



State of Food and Agriculture 2024

For Prelims: [Food and Agriculture Organization](#), [United Nations](#), [Non-communicable diseases](#), [Greenhouse gas emissions](#), [Sustainable Development Goals](#), [International Fund for Agricultural Development](#), [National Mission for Sustainable Agriculture](#), [Eat Right Initiative](#)

For Mains: [Food security](#), Agrifood Systems and Sustainability, India's Agrifood System and Hidden Costs

Source: DTE

Why in News?

The **State of Food and Agriculture 2024** report by the [Food and Agriculture Organization \(FAO\)](#) of the [United Nations](#) has revealed staggering global **agrifood hidden costs** of approximately **USD 12 trillion annually**, primarily driven by [unhealthy dietary patterns](#) and [environmental degradation](#).

- This report examines the often-overlooked factors that contribute to these costs, urging a transformation of the global agrifood systems.

Note

Hidden costs refer to the **economic burdens that are not reflected in the market price of food products**. These include health costs, environmental degradation, and social inequities that arise from the current agrifood system.

What are the Key Highlights of the State of Food and Agriculture 2024?

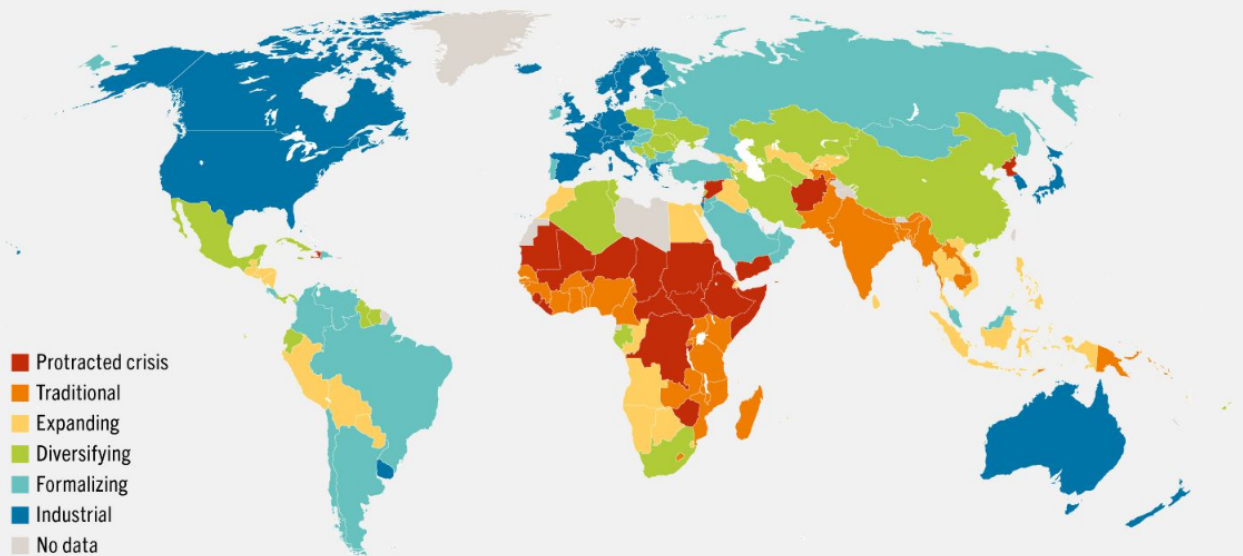
- **Global Hidden Costs:** Hidden costs of agrifood systems amount to approximately USD 12 trillion annually.
 - 70% of these costs (USD 8.1 trillion) are linked to unhealthy dietary patterns and associated [non-communicable diseases \(NCDs\)](#) like heart disease, stroke, and [diabetes](#).
- **Insights on India:** India's hidden costs, totalling **USD 1.3 trillion**, are the **third largest globally**, following China (USD 1.8 trillion) and the United States (USD 1.4 trillion).
 - These costs reflect significant health, social, and environmental challenges tied to its agrifood system.
 - Over **73% of these costs stem from dietary risks**, such as high consumption of [processed foods](#) and **low intake of plant-based foods**.
 - The overconsumption of **processed foods and additives** costs India USD 128 billion annually, primarily due to diseases like heart disease, stroke, and diabetes.
 - India's insufficient consumption of plant-based foods and beneficial fatty acids adds **USD**

846 billion in hidden costs, further burdening healthcare systems.

- Low wages and low productivity among agrifood workers, exacerbated by distributional failures in the agrifood system, lead to poverty in India.

- **Hidden Costs by Agrifood System Types:** The report categorises agrifood systems into **six types**, they are protracted crisis, traditional, expanding, diversifying, formalising, and industrial each with distinct hidden cost profiles.
 - In most systems, **low intake of whole grains, fruits, and vegetables is the primary dietary risk**. However, in systems like protracted crises and traditional systems, low fruit and vegetable consumption is a major concern.
 - High sodium intake increases from traditional to formalising systems, peaking in formalising systems and decreasing in industrial systems.
 - The consumption of processed and red meats rises steadily in more industrialised systems.

GLOBAL MAP OF THE AGRIFOOD SYSTEMS TYPOLOGY



NOTES: Refer to the disclaimer on the copyright page for the names and boundaries used in this map. Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties. Final boundary between the Republic of Sudan and the Republic of South Sudan has not yet been determined. The list of countries in protracted crisis is not necessarily endorsed by country governments.

- **Environmental and Social Costs:** Significant environmental costs arise from **unsustainable agricultural practices**, particularly in diversifying agrifood systems, with costs such as **greenhouse gas emissions** and **nitrogen runoff** reaching USD 720 billion.
 - Countries facing prolonged crises bear significant relative environmental costs, reaching up to **20% of the Gross Domestic Product (GDP)**.
 - Traditional and protracted crisis systems suffer the highest social costs, including **poverty** and **undernourishment**, which represent a significant portion of GDP in these regions (8% to 18%).
- **Recommendations for Transformative Change:**
 - **True Cost Accounting:** Implementing true cost accounting to better capture hidden costs and inform decision-making.
 - **Healthier Diets:** Policies to make nutritious food **more affordable** and accessible, reducing health-related hidden costs.
 - **Sustainability Incentives:** Providing financial and regulatory incentives for adopting sustainable practices and reducing emissions.
 - **Consumer Empowerment:** Clear, accessible information on the environmental, social, and health impacts of food choices to guide consumer behaviour.
 - **Importance of Collective Action:** A call for cooperation among agribusinesses,

governments, financial institutions, international organisations, and consumers to drive systemic change.

- **Focus on SDGs:** The transformation of global agrifood systems is essential for achieving the [Sustainable Development Goals \(SDGs\)](#) and ensuring [food security](#), [nutrition](#), and [sustainable development](#).

Agrifood Systems

- The FAO defines agrifood systems as **encompassing all activities from agricultural production to food consumption**, including processing, distribution, and waste management.
 - These systems are influenced by economic, social, and environmental factors, affecting how food is produced, distributed, and consumed.
- With [rapid urbanisation](#) and changing dietary preferences, agrifood systems now face pressures that challenge their sustainability and ability to provide nutritious food.

How is India Working Towards Sustainable Food Systems?

- According to FAO, a sustainable food system (SFS) **balances economic profitability, social equity, and environmental protection** to ensure food security for future generations.
- The [National Food Security Act \(NFSA\) of 2013](#) provides food entitlements to over 800 million citizens, demonstrating India's commitment to ensuring food security.
- **India's Initiatives for SFS:**
 - [National Mission for Sustainable Agriculture \(NMSA\)](#)
 - [Fortified Rice Distribution \(2024-2028\)](#)
 - [Rashtriya Krishi Vikas Yojana \(RKVY\)](#)
 - [Eat Right Initiative](#)
 - [Digital Agriculture Mission \(DAM\)](#)

What are India's Challenges in SFS?

- **Climate Change:** In recent years, India has been experiencing changing weather patterns, erratic rainfall, and [extreme events](#) ([droughts](#), [floods](#), and [heatwaves](#)) affect crop yields and food security.
- **Environmental Degradation:** Excessive use of chemical fertilisers and pesticides can lead to soil degradation, water pollution, and harm to biodiversity.
 - Key concerns related to natural resources include **declining yields, soil fertility, soil organic carbon (SOC) levels, and water scarcity**.
- **Inconsistent Ingredient Limits:** There is an inconsistency in the limits for ingredients like sugar and salt in processed foods between Indian standards and those set by the [World Health Organization \(WHO\)](#).
 - This discrepancy complicates efforts to regulate and ensure the nutritional quality of processed foods, potentially undermining public health initiatives aimed at reducing **diet-related diseases**.
- **Sanitary and Phytosanitary Standards:** India's agri-exports are sometimes rejected in key markets due to quality issues, highlighting the need for improved standards.
- **Low Productivity and Income:** A large proportion of Indian farmers **own small landholdings**, which limits their productivity and income.
 - Many farmers rely on outdated methods, leading to low yields and inefficient resource use.
- **Limited Trade Collaboration:** India's trade agreements lack substantial discussions on SFS, reducing opportunities for growth through mutual agreements on standards.
- **Absence of Export Strategy and Data:** There is a lack of product-specific export strategies and comprehensive data to support SFS-aligned trade planning.

What is Needed for a Sustainable and Inclusive SFS in India?

- **Sustainable Practices:** Adoption of sustainable water usage, [soil health restoration](#), and environmentally friendly farming methods.
- **Support for Smallholder Farmers:** Enhancing access to financial services, technology, and markets for marginalised farmers.
- **Implement Farm-to-Fork Traceability:** Product traceability is critical for ensuring quality, safety, and sustainability across the food supply chain.
- **Collaboration with International Agencies:** The FAO, [International Fund for Agricultural Development](#), [World Food Programme \(WFP\)](#), and the Indian government promote agricultural reforms and support smallholder farmers through education, technology, and financial resources.
- **Enhance Quality Testing and Certification:** Strengthening quality control through testing and certification processes will help Indian agri-products meet international standards.
- **Strengthening Social Safety Nets:** To support non-agricultural families, food distribution systems need to be efficient, ensuring affordability and accessibility.

Conclusion

India faces significant hidden costs in its agrifood system, driven by unhealthy diets and environmental degradation. While progress has been made, challenges like climate change, export restrictions, and low productivity hinder progress. A **holistic approach, focusing on sustainable practices, support for smallholder farmers, and international collaboration**, is crucial for building a resilient and inclusive agrifood system aligned with global sustainability goals.

Drishti Mains Question:

Evaluate India's agrifood system and identify the major hidden costs. How can India address these challenges to achieve sustainable food systems?

UPSC Civil Services Examination Previous Year Question (PYQ)

Prelims

Q. The FAO accords the status of 'Globally Important Agricultural Heritage System (GIAHS)' to traditional agricultural systems. What is the overall goal of this initiative? (2016)

1. To provide modern technology, training in modern farming methods and financial support to local communities of identified GIAHS so as to greatly enhance their agricultural productivity.
2. To identify and safeguard eco-friendly traditional farm practices and their associated landscapes, agricultural biodiversity and knowledge systems of the local communities.
3. To provide Geographical Indication status to all the varieties of agricultural produce in such identified GIAHS.

Select the correct answer using the code given below:

- (a) 1 and 3 only
- (b) 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

Ans: (b)

Mains:

Q. How far is Integrated Farming System (IFS) helpful in sustaining agricultural production? (2019)

PDF Refernece URL: <https://www.drishtiias.com/printpdf/state-of-food-and-agriculture-2024>

