

# **YOJANA MAGAZINE ANALYSIS**

(December 2024) (Part 2/3)

# **TOPICS TO BE COVERED**

# **PART 1/3**

- VISION AND ROADMAP FOR SCIENCE AND TECHNOLOGY
- REAPING INDIA'S DEMOGRAPHIC DIVIDEND: STRATEGIC
   PATHWAYS FOR GROWTH

# **PART 2/3**

- THE YEAR OF INDIA'S STRATEGIC EMERGENCE
- GOVERNMENT INITIATIVES IN CLIMATE CHANGE: A SUSTAINABLE PATH FOR VIKSIT BHARAT@2047

# **PART 3/3**

- ROADMAP FOR INDIA'S GEOPOLITICAL STRATEGY
- INDIA'S MISSION TO FIGHT SICKLE CELL DISEASE

# THE YEAR OF INDIA'S STRATEGIC EMERGENCE

The year **2024** marks a significant milestone for India as it celebrates its **75th Republic Day**.

Reflecting on its incredible journey from being a "Fragile Five" economy to becoming one of the world's top five economies, India stands as a testament to the power of **reforms**, **political stability**, and **strategic initiatives**. These efforts have propelled India into a new era of global prominence.

# INDIA'S ECONOMIC GROWTH & GLOBAL STANDING

# From Fragile Five to Global Leader

- Morgan Stanley, once critical of India's economic vulnerability by labeling it a "Fragile
  Five" economy, now recognizes India's strong economic growth and the
  transformative reforms implemented in recent years.
- India's rapid ascent has made it a leading destination for global investments. As a
  result, its economic position has significantly strengthened, attracting international
  confidence and attention.

#### **Economic Achievements**

#### Defense Production:

- o India's **defense production** has surged from **Rs. 46,429 crore in 2014-15** to **Rs. 1,27,265 crore**—an increase of **174%**.
- Defense exports have also skyrocketed, from Rs. 686 crore in FY 2013-14 to
   Rs. 21,083 crore in FY 2023-24, marking a 30-fold increase.

#### Sunrise Sectors:

o India has emerged as a leader in **space** and **defense innovations**. Programs like **Digital India** and **Make in India** have been central to this growth, driving technological advancements and self-reliance.

# STRENGTHENING STRATEGIC ALLIANCES & REGIONAL ENGAGEMENT

# **India's Strategic Policy Initiatives**

Digital India, the International Solar Alliance (ISA), and India's leadership at the
 2023 G20 Summit have positioned India as a global policy leader.



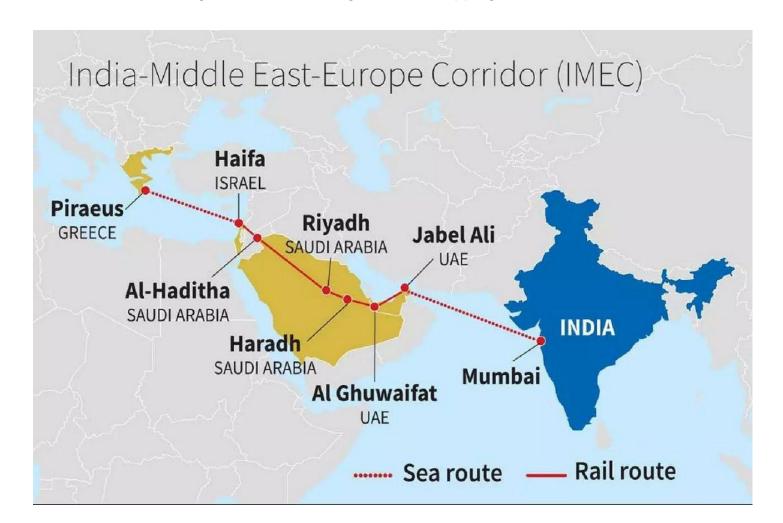
India has also taken proactive steps in counterterrorism, with proposals like the No
Money for Terror (NMFT) Secretariat in New Delhi, and hosted the Interpol General
Assembly in 2022, further solidifying its commitment to international security.

#### **REGIONAL & GLOBAL ENGAGEMENTS**

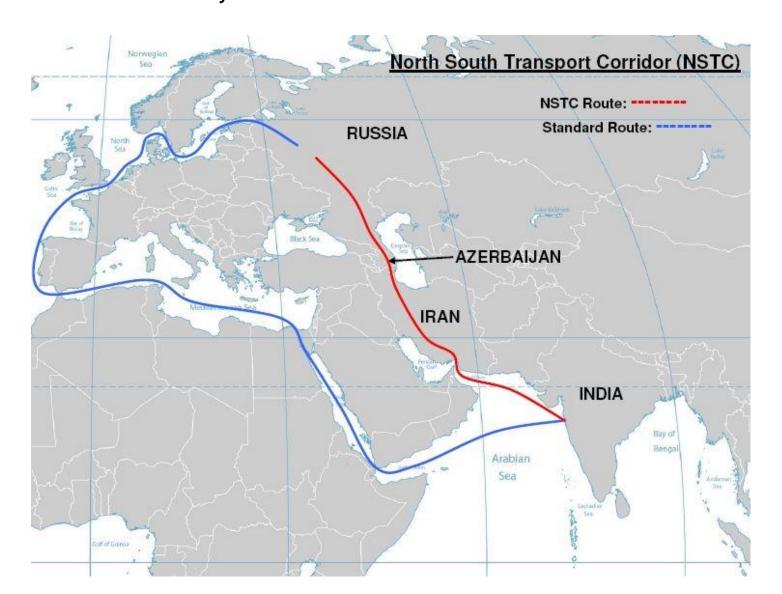
India's influence is now felt across various key regions:

- Indo-Pacific: India has increased its presence and strategic influence in the Indo-Pacific, a region critical for global trade and security.
- Gulf Countries: India maintains strong trade, investment, and energy partnerships
   with nations in the Gulf region.
- Central Asia: Ties with Central Asian states have strengthened, enhancing regional cooperation and stability.
- Africa: India has also focused on fostering cooperation along the East African
   coastline, creating stronger trade and investment links.

- India-Middle East-Europe Economic Corridor (IMEC):
  - This ambitious project connects India to Europe via the Arabian Peninsula,
     facilitating trade and reducing maritime shipping risks.



- International North-South Transport Corridor (INSTC):
  - The INSTC provides an alternative route to Eurasia, enhancing India's global connectivity.



# INDIA'S LEADERSHIP ROLE IN THE GLOBAL SOUTH

# **Vaccine Diplomacy and Health Initiatives**

- Vaccine Diplomacy: India's leadership during the COVID-19 pandemic is exemplified
  by its vaccine equity efforts, with over 301 million vaccine doses delivered to 99
  countries.
- International Solar Alliance (ISA):
  - o India has led the ISA, with 119 countries signing the framework and 99 countries ratifying it by August 2024, reinforcing its leadership in clean energy.

# **Development Partnerships**

- \$951.22 billion USD in grants and lines of credit have been provided to 78 countries since 2008.
- India has contributed \$3 billion USD in financial aid for infrastructure development in various countries, further solidifying its role as a development partner.

# **INFRASTRUCTURE & MARITIME EFFICIENCY**

Port Efficiency: India's port infrastructure has made impressive strides, with nine
 major ports now ranked among the top 100 globally, according to the World Bank.



- Visakhapatnam Port and Mundra Port are ranked among the top 30 ports worldwide.
- The Median Turnaround Time (MTT) for Indian ports has drastically reduced from 28
  days to 0.9 days by 2024, showing a major improvement in operational efficiency. For
  comparison:

US: 1.5 days

Australia: 1.7 days

Singapore: 1 day

# **MARITIME & MILITARY ADVANCEMENTS**

#### **India as a Maritime Power**

- India's growing role as a maritime security provider is evident in its strategic actions in the Indo-Pacific.
- INS Arighaat, India's second Arihant-class Ship Submersible Ballistic Nuclear Submarine (SSBN), was commissioned in 2024, reinforcing India's nuclear triad.

  These submarines are fully indigenous, showcasing India's commitment to Atmanirbhar Bharat (self-reliance).

# INDIA'S GLOBAL STRATEGIC & SECURITY FRAMEWORK

# **Five Elements of Security (Barry Busan Framework)**

India's **security framework** is based on five key pillars:

- 1. **Military**: India's armed forces, along with its growing **deterrent capabilities**, enhance both **national** and **regional security**.
- 2. **Political**: As the world's largest democracy, India's ideology of freedom, openness, and democratic governance resonates globally.
- 3. Economic: India's robust economic growth and vast resources contribute to global prosperity.
- Social: India's diverse cultural and social fabric fosters inclusivity, enabling greater global collaboration.
- 5. Environmental: India's commitment to sustainability and its leadership in initiatives like the International Solar Alliance (ISA) address urgent global environmental challenges.

# INDIA'S ROLE IN GLOBAL SECURITY

- India has become a key player in global security, with growing deterrence
   capabilities and active participation in global security frameworks.
- India's efforts as a first responder during crises, combined with its leadership in peacekeeping missions, further elevate its standing in the global order.

# Conclusion

India's journey from a "Fragile Five" economy to a leading global power has been driven by strategic reforms, strong leadership, and a focus on self-reliance. With continued focus on economic growth, defense capabilities, regional cooperation, and global leadership, India is well on its way to solidifying its position as one of the most influential countries in the world by 2047.

# GOVERNMENT INITIATIVES IN CLIMATE CHANGE: A SUSTAINABLE PATH FOR VIKSIT BHARAT@2047

#### Introduction

India, one of the most populous countries in the world, has been actively addressing climate change while striving for **inclusive** and **sustainable economic growth**. India's commitment to reducing carbon emissions, transitioning to clean energy, and building climate resilience is reflected in various significant initiatives. These efforts aim to meet **international climate commitments** and ensure a cleaner, greener future for generations to come.

# **ACHIEVEMENTS AGAINST NDCs (2015)**

India's progress in meeting its **Nationally Determined Contributions (NDCs)** under the Paris Agreement has been commendable:

# Emission Intensity Reduction:

 India achieved a 33% reduction in emission intensity from 2004-05 levels by 2019, surpassing the target.



# Non-Fossil Fuel Capacity:

 As of May 2024, India reached 45.40% of its installed electric power capacity from non-fossil fuel sources.

# Solar Power Expansion:

o In 2023-24, India added 15.03 GW of solar power, bringing its total to 82.64 GW by April 2024.

# **REVISED INDCs (2021)**

India at the COP26 to the UNFCCC held in Glasgow, UK in 2021, expressed to intensify its climate action by presenting 5-set of new targets (Panchamrit) of India's climate action.

#### These were -

- India will increase its non-fossil fuel energy capacity to 500 gigawatts (GW) by
   2030. (Presently it is around 167 GW)
- It will meet 50% of its energy requirements from renewable sources by 2030.
- The total projected carbon emissions will be reduced by 1 billion tonnes from now through 2030.
- The emission intensity of its economy will be brought down to less than 45%.
- India will achieve its target of net zero by 2070.

# **MAJOR INITIATIVES & POLICIES**

# 1. PM Surya Ghar Yojana

• Launch Date: February 13, 2024

• Budget: Rs. 75,021 crore

#### Goals:

- Install rooftop solar panels on 1 crore residential homes.
- Provide 300 units of complementary electricity per month.
- Reduce electricity costs and promote sustainable energy practices.

# • Key Features:

- Financial Assistance: Up to 60% subsidy for 2 kW systems and 40% subsidy for 3 kW systems.
- Collateral-Free Loans: To make solar energy more affordable.
- Target: Add 30 GW of solar capacity by 2030.
- Employment: Estimated to create over 1.7 million jobs.
- Environmental Impact: Significant reduction in CO2 emissions, promoting a transition to cleaner energy.

# 2. Sovereign Green Bonds

- Purpose: Financing climate-resilient projects.
- Initial Issue: Rs. 8,000 crore in 2024, with an additional Rs. 16,000 crore allocated.
- Focus Areas: Renewable energy, clean transport, and climate adaptation.
- Challenges: High-risk perception and insufficient return data.
- Future Potential: Mobilizing international investments for greater climate resilience.

#### 3. GOBAR dhan Initiative

- Objective: Convert organic waste into biogas by establishing 500 biogas facilities.
- Benefits:
  - Produces green energy from waste.
  - Reduces methane emissions.
  - Supports the Swachh Bharat Mission and creates rural economic opportunities.
- Expansion: Includes urban organic waste and strengthens industry partnerships.

#### 4. Critical Mineral Mission

• Objective: Secure essential minerals like copper and lithium for critical industries.

# • Strategies:

- Increase domestic production and recycling.
- Reduce import dependency.
- Foster R&D for better resource efficiency.
- Global Collaboration: Partnering with resource-rich nations for sustainable extraction.

# 5. MISHTI (Mangrove Initiative for Shoreline Habitats and Tangible Incomes)

- Launch Date: June 2023
- Goal: Conserve and rehabilitate 540 km² of mangroves across nine states and three

  UTs.

#### Benefits:

- Climate resilience: Acts as carbon sinks and storm barriers.
- Socio-economic: Promotes eco-tourism and sustainable fisheries.
- Biodiversity: Strengthens ecosystems for marine and coastal species.

#### 6. Amrit Dharohar

- Launch Date: Union Budget 2023-24
- Objective: Maximize wetland use for biodiversity, carbon storage, and ecotourism.



- Focus: Restore wetlands for improved water quality, biodiversity, and local revenue.
- Extended Goals: Expand inclusion of more Ramsar sites and integrate local community conservation practices.

# 7. Green Credit Programme

- Purpose: Promote afforestation and ecosystem restoration.
- Mechanism:
  - Participants earn green credits that can be traded in the market.
  - Supports India's net-zero emissions goal by 2070.
  - Encourages private sector participation and increases public awareness about ecological balance.

#### 8. Solar Park Scheme

- Timeline: Extended until 2025-26
- Goal: Develop large-scale solar parks.
- Key Projects:
  - Establish ultra-mega solar power plants in renewable energy zones.
  - Collaborate with states for efficient land use.

#### 9. Ecomark Scheme

- Revised: Ecomark Rules 2024
- Focus: Label environmentally friendly products.
- Future Prospects: Expanding to include tourism and healthcare sectors.

#### 10. Param Rudra Supercomputers

- Launch: 2024
- Purpose: Enhance climate modeling and scientific research.
- Cost: Rs. 130 crore under the National Supercomputing Mission.
- Applications:
  - Precision in climate prediction and early warning systems.
  - Research on renewable energy optimization.

#### 11. National Clean Air Programme (NCAP)

- Launch Date: 2019
- Target: Reduce PM10 and PM2.5 levels by 20-30% by 2024.
- Coverage: 132 non-attainment cities under NAAQS.
- Progress: Real-time air quality monitoring integration.
- Extended Goals: Include rural air quality monitoring systems.

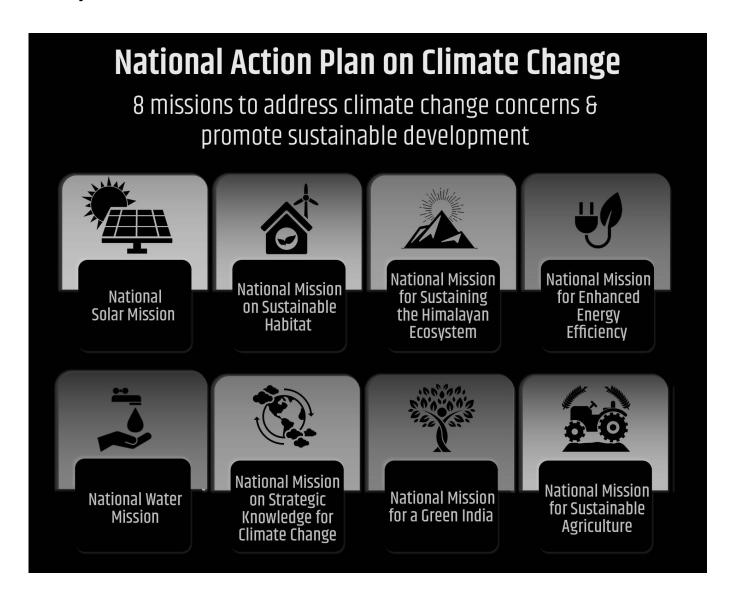
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# 12. National Action Plan on Climate Change (NAPCC)

Launch Date: 2008

Key Missions:



# 13. Energy Conservation (Amendment) Bill 2022

Passed: December 2022

# Key Features:

- Mandates non-fossil fuel energy sources.
- Introduces carbon credit trading.
- Strengthens energy efficiency standards across industries.

# 14. Net Zero Strategy by 2070

- Presented at COP27 (2022)
- Strategic Transitions:
  - Focus on low-carbon electricity and transport systems.
  - Urban adaptation and sustainable urbanization.
  - Enhancing forest and vegetation cover and promoting carbon removal technologies.
- Global Impact: Encourages collaboration and technology sharing for low-emission pathways.

#### CONCLUSION

India's climate initiatives are a comprehensive effort to achieve **sustainable development**while addressing the challenges of climate change. With policies like **green bonds**,

ADDRESS:



afforestation programs, and investments in renewable energy, India is making substantial progress toward its climate goals. The success of these initiatives will depend on robust implementation, community involvement, and international cooperation. India's leadership in climate action, including its commitment to achieving net-zero emissions by 2070, will be crucial in shaping a sustainable and equitable future for the country and the world.