



**TATHASTU**  
Institute Of Civil Services

# DAILY CURRENT AFFAIRS

10th May 2025



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[www.tathastuics.com](http://www.tathastuics.com)



[support@tathastuics.com](mailto:support@tathastuics.com)

HEAD OFFICE: 53/1, UPPER GROUND FLOOR, BADA BAZAR ROAD,  
OLD RAJINDER NAGAR, NEW DELHI-110060



10<sup>th</sup> May 2025

### Mains Manthan

- It is time to protect India's workers from heat (Page No – 10)
- Sprouting sustainable, nutritious sensitive food systems (Page No – 10)

### Prelims Saarthi

- S-400 system

## It is time to protect India's workers from the heat

### Why in News?

- Heatwaves in India

### Syllabus

- GS Paper 2 – Governance & Social Justice

## It is time to protect India's workers from the heat

In the first week of April 2025, Delhi crossed a dangerous threshold: the temperature soared above 41°C, and nights offered little relief. These extreme conditions are no longer outliers but part of a new, deadly normal. With climate change intensifying year after year, Indian cities have become the epicentre of a growing crisis.

And while heatwaves affect everyone, it is India's millions of urban informal workers who are bearing the brunt of this slow-moving disaster. The Reserve Bank of India has pointed out, in 2024, that extreme heat threatens the health and livelihoods of occupationally exposed people, potentially causing a projected 4.5% loss to India's GDP. Despite their considerable contribution, essential roles and sheer numbers, they are consistently excluded from the planning and implementation of urban heat response strategies. This exclusion has deadly consequences.

#### Key challenges in current Heat Action Plans

Many Indian cities now have Heat Action Plans (HAPs), inspired by pioneering efforts in Ahmedabad. These plans, guided by the National Disaster Management Authority (NDMA), are meant to prepare cities for increasingly frequent and intense heatwaves. Yet, more than a decade later, most HAPs remain perfunctory, underfunded and poorly coordinated.

A review of HAPs across India reveals a consistent worrying pattern: informal workers are largely invisible. Worse, most treat heatwaves as temporary – short-term disasters instead of the symptoms of a deeper climate crisis that demands long-term, structural responses. The NDMA's 2019 heat wave guidelines do not mention informal workers explicitly, but generally, under the category of outdoor workers and vulnerable groups. At the State level, most HAPs lack protocols for occupational safety, hydration, cooling spaces, shade provision or even a mention of compensation for lost work. City-level plans take a generalised public health and awareness approach, neglecting livelihood impacts. HAPs in India also suffer from fragmented governance and institutional silos. The Ministries of Labour, Environment, Urban Affairs and Health operate independently in the absence of guidelines at the central level, resulting in disjointed and inconsistent protections for workers. Moreover, city HAPs often remain short term, immediate for summer



**Aravind Unni**  
is an urban practitioner and researcher working on building resilience for informal workers and urban communities



**Shalini Sinha**  
is Asia Strategic Lead, Urban Policies Program, Women in Informal Employment: Globalizing and Organizing (WIEGO)

Millions of urban informal workers in India continue to bear the brunt of flawed Heat Action Plans

months, crisis-oriented documents. City heat actions rarely integrate long-term strategies such as urban cooling, heat-resilient infrastructure, working conditions, flexible work norms, or worker-focused social protection

Globally, cities are adopting worker protections against rising heat. In the U.S., California and Oregon mandate employers to provide water, shade, rest breaks, and heat safety training. France's "Plan Canicule" requires work adjustments, hydration during heat alerts, and opened public buildings and spaces to the public for cooling off. In Qatar and Australia, outdoor work is restricted during peak heat, and employers are obligated to assess and mitigate heat risks. India, too, offers examples. Ahmedabad's HAP introduced adjusted working hours and shaded rest areas. Odisha mandates a halt to outdoor work during peak hours. These good practices and innovations do offer replicable, worker-centric models for adapting urban livelihoods to extreme heat.

#### Towards a worker-centric response

We urgently need a new kind of urban heat response: one that is worker-centred, just, and grounded in lived realities.

First, the NDMA's 2019 Heat Guidelines must be updated to explicitly include informal workers. A revised framework must map occupational vulnerabilities distinctly for varied workers – whether it is for construction workers, street vendors, waste pickers, gig workers or rickshaw pullers – and provide actionable protocols for city and State governments that may use them contextually. This includes defining safe working hours, mandatory rest breaks, access to water, and emergency response mechanisms.

Second, is the mandate for worker participation in the creation of city and State HAPs. These cannot remain top-down exercises. Every municipal body must engage worker collectives, unions, and worker welfare boards in co-creating occupation-specific plans. Constituting civil society and community coordination groups at the city level is key. Local wisdom and the involvement of workers' associations in co-producing solutions makes policies more realistic, responsive, and respected.

Third, informal workers deserve the right to shade, rest, and cooling. We need to establish shaded rest zones, hydration points and community cooling centres in key locations – markets, transport hubs, public spaces, labour

chowks, construction sites. Open public buildings, malls and open spaces as cooling centres. These must be accessible, gender-sensitive, and co-maintained by workers and the local community. It is time to develop norms, guidelines, institutionalise protections and allocate dedicated budgets for this.

Fourth, innovative financing – through corporate social responsibility, or dedicated city development budgets – must support local solutions as adaptations. Health insurance must be expanded to cover heat-related illnesses, especially for those in informal occupations who are typically excluded from mainstream schemes. And yes, community-neighbourhood contribution and involvement are a must and should be woven in action plans. Cool roofs, shaded walkways and passive ventilation must become standard practices, not just pilots.

#### As a part of city design and governance

Fifth, this leads to a bigger shift: embedding heat resilience and worker safety into how we design and govern our cities. Heat adaptation and worker inclusion must be legally written into master plans, building bye-laws, and infrastructure codes. Cities must promote natural shade through urban forests and tree corridors, while also planning blue networks such as water bodies and public resting spaces. Informal workspaces such as vendor markets, waste depots and labour chowks must be retrofitted with materials and design strategies that ensure thermal comfort.

Sixth, at the national level, we need an inter-ministerial task force on climate and work, bringing together the Ministries of Labour and Employment, Housing and Urban Affairs, Environment, Forest and Climate Change and Health, with of course NDMA, and State Disaster Management Authorities. This task force must develop an integrated road map linking climate resilience with worker protection and labour codes. It must guide cities, coordinate efforts, and ensure accountability. Every city and district must appoint a dedicated heat officer – someone empowered to manage and monitor heat response measures and work across departments.

For informal workers, the climate crisis is not a distant threat. It is a present and daily struggle. The cost of inaction is no longer measured only in degrees – it is measured in lives, in lost livelihood and poor health, and, in burdened futures.



## Key Takeaways from the Article

### Heatwave Impact on Informal Workers:

- ◆ **Informal workers** are among the most vulnerable to extreme heat, with their **health, livelihoods, and overall wellbeing** severely impacted by rising temperatures.
- ◆ **Urban heat** disproportionately affects workers in **construction, street vending, waste picking**, and other outdoor jobs.
- ◆ The **Reserve Bank of India (RBI)** in 2024 projected a **4.5% loss to India's GDP** due to the impact of extreme heat on workers.

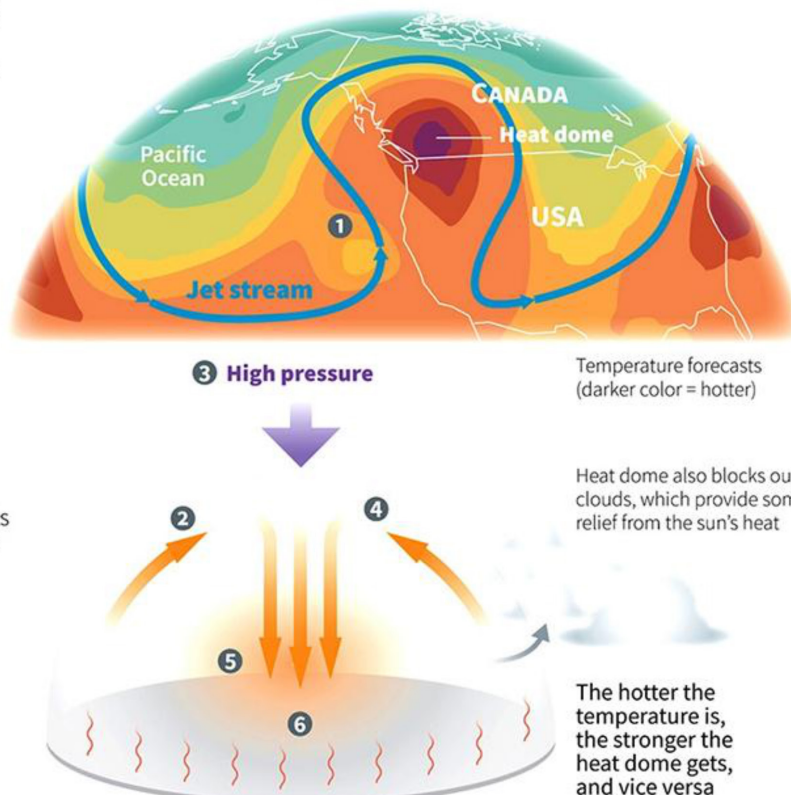
### Inefficiencies in Current Heat Action Plans (HAPs):

- ◆ Most of India's **HAPs** are underfunded, **short-term**, and poorly coordinated, often neglecting **informal workers**.
- ◆ The guidelines issued by **NDMA** in 2019 have largely ignored **worker protections** like **hydration, shade, and compensation** for heat-related loss of work.
- ◆ There is a **lack of integration** between ministries, and **public health** and **worker safety** measures are often fragmented.

### The 'heat dome'

Occurs when the atmosphere traps hot ocean air like a lid or cap

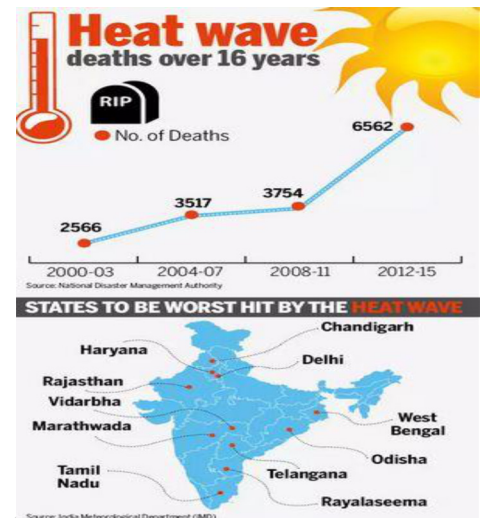
- 1 In summer, the **jet stream** (which moves the air) shifts northward
- 2 **Hot** and stagnant air expands upwards
- 3 Strong and **high-pressure** atmospheric conditions combine with influences from La Nina act like a dome or cap
- 4 In a process known as **convection**, hot air attempts to escape but high pressure pushes it back down
- 5 Under the dome, the air sinks and **compresses**, releasing more heat
- 6 As winds move the hot air east, the jet stream traps the air where it sinks, resulting in **heat waves**





- **Examples of Global Good Practices:**

- ◆ In California and Oregon (USA), employers are mandated to provide shade, rest breaks, hydration, and heat safety training to workers.
- ◆ France's Plan Canicule and Qatar have legal restrictions on outdoor work during extreme heat, ensuring safety for workers in affected industries.
- ◆ Ahmedabad's HAP has introduced adjusted working hours and shaded rest areas, which could serve as models for other cities in India.

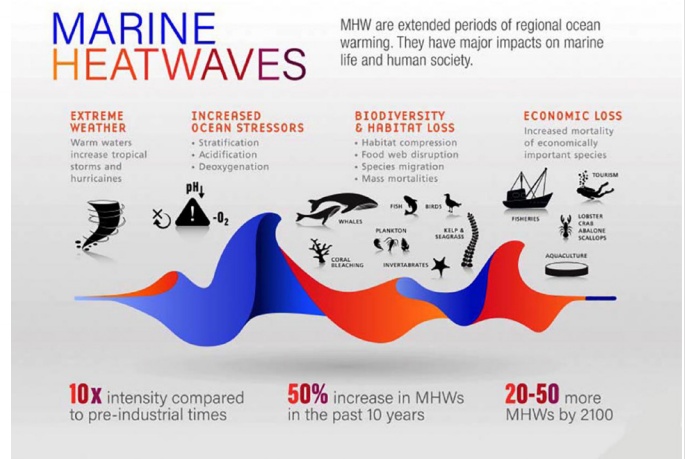


- **Recommendations for a Worker-Centered Response:**

- ◆ **Updating National Guidelines:** The NDMA's guidelines must explicitly include informal workers and outline clear protocols such as safe working hours, mandatory breaks, and heat-related emergency response.
- ◆ **Worker Participation:** City-level HAPs must engage worker unions and civil society groups in co-creating occupation-specific heat responses.
- ◆ **Shaded Rest Zones and Cooling Centers:** Establish shaded rest areas, hydration points, and community cooling centers at key locations like markets, construction sites, and transport hubs.
- ◆ **Funding and Financing:** Innovative financing models (through corporate social responsibility (CSR) and city development budgets) should support local solutions and adaptations for heat resilience.
- ◆ **Legal and Policy Integration:** Heat resilience and worker protection should be embedded into master plans, building bye-laws, and urban infrastructure codes.

- **National Task Force for Heat Response:**

- ◆ The establishment of an inter-ministerial task force combining the Ministries of Labour, Urban Affairs, Health, Environment, and NDMA is essential for coordinated responses and the development of an integrated roadmap linking climate resilience with worker protection.
- ◆ **Dedicated Heat Officers** must be appointed in each city and district to ensure effective implementation and monitoring of heat response strategies.





## Sprouting sustainable, nutrition-sensitive food systems

### Why in News?

- ◆ Nutritional deficiencies in India

### Syllabus

- ◆ GS Paper 2 – Governance & Social Justice

# Sprouting sustainable, nutrition-sensitive food systems

**T**he global food system is facing significant challenges from resource limitations and climate change even while trying to ensure food accessibility and affordability. Despite being a major producer of milk, fruits, vegetables, grains and livestock, India struggles with nutritional issues, which include undernutrition and overnutrition, alongside widespread micronutrient deficiencies. These jeopardise its demographic dividend and economic resilience. Ranked 105 out of 127 countries in the Global Hunger Index 2024, India's food insecurity requires urgent action.

The data from the National Family Health Survey (NFHS-5), 2019-21 is cause for concern: nearly 194 million Indians are undernourished. Among children under five, 35.5% are stunted, 32.1% are underweight, and 19.3% suffer from wasting. Simultaneously, there is a worrying increase in overweight and obesity, affecting 24% of women and 22.9% of men. Additionally, 57% of women of reproductive age are anaemic, underscoring the widespread issue of hidden hunger. Thus, there needs to be a comprehensive strategy to address malnutrition in a holistic manner.

Globally, food system failures cost nearly \$12 trillion annually through health, nutrition, and environmental degradation. For India, with its fast-growing population and climate vulnerabilities, such as unsustainable trajectory is not an option. Yet, within this crisis lies a powerful opportunity – transforming food systems around nutrition, sustainability and equity can boost national well-being and support progress on the Sustainable Development Goals (SDGs).

#### The nutrition challenge as a perfect storm

Food insecurity is no longer just about hunger. It now encompasses all forms of malnutrition, including diet-related non-communicable diseases (NCDs). Millions, including food producers, struggle to afford a healthy diet. According to the FAO, 55.6% of Indians are unable to afford nutritious food, with the cost rising to \$3.36 purchasing power parity (PPP) per person per day in 2022 from \$2.86 in 2017.

Structural flaws in food systems exacerbate this issue, while climate change further threatens



**Manish Anand**

is a senior fellow at TERI and a member of the Food and Land Use Coalition (FOLU)



**Vidhu Gupta**

is a Project Research Scientist at IIT Roorkee

India's struggle with nutritional issues must lead to a transformation where nutrition becomes an integral part of agriculture and economic planning

crop yields, biodiversity, and the livelihoods of small-scale farmers, deepening nutritional vulnerability.

If unaddressed, malnutrition will continue to impede human capital development, drive up health-care costs, and reduce economic productivity.

#### Transforming food systems

A shift towards sustainable, nutrition-sensitive food systems can ensure that healthy, safe food is accessible and affordable for all. This transformation demands a multi-sectoral approach involving governments, businesses, communities, and the health and nutrition sectors.

To achieve a meaningful transformation, several key strategies must be implemented in a cohesive and sustained manner. Nutrition-sensitive agriculture is central, requiring agricultural policies that integrate nutrition objectives by promoting the cultivation of climate-resilient, biofortified crops, enhancing crop diversity, and improving post-harvest storage systems to bolster food security and dietary quality. Community-led nutrition interventions such as the Nutrition-Sensitive Community Planning (NSCP) model enable local communities to address nutrition determinants including soil and water conservation, Water, Sanitation, and Hygiene (WASH), and health-care access through a bottom-up approach.

School-based nutrition programmes such as Nutri-Pathshala help combat childhood malnutrition by incorporating biofortified grains into school meals, while also supporting local agriculture by sourcing from nearby farmers. Strengthening social safety nets is essential to ensure that vulnerable populations have access to nutritious food – this involves enhancing the Public Distribution System (PDS) and mid-day meal schemes with nutrient-rich, indigenous foods and integrating behavioural change campaigns that encourage healthy eating.

The private sector must contribute by moving beyond conventional food production to prioritise nutrition, through clearer labelling, digital education tools such as QR codes on packaging, and innovation in fortification, plant-based alternatives, and nutrient-dense

foods, supported by effective regulations and incentives. Tackling underlying climate and economic vulnerabilities is another cornerstone, necessitating climate-smart agriculture, expanded rural economic opportunities and gender-sensitive policies that build resilience against shocks.

Finally, widespread awareness campaigns are indispensable; grass-roots efforts using interactive tools such as the 'MyPlate Blast Off' game and radio programming can disseminate vital nutritional information, especially in areas with limited digital access, fostering informed and healthier communities.

To achieve SDGs 2, 3, and 12 ('Zero Hunger', 'Good Health and Well-Being' and 'Responsible Consumption and Production') place-based innovation is key. Research by TERI and the Food and Land Use Coalition (FOLU) in the Himalayas has highlighted the importance of socio-technical innovation bundles. These include region-specific, micronutrient-rich crops, decentralised processing, and local food networks connecting farmers, processors, and consumers. Strengthening these community-based systems can enhance nutrition security.

#### Role of nutrition and health communities

The health and nutrition sectors are vital in driving food system transformation. Nutritionists, public health experts and policymakers must collaborate to embed nutrition into agriculture and economic planning. Tackling malnutrition and NCDs requires systemic approaches that address inequality and promote climate resilience. The NSCP and Nutri-Pathshala show the power of integrating nutrition with agriculture, education and social development.

Incremental change is no longer enough. A bold transformation of food systems is essential. Governments must align policies with nutrition, businesses must adopt sustainable practices, and civil society must push for inclusive, community-led solutions. Nutrition must guide how we shape food systems, economies, and policies. A nourished population is the bedrock of a resilient and equitable society. The challenge is vast, but so is the opportunity. The time to act is now.

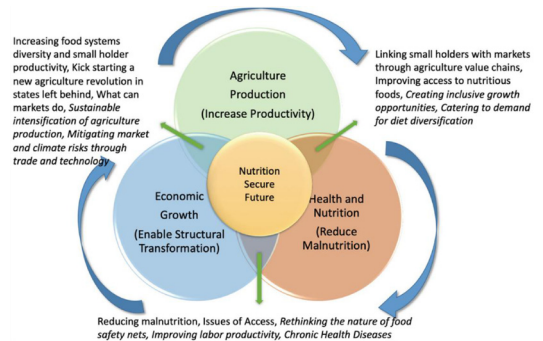




## Key Takeaways from the Article

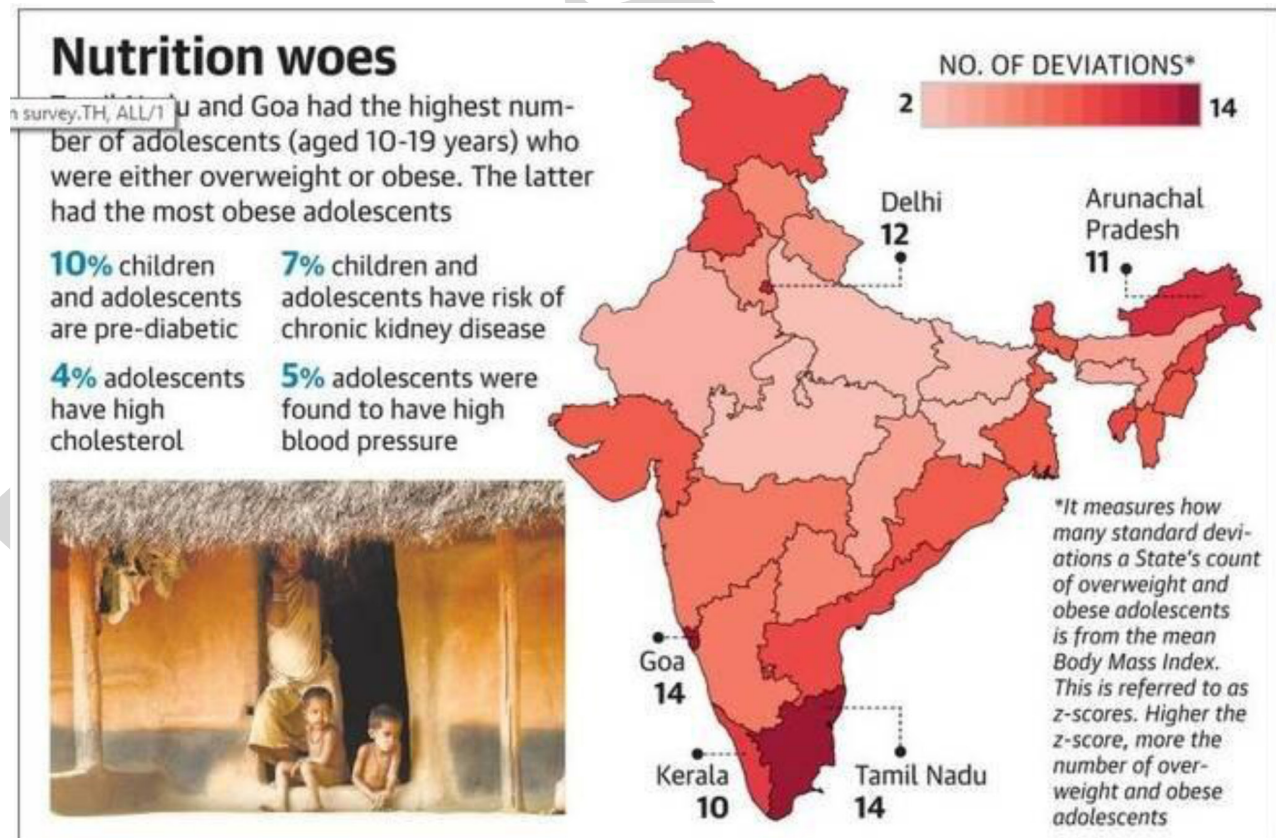
### • Nutritional Issues in India:

- ♦ **Undernutrition** and **overnutrition** are both widespread in India, particularly among children and women.
- ♦ According to the **National Family Health Survey (NFHS-5)** (2019-21), **35.5% of children** under five are stunted, **32.1% are underweight**, and **19.3% suffer from wasting**.
- ♦ There is also a rise in **overweight and obesity**, affecting **24% of women** and **22.9% of men** in India.
- ♦ **57% of women of reproductive age** are anaemic, contributing to the issue of **hidden hunger**.
- ♦ India ranks **105th out of 127 countries** on the **Global Hunger Index 2024**



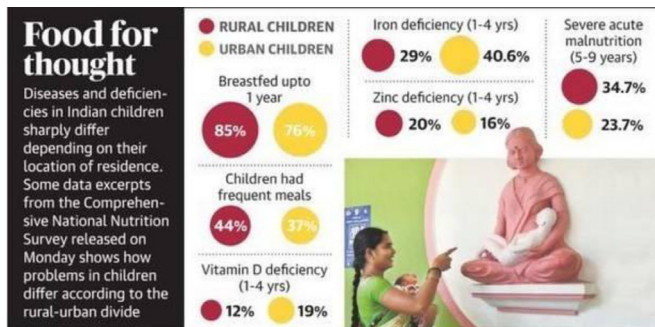
### • Food Insecurity and Climate Change:

- ♦ Climate change threatens **crop yields, biodiversity, and livelihoods** of smallscale farmers, exacerbating the problem of food insecurity.
- ♦ **55.6% of Indians** are unable to afford nutritious food, and the cost of a healthy diet has been rising steadily.



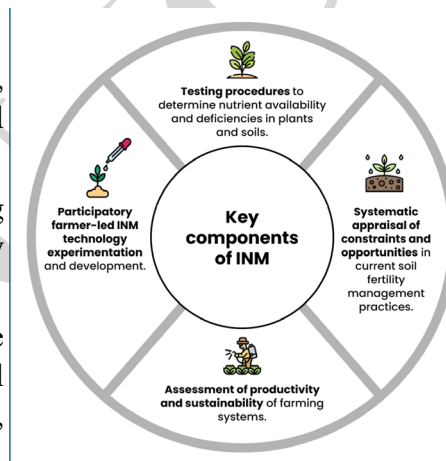
## ● Food System Failures:

- ◆ Global food system failures cost nearly **\$12 trillion annually** due to health issues, nutrition, and environmental degradation.
- ◆ India faces **structural flaws** in its food system that make it difficult to ensure food security and proper nutrition for all citizens.
- ◆ The transformation of food systems must include **climate resilience, equity, and sustainability** in policies.



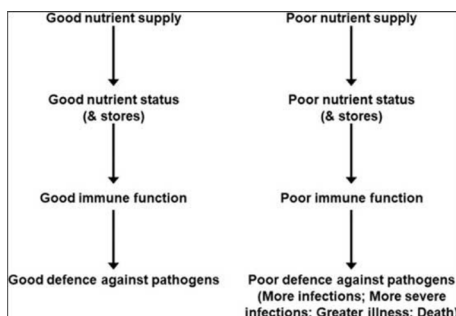
## ● Transformation Towards Nutrition-Sensitive Food Systems:

- ◆ A shift towards **nutrition-sensitive agriculture** is needed, which integrates **nutrition objectives** into agricultural policies.
- ◆ Encouraging **climate-resilient, biofortified crops**, improving **crop diversity**, and enhancing **post-harvest systems** are key to improving food security.
- ◆ **Community-driven nutrition interventions** such as the **Nutrition-Sensitive Community Planning (NSCP)** model should be implemented to address **WASH** (Water, Sanitation, and Hygiene) and **healthcare access**.
- ◆ **School-based nutrition programs** like **Nutri-Pathshala** help integrate **biofortified grains** into meals, which in turn supports local agriculture.



## ● Social Safety Nets:

- ◆ **Public Distribution Systems (PDS)** should be strengthened to include **nutritious, indigenous foods**.
- ◆ **Mid-day meal schemes** should also focus on **nutrient-rich meals**, integrated with **behavioural change campaigns** promoting healthy eating.



## ● National Task Force on Climate and Nutrition:

- ◆ A **national task force** should be set up to integrate **climate resilience** and **worker protection** into **labour codes** and **public health policies**.
- ◆ **Inter-ministerial coordination** is required to ensure a **comprehensive, integrated approach** to malnutrition and food security issues.

**YOUNG & UNHEALTHY**

	1-4 yrs	5-9 yrs	10-19 yrs
<b>DISEASES OF OVERNUTRITION (%)</b>			
Overweight	3.7	4.9	
Obesity	1.3	1.1	
Pre-diabetes	10.3	10.4	
Diabetes	1.2	0.6	
Hypertension		4.9	
High total cholesterol	3.2	3.7	
<b>DISEASES OF UNDERNUTRITION (%)</b>			
Anaemia	40.6	23.5	28.4
<b>MICRONUTRIENT DEFICIENCIES (%)</b>			
Iron	32.1	17.0	21.5
Vitamin D	13.7	18.2	23.9
Vitamin A	17.5	21.5	15.6
Vitamin B12	13.8	17.2	30.9
Zinc	19.0	16.8	31.7

Source: ICMR-National Institute of Nutrition Report on Dietary Guidelines for Indians



● **Place-Based Innovation:**

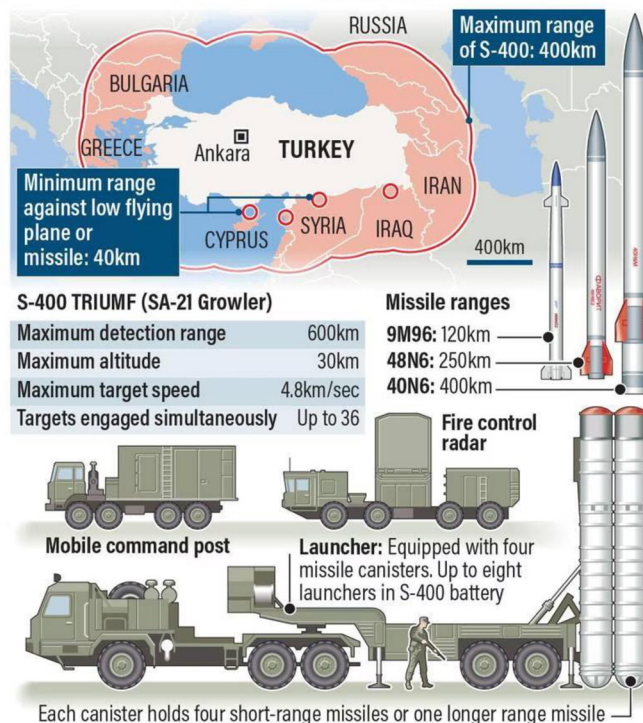
- ◆ Research from **TERI** and **FOLU** in the **Himalayas** shows that **sociotechnical innovations**, such as **micronutrient-rich crops**, **decentralised processing**, and **local food networks**, can enhance **nutrition security**.



**S – 400 defence system**

- ◆ The **S-400 Triumf** is a long-range surface-to-air missile (SAM) system developed by Russia.
- ◆ India acquired the system in **2018**, naming it “**Sudarshan Chakra**.”
- ◆ The system is used for intercepting and neutralizing multiple aerial threats, including drones and missiles, and was used in **Operation Sindoor** during the India-Pakistan conflict in 2025.

**S-400 SURFACE-TO-AIR MISSILE SYSTEM**



- Can shoot down up to 80 target simultaneously
- Cannot yet accurately target low-flying aircraft and missiles (altitude below 30,000 ft) at great distances





- **Radar:** Detects targets up to **600 km. Detection and Tracking:**
  - ◆ Capable of tracking 300 targets and engaging 36 simultaneously.
  - ◆ Uses advanced radars for 360-degree surveillance.
  - ◆ **S-400** is superior to other defense systems like **MIM-104 Patriot**, **HQ-9**, and **THAAD** with its longer range, diverse missile options, and enhanced tracking capabilities.



Two missile series are commonly used, one short- and another long-range. S-400 can lock two missiles on a single target and also simultaneously hit 80 separate targets

