

GS III

SYLLABUS: ISSUES OF BUFFER STOCKS AND FOOD SECURITY.

FOOD SECURITY

THE HINDU, PG.NO: 8.

News: "In energy-dependent world, the issue of food security."

India journey towards food security:

- India's **Green Revolution** was crucial for food availability. Its success made India the largest exporter of rice in the world.
- **White Revolution** in milk transformed India from a milk-deficient nation into the world's largest producer of milk.
- **Blue Revolution** for transformation in fisheries.
- The above efforts highlight the need for diverse food sources, ensuring safe and nutritious food for everyone and transformed India once a food deficient nation into a food surplus country.
- **National Food Security Act (NFSA) of 2013:** Aims to provide food security through PDS, guaranteeing subsidised grains to the majority of the Indian population under two categories: Priority households and Antyodaya families. As of 2023, **81 crore persons are covered** under NFSA 2013.
- **Recently approved the distribution of fortified rice** from July 2024 to December 2028, reflecting India's commitment to improving nutrition and food security.

India currently produces 330 million tonnes to feed 1.4 billion people with three-fourths of this food being from plant origin and one fourth from animal origin. In the next 15 years, a 40% increase in food demand is expected, this needs annual growth rate of agriculture of 2.3% while overcoming the following challenges.

Challenges in the agriculture sector to ensure food security:

- **Productivity challenge:** Small and marginal farmers accounts for 80% of agrarian households with **average size of land holding of 1.08 hac** and limit adoption of modern techniques and income. (2015-16).
- **Natural resource degradation:**
 - **Overusing groundwater** strains water tables. Eg. Punjab and Haryana.
 - **Soil erosion:** approximately 40% of India's total geographical area) is degraded—**ICAR**.
 - **Improper application of chemical fertiliser's and mono-cropping** harm the soil and agricultural productivity.
- **Pest and disease outbreaks:** causing crop losses of up to 15% annually—**IARI reports**.
- **Infrastructure limitations and supply chain inefficiencies:** Eg. annual post-harvest losses at around 15-20% for perishables—**ICAR**.
- **Food wastage:** India wastes about 68 million tons of food annually—**UNEP Food Wastage Report 2021**.
- **Rural poverty and inequality** in accessing financial services, technology and modern irrigation systems.
- **Risk of Climate Change:** rising temperatures and changing rainfall patterns could reduce India's crop yields by 10-30% by 2050—**IPCC 6th Assessment Report 2022**.
- **Lack of mechanisation of agriculture:** only 40% of the total arable land is mechanized in India, compared to 95% in the USA—**MoA&FW 2021**.
- **Food vs Fuel Equation:** Eg. Maize imports has increased in 1st quarter of 2024 financial year.

- For production of one-litre of Ethanol requires 2kgs of rice, 2.5kg of maize or 50kg of sugarcane—**NITI Aayog**.

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PYQs

GS III 2023: Discuss the consequences of climate change on the food security in tropical countries.

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NFSA

THE HINDU, PG.NO: 12.

News: "National Food Security Act still driven by figures from 2011 Census, lawyer tells SC".

About National Food Security Act 2013:

- Aims to provide food security through PDS, guaranteeing subsidised grains to the majority of the Indian population under two categories—**Priority households and Antyodaya families**.
- NFSA targets to cover **highly subsidised grains to 75% rural and 50% urban population**. **Currently only 60% had access to PDS** under NFSA.
- Currently **81 crore persons** are covered under NFSA.
- **Types of food grains:** **Rice** at Rs 3/kg, **wheat** at Rs 2/kg and **coarse grain** at Rs 1/kg.
- **Food grain entitlements:**
 - **Priority household:** receives 5kg of food grain per person per month.
 - **Antyodaya household:** receives 35kg of food grain per household per month.
 - **In case of non supply of entitled food grains**, beneficiaries are **entitled to food security allowance** from concerned **State govt**.
 - **Elders women** of the house above the age of 18 years or above is mandated to be **head of household** for the purpose of issuing ration card under the Act.
- **Responsibilities:**
 - **Central Govt.:**
 - **Procurement** of food grains by Food Corporation of India (FCI).
 - **Allocation** of required food grains to States/UTs.
 - **Transportation** of food grains from FCI godowns to Fair Price Shops(FPS).
 - **State Govt:**
 - Effective **implementation** of the Act.
 - **Identification** of eligible households and issuing ration cards.
 - **Distribution** of food grains through FPS.
 - Issuance of **license to FPS**.
 - Setting up effective **grievance redressal mechanism**.

New rules:

- **Free food grains** to all 81 crore beneficiaries for 5 years, starting from January 2024 under **PM-Garib Kalyan Yojana**.

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GS IV

SYLLABUS: PROBITY IN GOVERNANCE: WORK CULTURE.

WORK CULTURE

THE HINDU, PG.NO: 9.

News: "Indians need the right to disconnect."

Positive aspects of Work Culture in Private Sector:

- **Profit-oriented:** encourages efficiency, cost-cutting etc.
- **Performance and productivity oriented:** Eg. High performance is rewarded with incentives, promotions, and recognition.
- **Encourages innovation** and embraces new technologies.
- **Flexibility, less formal culture:** such as remote work or flexible hours, particularly post-pandemic.
- **High degree of competitiveness:** employees are driven to outperform peers to secure promotions, bonuses, or even retain their positions.
- **Merit based advancement:** Promotions and opportunities are largely merit-based, allowing for faster career growth based on skill and performance.

Negative aspects of Work Culture in Private Sector:

- **Profit-greediness of companies:** leading to unethical practices, neglect of employee welfare, and exploitation of resources.
- **Work-life imbalances:** 75% of Indian employees experience stress and burnouts due to work pressure, meeting deadlines —*survey by LinkedIn.*
- **Job insecurity among employees:** "hire and fire" culture, layoffs.
- **Sceptical performance evaluation system:** making employees feel they are treated fairly.
- **Crony Capitalism:** where businesses succeed not because of fair competition but due to close relationships with govt officials. *Eg. 2G spectrum scam 2008.*
- **Dilution of service Motive:** Eg. The healthcare sector has seen a surge in private hospitals focusing on high-cost treatments and luxury facilities, often inaccessible to low and middle-income families, leading to medical debt —*Lancet 2018.*
- **Unrealistic to try to import the American culture:** per capita income in the U.S is \$85,000. In India, it is \$2,700.
- **Behavioural issues of Bosses:** U.K. Deputy Prime Minister, faced charges of 'bullying' from officials.
- **Compromised Right to Disconnect:** an important right. It allows employees to disconnect from their employer outside of working hours.

Suggestions:

- **Concept of Variable Pay:** to promote a 'performance culture'.
- **Concept of Bell Curve:** that identifies super-performers as well as under-performers.
- **Stress management' workshops:** to deal with the burn-out that ensues.
- **Best Practices:** France has a 35-hour work week. In the rest of Europe, the norm is about 40 hours.

Constitution of India and Judicial Pronouncements making Right to work in a conducive and healthy environment:

- **Directive Principles of State Policy:**
 - **Art.38:** State shall strive to promote the welfare of the people".
 - **Art.39(e):** securing the strength and health of its workers.

P.T.O

Supreme Court:

- **Vishakha vs State of Rajasthan(1997):** ruled that sexual harassment at the workplace violates fundamental rights, recognised the right to dignity at the workplace.
- **Praveen Pradhan case of 2012:** The Uttarakhand High Court ruled that a superior officer cannot be excessively indulged in humiliating and scolding subordinates for minor infractions.
- **Ravindra Kumar case 2021:** Court read Art.14 to include ideas of inclusive equality to reasonably accommodate persons with disabilities.
- **D.Y.Chandrachud** an employer must consider an employee's individual differences and capabilities.
- **Legislative initiatives:**
 - **Private Member Bill 2018** introduced a 1% penalty on companies' total employee remuneration for noncompliance with its provisions.

The Nirbhaya episode caused a paradigm shift on the issue of women's safety. One, hopes that Anna Sebastian's untimely demise will likewise turn out to be a defining moment for India's workplace culture.

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POLITY

PRE-CONTEXT

ART. 142

THE HINDU, PG.NO: 12

News: "SC grants permanent commission to woman Army officer."

Suo Motu Jurisdiction:

- **Art. 32 & Art.142:** allow the Supreme Court(SC) to issue writs (orders) to enforce fundamental rights and power to pass any order necessary to do complete justice.
- **Both SC and High Courts** can exercise Suo-Motu powers.

SC & Art.142:

- **In 2020:** Exercised Art.142 & *removed Minister in Manipur* against whom disqualification petition is pending before speaker since 2017.
- **Hathras Gang rape 2020 & Kolkata rape case 2024:** SC taken Suo-motu stance.
- **In 2024,** to *facilitate the admission of student* (economically weak) into IIT.
- **In 2024,** to *uphold Right to Shelter under Art.19* against Bulldozer Justice.
- **In 2024,** grants *permanent commission to woman Army Officer.*

Public Interest Litigation(PILs):

- **A judicial innovation** of Indian supreme court. It is the power given to the public court.
- SC entertains PILs under under **Art.32, Art. 226 & Art.142.**
- Can be **filed by aggrieved individual** and also by **any public spirited individual or groups** in both supreme court and High courts.
- **Examples:** All the above mentioned Suo Motu cases.

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SCIENCE

PRE-CONTEXT

ANTIMATTER

THE HINDU, Pg.NO: 20.

News: "Antimatter idea offers scientists clue to cracking cosmic mystery."

About Antimatter:

- Antimatter consists of particles that are *exact counterparts to the particles making up normal matter*. For *every particle (e.g., electron), there is an antiparticle (e.g., positron) with opposite charge*.
- **Positron (Anti-electron):** The first antiparticle discovered was the positron by Carl Anderson in 1932 during cosmic ray studies.
- **Anti-hydrogen:** First produced in 1995 at CERN, consisting of an antiproton and a positron.

Applications:

- **Positron Emission Tomography (PET) Scans:** Utilises positrons (anti-electrons) emitted by radioactive tracers injected into the body.
- **Large Hadron Collider (LHC)** at CERN and other particle accelerators.
- **Matter-antimatter annihilation** releases vast amounts of energy.
- Antimatter Gravity Experiments.

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Thank you!

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