

## Budget Series #8

### India geared for Energy Transition and Climate Action

*Union Budget 2022-23 provides roadmap for clean energy and climate mitigation – a development priority for the next 25 years*

(Ministry of Environment, Forests and Climate Change  
&  
Ministry of New and Renewable Energy)

February 25, 2022

*“Environment and sustainable development have been key focus areas for me all through my 20 years in office, first in Gujarat and now at the national level.”*

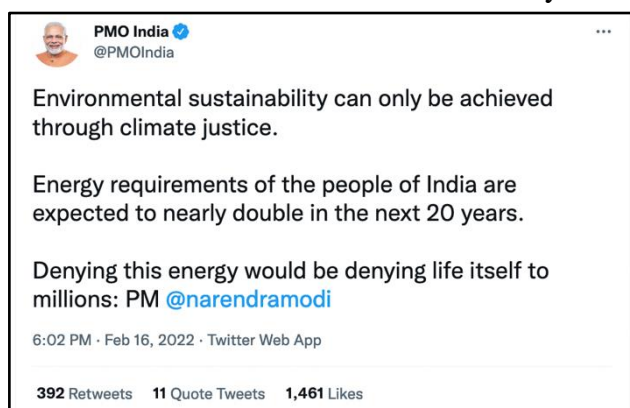
- [Prime Minister Narendra Modi](#)

India has time and again shown its commitment to environmental stewardship, climate action and focus on renewables to decarbonise the way the country operates. [Prime Minister, Narendra Modi, as a part of the national statement delivered at the 26<sup>th</sup> Conference of the Parties \(COP 26\) in Glasgow in November 2021, announced five bold and ambitious targets to be achieved to enable further reduction in emissions. The landmark net-zero commitment by 2070 was among the five new climate change targets announced by the Prime Minister. Net-zero means removing as many emissions of carbon dioxide from the atmosphere as produced.](#)

India’s four other commitments — all by 2030 are:

- Increasing non-fossil energy capacity to 500 Gigawatts (GWs),
- Fulfilling 50 per cent of energy requirements from renewable sources,
- Reducing carbon intensity of economy by 45 per cent, and
- Reducing total projected carbon emissions by One billion tonnes.

The need to start the one-word movement ‘LIFE’ which means ‘Lifestyle For



Environment’, urging mindful and deliberate utilization instead of mindless and destructive consumption, has also been underlined several times.

The provisions relating to climate in the **Union Budget 2022-23** are a reflection of India’s **commitment to achieve the target of net-zero carbon emissions by 2070.**

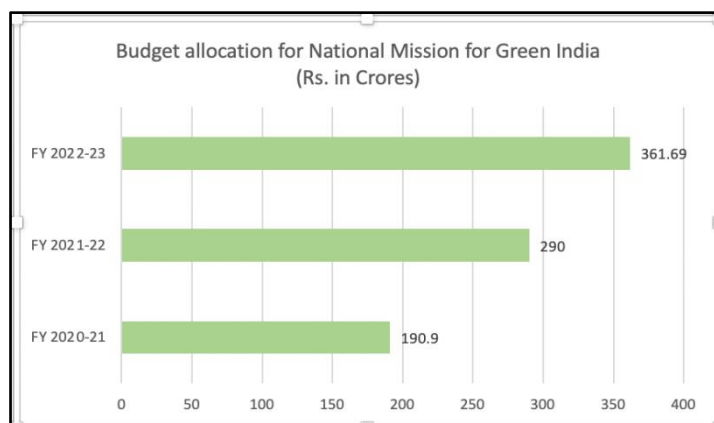
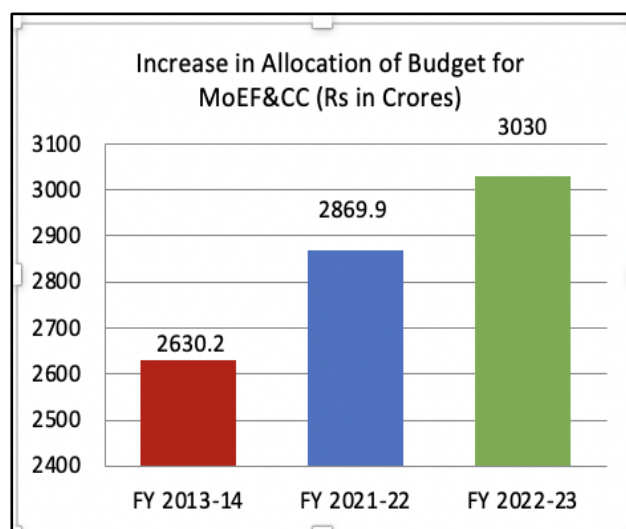
The Union Finance Minister, Nirmala Sitharaman in her Budget speech said “The risks of climate change are the strongest negative externalities that affect India and other countries.” She reiterated the low carbon development strategy, announced by the Prime Minister, as an important reflection of Government of India’s strong commitment towards sustainable development.

### Holistic approach cutting across Ministries:

Since no single ministry is responsible for moving India towards net zero, the Environment, Forest and Climate Change (MoEFCC), Ministry of New and Renewable energy (MNRE), and Ministry of Heavy Industries (which implements the Faster Adoption and Manufacturing of Hybrid & Electric Vehicles in India (FAME INDIA) scheme to promote electric vehicles), have largely been the driving force behind India's effort in this direction.

### Budget 2022 Allocations for Environment, Renewable Energy and Electric-mobility projects:

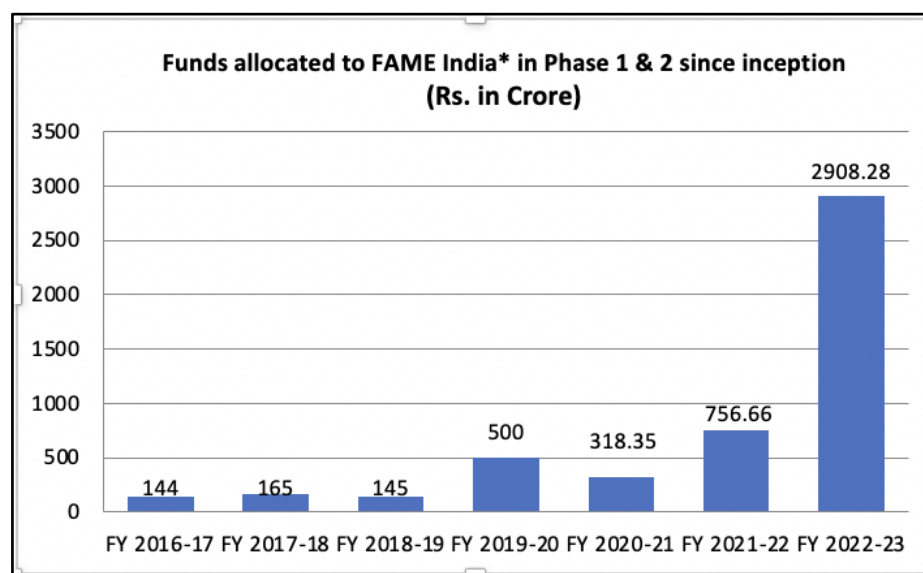
- The **Ministry of Environment, Forests and Climate Change** received a total allocation of Rs 3030 crore<sup>i</sup>, as compared to last year’s Rs 2869.93 crores.



- **National Mission for Green India** has been allocated **Rs 361.69 crores this year**<sup>ii</sup> up from Rs 290 crores in the last financial year, an increase of **24.72 per cent**.
- The **National Afforestation Programme** has been allocated Rs 300 crores, compared to last year's amount of Rs 235 crores, i.e., **an increase of 27.65 per cent**.
- **Climate Change Action Plan** has been allocated **Rs 30 crores**, same as last year.
- Of the Rs 3030 crores allocated to MoEFCC, **Rs 460 crores has been allotted towards control of pollution** which is a sizeable amount.
- **Major Boost to Electric Vehicle scheme of the Ministry of Heavy Industries**

Known as **FAME-India (Faster Adoption and Manufacturing of (Hybrid and) Electric Vehicle in India)**, the Scheme received a **big boost** from Rs 800 crores last year to **Rs 2,908 crores this year**<sup>iii</sup>.

Government had **approved Phase-II of FAME Scheme with an outlay of INR 10,000 Crore** for a period of five years commencing from 1st April 2019. This phase aims to generate demand by way of supporting 7,090 e-buses, five lakh e-Three wheelers, 55,000 e-Four-wheeler passenger cars (including strong hybrid) and 10 lakh e-Two wheelers. **Permit requirement for electric vehicles has also been removed. As of February 11, 2022 there are 966,363 electric vehicles presently on road** across the country. **GST on electric vehicles has also been reduced from 12% to 5%; GST on chargers/ charging stations for electric vehicles also reduced from 18% to 5%.**

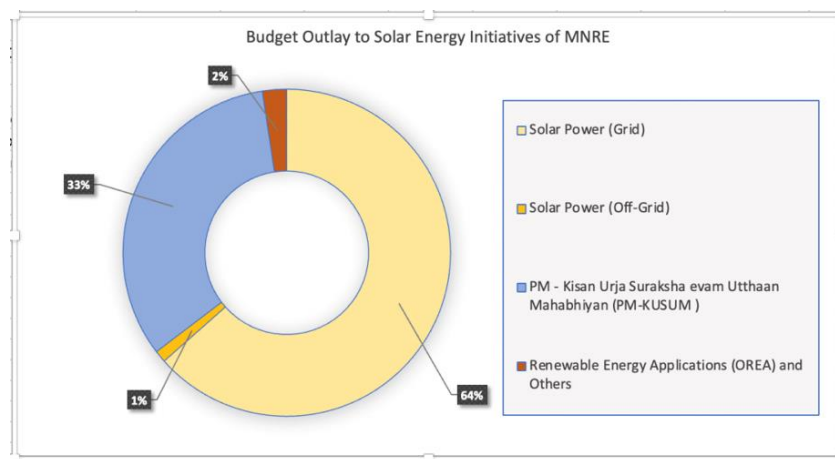


\*There was no such scheme for electric vehicles **prior to April 2015**

- **Ministry of New and Renewable Energy (MNRE)** being responsible for overseeing India's ambitious renewable energy targets was allocated **Rs 6,900.68 crores**<sup>iv</sup>.

To achieve the [target of producing 280 GW of installed solar capacity by 2030](#), the solar energy sector including both grid-interactive and off-grid projects received the highest allocation in the MNRE. It has been allocated Rs. 3365 crores compared to last year's Rs. 2606 crores, a **29 per cent increase**.

- Solar Power (Grid) – Rs. 3304.03 crores
- Solar Power (Off-Grid) – Rs. 61.50 crores
- PM-KUSUM – Rs. 1715.90 crores
- Other Renewable Energy Applications – Rs. 0.10 crores
- Others – Rs. 124.36 crores



### Propelling Green India - announcements in Union Budget 2022:

- In order to facilitate domestic manufacturing of 280 GW of installed solar capacity by 2030, an additional allocation of [Rs. 19,500 Crores has been proposed for Production Linked Incentives \(PLI\)<sup>v</sup>](#) for manufacturing of high-efficiency modules with priority to fully integrate manufacturing units from polysilicon to solar PV modules.
- A proposal to co-fire 5-7 per cent biomass pellets in thermal power plants, resulting in estimated carbon dioxide (CO<sub>2</sub>) reduction of 38 million tonnes annually, will help to provide extra source of income to farmers, increase job opportunities for the locals and prevent stubble burning in agricultural fields.
- Energy efficiency and savings promoted for large commercial buildings through the energy service company model, via capacity-building and awareness about energy audits.
- Four pilot projects proposed for coal gasification and conversion of coal into chemicals.
- Focus on **agro-forestry and private forestry**; support to farmers belonging to Scheduled Castes / Scheduled Tribes who want to take up agro-forestry.
- As part of the government's overall market borrowings in 2022-23, [sovereign Green Bonds will be issued for mobilizing resources for green infrastructure<sup>vi</sup>](#). The proceeds will be deployed in public sector projects which help in reducing the carbon intensity of the economy.

- **Blended finance** (with the government’s share limited to 20 per cent) to be promoted for climate action, agriculture and other clean technology; this will be managed by private fund managers.
- Inclusion of **energy storage** in the harmonized list of **infrastructure**.
- Promoting **transit-oriented development** for cities.
- Use of public transport in urban areas will be promoted.
- In [a push for electric vehicle \(EV\) adoption](#), a **battery swapping policy along with inter-operability standards to improve efficiency in the EV ecosystem was announced**. This will allow drivers to replace depleted battery blocks for freshly charged ones at swap stations, a faster option than charging stations. It also incentivizes the private sector to develop sustainable and innovative business models for ‘Battery or Energy as a Service.’
- Additionally, [the Budget Session was expected to discuss a new bill — The Energy Conservation \(Amendment\) Bill, 2022<sup>vii</sup>](#) — which aims “to provide regulatory framework for:
  - Carbon Trading in India,
  - Encouraging penetration of renewable in energy mix,
  - Effective implementation and enforcement of the Energy Conservation Act, 2001.

### **Recent Developments - India’s commitment to Green Energy Future:**

India is steadily boosting its green energy production capacity through wind, solar and hydro projects, in addition to reducing its dependence on fossil fuels. Furthermore, the work on 100% electrification of Railways is also progressing at a fast pace as Indian Railways has set a target of becoming Net Zero Carbon Emitter by 2030. The country is also emphasizing on Mission Circular Economy and India’s [Vehicle Scrap Policy](#) is a case in point. The Union Cabinet’s fresh equity injection of Rs 1,500 crore into IREDA to bolster its lending capacity demonstrates the government’s commitment to helping local bodies achieve the country’s 450 GW renewable energy targets.

India’s total forest and tree cover [increased by 2261 Sq. km in the last two years](#) reflecting India’s focus on environmental conservation. Mentioned below are some of the recent initiatives and developments of Govt. of India to enable seamless energy transition and affirmative climate action:

- [Global initiatives](#) spearheaded by India to tackle climate change include the [International Solar Alliance \(ISA\)](#), [Coalition for Disaster Resilient Infrastructure \(CDRI\)](#) and [Leadership Group for Industry Transition \(LeadIT Group\)](#)<sup>viii</sup>. LeadIT Group is one of the nine action tracks identified by the UN Secretary-General to boost climate ambitions and actions to implement the Paris Agreement.



- PM Modi inaugurated the [ICRISAT's Climate Change Research Facility on Plant Protection and Rapid Generation Advancement Facility on February 5, 2022](#)<sup>ix</sup>.

- On August 15, 2021, Hon'ble Prime Minister [launched the National Hydrogen Mission on India's 75th](#)

[Independence Day](#). The Mission aims to aid the government in meeting its climate targets and making India a green hydrogen hub. This will help in meeting the target of production of 5 million tonnes of green hydrogen by 2030 and the related development of renewable energy capacity. **Hydrogen and Ammonia are envisaged to be the future fuels to replace fossil fuels.** Production of these fuels by using power from renewable energy, termed as green hydrogen and green ammonia, is one of the major requirements towards environmentally sustainable energy security of the nation.

“Of every effort being made by India today the thing that is going to help India with a quantum leap in terms of climate is the field of Green Hydrogen. [To achieve the goal of Green Hydrogen, I am announcing the National Hydrogen Mission today with this tricolor as a witness.](#) We have to make India a global hub for Green Hydrogen production and export in the *Amrit Kaal*,” the Prime Minister said in his Independence Day speech. Government of India is taking various measures to facilitate the



transition from fossil fuel / fossil fuel-based feed stocks to green hydrogen / green ammonia. The [notification of this policy](#) is one of the major steps in this endeavor.

On June 5, 2021, PM announced the target of **20 per cent ethanol blending in petrol by 2025**. The ambitious target, which brings forward the blending target from 2030 to 2025, is a **key element of the economy-wide energy transformation**. As of [September 2021, the country has already reached 8.5 per cent ethanol blending and is on track to achieve the 20 per cent target by 2025 as per Economic Survey 2021](#). Considerable benefits can accrue to the country by ethanol blending, such as saving USD Four billion foreign exchange per year in imports, enhancing energy security, lowering carbon emissions, improving air quality, promoting productive use of damaged food grains and waste, increasing farmers' incomes, creating employment and investment opportunities.

## FOCUS ON RENEWABLE ENERGY

- In January 2022, the government [approved an investment of Rs 1,500 crores in the Indian Renewable Energy Development Agency \(IREDA\)<sup>x</sup>](#), which provides project financing to the Renewable Energy (RE) sector. This equity infusion will help in employment generation of approximately 10200 jobs/year and CO<sub>2</sub> equivalent emission reduction of approximately 7.49 million Tonnes CO<sub>2</sub>/year
- The government also [approved the Intra-State Transmission System – Green Energy Corridor Phase-II for laying infrastructure for connecting electricity generated from renewables with the power grid in seven states<sup>xi</sup>](#). The corridor scheme, with a total estimated cost of Rs 12,031 crores, would receive 33 per cent central financial assistance, or Rs 3,970 crores. The scheme will help in achieving the target of 450 GW installed RE capacity by 2030.

Ministry of Power  
@MinOfPower

The scheme will help in achieving the target of 450 GW installed RE capacity by 2030 and will also contribute to long term energy security of the country and promote ecologically sustainable growth by reducing carbon footprint #EnergySecurity

**GREEN ENERGY CORRIDOR PHASE-II**

**Cabinet approves Intra-State Transmission System - Green Energy Corridor Phase-II**

- To facilitate grid integration and power evacuation of approximately 20 GW of Renewable Energy projects in 7 States
- Gujarat, Himachal Pradesh, Karnataka, Kerala, Rajasthan, Tamil Nadu and Uttar Pradesh
- Total estimated cost Rs. 12,031 crore
- Central Financial Assistance at 33% of project cost i.e. Rs. 3970.34 crore

**Benefits**

- Scheme will help to achieve target of 450 GW installed renewable energy capacity by 2030
- Contribute to long term energy security of the country
- Promote ecologically sustainable growth by reducing carbon footprint

5:10 PM · Jan 6, 2022 · Twitter Web App

PIB India  
@PIB\_India

The Union Cabinet has approved the infusion of Rs 1,500 crores in the Indian Renewable Energy Development Agency Limited (IREDA). This will enable IREDA to lend Rs 12,000 crores to the renewable energy sector: Union Minister @ianuragthakur

#CabinetDecisions

1:19 10.4K views

3:37 PM · Jan 19, 2022 · Twitter Web App

- As on [December 31, 2021, solar power capacity of 49.35 Gigawatts \(GWs\) has been installed in the country](#), 36 GW solar energy capacity is under installation, and an additional 19 GW capacity was tendered as per the [Economic Survey 2021<sup>xii</sup>](#) through the initiatives mentioned below:

- [Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan \(PM-KUSUM\) Scheme launched in 2019](#) to provide energy and water security, de-dieselise the farm sector and generate additional income for farmers by producing solar power. The scheme aims to add 30.8 GW of solar capacity with central financial support of over Rs. 34,000 Crores. It has three components:

1. Installation of 10,000 MW of decentralized grid connected solar power plants each of capacity up to 2 MW,
2. Setting up of 20 lakh standalone solar powered agriculture pumps, and
3. Solarisation of 15 Lakh existing grid-connected agriculture pumps.

RBI has included these components under Priority Sector Lending Guidelines for easing availability of finance. As on 31 December, 2021 over 77000 stand-alone solar pumps, 25.25 MW capacity solar power plants and over 1026 pumps were solarised under individual pump solarisation variant.<sup>1</sup>

- To facilitate large scale grid connected solar power projects, [a scheme for “Development of Solar Parks and Ultra Mega Solar Power Projects” is under implementation with a target capacity of 40 GW capacity by March 2024](#). So far, 50 solar parks have been sanctioned with a combined capacity of 33.82 GW in 14 states. Solar power projects of an aggregate capacity of around 9.2 GW have already been commissioned in these parks.
- Roof Top Solar programme Phase-II for accelerated deployment of solar roof top systems, with a target of 40 GW installed capacity by December 2022, is also under implementation. So far, a [cumulative 5.87 GW capacity of solar roof top projects have been set up in the country](#).
- A [scheme for setting up 12 GW Grid-Connected Solar PV Power Projects by government entities](#) (including Central Public Sector Undertakings) is under implementation. Viability Gap Funding support is provided under this scheme. Under this scheme, Government has so far sanctioned around 8.2 GW of projects.
- Phase-III of the Off-Grid Solar PV Applications Programme for Solar Street Lights, Solar Study Lamps and Solar Power Packs was available till 31.03.2021. Till December 2021 over 1.45 lakh solar street lights were installed, 9.14 lakh solar study lamps were distributed and about 2.5 MW solar power packs were set-up as reported by State Nodal agencies.
- [Government of India has notified the offshore Wind Energy Policy in October 2015](#) to harness the potential of offshore wind energy along India’s coastline. Ministry of New and Renewable Energy is developing strategy and roadmap for installation of [offshore wind projects off the coast of Gujarat and Tamil Nadu](#). The Ministry has notified the wind solar hybrid policy, providing a framework for promotion of large grid connected wind-solar PV hybrid projects for optimal and efficient utilization of transmission infrastructure and land, reducing the variability in renewable power generation and achieving better grid stability.

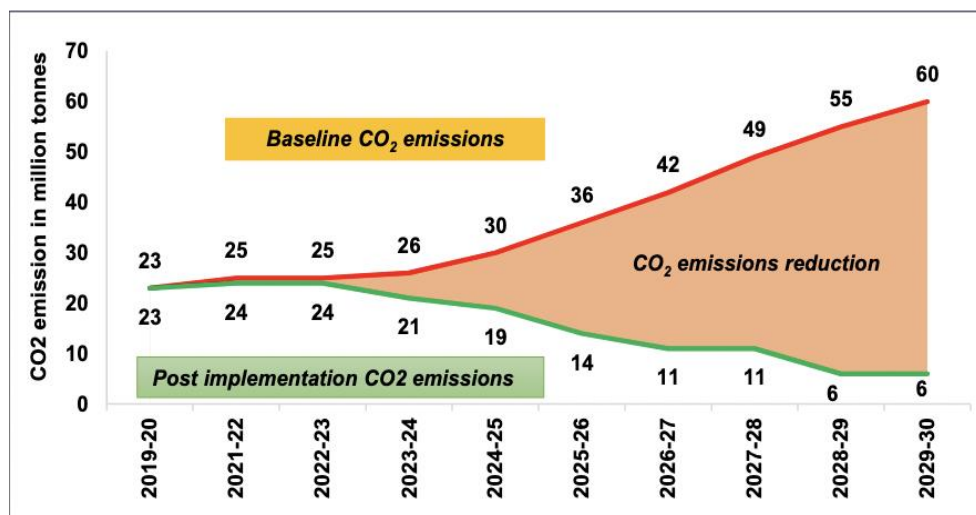
---

<sup>1</sup><https://www.indiabudget.gov.in/economicsurvey/doc/eschapter/echap06.pdf>



## INDIAN RAILWAYS GOES GREEN

- Major initiatives undertaken for reduction of carbon emissions include **100 per cent electrification of its network by December 2023**, use of three-phase technology for regenerative braking, “head on generation” technology eliminating the need for separate diesel fueled power cars, use of renewable energy source (133.26 MW solar and 103 MW wind installed capacity).<sup>2</sup>
- Provisioning of LED lights at all railway installations, and creation of additional carbon sink by afforestation.

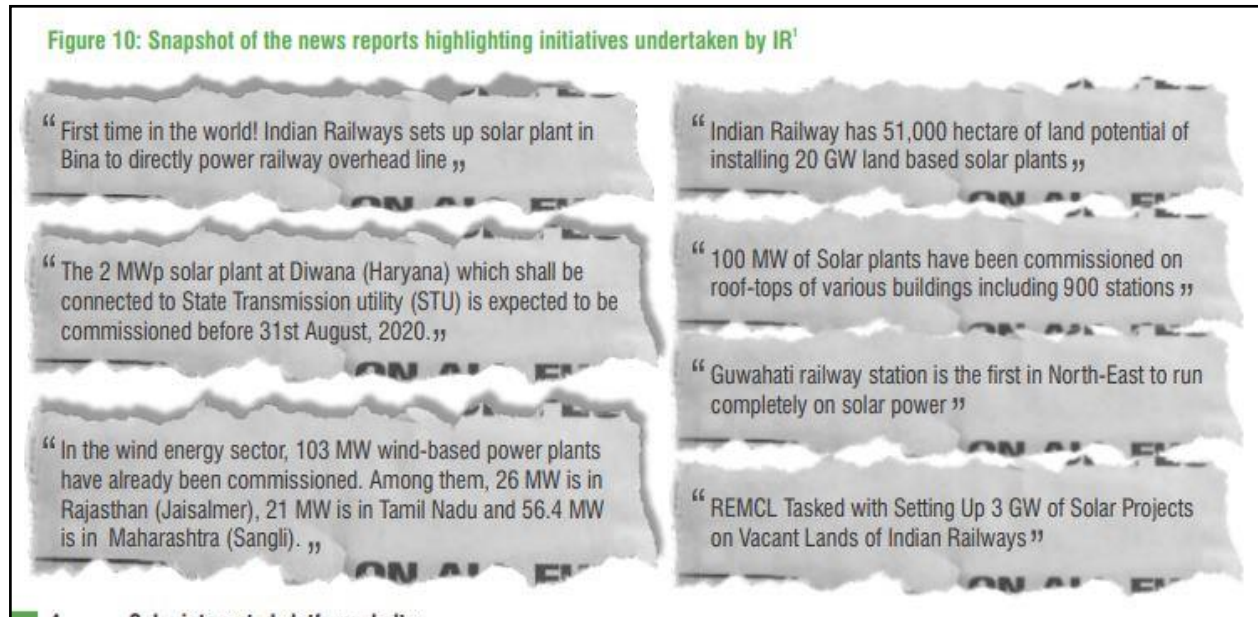


- Figure shows the expected CO<sub>2</sub> emission reduction by Indian Railways through use of renewable energy
- Indian Railways (IR) is working in mission mode to become the largest Green Railways in the world and is moving towards becoming a “net zero carbon emitter” before 2030. **Mission MODE: Indian Railways has set a target of Net Zero Carbon Emission by 2030**<sup>xiii</sup>, primarily by sourcing its energy requirements through renewable energy sources. Railway Electrification, improving energy efficiency of locomotives & trains and fixed installations, green certification for installations/stations, fitting bio toilets in coaches and switching to renewable sources of energy are part of its strategy of achieving net zero carbon emission.
- Indian Railways as part of Mission Mode is **working to harness the potential of 500 Mega Watt (MW) energy through roof top Solar panels (Developer model)**. As on July 2020, **100 Mega Watt (MW) of solar plants had been commissioned on rooftops** of various buildings **including 900 stations**. **Solar plants with a combined capacity of 400 MW are under different stages of execution**. Tenders have already awarded for 245 MW and target for completion of these plants is December 2022.
- One project of **1.7 MW at Bina (Madhya Pradesh) in collaboration with Bharat Heavy Electricals Limited (BHEL) has already been installed** and is presently under extensive testing. This is first of its kind of solar project in the world.

<sup>2</sup><https://www.indiabudget.gov.in/economicsurvey/doc/eschapter/echap06.pdf>

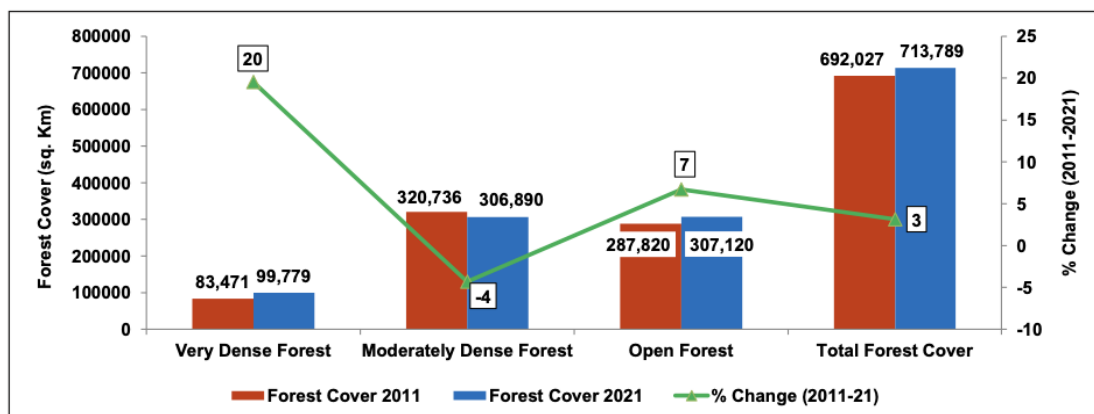
- In the wind energy sector, **103 MW wind-based power plants had been commissioned**. Among them, 26 MW is in Rajasthan (Jaisalmer), 21 MW is in Tamil Nadu and 56.4 MW is in Maharashtra (Sangli). Indian Railways has also planned to set up 200 MW wind energy plants in next Two years in Tamil Nadu, Gujarat, Rajasthan and Karnataka.

Figure 10: Snapshot of the news reports highlighting initiatives undertaken by IR<sup>1</sup>



## IMPROVEMENT IN FOREST COVER OF INDIA

### Forest Cover of India (2011 and 2021)



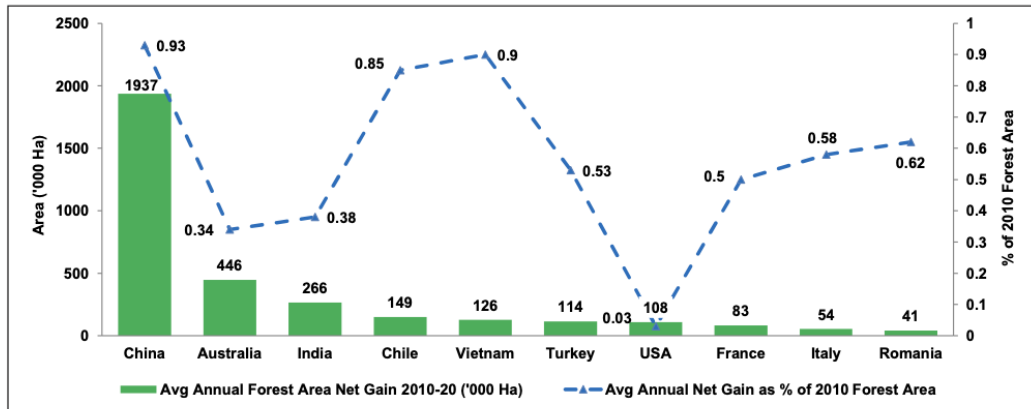
Source: India State of Forest Report 2021 and 2011

Note: Very dense forest: All lands with tree canopy density of 70 per cent and above); Moderately dense forest: All lands with tree canopy density between 40-70 per cent; and Open forest: All lands with tree canopy density between 10-40 per cent

India is the [tenth largest country by forest area in the world](#). It ranks third globally in annual average net gain in forest area between 2010 to 2020. The [India State of Forest Report 2020-21](#)<sup>xiv</sup> revealed that India's total forest cover was [7,13,789](#) sq. km in 2021, reflecting [an increase of 3.14% over 2011](#). The [Gain in Forest Cover or improvement in forest canopy density may be attributed to better conservation measures, protection, afforestation activities](#), tree plantation drives and agro-forestry.

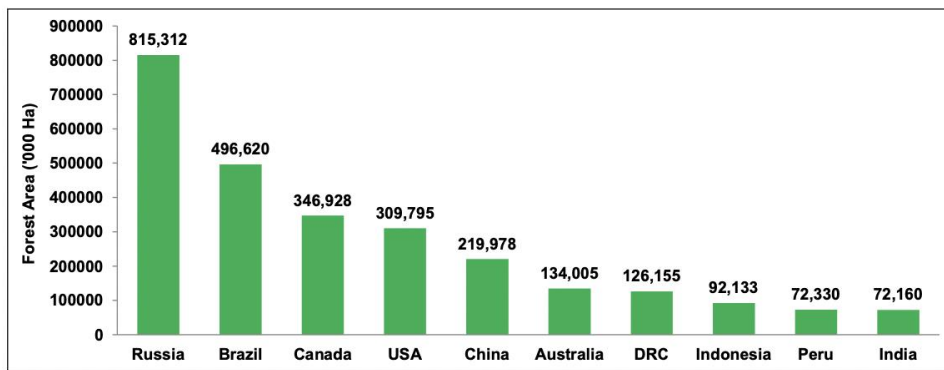
- India was also among the **top ten countries in terms of average annual net gain in forest area** between 2010-2020, as per the India State of Forest Report 2021.

**Top Ten Countries by Average Annual Net Gain in Forest Area (2010-20)**



Source: India State of Forest Report 2021

**Figure 6: Top Ten Countries by Forest Area in 2020**



Source: India State of Forest Report 2021

Note: DRC: Democratic Republic of the Congo

## STEPS TAKEN FOR PLASTIC WASTE MANAGEMENT

- In August 2021, the Ministry of Environment, Forest and Climate Change notified the [Plastic Waste Management Amendment Rules, 2021](#) prohibiting identified single use plastic items, which have low utility and high littering potential by 2022. The **manufacture, import, stocking, distribution, sale and use of identified single-use plastic, including polystyrene and expanded polystyrene, commodities shall be prohibited with effect from the July 1, 2022.** [The regulation seeks to strengthen the circular economy of plastic packaging waste](#), promote development of new alternatives to plastics and sustainable plastic packaging.

## INITIATIVES TO CURB AIR POLLUTION

- [National Clean Air Programme \(NCAP\)](#)<sup>xv</sup> launched in 2019 by MoEFCC is being implemented in [132 cities to achieve up to 30 percent reduction in concentrations of particulate matter](#) (PM, an air pollutant that impacts public health) by 2024 across the country. 96 cities showed a decreasing trend of PM10 concentration in 2020-21 as compared to 2019-20. The number of cities within the prescribed National Ambient Air Quality Standard (PM10 less than 60 µg/m<sup>3</sup>) also increased from 18 in 2019-20 to 27 in 2020-21.



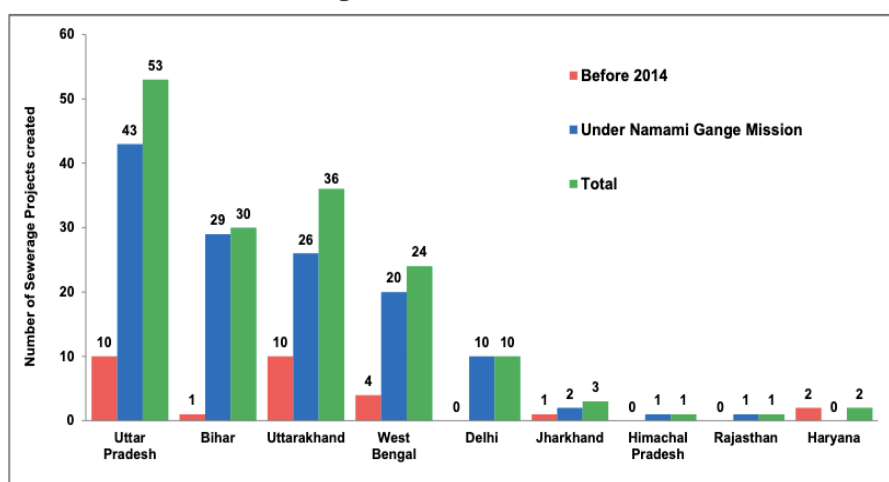
- [Steps to Curb Vehicular Emissions](#) - India has leapfrogged from [BS-IV to BS-VI norms for fuel and vehicles with effect from April, 2020](#). Metro rail networks for public transport have been enhanced and more cities have been covered. Cleaner/alternate fuels like CNG, LPG and ethanol blending in petrol have been introduced.

## CONSERVATION OF WATER –NAMAMIGANGE MISSION

The [NamamiGange Mission aims to protect, conserve and rejuvenate the Ganga River Basin](#). In 2015, the Cabinet approved the Mission for a period of five years (2015-2020) with a budget outlay of Rs. 20,000 crores. Subsequently, on 7 October 2016, under the Environment (Protection) Act, 1986, the National Mission for Clean Ganga (NMCG) was notified as an authority under Environment Protection Act, which is also the nodal agency responsible for monitoring and implementing the NamamiGange Mission. The activities undertaken as part of the Mission rest upon four pillars –Nirmal Ganga (Unpolluted Flow), Aviral Flow(Continuous Flow), Jan Ganga (People-River Connect) and Gyan Ganga (Research and Knowledge Management). As on December 2021, a total of 363 projects worth Rs.30,841.53 crores have been sanctioned under the mission.

- Given below is the state-wise distribution of the sewerage infrastructure projects created under the Namami Gange Mission since its inception, with the highest number of projects undertaken in Uttar Pradesh (43), followed by Bihar (29) and Uttarakhand (26).

### Sewerage Infrastructure Projects created under the Namami Gange Mission as of December 31, 2021



Source: National Mission for Clean Ganga (NMCG)

## PARIVESH Portal

**Parivesh** stands for Pro-Active and Responsive facilitation by Interactive, Virtuous and Environmental Single-window Hub. It is a portal for green clearances **launched in 2018 by PM Modi**. It is a web based, role-based workflow application which has been developed for **online submission and monitoring of the proposals submitted by the proponents for seeking Environment, Forest, Wildlife and CRZ Clearances from Central, State and district level authorities**<sup>xvi</sup>. It automates the entire tracking of proposals which includes online submission of a new proposal, editing/updating the details of proposals and displays status of the proposals at each stage of the workflow. The Union Budget 2022 also highlighted the scope of expansion of this portal through a Centralised Processing Centre-Green (CPC-Green).

## SUSTAINABLE DEVELOPMENT GOAL INDIA INDEX

As per NITI Aayog's **SDG India Index** released in June 2021, **India's score improved to 66 in 2020-21 from 60 in 2019-20**<sup>xvii</sup>. The index also ranks states based on their performance, and **Kerala emerged on top**<sup>xviii</sup>.

- Keezhattur village in Malappuram district of Kerala boasts of **100 per cent door to door collection of dry and wet waste**. A Material Collection Facility (MCF) is available at Grama Panchayats (GPs) level and forward linkages have been established through Resource Recovery Facility (RRF) at the block level.
- Further, an initiative that has successfully reduced the volume of dry discards or non-biodegradable waste is the effective implementation of the Green Protocol in all government offices, institutions and for events organized under the purview of the GP.
- All schools, Anganwadi Centres and public offices have toilet facilities.

To see India's progress on Sustainable Development and Climate Change as mentioned in the Economic Survey 2021, click [here](#).

## Sources

- Budget 2022 Speech by Hon'ble Union Minister of Finance ([Video Link](#) / [Text Link](#))
- [Post-Union Budget 2022-23 Conference](#) by Union Finance Minister Nirmala Sitharaman
- [Summary Of Union Budget 2022-23](#)
- [Highlights Of The Union Budget 2022-23](#)

## References

- [Union Budget 2022](#)
- [Economic Survey 2021-22](#)
- [SDG India Index 2020-21 Report](#) by Niti Aayog
- <https://www.narendramodi.in/pm-s-inaugural-address-at-teri-s-world-sustainable-development-summit-560106>
- [National Clean Air Programme \(NCAP\) – A Report by MoEFCC](#)
- [Prime Minister's address at G20 Summit session II: Climate Change and Environment](#)
- PIB Press Release on [Government notifies the Plastic Waste Management Amendment Rules, 2021, prohibiting identified single use plastic items by 2022](#) dated August 13, 2021
- <https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1745433>
- <https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1586051>
- PIB Press Release on [Prime Minister announces Coalition for Disaster Resilient Infrastructure at UN Climate Action Summit 2019](#) dated September 24, 2019
- PIB Press Release on [Efforts to drive low carbon development pathways in industry sector are critical for achieving the goals of the Paris Agreement: Shri Bhupender Yadav](#) dated November 9, 2021
- PIB Press Release on [NITI Aayog Releases SDG India Index and Dashboard 2020–21](#) dated June 3, 2021
- PIB Press Release on [Union Minister of Power and MNRE, Shri R.K. Singh, delivers keynote address at the 'India-ISA Energy Transition Dialogue 2021'](#) dated 25<sup>th</sup> August 2021
- MEA Release on [Universalization of the Membership of the International Solar Alliance \(ISA\)](#) dated January 15, 2021
- Article on [Must save farmers from climate crisis: PM in Hyderabad in Hindustan Times](#) dated February 5, 2021
- <https://static.pib.gov.in/WriteReadData/specificdocs/documents/2021/jun/doc20216441.pdf>

## Further Reading

- [How green is Union Budget 2022-23?](#)

## AG/HP/RC/RN/SS

---

<sup>i</sup><https://www.indiabudget.gov.in/doc/eb/sumsbe.pdf>

<sup>ii</sup><https://www.indiabudget.gov.in/doc/eb/sbe28.pdf>

<sup>iii</sup>[https://www.indiabudget.gov.in/doc/Budget\\_at\\_Glance/bag7.pdf](https://www.indiabudget.gov.in/doc/Budget_at_Glance/bag7.pdf)

<sup>iv</sup><https://www.indiabudget.gov.in/doc/eb/sumsbe.pdf>

<sup>v</sup><https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1794473>

<sup>vi</sup>[sovereign Green Bonds will be issued for mobilizing resources for green infrastructure.](#)

<sup>vii</sup>[https://rajyasabha.nic.in/business/Bull\\_No.aspx?number=61697](https://rajyasabha.nic.in/business/Bull_No.aspx?number=61697)

<sup>viii</sup><https://isolaralliance.org/>

<sup>ix</sup><https://pib.gov.in/PressReleasePage.aspx?PRID=1795778>

<sup>x</sup><https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1790941>

<sup>xi</sup><https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1788011>

<sup>xii</sup>[https://www.indiabudget.gov.in/economicsurvey/ebook\\_es2022/index.html](https://www.indiabudget.gov.in/economicsurvey/ebook_es2022/index.html)

---

xiii <https://pib.gov.in/PressReleasePage.aspx?PRID=1638269>

xiv <https://static.pib.gov.in/WriteReadData/specificdocs/documents/2022/jan/doc20221207001.pdf>

xv [https://moef.gov.in/wp-content/uploads/2019/05/NCAP\\_Report.pdf](https://moef.gov.in/wp-content/uploads/2019/05/NCAP_Report.pdf)

xvi <https://parivesh.nic.in/>

xvii <https://pib.gov.in/PressReleasePage.aspx?PRID=1723952>

xviii <https://pib.gov.in/PressReleasePage.aspx?PRID=1795402>