DAILY CURRENT AFFAIRS

5ᵗʰ December, 2023

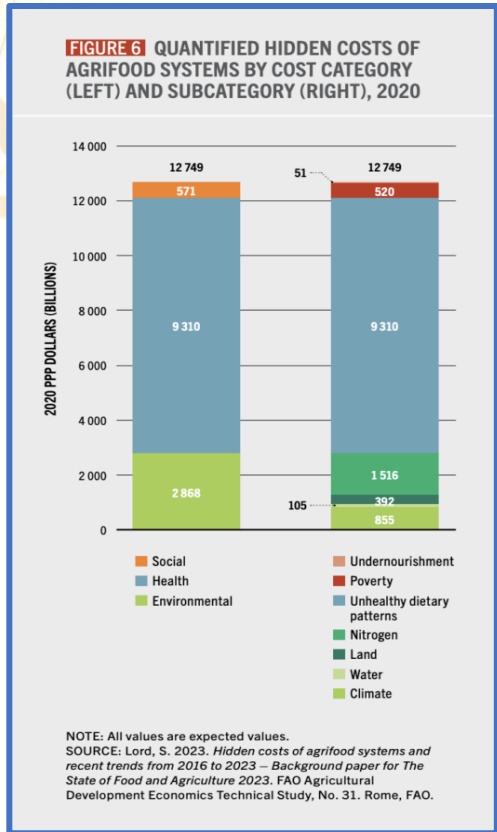| S.NO.	TOPIC
1.	THE NEED TO TRANSFORM AGRI-FOOD SYSTEMS
2.	ACCIDENTAL DEATHS & SUICIDES IN INDIA REPORT 2022: NCRB
3.	PRELIMS POINTERS

THE NEED TO TRANSFORM AGRI-FOOD SYSTEMS

SOURCE:THE HINDU

WHY IN NEWS?

➢ *A comprehensive report from the **United Nations Food and Agriculture Organization (FAO)** has brought attention to the **hidden costs within global agri-food systems**, surpassing a **staggering $10 trillion**.*

➢ *Published recently, the report highlights the **far-reaching implications** of **these costs on various aspects of society**.*

KEY HIGHLIGHTS OF THE REPORT:

➢ **Staggering Hidden Costs:**
  ✓ The report reveals that the **hidden costs of global agri-food systems surpass an astonishing $10 trillion.**
  ✓ This staggering figure **underscores the magnitude of the economic impact** associated with current agricultural practices.

➢ **Impact on Middle-Income Countries, Especially India:**
  ✓ In middle-income countries, with a **specific focus on India**, the disclosed costs constitute nearly **11% of the GDP**.
  ✓ This **financial burden translates into higher poverty levels**, environmental harm, and health-related impacts, including issues like undernourishment and unhealthy dietary patterns.

➢ **Attribution to Unsustainable Practices:**
  ✓ The report attributes the **escalating costs to "unsustainable business-as-usual activities and practices"** within agri-food systems.
  ✓ It points out that these practices **contribute significantly to the economic, environmental**, and **health-related challenges** observed.

➢ **Call for Transformation in Agri-Food Systems:**
  ✓ Recognizing the urgent need for change, the report **advocates for a transformative approach to agri-food systems.**
  ✓ It highlights the **necessity of moving away from conventional practices** that have led to the identified issues and calls for a **shift towards more sustainable alternatives**.

➢ **Proposed Solution: Shift to Multi-Cropping Systems:**
  ✓ A key recommendation in the report is the **adoption of multi-cropping systems**.
  ✓ This **strategic shift is presented as having the potential to protect farmers'** well-being, enhance nutritional outcomes within communities, and positively impact ecological health.
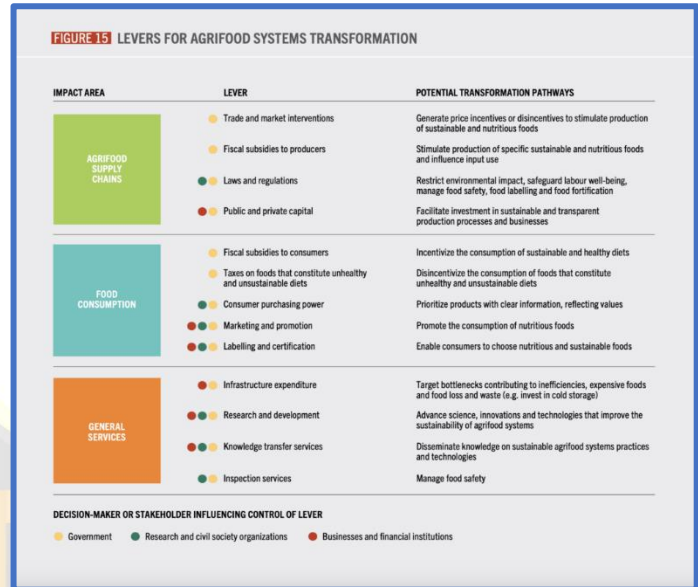
FIGURE 6 QUANTIFIED HIDDEN COSTS OF AGRIFOOD SYSTEMS BY COST CATEGORY (LEFT) AND SUBCATEGORY (RIGHT), 2020

NOTE: All values are expected values.
SOURCE: Lord, S. 2023. *Hidden costs of agrifood systems and recent trends from 2016 to 2023 – Background paper for The State of Food and Agriculture 2023*. FAO Agricultural Development Economics Technical Study, No. 31. Rome, FAO.

- **Importance of Sustainable Agricultural Practices:**
  - ✓ The report **underscores the critical importance** of **transitioning to sustainable agricultural practices.**
  - ✓ It emphasizes the **need for a holistic transformation** to address the **hidden costs associated with global agri-food systems effectively.**

IMPACT OF INTENSIVE AGRICULTURE IN INDIA: REPORT

- **Enhanced Agricultural Productivity:**
  - ✓ Significant advancements in India's agricultural productivity have been witnessed in the past five decades through the widespread adoption of mono-cropping systems and chemical-intensive farming practices.
- **Green Revolution Impact:**
  - ✓ The Green Revolution, emphasizing high-yield varieties of paddy and wheat, has played a pivotal role, constituting over 70% of India's agricultural production.
- **Erosion of Seed Sovereignty:**
  - ✓ The introduction of seeds from multinational corporations has eroded seed sovereignty, disrupting traditional indigenous knowledge systems.
- **Shift to Monoculture Plantations:**
  - ✓ Adoption of intensive practices has led to a shift from diverse crop varieties like pulses and millets to monoculture plantations, impacting biodiversity.
- **Compromised Nutritional Needs:**
  - ✓ The dominance of a few crops has compromised the nutritional needs of households, sidelining traditional staples and contributing to dietary challenges.
- **Adverse Ecological Consequences:**
  - ✓ Intensive farming has resulted in adverse ecological consequences, including the excessive extraction of groundwater, posing environmental concerns.
- **Privatization and Deregulation Impact:**
  - ✓ Privatization and deregulation of agricultural inputs, such as seeds and fertilizers, have influenced farming dynamics and economic sustainability.
  - ✓ The privatization drive **has contributed to increased indebtedness** among agrarian households, with the **debt to asset ratio soaring by 630% from 1992 to 2013.**
- **Economic Viability Challenges:**
  - ✓ Agriculture in **India faces growing challenges in economic viability**, as reflected in the average monthly **household income of farming households at ₹10,816.**
  - ✓ The overall impact underscores the necessity for a **transition towards sustainable agricultural practices** that balance productivity, ecological well-being, and economic sustainability.

CHALLENGES OF AGRI- FOOD SYSTEM IN INDIA: REPORT

- **Hidden Costs in Agricultural Systems:**

- ✓ The FAO report highlights the **staggering hidden costs** of **global agri-food systems**, **surpassing $10 trillion, with India's share at $1.1 trillion,** showcasing the need for transformative measures.
- ➤ **Procurement Policy Bias:**
  - ✓ The **National Food Security Act's procurement policy**, managed by **the Food Corporation of India (FCI)**, heavily **favors rice and wheat**, neglecting coarse grains.
  - ✓ This skewed focus has **led to a decline in the cultivation of diverse crops**.
- ➤ **Impact on Food Security:**
  - ✓ The preference for water-intensive cash crops like sugarcane threatens food security, affecting small and marginal farmers who are among the most food and nutrition insecure in India**.**
- ➤ **Global Trade Influence:**
  - ✓ Historical trends show how global trade relations have shaped food production systems in the Global South, emphasizing the need to address the impact of global structures on local farming.

SOLUTION OF FOOD SYSTEM IN INDIA: REPORT

- ➤ **Crop Diversification as a Solution:**
  - ✓ **Crop diversification, rooted in agroecology principles**, is proposed as a solution to revitalize degraded land and soil.
  - ✓ Local efforts, such as **'akkadi saalu' in Karnataka**, involve **intercropping to enhance biodiversity** and **improve soil health**.
- ➤ **Hidden Costs Consideration:**
  - ✓ The FAO report emphasizes that **alternative farming systems**, despite **potential income declines,** address **substantial hidden costs associated with current practices**, reinforcing the need for a holistic evaluation.
- ➤ **Millets as Nutrient-Rich Alternatives:**
  - ✓ Millets are highlighted as a **nutritious alternative**, comparable in **yield to rice and wheat**, with the **advantage of growing in semi-arid conditions** without burdening groundwater tables.
 - ✓ This diversification contributes to a more varied food basket.
- ➤ **Transitioning for Sustainability:**
  - ✓ The transition to sustainable agriculture **should be systematic, allowing farmers to adjust gradually.**
  - ✓ **Shifting from chemical-intensive to non-pesticide management** and adopting natural farming practices is advocated for reducing input costs.
- ➤ **Diversified Farming Model:**
  - ✓ A visual representation suggests a diversified farm allocation, **with 70% for commercial crops, 20% for food and fodder, and 10% for environmental services like oilseeds**.
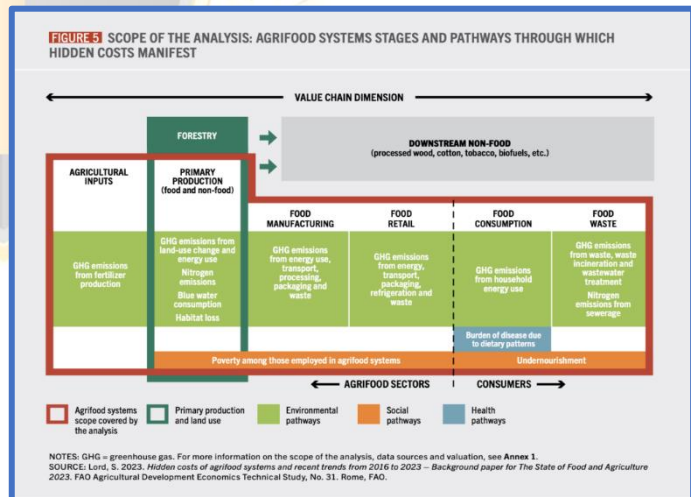
✓ This model, **over time, envisions lowering the fraction of commercial crops** and integrating livestock for improved incomes.

GOVERNMENT INITIATIVES TO ACHIEVE FOOD SECURITY IN INDIA:

Initiative	Objective
National Food Security Act (NFSA) 2013	✓ Ensure **access to affordable and good-quality** food by subsidizing food grains to those below the poverty line.
National Food Security Mission	✓ **Increase food production** and productivity through area **expansion and productivity enhancement** interventions in **rice, wheat, pulses, oilseeds, etc.**
National Agriculture Market (e-NAM) Platform	✓ Create an **online marketplace for farmers to trade** their products without geographical boundaries.
National Food Processing Mission	✓ **Promote agri-based industries** for efficient use of farm produce and reduce post-harvest losses.
NFSA and PM Garib Kalyan Anna Yojana (PMGKAY)	✓ Provide **subsidized food grains to states**, aiming to prevent hunger and malnutrition.
Food Corporation of India (FCI) and Decentralized Procurement (DCP)	✓ Reimburse **FCI for the gap between the cost and subsidized price** of food grains. ✓ DCP states **receive direct subsidies** based on the quantity they procure and distribute.
Free-of-Cost Foodgrains Initiative	✓ **Provide free-of-cost food grains to approximately 80 crore** NFSA beneficiaries for one year, emphasizing the commitment to food security.
One Nation, One Ration Card (ONORC)	✓ Strengthen **foodgrain distribution, allowing beneficiaries, especially migrant workers and marginalized communities**, to easily procure food grains across the country. ✓ Ensure **nationwide portability** of ration cards.
Nationwide Achievement of ONORC	✓ Successfully expand ONORC to all **36 states and Union Territories**, promoting efficient and accessible food distribution. ✓ **Record 105+ crore inter/intra state transactions**.

WAY FORWARD:
➤ **Systematic Transition Approach:**
  ✓ Farmers cannot shift abruptly **from mono-cultivation to diversified crops overnight**.
  ✓ A **systematic and gradual approach** is essential.
  ✓ **Initiatives should focus on a step-by-step transition**, starting with **moving away from chemical-intensive practices.**
➤ **Reducing Input Costs:**
  ✓ A key strategy **involves transitioning from chemical-intensive practices to non-pesticide** management.

- ✓ Adoption of **natural farming practices** can further **reduce input costs, promoting sustainable agriculture.**
- ➢ **Diversification for Income Generation:**
  - ✓ Encourage **farmers to diversify income sources** through **value addition**, such as **incorporating livestock and poultry** into their farming systems.
  - ✓ Experimentation with **these practices on specific portions** of the land **can facilitate a smoother transition.**
- ➢ **Strategic Land Allocation:**
  - ✓ Propose a **visual representation of a diversified farm, allocating 70% for commercial crops, 20% for food and fodder, and 10% for environmental services like oilseeds (trap crops).**
  - ✓ Over time, gradually **reduce the fraction of commercial crops** and **replace border crops** with **locally-suitable tree species** for fruits and fodder.
- ➢ **Livestock Integration:**
  - ✓ Integrate livestock **rearing as part of the diversified farming approach** to enhance farm incomes.
  - ✓ **Livestock can contribute to the overall sustainability** of the farming system and provide additional revenue streams.
- ➢ **Economic Modelling and Sustainability:**
  - ✓ Preliminary economic modelling of these transition pathways indicates potential ecological and economic benefits.
  - ✓ These pathways can contribute to improving ecological outcomes for the landscape and sustaining farm incomes in the short run (up to three years) and the long run (up to 25 years).
- ➢ **Addressing Challenges:**
  - ✓ Recognize and **address challenges related to local seeds, institutional arrangements** for market access, **drudgery in farming practices,** and **the need for farm labour**.
  - ✓ Robust solutions must be in place to ensure a smooth and effective transition for farmers.
- ➢ **Collaboration and Policy Support:**
  - ✓ **Scaling up these practices requires** collaboration among **institutions, policymakers**, and social groups.
  - ✓ **Articulate economic incentives** for farmers to **encourage the shift from high-input monoculture to diversified cropping systems.**

ACCIDENTAL DEATHS & SUICIDES IN INDIA REPORT 2022: NCRB

SOURCE:THE HINDU , INDIAN EXPRESS

WHY IN NEWS?

➢ *The release of the **National Crime Record Bureau's (NCRB) Accidental Deaths and Suicides in India (ADSI) 2022 report** has brought to light the concerning **issue of suicides in India**, with **over 1.7 lakh reported cases in the year 2022.***

➢ *The report highlights that nearly **one-third of these suicides were among daily wage earners, agricultural laborers, and farmers.***

KEY HIGHLIGHTS OF THE REPORT:

➢ **Crimes Against Marginalized Communities**:
   ✓ The Crime in India report highlighted an **overall increase in crimes and atrocities** committed **against Scheduled Castes (SC) and Scheduled Tribes (ST).**
   ✓ States like **Rajasthan, Madhya Pradesh, Chhattisgarh, and Telangana reported a rise** in such cases in 2022 compared to the previous year.

➢ **Regional Scenario:**
   ✓ Mizoram, which **reported no cases of atrocities against SCs or STs in 2021**, saw an **unfortunate increase with five cases against SCs and 29 cases against STs** in 2022.
   ✓ **Madhya Pradesh and Rajasthan continued to be among the top five states** with the highest incidents of crimes against SCs and STs.

Difference in number of suicides by farmers/farm labourers

Source: NCRB, 2022

➢ **Uptick in UAPA Cases:**
   ✓ The report revealed a **marginal increase in cases of offenses against the State**, indicating a **25% rise in registrations under the Unlawful Activities Prevention Act (UAPA).**
   ✓ Instances under the sedition section of the Indian Penal Code also experienced a noteworthy increase.

➢ **Regional Suicide Statistics:**
   ✓ Maharashtra reported the **highest number of suicides in 2022, with 22,746 cases**, followed by **Tamil Nadu, Madhya Pradesh, Karnataka, Kerala, and Telangana.**
   ✓ The suicide data brings attention to **the mental health challenges** prevalent in these states.

State wise distribution of suicide by farmers/farm labourers

Source: NCRB

➢ **Occupational Demographics in Suicides:**
   ✓ **Daily wage earners, agricultural workers**, and farmers accounted for a significant portion of suicides in 2022.
   ✓ **The ADSI data highlighted that 9.6% of suicides** were by **self-employed or salaried professionals**, while unemployed persons **comprised 9.2% of reported suicides**.
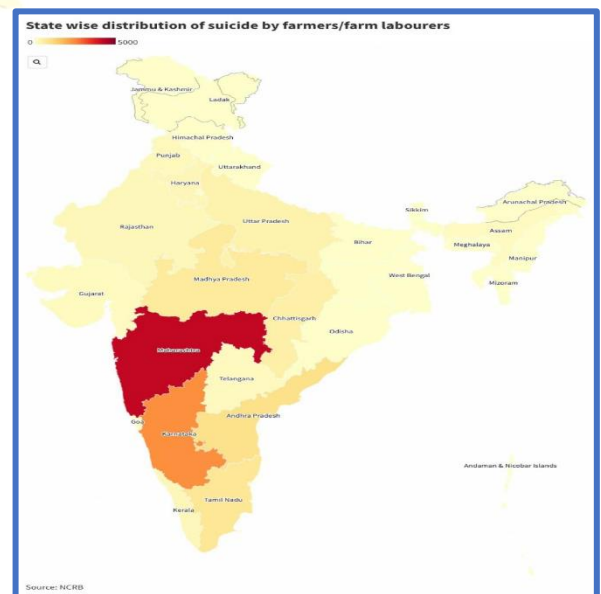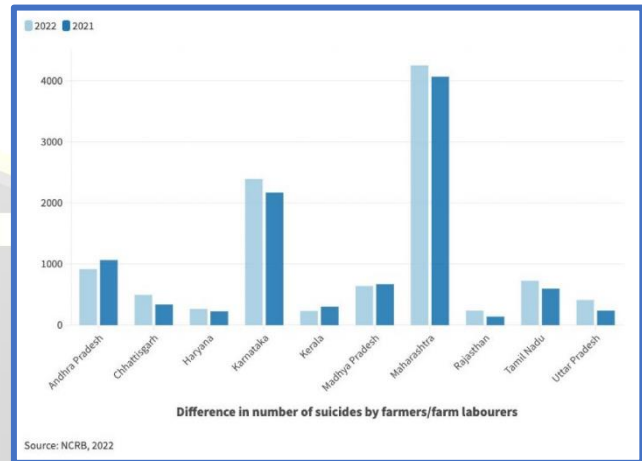
- ✓ **Students constituted over 12,000 suicides**, underscoring **mental health concerns** among the younger population.
- ➤ **Variability in Farmer Suicides Across States:**
  - ✓ Some states and **Union Territories, including West Bengal, Bihar, Odisha, Uttarakhand, Goa, Manipur, Mizoram, Tripura, Chandigarh, Delhi, Lakshadweep, and Puducherry, reported zero suicides** among farmers and agricultural laborers.
- ➤ **Homemakers and Women Suicides:**
  - ✓ Among the approximately **48,000 women who died by suicide in 2022**, **over 52% were homemakers**, constituting around **14% of the total suicides** reported.
  - ✓ **Students and daily wage earners** were also notable categories among women suicides.
  - ✓ The report highlighted **28 reported suicides** among **trans-persons in 2022**.

ABOUT THE NATIONAL CRIME RECORDS BUREAU (NCRB):

- ➤ **Establishment:**
  - ✓ NCRB, headquartered in **New Delhi**, was **established in 1986**.
  - ✓ It **operates under the Ministry of Home Affairs** and serves as a **central repository of information on crime and criminals.**
- ➤ **Origins:**
  - ✓ The creation of NCRB was based on **recommendations from the National Police Commission (1977-1981)** and the **Ministry of Home Affairs (MHA) Task Force in 1985.**
- ➤ **Functions:**
  - ✓ *Crime Data Repository:* NCRB serves as a repository of **crime-related information** to aid investigators in linking crimes to perpetrators.
  - ✓ *National Database of Sexual Offenders (NDSO):* NCRB maintains the **NDSO and regularly shares it with States/Union Territories**.
  - ✓ *Online Cyber-Crime Reporting Portal:* Designated as the **Central Nodal Agency, NCRB** manages the **technical and operational aspects of this portal**.
  - ✓ Citizens can use it to **report cyber-crimes**, including **child pornography, rape, and gang rape**.
  - ✓ *Inter-operable Criminal Justice System (ICJS):* NCRB is **responsible for implementing ICJS**, a national platform **that integrates IT systems for various components of the criminal justice system**, including police, forensic labs, courts, public prosecutors, and prisons**.**
- ➤ **Publications:**
  - ✓ NCRB publishes several major reports, providing comprehensive insights into various aspects of **crime and law enforcement in India**.
  - ✓ Major publications include **"Crimes in India,"** "**Accidental Deaths and Suicides**," **"Prison Statistics,"** and reports on **"Missing Women and Children in India."**
- ➤ **ICJS Integration:**
  - ✓ ICJS is a **national platform aimed at integrating IT systems** across the criminal justice system's pillars, fostering efficiency and coordination.
  - ✓ It **integrates Crime and Criminal Tracking and Network Systems for police, e-Forensics for forensic labs, e-Courts for courts, e-Prosecution for public prosecutors**, and e-Prisons for prisons.

COMMON CAUSES OF SUICIDE IN INDIA:

- **Common Causes of Suicides:**
  - ✓ The most prevalent **causes of suicides in 2022 were identified as "family problems"** and **"illness,"** collectively accounting for nearly **half of all reported suicides**.
  - ✓ Additionally, factors such as "**drug abuse," "alcohol addiction**," and **"marriage-related issues"** were cited.
- **Gender Disparities in Marriage-Related Suicides:**
  - ✓ A significant observation was the **disproportionate number of women** associated with suicides attributed to **"marriage-related issues," specifically highlighting "dowry-related" causes**.
- **Rainfall Deficit and Farmer Suicides:**
  - ✓ A study published in May 2023 found a **consistent association between farmer suicides** and years with a **rainfall deficit**.
  - ✓ **Maharashtra, Madhya Pradesh, and Chhattisgarh, reporting significant portions of land as drought-prone**, also witnessed high rates of farmer suicides.

GOVERNMENT INITIATIVES FOR SUICIDE PREVENTION IN INDIA:

- **National Suicide Prevention Strategy:**
  - ✓ Ministry of Health's initiative for **mental health and suicide prevention**.
  - ✓ *Goal:* Reduce suicide **mortality by 10% by 2023**.
- **Objectives:**
  - ✓ Establish effective **suicide surveillance in 3 years**.
  - ✓ Implement psychiatric **outpatient departments in 5 years**.
  - ✓ Integrate mental **well-being curriculum in 8 years.**
  - ✓ Strengthen surveillance and generate evidence for program improvement.
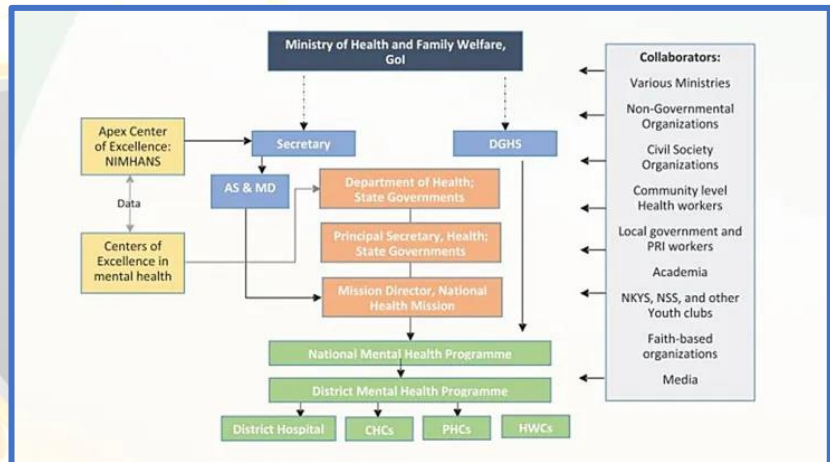
- **Stakeholders:**
  - ✓ National & state-level authorities, districts, **NIMHANS-Bangalore**, and strategic collaborators.
  - ✓ Reinforce leadership and partnerships.
  - ✓ Enhance health services capacity.
  - ✓ Develop community resilience and reduce stigma.
- **Ongoing Initiatives:**
  - ✓ **National Mental Health Policy** prioritizes mental health.
  - ✓ **Mental Healthcare Act 2017** decriminalized attempted suicide.
  - ✓ Several national programmes such as the **National Mental Health Program**, **National Palliative Care Progra**m, **Ayushman Bharat and Nasha Mukti Abhiyaan Task Force** are also in place.

PRELIMS POINTERS:

TOPIC	DISCRIPTION
Pilatus PC-7 Mk II:	**WHY IN NEWS?** ❖ **Two Indian Air Force (IAF) pilots** lost their lives in a crash involving a **Pilatus PC-7 Mk II** trainer aircraft during a routine training sortie. ❖ The incident occurred near **Toopran in the Medak district, Telangana**. ❖ The aircraft, taking **off from Dundigal Air Force station**, was found completely charred. **ABOUT PILASTUS PC-7 MK II** Pilatus PC-7 Mk II ☛ *Manufacturer:* Pilatus Aircraft Ltd**, Switzerland.** ☛ *Type:* Low-wing, turbo-prop trainer aircraft. ☛ *Seating: Tandem* seating (**cadet in front, instructor behind**). ☛ *Versions:* Original since **1970s, Mk II introduced in the 1990s.** ☛ *Features:* Newer airframe, **advanced avionics, Pratt & Whitney turbo-prop engine.** ☛ *Performance:* **Max speed of 412 km/**h, max altitude of 10,000 m, range of 1,200 km. ☛ *Usage:* **Ab initio trainer for over 20 air forces**, used in combat by countries like **Chad, Iran, and Mexico**. **IAF'S PC-7 MK II ACQUISITION:** ☛ *Procurement:* IAF bought **75 aircraft in 2012** due to the critical shortage of trainer aircraft. ☛ *Delivery:* Pilatus delivered **all 75 aircraft between 2013 and 2015.** ☛ *Option*: IAF had an option for 38 more, but the contract was not signed. ☛ *Replacement:* Defence Ministry signed a **contract with HAL for 70 HTT-40 in March 2023.** **HTT-40 AS REPLACEMENT:** ☛ *Design:* **Designed by HAL**, powered by a **four-bladed turbo-prop engine.** ☛ *Features:* Air-conditioned cockpit, modern avionics, **hot refuelling, zero-zero ejection seats.** ☛ *Delivery:* Scheduled over **six years, costing over Rs 6,800 crore**.
61st Network Planning Group Meeting under PM GatiShakti	**WHY IN NEWS?** ❖ **The 61st Network Planning Group (NPG)** meeting was conducted under the **umbrella of PM GatiShakti National Master Plan (NMP),** marking **two years since its inception.** ❖ **Special Secretary (Logistics), DPIIT, Smt. Sumita Dawra**, chaired the meeting in New Delhi on 1st December 2023.

❖ The meeting's **focus was on reviewing the status of mapping economic zones** and **critical infrastructure projects** as per the PM GatiShakti initiative.

1ST NETWORK PLANNING GROUP MEETING UNDER PM GATISHAKTI

☛ *Achievements:* Highlights of **PM GatiShakti NMP's success**, including onboarding numerous Ministries and States, uploading extensive data layers, and launching a 'Compendium of PM GatiShakti' showcasing best use cases.

☛ *Infrastructure Planning:* Emphasis on **PM GatiShakti's role in identifying and prioritizing critical infrastructure projects**.

☛ Notable budget **allocation of Rs. 75,000 Crores in Union budget FY 2023-24** for a hundred crucial transport infrastructure projects.

☛ *Mapping Economic Zones:* Discussion on mapping existing and **proposed economic zones on NMP, encompassing PM MITRA Parks, Mega Food Parks, SEZs, etc.**

☛ *Project Updates:* Various Ministries shared project statuses, **covering Pharma clusters, medical device cluster projects, training institutes, and Railways, Road Transport, and NICDC** updates on commissioned and ongoing projects.

☛ *Recognition of Progress:* **Special Secretary (Logistics), DPIIT**, acknowledged substantial progress in mapping projects on the portal.

☛ Emphasis on **PM GatiShakti for identifying connectivity gaps** and recognizing projects as catalysts for economic activities.

Crime in India 2022 Report

WHY IN NEWS?

❖ The National Crime Records Bureau (NCRB) released its report, **revealing significant insights into the crime scenario in India for the year 2022.**

❖ The data sheds **light on crime rates**, particularly **cybercrimes**, with a focus on motives and a **breakdown of cases in metropolitan cities.**

KEY FINDINGS

☛ *Overall Crime Rate Decline:* The report **indicates a decline in the crime rate per lakh population**, dropping from **445.9 in 2021 to 422.2 in 2022.**

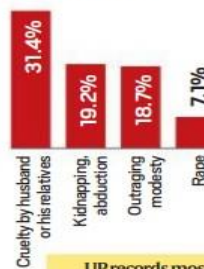☛ *Crimes Against Women*: The majority of **cases under crimes**

against women** were registered under **'cruelty by Husband or relatives,'** constituting **31.4% of such cases.**

☞ *Major Crimes Increase:* Certain major **crime categories witnessed** an increase compared to 2021:

☞ *Economic Offences:* Up by 11.1%

☞ *Cybercrimes:* Increased by 24.4%

☞ *Human Trafficking:* Saw a rise of 2.8%

☞ *Crimes Against Scheduled Castes (SC's):* Increased by 13.1%

CITY-WISE CYBERCRIME DATA:

☞ *Mumbai:* Reported the **second-highest number of cybercrime cases at 4,724,** with a significant **increase from previous years**.

☞ *Cyber Bullying and Stalking*: Mumbai topped the list with 234 cases, the highest across 19 cities.

DATA THEFT:

☞ Recorded **23 out of 25 cases registered in the 19 cities.**

☞ *Online Banking and OTP Frauds:* **Ranked second after Hyderabad** in these categories.

☞ *Pending Cyber Cases:* Mumbai faced **challenges in handling cyber cases**, with **83.5% of cases having probes pending**.

☞ Only **16% of cases saw chargesheets** filed.