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सत्यमेव जयते



MK Yadav Sir

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BUSINESS STANDARD
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Increased provision on CET1 for loan loss to be phased out

MANOJIT SAHA
Mumbai 16 January

The increase in provisioning requirement on common equity tier-I (CET1) capital for loan loss, which will be incurred by scheduled commercial banks due to transition to expected credit loss (ECL) model, will be phased out in five years, the Reserve Bank of India (RBI) said in a discussion paper released on Monday.

"The RBI proposes to adopt the ECL approach used in International Financial Reporting Standards (IFRS) 9 for prescribing guidelines for loss provisioning by banks," it said in a statement.

The RBI will introduce an ECL approach for loan loss for banks, as compared to the incurred loss approach at present, one year after announcing the final guidelines. "A period of at least one year from the date of final guidelines on ECL approach for loss provisioning would be ordinarily required by the banks to put in place the necessary systems and procedures, including the development and validation of ECL models."

CET1 CAPITAL

(Syllabus: GS Paper 3 - Economy)

Context: The increase in provisioning requirement on **common equity tier I (CET1) capital** for loan loss, which will be incurred by scheduled commercial banks due to transition to **expected credit loss (ECL) model,** will be phased out in five years.

- The RBI proposes to adopt the ECL approach used in International Financial Reporting Standards (IFRS) 9 for prescribing guidelines for loss provisioning by bank.

CET1 Capital

- **About**: Common Equity Tier 1 (CET1) capital includes the **core capital** that a bank holds in its capital structure.
  - CET1 ratio **compares a bank's capital against its risk-weighted assets** to determine its ability to withstand financial distress.
  - The **core capital of a bank** includes equity capital and disclosed reserves such as retained earnings.
- **Origin**: The implementation of CET1 **started in 2014** as part of **Basel III regulations** relating to cushioning a local economy from a financial crisis.
  - The Basel III accord introduced a regulation that **requires commercial banks to maintain a minimum capital ratio of 8%,** 6% of which must be Common Equity Tier 1.
  - The **Tier 1 capital ratio** should comprise at least 4.5% of CET1.
  - The **Basel III accord was introduced in 2009** as a response to the 2008 Global Financial Crisis and as part of continuous efforts to improve the banking regulatory framework.

Expected credit loss (ECL) model

- **About**: The IFRS expected credit loss (ECL) model is **a three-stage approach for estimating and measuring expected credit loss of a financial asset** and its interest revenue over its lifetime based on changes in its expected credit loss.
- **Calculations**: ECL generally **equals the average expected credit loss resulting from the asset's probability of default (PD)**, exposure at default (EAD), and loss given default (LGD) over a given time horizon.

LIVEMINT

Page 6

RBI REPORT ON STATE FINANCES

(Syllabus: GS Paper 3 - Economy)

States' fiscal health better: RBI

Saurav Anand & Subhash Narayan

NEW DELHI

The fiscal health of states has improved from a sharp pandemic-induced deterioration in FY21 on the back of a broad-based economic recovery, the Reserve Bank of India (RBI) said on Monday.

In its report, titled *State Finances: A Study of Budgets of 2022-23*, RBI said improved fiscal health also helped boost revenue collections and the states' gross fiscal deficit is now budgeted to narrow from 4.1% of gross domestic product in FY21 to 3.4% in FY23 within the indicative target of 4% set by the centre.

While states' debt is budgeted to ease to 29.5% of GDP in FY23 as against 31.1% in FY21, it is still higher than the 20% recommended by the FRBM Review Committee, 2018, under the chairmanship of N.K. Singh, warranting prioritisation of debt consolidation, RBI said in its annual report that provides information, analysis and an assessment of the finances of state governments for FY23 against the backdrop of actual and revised/provisional accounts for FY21 and FY22, respectively.

Another positive of consolidation of finances is increased productive capital expenditure by states. In FY23, states budgeted higher capital outlay than in FY20, FY21 and FY22.

The theme of this year's report is also *Capital Formation in India - The Role of States.*

Going forward, increased allocations for sectors like health, education, infrastructure and green energy transition can help expand productive capacities if states mainstream capital planning rather than treating them as residuals and first stops for cutbacks in order to meet budgetary targets, the report said.

The RBI report has also pointed at the need for states to create a capex buffer fund during good times when revenue flows are strong so as to smoothen and maintain expenditure quality and flows through the economic cycle.

- For instance, **Chhattisgarh, Goa, Haryana, Maharashtra, Kerala, Punjab, and Rajasthan** are providing a wide range of incentives for hand-holding startups to promote the manufacturing of Electric Vehicles (EVs).
- **Bihar, Goa, Karnataka, Uttar Pradesh and Delhi** have also policies in place to nurture a start-up environment.
- **Haryana and Uttar Pradesh** have formulated policies to encourage the establishment of their data centre industry by providing various forms of incentives to subsidise capital, reduce operational costs and stimulate employment generation.
- **Gujarat has the Atma Nirbhar Gujarat Policy** for assistance to mega industries in sectors such as green energy ecosystem, mobility, capital equipment, metal and minerals, and gems and jewellery.

Context: **States' gross fiscal deficit (GFD)** is budgeted to decline from 4.1 per cent of gross domestic product (GDP) in Covid-hit 2020-21 to 3.4 percent of GDP in 2022-23 showing improvement in their fiscal health, said a Reserve Bank report titled 'State Finances: A Study of Budgets of 2022-23'.

Highlights of the report

- The fiscal health of the states has **improved from a sharp pandemic-induced deterioration in 2020-21** on the back of a broad-based economic recovery and resulting high revenue collections.
- In 2022-23 States have budgeted **higher capital outlay** than in 2019-20, 2020-21 and 2021-22.
- States have budgeted for **higher revenue receipts** in 2022-23, driven primarily by SGST, excise duties, and sales tax collections.
- For 2022-23, States have budgeted an increase in revenue spending, mainly led by **non-developmental expenditures** such as pension and administrative services.
- In 2022-23, the **budgeted GFD of 3.4 percent of GDP is higher** but within the target of 4 per cent set by the Centre.
- The budgeted debt-GDP ratio of States, however, continues to remain significantly higher than 20 per cent recommended by the **FRBM Review Committee, 2018.**
- The report also notes that **Uttar Pradesh, Maharashtra, Madhya Pradesh, Karnataka and Tamil Nadu** together account for more than 40 per cent of the combined capital outlay undertaken by all States.
- States like **Uttar Pradesh, Odisha, Assam and Jharkhand** have a relatively higher share of capital outlays in comparison to the size of their economies.
- For healthcare, the **north-eastern and hilly States** stand out with the highest capital spending.
- **Delhi, Andhra Pradesh and Punjab** have the highest share of education in their total capital outlay.
- In recent times, the report said several States have taken **initiatives to encourage investments** in sunrise sectors.

PIB JAN 17

NATIONAL FINANCIAL REPORTING AUTHORITY

(Syllabus: GS Paper 3 - Economy)

NFRA to introduce Annual Transparency Report by the Audit Firms

Context: The **National Financial Reporting Authority (NFRA)** has published draft requirements regarding preparation and publication of **Annual Transparency Report (ATR**) by auditors/audit firms.

Key Points

- These ATR requirements are on the lines of the **contemporary international best practices** implemented by certain prominent Independent Audit Regulators in other jurisdictions.
- **Rule 8(2) of the NFRA Rules 2018** empowers the NFRA to require an auditor to report on its governance practices and internal processes designed to promote audit quality, protect its reputation and reduce risks including risk of failure of the auditor and may take such action on the report as may be necessary.
- The information contained in the ATR will be **useful to the Investors, Audit Committees, Independent Directors and public at large**.
- The ATR requirements are proposed to be implemented in a gradual manner for **Public Interest Entities (PIEs)** starting with Statutory Auditors of Top 1000 Listed Companies (by market capitalisation) with effect from the financial year ending on 31 March 2023.
- The ATR has to be **published within three months** from the end of each financial year.

National Financial Reporting Authority (NFRA)

- **About**: An **independent regulator** set up to oversee the auditing profession and the Indian Accounting Standards under the Companies Act 2013.
- **Origin**: It came into existence in October **2018**.
- **Nodal Ministry:** Ministry of Corporate Affairs.
- **Powers & duties**: NFRA is responsible for **recommending accounting and auditing policies and standards in the country**, undertaking investigations, and imposing sanctions against defaulting auditors and audit firms in the form of monetary penalties and debarment from practice for up to 10 years.
    - Pursuant to the NFRA Rules, 2018, the powers of the NFRA were **extended to include the governing of auditors of companies listed in any stock exchange**, in India or outside of India, unlisted public companies above certain thresholds, and other companies specified in Rule 3 (1) therein.
    - Rules 7 and 8 allow for the **monitoring of accounting and auditing professionals** of the companies referred to in Rule 3 (1).
    - Companies under Rule 3 (2) and 3 (3) are **required to disclose information** of their auditors to the NFRA through form NFRA-1.

INDIAN EXPRESS

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TAMIL NADU VS TAMIZHAGAM

(Syllabus: GS Paper 2 - Polity & Governance)

TAMIL NADU-TAMIZHAGAM ROW

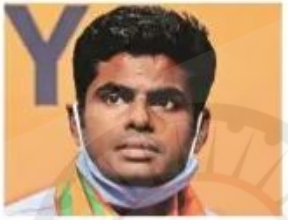
Gov's remarks on TN renaming unnecessary: state BJP chief

ARUN JANARDHANAN
CHENNAI, JANUARY 16

DAYS AFTER Tamil Nadu Governor R N Ravi triggered a controversy by saying that Tamizhagam is a more appropriate name for the state than Tamil Nadu, state BJP president K Annamalai has said that the remark was unnecessary.

Clarifying that the controversy over the name change was "one without any productive outcome", Annamalai also disagreed with the Raj Bhavan's decision to issue invitations for Pongal without the state emblem but added that it may have been due to a "clerical error".

In his interview to Tamil news channel *Thanti TV*, Annamalai said both Tamil Nadu and Tamizhagam are of a "similar spirit" and added that the BJP does not agree with the opinion that the state's name should be changed.



Tamil Nadu, Tamizhagam similar in spirit: Annamalai

vitation. But I see it as a clerical error because the Governor is not such a person ... May not have been a conscious act."

"I try to see a larger message in the Governor's acts," Annamalai said, referring to Ravi's long career that spanned from Bihar, his native state, to Kerala and later assignments in the North East. "He sees India in its entirety. He is someone who is learning Tamil now with a tutor. He tries to speak Tamil in his speeches. His inten-

Context: During a recent address to the volunteers of the Kashi Tamil Sangamam, the governor remarked that the word **'Tamizhagam'** was a more appropriate term for Tamil Nadu.

Tamil Nadu Vs 'Tamizhagam'

- **Nadu**: The word "Nadu" which means "**geographical boundary" or "land".**
  - The governor asserted that a misreading of Tamil history and the complexities of translation have resulted in "Nadu" coming to mean "country" or "nation-state", which has now become the **source of Tamil Nationalism and separatist politics.**
  - It owes its origin to the 'nadu' used in the **Chola period** - as an administrative unit.
  - The Chola kingdom was divided into **nine mandalams or provinces.**
  - Under each mandalam there would be a **group of kottams or valanadus.**
  - They were further divided as **nadus**. Under each nadu there was a group of villages called **ur.**
- **Tamizhagam**: As per the rules of **Tholkappiyam** (the ancient Tamil grammar text), Tamizhagam can be split into two Tamil and akam.
  - While the former denotes the language, the latter means 'interior' or 'inner'. Together, the word gives the meaning **Thamizhai agaththey konda nilam,** 'the land which innately has Tamil'.
  - The governor suggested the word **'Thamizhagam'** instead to distance from the interpretation of the term 'Tamil Nadu' as more of an autonomous region, than one that is part of India.
  - Tamizhagam literally translated means **home of Tamil.**
  - The word is also spelled as **Tamilakam**. It also refers to a geographical region where ancient Tamil people live.
  - The **ancient Tamilakam** is made up of today's land of Tamil Nadu, Kerala, Lakshadweep, Puducherry and southern areas of Andhra Pradesh and Karnataka.

DTE JAN 17

INTERNATIONAL HEALTH REGULATIONS

(Syllabus: GS Paper 2 - Health)



India's proposed amendments to IHR demand greater equity in access to healthcare, accountability of WHO

Country sought intermediate public health alert for outbreaks yet to be declared public health emergency

By Taran Deol
Published: Monday 16 January 2023

International Health Regulations (2005)

- **About**: IHR (2005), represents a binding international legal agreement involving 196 countries across the globe, including all the Member States of the WHO.
- **Objectives**: Their aim is to **help the international community prevent and respond to acute public health risks** that have the potential to cross borders and threaten people worldwide.
- **Functions**: Through IHR, countries have agreed to build their capacities to **detect, assess and report public health events.**
    - WHO plays the **coordinating role in IHR** and, together with its partners, helps countries to build capacities.
    - IHR also **includes specific measures at ports, airports and ground crossings to limit the spread** of health risks to neighbouring countries, and to prevent unwarranted travel and trade restrictions so that traffic and trade disruption is kept to a minimum.

Context: India has proposed several amendments to the International Health Regulations (IHR) that take into account the socio-economic development of states, promote One Health, among other things.

Key Points

- The country advocated implementing IHR to be in "accordance with the **common but differentiated responsibilities** of the States Parties, taking into consideration their social and economic development".
- It also recommended assessing human health in congruence with animal and environment health to **promote One Health.**
- India also sought a **provision for an intermediate public health alert** in the event where an outbreak doesn't yet meet the criteria for a public health emergency of international concern but requires timely mitigating measures.
- Drawing on the learnings from the COVID-19 pande**mic, India argues for "**equitable access to medical countermeasures."
- India also sought **greater accountability from the World Health Organization (WHO)** in how the IHR is implemented and whether Member States are complying.
- It proposed the Director-General **report all activities under the IHR to the World Health Assembly,** particular instances when Member States did not share information.

PIB JAN 17

EXERCISE VARUNA

(Syllabus: GS Paper 2 - International Relations)

21st EDITION OF INDIA FRANCE BILATERAL NAVAL EXERCISE 'VARUNA' – 2023

Context: The **21st Edition of the Bilateral Naval Exercise between India and France –** Exercise Varuna commenced on the Western Seaboard.

- The exercise will be conducted over five days from **16 to 20 January 2023.**
- This edition will witness participation of indigenous guided missile stealth destroyer **INS Chennai**, guided missile frigate INS Teg, maritime patrol aircraft **P-8I and Dornier,** integral helicopters and **MiG29K fighter aircraft.**
- The French Navy will be represented by the **aircraft carrier Charles De Gaulle, frigates FS Forbin and Provence**, support vessel FS Marne and maritime patrol aircraft Atlantique.

EXERCISE VARUNA

- **About: The EXERCISE VARUNA is a bi-lateral** Naval Exercise between the Navies of France and India.
  - It is conducted **annually**.
- **Origin**: The bilateral exercise between the two navies were initiated in **1993**.
  - It was christened as **'VARUNA'** in 2001.
- **Hallmark of India - France strategic bilateral relationship**: These interactions further **underscore the shared values as partner navies,** in ensuring freedom of seas and commitment to an open, inclusive Indo-Pacific and a rules-based international order.

Other Indo-French Joint Exercises

- **Garuda (Air exercise)**: It is a bilateral exercise between the Indian and French Air Force.
- **Shakti (Army exercise)**: It is a biennial military exercise conducted between India and France.

DTE JAN 17

NATIONAL DISASTER TAG

(Syllabus: GS Paper 3 - Disaster Management)


SC declines to designate Joshimath crisis a national disaster; redirects petitioner to HC

We don't want anyone to use these proceedings only for sound bytes for social media, SC said

NEXT NEWS >

By Arya Rohini
Published: Monday 16 January 2023

Context: The Supreme of India (SC) refused to **designate the Joshimath land sinking crisis as a national disaster** and declined a plea that sought the SC's intervention.

- The SC had declined to hear a plea on an urgent basis on January 10, stating that the issue should be resolved by "**democratically elected institutions**" rather than by it.

Disaster and National Disaster

- **Disaster**: A "disaster" is defined as per the specifications in **Disaster Management Act, 2005.**
  - Accordingly, a "**disaster" means a catastrophe, mishap, calamity** or grave occurrence in any area.
  - This could arise from **natural or man-made causes,** or by accident or negligence.
  - It should result in:
    - substantial loss of life or human suffering (or)
    - damage to, and destruction of, property (or)
    - damage to, or degradation of, environment
  - It should either be of such **a nature or magnitude** as to be beyond the coping capacity of the community of the affected area.
  - By this, a natural disaster may include an **earthquake, flood, landslide, cyclone, tsunami, urban flood, heatwave, etc.**
  - It may also include a **man-made disaster** of nuclear, biological and chemical nature.
- **National Disaster**: There is **no provision, executive or legal**, to declare a natural calamity as a national calamity.
  - There is no fixed criterion to define any calamity as a national calamity.

- **Severe nature of disaster**: In this regard, the **10th Finance Commission (1995-2000)** examined a proposal.
  - The proposal was to term a disaster **"a national calamity of rarest severity"** if it affects one-third of the state's population.
  - The panel did not define a **"calamity of rare severity".**
  - But it stated that a **calamity of rare severity** would necessarily have to be adjudged on a case-to-case basis.
  - It would have to take into account:
    - the intensity and magnitude of the calamity
    - the level of assistance needed
    - the capacity of the state to tackle the problem
    - the alternatives and flexibility available within the plans to provide relief, etc
  - Accordingly, **2013 Uttarakhand flood and 2014 Cyclone Hudhud** in Andhra Pradesh were classified as calamities of "severe nature".

DST JAN 17

SOLITARY WAVES

(Syllabus: GS Paper 3 - Sci & Tech)

First evidence of solitary waves near Mars may decode the mystery behind ion loss in the planet

Context: Scientists have reported the first evidence of the presence of s**olitary waves or distinct electric field fluctuations** in the Martian magnetosphere.

- The study of these waves is crucial as they directly control **particle energization, plasma loss, transport, etc.**, through wave-particle interactions.

Solitary waves

- Solitary waves are the **distinct electric field fluctuations** (bipolar or monopolar) that follow constant amplitude-phase relations.
- Their shape and size are less **affected during their propagation.**
- The **magnitude and duration of these pulses** are found to be 1-25 millivolt/meter and 0.2–1.7 milliseconds, respectively.
- These pulses are dominantly **seen in the dawn and afternoon-dusk sectors** at an altitude of 1000–3500 km around the Mars.
- The dominant occurrence of solitary waves in the **dawn and dusk sector** is still a mystery and needs further investigation.
- Through simulations, it is found that the **spatial extent** of these structures is very small (30-330 meters).
- Earth is a giant magnet, and its magnetic field protects us from high-speed charged particles that are continuously emitted from the Sun in the form of solar wind.
- Unlike Earth, the planet **Mars do not have any intrinsic magnetic field.**
- This allows the **high-speed solar wind** to interact directly with the Mars atmosphere, like an obstacle in flow.
- It has been suggested that even in a weak and thin **magnetosphere** as that of the Mars, one can observe frequent occurrences of solitary waves.
- However, despite several missions to Mars, the presence of solitary waves in the **Martian magnetosphere** has never been reported earlier.

THE HINDU Page 1

BLACK BOXES
(Syllabus: GS Paper 3 - Sci & Tech)

Nepal plane crash: black box recovered from accident site



Recovery effort: Rescuers pull out the body of a victim who was killed in a Yeti Airlines plane crash in Pokhara. AFP

Press Trust of India
KATHMANDU

All 72 people, including five Indian passengers, on board the Yeti Airlines aircraft that crashed on Sunday are believed to be dead as rescue workers made little progress in finding any survivors. They recovered one more body and the black box from the accident site, officials said on Monday.

Officials said 41 of the 69 bodies recovered so far had been identified. Nepal observed a national day of mourning on Monday.

Both the cockpit voice recorder and flight data recorder have been recovered as rescue teams rappelled down a 300-metre gorge to continue their efforts. The boxes could offer vital clues about Sunday's crash – Nepal's deadliest aviation accident in over 30 years.

CONTINUED ON
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PILOT COUPLE
» PAGE 13

Context: Both black boxes from the crashed Yeti Airlines flight in Nepal have been discovered, Kathmandu airport officials said.

Black Boxes

- **About**: These are **two large metallic boxes containing recorders** that are required to be kept on most aircraft, one in the front and the other in the rear.
  - Black boxes are a **blazing, high-visibility orange in colour**, so that crews looking for them at a crash site have the best chance of finding them.
  - Black boxes are **mandatory on commercial flights**. Their purpose on aircraft is not to establish legal liability, but to identify the causes of a mishap and, therefore, help to prevent adverse incidents in the future.
- **Origin**: The use of black boxes **dates back to the early 1950s,** when, following plane crashes, investigators were unable to arrive at a conclusive cause for the accidents.
  - An Australian scientist named **David Warren** is often credited with their invention.
- **Technology**: Black boxes use **solid-state memory boards**, which came along in the 1990s. Solid state memory boards use stacked arrays of memory chips, and are stronger.
  - The FDR contains **Crash-Survivable Memory Units (CSMUs)** which are engineered to withstand extreme heat, jarring crashes and tons of pressure.
  - To make black boxes discoverable in situations where they are under water, they are equipped with a **Beacon** that sends out ultrasound signals for 30 days.
- **Functions**: The **recorders record the information about a flight**, and help reconstruct the events leading to an aircraft accident. **Two separate pieces of equipment:**
  - The **cockpit voice recorder (CVR)** records radio transmissions and other sounds in the cockpit, such as conversations between the pilots, and engine noises.
  - The **flight data recorder (FDR)** records more than 80 different types of information such as altitude, airspeed, flight heading, vertical acceleration, pitch, roll, autopilot status, etc.
- **Retrieving the data**: It usually **takes 10-15 days** to analyse the data recovered from the black boxes.
  - Investigators look for **other clues** such as taking accounts from air traffic control personnel and recordings of the conversation between ATC and the pilots' moments before the crash.

TIMES OF INDIA

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DOPPLER WEATHER RADARS

(Syllabus: GS Paper 3 - Sci & Tech)

Doppler radar network to cover entire country by '25

Vishwa Mohan
@timesgroup.com

Getty images



By deploying additional 25 Doppler Weather Radars, IMD aims to predict more accurately extreme weather events

New Delhi: Seeking to further strengthen its weather forecast system and expand its network of meteorological services, the country's national weather forecaster, India Meteorological Department (IMD), on Sunday announced the entire country would now be covered under a sophisticated radar network by deploying 25 additional Doppler Weather Radars (DWRs) to predict extreme weather events more accurately. The IMD also announced establishment of 720 District Agro Meteorological Units (DAMUs) to provide more precise farm-related advisories and forecasts to farmers by 2025.

Besides, the IMD also decided to increase its agro-meteorological service facilities from 3,100 blocks in 2023 to 7,000 blocks in 2025, and bring Delhi, Kolkata and Guwahati under its urban flood warning system in coming years. The urban flood warning system, introduced in Mumbai in July 2020, is currently operational in two cities including Chennai.

The new plan was announced by Union minister of earth sciences Jitendra Singh and IMD chief M Mohapatra during an event here to celebrate 148th foundation day of the Met department.

Doppler radars help in observing extent and intensity of rainfall and cloud formations, and monitoring thunderstorms and lightning in real-time. It can prove to be an important tool to avert disasters in many states, specifically the ones struck by thunderstorms and lightning, and floods and heavy rains. Among all extreme weather events in India in 2022, thunderstorms and lightning claimed the highest 1,285 lives (58% of total casualties of 2,227) followed by floods and heavy rains (835).

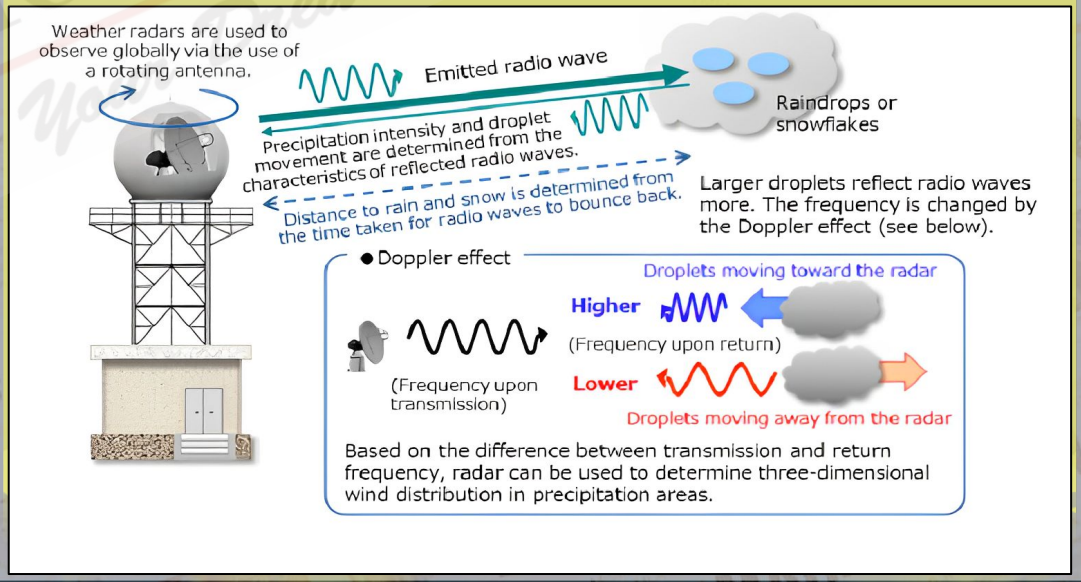
Himachal Pradesh CM Sukhvinder Singh, CM of Uttarakhand, Pushkar Singh Dhami, and LG of Union Territory of J&K, Manoj Sinha, attended the foundation day function virtually. The event saw the launch of the new DWRs in HP, Uttarakhand, Ladakh and J&K.

Claiming that the weather prediction accuracy in India has increased by about 20-40% for different severe weather events forecast during the last five years, the Union minister said the government has already taken proactive steps and increased the DWR system network from mere 15 to 37 in the last eight years. "It will add 25 more in the next 2-3 years for the universal coverage of the country," he added.

Context: The India Meteorological Department (IMD) announced the entire country would now be covered under a sophisticated radar network by deploying 25 additional **Doppler Weather Radars (DWRs)** to predict extreme weather events more accurately.

Doppler Weather Radars (DWRs)

- **About**: It is a **specialized radar** that uses the **Doppler effect** to produce velocity data about objects at a distance.
  - **Doppler principle/ effect**: When the source and the signal are in relative motion to each other there is a change in the frequency observed by the observer. If they are moving closer, frequency increases and vice versa.
- **Key Features**: DWR has the **equipment to measure rainfall intensity, wind shear and velocity** and locate a storm centre and the direction of a tornado or gust front.
  - Doppler Radar is a specialized radar that uses the Doppler effect to produce velocity data about objects at a distance.
- **Key Developments**: On the Occasion of **148th Foundation Day of India Meteorological Department (IMD),** the Ministry of Earth Science has inaugurated the Doppler Weather Radar (DWR) Systems in Jammu & Kashmir, Uttarakhand, and Himachal Pradesh.



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