

### WHAT IS THE SMART METER NATIONAL PROGRAMME (SMNP)?

Kerala's move towards an alternate model for the rollout of smart electricity meters, may hamper the Centre's Rs 3 lakh crore smart meters project.



- A smart meter is used for recording the consumption of electricity, but it also measures voltage levels.
- While traditional meters measure the power consumption of a home or business, smart meters live up to their name and **transmit the same information** every 15 minutes or hourly to utility providers.
- Since they are **connected to the internet**, smart meters can communicate information to the consumer about usage and also to the utility provider for monitoring purposes and accurate billing.

**About Smart Meter National Programme (SMNP)** is an initiative by the government of India to promote the use of smart meters across the country.

- The aim of the SMNP is to **improve the billing and collection** efficiencies of distribution companies (DISCOMs) operating in the country. It aims to **replace 25 crore conventional meters with smart meters** in India.
- The scheme is being **implemented by Energy Efficiency Services Limited (EESL)**.
  - EESL is a **joint venture of four National Public Sector Enterprises**: NTPC Limited, PFC, REC, and POWERGRID, and was set up **under the Ministry of Power**.
- This roll-out is **under the Build-Own-Operate-Transfer (BOOT) model**, wherein EESL will undertake all the capital and operational expenditure with zero upfront investment from states and utilities.
- EESL **recovers the cost** of these meters **through the monetization of energy savings**, resulting from enhanced billing accuracy, avoided meter reading costs and other efficiencies.

- The smart meters are installed as per guidelines issued by the **Central Electricity Authority (CEA)**.
  - **Benefits associated with smart meters:**
    - For consumers, smart meters can help **save on electricity bills** by allowing them to track their consumption and make decisions accordingly.
    - For utilities, smart meters can **improve operational efficiency** and help in **managing power demand**.
    - Smart meters are connected through a web-based monitoring system, which will **help reduce commercial losses** of utilities, **enhance revenues**, and serve as an important tool in power sector reforms.
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## WHAT IS NATIONAL DISASTER RESPONSE FUND (NDRF)?



The Karnataka Government has moved the Supreme Court seeking a direction to the Centre to release financial assistance from the National Disaster Response Fund (NDRF) to the State.

National Disaster Response Fund (NDRF) is a fund managed by the Central Government to meet the expenses for emergency response, relief, and rehabilitation due to any threatening disaster situation or disaster.

- It is constituted to **supplement the funds of the State Disaster Response Funds (SDRF)** in case of a disaster of severe nature, provided adequate funds are not available in SDRF.
- It is placed in the “Public Account” of the GOI under “reserve funds not bearing interest”. Since it is placed in the public accounts, the government **does not require parliamentary approval** to take money out of this fund.
- **Eligibility:**
  - NDRF guidelines state that **natural calamities** of cyclones, drought, earthquake, fire, flood, tsunami, hailstorm, landslide, avalanche, cloud burst, pest attack and cold wave and frost considered to be of severe

nature by the Government of India (GoI) and requiring expenditures by a state government in excess of the balances available in its own SDRF **will qualify for immediate relief assistance** from NDRF.

- The NDRF **also covers man-made disasters** such as terrorist attacks, chemical or biological disasters, or nuclear disasters **as notified by the Central Government**.
- For availing the NDRF funds, **States are required to submit a memorandum** indicating the sector-wise damage and need for funds. The **Centre, on its part, assesses the damage and grants** the additional funds to states.
- The financial assistance from NDRF is for providing immediate relief and is not compensation for loss/damage to properties /crops.
  - The NDRF is **not used for disaster preparedness, restoration, reconstruction and mitigation**. These activities are funded by other schemes such as the National Disaster Mitigation Fund (NDMF), the National Cyclone Risk Mitigation Project (NCRMP), National Flood Management Programme (NFMP), etc.

#### **Sources of Financing NDRF:**

- It is financed **through the levy of a cess** on certain items, chargeable to excise and customs duty, and approved annually through the Finance Bill.
- The requirement for funds beyond what is available under the NDRF is met through general budgetary resources.
- The **National Executive Committee (NEC)** of the National Disaster Management Authority takes decisions on the expenses from NDRF.
- The NDRF accounts are **audited by the Comptroller and Auditor General (CAG)** every year.

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## **LANCET PROJECTS FURTHER FALL IN INDIA'S FERTILITY RATE**

### **Total Fertility Rate (TFR)**

- TFR is the average number of children a woman would have during her lifetime if she were to experience the current age-specific fertility rates, and if she lived from birth until the end of her reproductive life.
- TFR is a demographic and socio-economic statistic.
- **Calculation**
  - The total fertility rate is the **sum of the age-specific fertility rates for all women multiplied by five.**

## Key highlights of the study

- **Global trends in Total Fertility Rate (TFR)**
  - Researchers estimate that by 2050, 155 of 204 countries (76% of the world) will be below the replacement level of fertility.
  - The number of countries and territories below replacement level is predicted to further increase to 198 (97%) by 2100.
    - This means that in these locations, populations will shrink unless low fertility can be offset by ethical and effective immigration.
- **Decline in India's fertility rate**
  - In India, the TFR was 6.18 in 1950 which reduced to 4.60 in 1980 and further declined to 1.91 in 2021.
    - TFR at 1.9 is below the necessary replacement fertility level of 2.1.
  - It is projected to dip further to 1.29 in 2050 and 1.04 in 2100.
- **Livebirths in India**
  - In India there were more than 1.6 crore livebirths in 1950 and over 2.2 crore in 2021. The number is projected to fall to 1.3 crore in 2050.

## Why fertility went down in India?

- **Role of Family Welfare Programme**
  - Post-independence, there was a need to restrict the population. So, the Family Welfare Programme, including maternal and child health-related cash transfer

inducements, were intended to convince people to have no more than two children.

- **Small families became the norm**
  - Infant mortality declined substantially because of successful immunisation and as a result, child survival was guaranteed and hence small families became the norm.
- **Economic factors**
  - With development, the inter-generational flow of wealth has reversed.
    - This means parents now do not receive much benefit from their children the way they used to.
    - Now, elderly parents may find themselves relying less on their children for financial support.
    - Instead, they might depend more on their own savings, retirement plans, or government assistance programs.
  - This has influenced their decision to have an additional child that would involve a substantial cost of bringing them up.
- **Rise in Female literacy and women's participation in the workforce**
  - Career consciousness, financial returns and economic independence have meant that women are reconsidering their options of having a second child.

## What are long-term consequences?

- The consequences of fertility decline will be that the share of the elderly in the population will increase sharply.
  - By 2050 the share of senior citizens in India will be more than 20%.
- It will also lead to challenges like labour force shortages and potential social imbalances due to gender preferences.

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## BIMA SUGAM

Recently, the Insurance Regulatory and Development Authority of India (IRDAI) has approved the setting up of Bima Sugam.

## About Bima Sugam:



- It is like an **e-commerce platform** where insurance companies can sell their products. It onboards all the companies that offer **life and non-life insurance products** under one roof.
- It aims to provide an 'end-to-end' digital journey to all policyholders like from **buying insurance policies to renewals to claim settlement** to portability to grievance redressal.
- It serves as a one-stop solution for all insurance stakeholders, including customers, insurers, intermediaries and agents, thereby, promoting transparency, efficiency and collaboration across the entire insurance value chain.
- It will be a **unified platform**, which will be **integrated with various govt databases**, insurers, intermediaries, insurance repositories, etc., for fetching customer details, providing product information, and buying and servicing Insurance policies.
- Bima Sugam aims to eliminate the paperwork as you can simply have your policy in an electronic format. Customers can view all their policies — life, health and non-life insurance — in one single application or window under Bima Sugam.

## DISTRICT ELECTION MANAGEMENT PLAN

The conduct of elections requires meticulous planning and execution and a cornerstone of this planning process is the District Election Management Plan (DEMP)



### About District election management plan:

- It is a **comprehensive document** that uses statistics and analysis to ensure the smooth conduct of elections.
- **When is the DEMP prepared?**
  - As per the Election Commission of India, the DEMP is **to be prepared at least six months before the tentative poll day**.

- Executing the DEMP requires a collaborative effort involving election officials, administrative authorities, law enforcement agencies etc.
  - **Elements of DEMP**
    - The plan starts with a district profile that serves as the foundation of the electoral strategy. It includes a political **map outlining constituencies, key demographic and infrastructure statistics**, a brief on the district's administrative setup and socio-economic features.
    - The plan encompasses detailed strategies for improving the availability and accessibility of polling stations, ensuring that all stations have essential facilities like ramps, electricity, lighting, drinking water, toilets and internet connectivity.
    - Special attention is given to voters with disabilities (PwD) and senior citizens through help desks, 24/7 control rooms, home voting options and advanced postal ballot voting for essential service personnel.
    - Another critical component of the DEMP is the **Systematic Voters' Education and Electoral Participation (SVEEP) plan**, which focuses on increasing electoral participation.
    - It outlines a comprehensive strategy for the planning, training, welfare and deployment of election personnel.
    - It also includes **training district-level teams to enforce the Model Code of Conduct (MCC)** and providing a training program for all election personnel to ensure they have the necessary skills and knowledge.
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## CLIMATE CHANGE INCREASING CHANCES OF TEMPERATURES REACHING 40 DEGREES CELSIUS AROUND HOLI

### Why in news?

According to a study published recently, since 1970, both March and April have become warmer across India. As a result, in some states, there is a higher likelihood of temperatures around Holi to cross 40 degree Celsius.

The study was carried out by Climate Central, a US-based independent group of scientists and communicators. Researchers examined daily temperatures from January 1, 1970, to December 31, 2023, for the study.

## Key findings of the study

- **The northern and western regions of India have warmed up the most**
  - The study found that during March, the northern and western regions of India have warmed up the most, relative to 1970 levels.
  - Jammu and Kashmir showed the greatest increase in average temperature of around 2.8 degree Celsius.
- **Warming for the month of April**
  - For the month of April, warming has been more uniform across India, with Mizoram reporting the greatest increase of roughly 1.9 degree Celsius since 1970.
- **Temperatures around Holi**
  - The study observed that in the early 1970s, only three states — Maharashtra, Chhattisgarh, and Bihar — had more than a 5% chance of witnessing temperatures above 40 degree Celsius in late March.
  - Currently, this number has shot up to include nine states with Maharashtra reporting a whopping 14% probability.
    - These nine states are - Maharashtra, Chhattisgarh, Bihar, Rajasthan, Gujarat, Telangana, Madhya Pradesh, Odisha, and Andhra Pradesh.
- **India has been witnessing an abrupt transition in the temperatures**
  - The findings show that India has been witnessing an abrupt transition in the temperatures from cool winter-like temperatures to much warmer conditions now.

## What are the factors behind warmer temperatures?

- **Global warming**
  - The primary reason behind a warmer March and April is global warming.



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- The unprecedented release of heat-trapping greenhouse gases in the atmosphere has led to a spike in global temperatures.
  - The annual mean temperature of the world has increased by 1.1 degree Celsius from the average of the 1850-1900 period.
    - The annual mean temperature over the Indian subcontinent has risen by 0.7 degree Celsius from 1900.
  - **Early arrival of the hot weather season in India**
    - Global warming is favouring an early arrival of the hot weather season in India.
    - The concentration of greenhouse gases is turning the planet into a furnace, and Indian hilly states are facing the brunt of it in particular.
    - Given that Holi is an outdoor festival, the early onset of hot weather increases the vulnerability to heat related illness.
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