why are dengue cases on the rise worldwide?

Are urbanisation and climate change fuelling dengue spread in the world?

Serena Josephine M.

The story so far:

Dengue cases have surged in India, with Karnataka, Kerala, and Tamil Nadu seeing significant increases. According to data published by the National Centre for Vector Borne Diseases Control, as of April 30, India recorded 19,447 cases and 16 deaths, with Kerala and Tamil Nadu leading in numbers. Karnataka, initially reporting 2,503 cases, has now recorded 7,840 cases and seven deaths as of July 10, with 293 new cases reported on that day alone.

What is the global situation of dengue?

According to the World Health Organization (WHO), as of April 30, over 7.6 million cases of dengue were reported in 2024. This included 3.4 million confirmed cases, over 16,000 severe cases and over 3,000 deaths. In an update on the global scenario on May 30, it said that 90 countries have known active dengue

transmission, adding that "not all of which have been captured in formal reporting".

The WHO noted that at least five countries, including India, were grappling with the onset of monsoon season, which created suitable conditions for the breeding and survival of Aedes mosquito. Urbanisation and population movements have also played a pivotal role in the increasing burden in the region.

Dengue is endemic in more than 100 countries in the WHO regions of Africa, the Americas, the Eastern Mediterranean, South-East Asia and Western Pacific. The Americas, South-East Asia and Western Pacific regions were the most seriously affected, with Asia accounting for around 70% of the global disease burden. However, it also noted that dengue is spreading to new areas in Europe, the Eastern Mediterranean and South America.

How does dengue spread and how is it treated?

Dengue virus is transmitted to humans

through the bite of infected mosquitoes, with the primary vector that transmits the disease being Aedes aegypti. While cases are mostly asymptomatic or mild, some may develop severe dengue that could include shock, severe bleeding or organ impairment. According to the National Guidelines for Clinical Management of Dengue Fever, dengue presents as an acute febrile illness lasting two to seven days, characterised by symptoms such as headache, retro-orbital pain, myalgia, arthralgia, rash, and hemorrhagic manifestations. In those without any warning signs or complications, dengue is managed through symptomatic and supportive treatment.

What are the emerging patterns in dengue?

Researchers and public health experts have been closely monitoring the emerging patterns in dengue.

According to the WHO, factors contributing to the increasing risk of dengue epidemics include the changing distribution of the Aedes aegypti vector,

urbanisation, and human activities that create conducive environments for vector-host interaction, and climate change-induced shifts in weather patterns.

In the article 'Prevention and Control Strategies to Counter the Dengue Cyclical Trend in Tamil Nadu', published in the Tamil Nadu Journal of Public Health and Medical Research, public health officials said that the first epidemic of clinical dengue-like illness was recorded in erstwhile Madras in 1780. Dengue virus was isolated in India during 1945 for the first time. The first evidence of the occurrence of dengue fever in the country was reported in 1956 from Vellore district in the State, they said.

They said the infection has spread to all geographic regions due to rapid increase in urbanisation, expanding travel patterns and climatic changes.

Tamil Nadu, they said, has witnessed outbreaks of dengue infection once every five years in the past decade with the last outbreak occurring in 2017.

The State's Director of Public Health and Preventive Medicine T. S. Selvavinayagam pointed out seasonal variation every five years, probably due to the building up of susceptible populations. "We are seeing cases throughout the year. There are more cases in a short time if control measures are not taken on time. As for Tamil Nadu, we expect cases to rise in the coming months. Surveillance and immediate response are critical. Along with this, community empowerment and education is needed," he said.

THE GIST

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The Hindu-Economy (GSIII)-Page 13

Centre begins efforts to implement Labour Codes

Mandaviya starts meeting representatives of trade unions seeking their cooperation; passed by both Houses, the Codes are not yet operational following the objections raised by the unions

A.M. Jigeeesh
NEW DELHI

Almost a month after the swearing-in of a Narendra Modi government for the third term, the Union Labour Ministry has started efforts to implement the four Labour Codes, which were passed in Parliament in its second term in 2019 and 2020.

Union Labour Minister Mansukh Mandaviya and Union Labour Secretary Sumita Dawra have started meeting representatives of various trade unions seeking their cooperation to implement the controversial legislation.

Though passed in both Houses, the Codes are not yet operational owing to objections from trade unions. The Centre has been maintaining that some States are yet to frame the Rules for the Codes. Almost all the States have framed the Rules, and the Centre had said it is helping those States which could not draft the Rules to complete the process.



Strong opposition: Leaders of trade unions taking out a rally in Visakhapatnam opposing the Labour Codes. IFF PHOTO

The Central trade unions (CTUs) had opposed the implementation of the Codes citing that they will curtail trade union rights and social security measures for workers. Recently, the Citigroup had said in its employment analysis report on India that implementing the four Labour Codes could improve the "ease of doing business" scenario in the country.

Mr. Mandaviya met the representatives of Sangh Parivar-backed trade union Bharatiya Mazdoor Sangh (BMS) on Tuesday

week, while Ms. Dawra met a delegation of the Self-Employed Women's Association (SEWA) on Wednesday. The leaders of both the trade unions told *The Hindu* that the Minister and the Secretary were keen to implement the four Labour Codes and sought their help.

BMS general secretary Ravindra Himte said in a release that it had demanded early implementation of the Code on Wages and the Code on Social Security. He, however, said the Industrial Relations Code

and Occupational Safety and Health Code contain many anti-worker provisions which need to be changed.

Manali Shah, national secretary of SEWA, said the issue came up in the meeting and the Centre is keen to implement it. She, however, said SEWA is opposed to the four codes and the purpose of visit was mainly to raise the lack of social security measures for unorganised and migrant workers.

"The current social security legislation fails to adequately safeguard their rights as State policies and laws concerning social security offer no specific provisions for migrant workers. Both migrant workers crossing State borders and workers employed outside India face similar deprivation of protection under social security laws and schemes," a memorandum by SEWA said. Ten Central unions, including SEWA, had written to Mr. Mandaviya urging him to meet the trade unions on the issues of implementation of the Codes.

- The Government has formulated four Labour Codes, namely, the Code on Wages, 2019, the Industrial Relations Code, 2020, the Code on Social Security, 2020 and the Occupational Safety, Health and Working Conditions Code, 2020

Key Provisions

A statutory right for minimum wages and timely payment of wages has been made available to all workers to support sustainable growth and inclusive development.

To avoid multiple interpretations and litigations, uniform definition of 'wages' across all the four Labour Codes has been provided that is simple, coherent and easy to enforce.

Provision for annual health check-up and medical facilities has also been made which enhances labour productivity and increases life expectancy.

The gig worker and the platform worker have been defined for the purpose of formulating schemes to provide social security benefits.

The Hindu –health (GSII)-Page 22

Zika virus: the need to improve surveillance and vector control

Zubeda Hamid

The Zika virus is making the news once again. At least 15 cases, including eight pregnant women, of Zika have been discovered so far in Pune, Maharashtra. In Karnataka, a 74-year-old who had Zika has died. State Health Department officials say the death was caused by other factors. Another suspected case in Karnataka is being investigated as well.

The Pune Municipal Corporation has said it has stepped up surveillance; the Karnataka Health Department has released guidelines on the virus for the public, and both States have urged members of the public to ensure there are no mosquito-breeding sites at their homes. Meanwhile, the Union Health Ministry has issued an advisory to States to be vigilant; screen pregnant women, and strengthen entomological surveillance and intensify vector-control activities.

Medical Research (ICMR) has asked States not only to increase testing for Zika but also to test patients with chikungunya and dengue-like symptoms who test negative for these infections for Zika, as per a news report.

As the monsoon continues over large parts of the country, creating ideal breeding grounds for mosquitoes, and with cases of dengue spiking as well, State administrations and members of the public need to step up mosquito-control measures to prevent transmission of diseases.

Here's a quick FAQ on Zika:

What is Zika virus?

As per the World Health Organization (WHO), Zika virus is a mosquito-borne virus first identified in Uganda in 1947 in a Rhesus macaque monkey, followed by evidence of infection and disease in humans in other African countries in the 1950s. Zika virus occurs through the bite of infected Aedes mosquitoes,



Mosquitoes carry dengue, yellow fever, chikungunya and Zika. AP

mainly *Aedes aegypti*, which also transmits dengue and chikungunya. The Aedes mosquitoes usually bite during the day. Sexual transmission, transmission from mother to foetus and transfusions of blood and blood products are other routes of transmission.

How it manifests?

Most people infected with the Zika virus do not develop symptoms, the WHO says. Among those who do, they typically start 3-14 days after infection and are generally mild, including rash, fever, conjunctivitis, muscle and joint pain, and headache, which usually

diagnostic test for Zika. This limitation, the report said, hinders the country's ability to diagnose Zika. At present, samples are generally sent to a few select labs, including the National Institute of Virology, for confirmation. The NIV, a media report indicates, is flooded with samples, leading to delays in the issuing of reports.

What are the ill effects?

Zika virus infection during pregnancy, the WHO says, can cause infants to be born with microcephaly and other congenital malformations and can also cause preterm births and miscarriage. Microcephaly is a condition in which an infant's head is smaller than what is typical for their age and can be caused by the brain not developing properly. An estimated 5-15% of infants born to women infected with Zika virus during pregnancy have evidence of Zika-related complications, as per the WHO. Zika virus infection is also associated with Guillain-Barré

syndrome, neuropathy, and myelitis in adults and children. Guillain-Barré syndrome is a rare condition that causes a person's immune system attacks the peripheral nerves.

Is there a vaccine?

No vaccine is as yet available for the prevention or treatment of Zika virus infection, the WHO says. The development of a Zika vaccine remains an active area of research.

A few studies have shown promising results. In India for instance, several companies are attempting to make a vaccine. In a study published in 2017, Bharat Biotech's "killed Zika virus vaccine" which uses an African strain showed 100% efficacy against mortality and disease in animal studies. Indian Immunologicals Limited, a wholly-owned subsidiary of the National Dairy Development Board said earlier this year that it was also working on developing a vaccine.

(zubeda.h@thehindu.co.in)

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The Hindu –Miscellaneous

Indian ship crew win 'exceptional bravery' awards for Red Sea rescue

Press Trust of India
LONDON

Captain Avhilash Rawat and his crew of an oil tanker have been named among the winners of the International Maritime Organisation (IMO) 2024 Award for Exceptional Bravery at Sea for their “extraordinary courage” shown in a Red Sea rescue mission.

Captain Rawat and his crew were declared winners by the IMO on Wednesday for the “determination and endurance” demonstrated while coordinating firefighting and

The crew were given the award by the International Maritime Organisation

damage control efforts to combat a fire that broke out after an anti-ship missile reportedly fired by Iranian-backed Houthi rebels struck their vessel 'Marlin Luanda' earlier this year.

Captain Brijesh Nambiar and the crew of the Indian Navy ship *INS Visakhapatnam* have been conferred a Letter of Commendation for their sup-

port to the oil tanker when in distress.

“On the evening of J26 January 2024, the Marlin Luanda, carrying 84,147 tonnes of Naphtha, was en route from Suez to Incheon when it was struck by an anti-ship ballistic missile. The explosion ignited a cargo tank, creating a significant fire hazard with flames exceeding 5 meters,” reads the award citation.

“Despite the damage, Captain Avhilash Rawat swiftly organised firefighting efforts, ensuring the crew's safety and maintaining the ship's navigabil-

ity amidst the chaos. With the starboard lifeboat destroyed, the remaining crew mustered at the port lifeboat station, ready for potential evacuation,” it added.

Despite the extreme danger and the constant threat of further attacks, Captain Rawat and his crew fought the fire using fixed foam monitors and portable hoses. The fire continued to spread, particularly affecting an adjacent tank, but the crew managed to contain it using seawater after foam supplies were exhausted, the IMO said.

- Captain Avhilash Rawat and his crew of an oil tanker have been named among the winners of the International Maritime Organisation (IMO) 2024 Award for Exceptional Bravery at Sea for their “extraordinary courage” shown in a Red Sea rescue mission
- The honours are awarded annually and were established by the Organization to provide international recognition for those who, at the risk of losing their own life, perform acts of exceptional bravery, displaying outstanding courage in attempting to save life at sea or in attempting to prevent or mitigate damage to the marine environment.

The Hindu–Defense (GSIII)

DRDO approves seven technologies for development by private sector

The project for development of Underwater Launched Unmanned Aerial Vehicles has been awarded to Sagar Defence Engineering in Pune

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THE HINDU BUREAU



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- The Defence Research and Development Organisation (DRDO) has sanctioned seven new projects for the private sector under the Technology Development Fund scheme. The technologies include Underwater Launched Unmanned Aerial Vehicles; the development of Indian Regional Navigation Satellite System-based timing acquisition and dissemination system and long-range remotely operated vehicles for detection and neutralisation of targets and development of ice-detection sensor for aircraft.

Indian Express –Environment(GSIII)-Page 17

HEAT DOME

Weather phenomenon where a high-pressure system in the atmosphere traps warm air like a lid on a pot

HOW A HEAT DOME WORKS

- 1 In still summer conditions, a mass of warm air rises from Earth's surface
- 2 The high pressure conditions in the atmosphere push this warm air down, not letting it rise
- 3 The air gets stuck near Earth's surface, gets further compressed and thus, hotter

Source: US National Oceanic and Atmospheric Administration (NOAA)

ALIND CHAUHAN
NEW DELHI, JULY 11

THE ENTIRE western US is facing a massive heatwave that began last week. The worst affected is the state of California, where at least a dozen cities broke all-time high-temperature records. For instance, the city of Redding in Northern California recorded a maximum of 48.33 degree Celsius last Friday, while Palm Springs in Southern California touched a

behaviour of the jet stream — an area of fast-moving air, high in the atmosphere, that usually helps move weather systems along the Earth's surface.

Typically, jet streams have a wave-like pattern that moves from north to south, and then north again. When these waves get bigger and elongated, they move slowly and sometimes can become stationary. This is when a high-pressure system gets stuck in place, and leads to the formation of a heat dome.

What is a heat dome?

- A heat dome is a weather phenomenon where a high-pressure system in the atmosphere traps warm air like a lid on a pot, for an extended period of time. As the warm air is not able to rise upward, the sky remains clear — clouds are formed under the opposite circumstances as the rising warm air cools down, and the water in it condenses out.
- The high-pressure system allows more sunlight to reach the earth, which results in more warming and drying of soil. This leads to less evaporation and reduces the likelihood of the formation of rain clouds. The longer the heat dome stays in one place, the warmer conditions can get with every passing day. While heat domes cause heatwaves, they can occur without heat domes as well.

PIB–Defense–GSIII

Ministry of Defence

INDIAN AIR FORCE EX PITCH BLACK 2024 AT DARWIN, AUSTRALIA

Posted On: 11 JUL 2024 6:57PM by PIB Delhi

An Indian Air Force (IAF) contingent landed at the Royal Australian Air Force (RAAF) Base Darwin, Australia for participating in Exercise Pitch Black 2024. The exercise is scheduled to be conducted from 12 July 24 to 02 August 24, and is a biennial, multi-national exercise hosted by the RAAF. The name 'Pitch Black' was derived from the emphasis on night time flying over large un-populated areas. This edition is slated to be the largest in the 43 year long history of Ex Pitch Black, which includes participation by 20 countries, with over 140 aircraft and 4400 military personnel of various air forces. The exercise will be focusing on Large Force Employment warfare aimed at strengthening international cooperation and shall facilitate experience enhancement with the IAF Su-30 MKI operating alongside the F-35, F-22, F-18, F-15, Gripen and Typhoon fighter aircraft.

The IAF contingent comprises of over 150 highly skilled Air Warriors including pilots, engineers, technicians, controllers and other subject matter experts, who will be operating the formidable Su-30 MKI multirole fighters, with the C-17 Globemaster and the IL-78 Air-to-Air Refuelling aircraft in combat enabling roles. The exercise would provide IAF with an opportunity towards force integration with participating nations and mutual exchange of best practices.

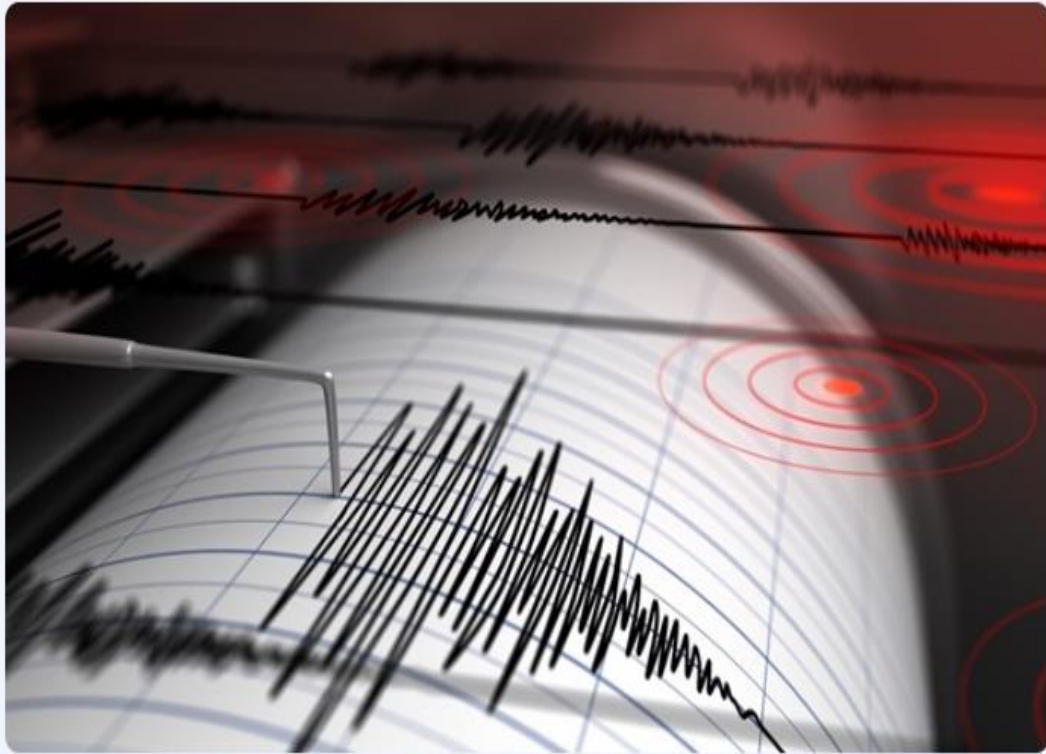
The exercise provides an excellent opportunity for strengthening the ability of the participating nations to deploy over large distances, support integrated operations in the Indo-Pacific region and building strong aviation associations in a highly challenging environment. The IAF has previously participated in the 2018 and 2022 editions of this exercise.

- The exercise which focuses on night time flying will take place from 12th July to 2nd August.
- The largest edition in its 43-year history, the exercise will include participation from 20 countries, over One hundred forty aircraft, and 4 thousand 4 hundred military personnel of various air forces.
- The exercise will be focusing on Large Force Employment warfare aimed at strengthening international cooperation and will facilitate experience enhancement with the IAF Su-30 MKI operating alongside the F-35, F-22, F-18, F-15, Gripen and Typhoon fighter aircraft. The IAF previously took part in the 2018 and 2022 editions of this exercise.

HEADLINES OF THE DAY

Air–Geography(GSI)

7.0 Magnitude Earthquake Strikes Sultan Kudarat Province In Philippines



An offshore earthquake with a preliminary magnitude of 7.0 struck Sultan Kudarat province in the southern Philippines

- located in the southernmost tip of the Philippines
- The archipelagic Philippines has frequent seismic activities due to its location along the Pacific Ring of Fire.

Do you know ?

An **earthquake** is what happens when two blocks of the earth suddenly slip past one another. The surface where they slip is called the **fault** or **fault plane**. The location below the earth's surface where the earthquake starts is called the **hypocenter**, and the location directly above it on the surface of the earth is called the **epicenter**.