Date –26-March 2025

INDIA'S HOLISTIC STRATEGY INTEGRATES FORESTS, FOOD, AND LIVELIHOODS

WHY IN THE NEWS?

Forests are the lifelines of our planet, providing oxygen, food, medicine, and livelihoods to millions. Beyond their ecological significance, forests are pillars of global food security, offering essential resources such as fruits, seeds, roots, and wild meat, which support indigenous and rural communities. Every year on March 21, the world celebrates the International Day of Forests to celebrate all types of forests, recognize the importance of trees and forests, and take action to protect them.
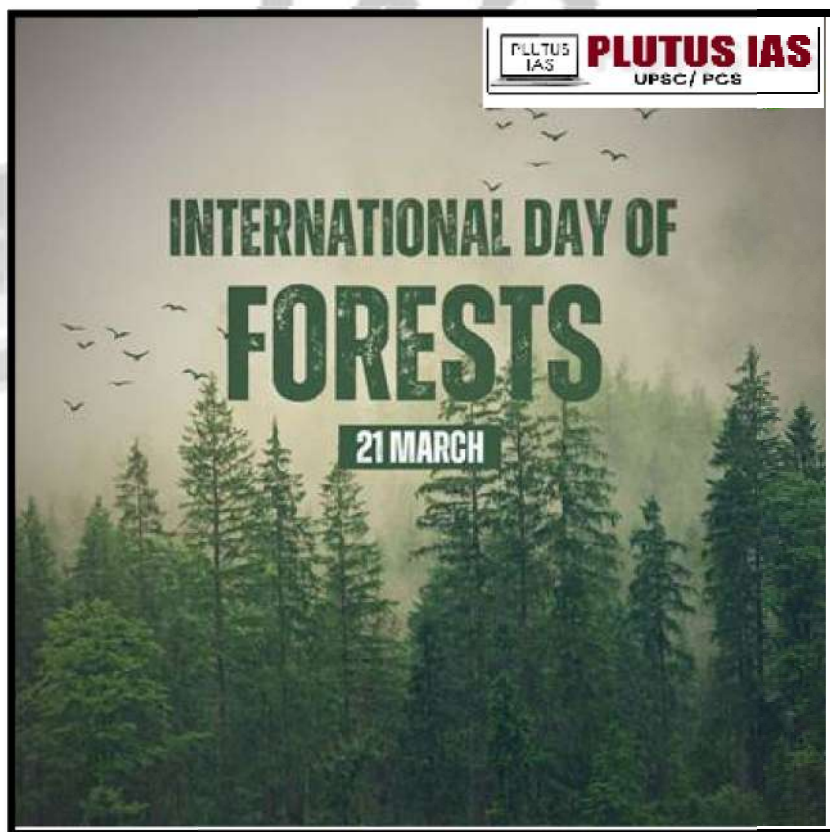
WHAT IS INTERNATIONAL FOREST DAY?

International Day of Forests, observed on March 21 each year, is a global event established by the United Nations General Assembly (UNGA) in 2012 to raise awareness about the importance of forests and trees. It highlights the vital role forests play in maintaining ecological balance, supporting biodiversity, and contributing to human well-being. The day promotes actions such as tree planting, conservation efforts, and sustainable forest management to protect these crucial ecosystems. Various organizations, governments, and individuals worldwide participate in activities and discussions that emphasize the need for forest preservation and restoration to combat climate change and ensure a greener future.
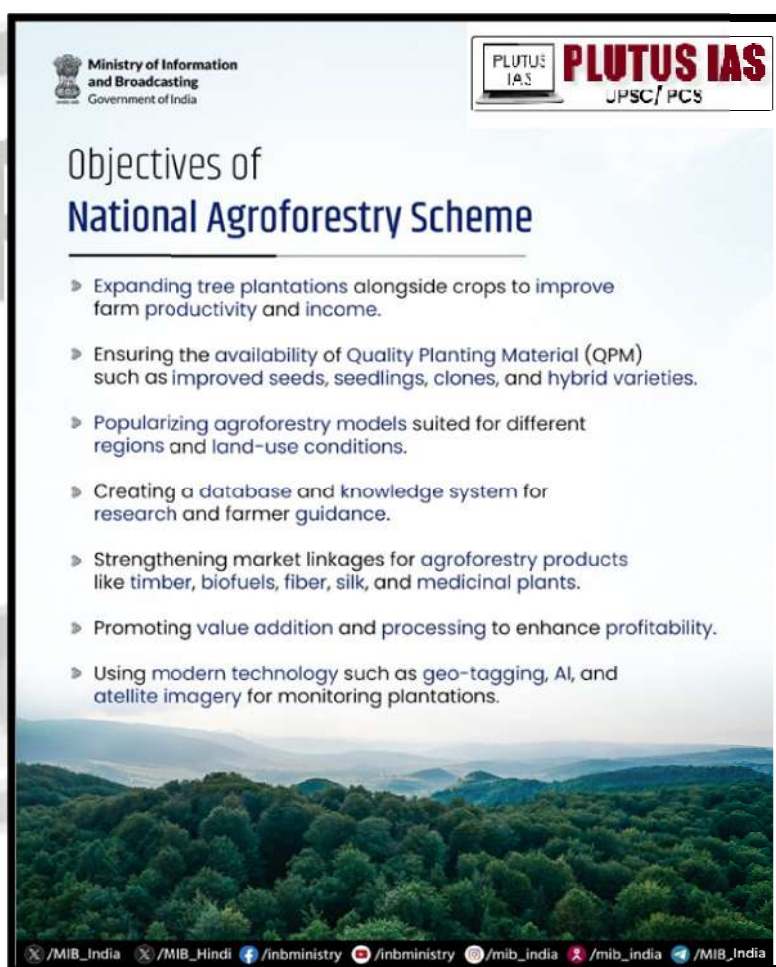
FOREST STATISTICS OF INDIA

Category	Details
Total Forest & Tree Cover	8,27,357 sq km (25.17% of India's area)
Forest Cover	7,15,343 sq km (21.76% of total area)
Tree Cover	1,12,014 sq km (3.41% of total area)
Increase in Green Cover (Since 2021)	1,445 sq km
Forest Cover Increase	156 sq km
Tree Cover Increase	1,289 sq km
Top States (Forest & Tree Cover Increase)	Chhattisgarh (684 sq km), Uttar Pradesh (559 sq km), Odisha (559 sq km), Rajasthan (394 sq km)
Top States (Forest Cover Increase)	Mizoram (242 sq km), Gujarat (180 sq km), Odisha (152 sq km)
Largest Forest & Tree Cover (Area-wise)	1. Madhya Pradesh (85,724 sq km) 2. Arunachal Pradesh (67,083 sq km) 3. Maharashtra (65,383 sq km)
Largest Forest Cover (Only)	1. Madhya Pradesh (77,073 sq km) 2. Arunachal Pradesh (65,882 sq km) 3. Chhattisgarh (55,812 sq km)
Highest Forest Cover (Percentage of State's Area)	1. Lakshadweep (91.33%) 2. Mizoram (85.34%) 3. Andaman & Nicobar Islands (81.62%)

GOVT POLICIES FOR FOREST PROTECTION IN INDIA

Government Initiatives linking Forests, Food & Livelihood

1 National Agroforestry Policy

2 Green India Mission (GIM)

3 The Forest Fire Prevention & Management Scheme (FFPM)

4 Van Dhan Yojana

Category	Details
National Agroforestry Scheme	Encourages farmers to adopt agroforestry for climate resilience, environmental conservation, and economic benefits.
Implementation Strategy	Focuses on Quality Planting Material (QPM) through nurseries and tissue culture units. ICAR-Central Agroforestry Research Institute (CAFRI) is the nodal agency. Collaborates with ICFRE, CSIR, ICRAF, and State Agricultural Universities for technical support and training.
Market & Economic Support	Provides price guarantees and buy-back options for farm-grown trees. Encourages private sector participation in marketing and processing agroforestry products. Aligns with India's promotion of millets, which thrive in tree-based farming systems.
Funding & Support	Government offers financial assistance for nurseries and research projects.
Green India Mission (GIM)	A key initiative under India's National Action Plan on Climate Change (NAPCC) aimed at expanding, restoring, and enhancing forest cover to combat climate change.
Mission Start Year	2015-16 (FY)

Category	Details
Mission Goals	Expand forest/tree cover by 5 million hectares (MHA). Improve the quality of another 5 mha of forest & non-forest land. Enhance carbon storage, water management, and biodiversity. Improve livelihoods for 3 million households through forest-based income.
Sub-Missions of GIM	1. **Enhancing Forest Cover:** Improving forest quality and ecosystem services. 2. **Ecosystem Restoration:** Reforesting and increasing forest cover. 3. **Urban Greening:** Planting more trees in cities and surrounding areas. 4. **Agroforestry & Social Forestry:** Boosting biomass and creating carbon sinks. 5. **Wetland Restoration:** Reviving and conserving critical wetlands.

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Objectives of National Agroforestry Scheme

- Expanding tree plantations alongside crops to improve farm productivity and income.
- Ensuring the availability of Quality Planting Material (QPM) such as improved seeds, seedlings, clones, and hybrid varieties.
- Popularizing agroforestry models suited for different regions and land-use conditions.
- Creating a database and knowledge system for research and farmer guidance.
- Strengthening market linkages for agroforestry products like timber, biofuels, fiber, silk, and medicinal plants.
- Promoting value addition and processing to enhance profitability.
- Using modern technology such as geo-tagging, AI, and atellite imagery for monitoring plantations.

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FOREST DEGRADATION IN INDIA

1. Deforestation & Land Use Change: Large-scale clearing of forests for agriculture, infrastructure, and urbanization reduces forest cover and biodiversity.

2. Illegal Logging & Timber Extraction: Unregulated tree felling for timber, fuelwood, and commercial purposes leads to habitat destruction.

3. Encroachment & Habitat Fragmentation: Human settlements, farming, and industrial expansion result in fragmented forests, impacting wildlife movement and ecosystem balance.

4. Forest Fires: Both natural and human-induced fires destroy vast forest areas, reducing biodiversity and increasing carbon emissions.

5. Mining & Industrial Activities: Open-cast mining, quarrying, and industrial pollution degrade soil quality and disturb forest ecosystems.

6. Climate Change Impacts: Rising temperatures, erratic rainfall, and extreme weather events stress forests, leading to tree mortality and biodiversity loss.

7. Invasive Species: Non-native plant species, such as Lantana and Parthenium, outcompete native flora, altering forest composition.

8. Overgrazing & Unsustainable Agriculture: Livestock overgrazing and shifting cultivation practices lead to soil erosion and loss of vegetation.

WAY FORWARD TO PROMOTE FOREST PROTECTION

1. Strengthen Afforestation & Reforestation Initiatives: Expand programs like the Green India Mission (GIM) and Compensatory Afforestation Fund Management and Planning Authority (CAMPA).

2. Enhance Legal and Policy Framework: Strengthen enforcement of the Forest Conservation Act, 1980, and Wildlife Protection Act, 1972. Implement stricter penalties for illegal deforestation and encroachments.

3. Sustainable Forest Management (SFM): Adopt community-based Joint Forest Management (JFM) programs. Encourage eco-tourism and non-timber forest product (NTFP) industries for sustainable livelihoods.

4. Community Participation & Indigenous Knowledge: Involve tribal and forest-dwelling communities in conservation efforts. Recognize traditional ecological knowledge for forest protection. Strengthen the implementation of the Forest Rights Act of 2006 to balance conservation and community rights.

5. Strict Control on Forest Degradation & Land Use Change: Implement policies to curb deforestation due to urbanization and mining. Promote land reclamation techniques for degraded forests. Enforce sustainable infrastructure development with minimal ecological damage.

6. Forest Fire Prevention & Control Measures: Use early warning systems and satellite monitoring to detect forest fires. Train local communities for fire prevention and control strategies. Establish fire lines and deploy fire-resistant species in vulnerable areas.

7. Restoring Degraded Lands & Wetlands: Strengthen programs for watershed management and soil conservation. Restore wetlands, mangroves, and riparian forests for climate resilience.

8. Promote Agroforestry & Sustainable Agriculture: Scale up the National Agroforestry Policy to integrate trees into farmlands. Support farmers with incentives for agroforestry-based practices.

CONCLUSION

Forest protection is critical for maintaining ecological balance, combating climate change, and sustaining livelihoods. By integrating scientific innovations, legal frameworks, and sustainable practices, India can enhance its forest conservation efforts while ensuring economic and ecological benefits. Multi-stakeholder collaboration, strict enforcement of policies, and community-driven approaches will be essential to safeguarding India's forests for future generations.

PRELIMS QUESTIONS

Q. With reference to forest protection initiatives in India, consider the following statements:
1. The Green India Mission (GIM) is one of the eight missions under the National Action Plan on Climate Change (NAPCC).

2. The National Agroforestry Policy aims to integrate trees into farmlands to promote climate resilience and biodiversity.

3. The Forest Conservation Act, 198of 0, primarily focuses on granting land rights to forest-dwelling communities.

How many of the above-given statements are correct?

A. Only one

B. Only two

C. All three

D. None

Answer: B

MAINS QUESTIONS

Q. Discuss the major causes of forest degradation in India and suggest measures to promote forest conservation and sustainable management.   (250 words, 15 marks)

NATIONAL FOOD SECURITY AND NUTRITION MISSION

WHY IN THE NEWS?

During 2024-25, the National Food Security Mission (NFSM) has been renamed as National Food Security & Nutrition Mission (NFSNM), and the Department of Agriculture and Farmers Welfare (DA&FW) is implementing NFSNM to increase the production of pulses, Nutri cereals, rice, wheat and coarse cereals in the country. Under NFSNM, the incentives are provided to the farmers, through the States/UTs, on crop production and protection technologies, cropping system-based demonstrations, production & distribution of certified seeds of newly released varieties/hybrids, integrated nutrient and pest management techniques, capacity building of farmers through training during cropping season etc.

WHAT IS THE NATIONAL FOOD SECURITY AND NUTRITION MISSION?

Launched in 2007, NFSM is a centrally sponsored scheme aimed at increasing the production of rice, wheat, pulses, coarse cereals, and nutri cereals. It focuses on enhancing productivity, restoring soil fertility, creating employment, and boosting farm profits. Strategies include quality seed distribution, technology demonstrations, and farm machinery support.

POSHAN Abhiyaan (National Nutrition Mission):

Launched in 2018, this mission aims to improve nutrition among children, pregnant women, and lactating mothers. It targets reducing stunting, undernutrition, anaemia, and low birth weight by promoting inter-ministerial collaboration and community engagement.

KEY OBJECTIVE OF NATIONAL FOOD SECURITY AND NUTRITION MISSION

1. Increased Production: Boosts rice, wheat, pulses, and coarse cereals through expanded cultivation and improved productivity.

2. Sustainable Practices: Promotes eco-friendly farming for long-term food security.

3. Soil Health: Focuses on restoring soil fertility for better crop yields.

4. Farmer Empowerment: Enhances farm incomes to improve livelihoods and food security.

5. Targeted Approach: Directs resources to high-potential districts for maximum impact.

6. Nutritional Security: Encourages cultivation and consumption of diverse, nutritious crops.

MAJOR COMPONENTS AND IMPLEMENTATION STRATEGY

1. Defining Goals & Objectives: Align with vision and mission. Set SMART goals and define KPIs to measure success.

2. Research & Analysis: Conduct SWOT and competitive analysis. Assess financial, human, and technological resources.

3. Risk Management: Identify potential risks and assess impact. Develop mitigation strategies to minimize disruptions.

4. Milestones & Timelines: Set a phased timeline with key milestones. Monitor progress and adjust as needed.

5. Roles & Responsibilities: Clearly define tasks and accountability. Delegate based on expertise.

6. Resource Allocation: Ensure budget, workforce, and tech support. Optimize resources and plan for contingencies.

7. Communication & Engagement: Maintain clear communication with stakeholders. Gather feedback and foster engagement.

8. Monitoring & Evaluation: Track performance against KPIs. Adapt and continuously improve the strategy.

KEY ACHIEVEMENTS OF THE MISSIONS

1. Increased Food Production: Boosted yields of rice, wheat, pulses, and coarse cereals, ensuring national food security.

2. Sustainable Agriculture: Promoted climate-smart farming, water conservation, and soil fertility management.

3. Farmer Support: Supplied quality seeds, fertilizers, machinery, and training to enhance productivity.

4. Regional Development: Focused on backward districts, expanded irrigation, and improved access to resources.

5. Employment & Rural Growth: Created jobs, strengthened agro-industries, and improved farmer incomes.

6. Technology & Innovation: Encouraged modern farming techniques, precision agriculture, and digital tools.

7. Nutritional Security: Promoted bio-fortified crops and diversified food production to improve diets.

8. Policy & Infrastructure Development: Strengthened supply chains, warehousing, and market access for farmers.

WHY NUTRITION COMPONENTS IS ADDED

The inclusion of nutrition in the National Food Security & Nutrition Mission (NFSNM) acknowledges the critical link between food security and nutritional well-being. Despite increased food grain production, malnutrition, micronutrient deficiencies, and diet-related health issues persist in India. By integrating nutrition-focused interventions, the mission aims to:

1. Improve Dietary Quality: Encourage bio-fortified and nutrient-rich crop production.

2. Reduce Malnutrition: Address stunting, undernutrition, and anaemia, especially in women and children.

3. Promote Diversified Cropping: Shift focus from staple grains to pulses, Nutri-cereals, and vegetables.

4. Strengthen Food Systems: Improve access to nutritious food through better supply chains and awareness programs.

WHAT ARE THE ISSUES OF FOOD SECURITY AND NUTRITION IN INDIA?

1. High Malnutrition Rates: Despite food availability, stunting, undernutrition, and anaemia remain major concerns.

2. Dietary Imbalance: Over-reliance on staple grains leads to micronutrient deficiencies (iron, zinc, vitamin A).

3. Post-Harvest Losses: Poor storage and distribution result in food wastage and supply gaps.

4. Climate Change Impact: Unpredictable weather affects crop production and agricultural sustainability.

5. Economic & Social Inequality: Limited access to nutritious food for marginalized and low-income groups.

6. Food Safety & Quality Issues: Adulteration, pesticide overuse, and lack of proper food fortification.

WAY FORWARD

1. Diversify Agriculture: Promote climate-resilient crops, organic farming, and smart irrigation.

2. Improve Food Distribution: Strengthen PDS, reduce post-harvest losses, and support local food production.

3. Enhance Nutrition Programs: Expand POSHAN Abhiyaan, encourage food fortification, and raise awareness.

4. Strengthen Policies & Farmer Support: Ensure inter-sectoral coordination, support small farmers, and enforce food safety.

5. Leverage Technology: Use AI, blockchain, and digital tools for efficient monitoring and farmer education.

CONCLUSION

The transition from NFSM to NFSNM reflects a holistic approach to food security, integrating both agricultural growth and nutritional well-being. While India has made significant progress in increasing food production, addressing malnutrition and ensuring dietary diversity remain key challenges. Strengthening sustainable farming, efficient food distribution, and awareness programs will be crucial for achieving long-term food and nutrition security.

PRELIMS QUESTIONS

Q.Consider the following statements about the National Food Security & Nutrition Mission (NFSNM):

1. It is a centrally sponsored scheme focused solely on increasing food production.
2. It includes measures for soil fertility, nutritional security, and farmer support.

Which of the statements given above is/are correct?

A. 1 only
B. 2 only
C. Both 1 and 2
D. Neither 1 nor 2

Answer: B

MAINS QUESTIONS

Q. Discuss the significance of integrating nutrition with food security policies in India. What steps can be taken to ensure both food availability and improved nutritional outcomes? (250 words, 15 marks)