



# National Mission on use of Biomass in Coal Based Thermal Power Plants

## Why in News

Recently, the Ministry of Power has decided to set up a **National Mission on use of Biomass in coal based thermal power plants.**

## Key Points

### ▪ About:

- The proposed National Mission on biomass will also contribute to the [National Clean Air Programme \(NCAP\)](#).
- It would further **support the energy transition in the country** and our targets to move towards **cleaner energy sources.**

### ▪ Aim:

- To **address the issue of air pollution** due to farm **stubble burning** and to **reduce carbon footprints of thermal power generation.**

### ▪ Objective:

- Increase the **level of biomass co-firing from present 5% to higher levels** to have a larger share of carbon neutral power generation from the thermal power plants.
  - **Biomass co-firing** stands for adding biomass as a partial substitute fuel in high efficiency coal boilers.
- **Take up R&D (Research & Development)** activity in boiler design to handle the higher amount of silica, alkalis in the biomass pellets.
- **Facilitate overcoming the constraints in supply chain of biomass** pellets and agro-residue and its transport upto to the power plants.
- Consider **regulatory issues in biomass co-firing.**

### ▪ Proposed Structure:

- The Mission would have a **Steering Committee headed by the Secretary (Ministry of Power)** comprising all stakeholders including **representatives from the Ministry of Petroleum & Natural Gas , Ministry of New & Renewable Energy etc.**
- **National Thermal Power Corporation Limited** will play a larger role in providing logistics and infrastructure support.

### ▪ Duration:

- The duration of the proposed National Mission would be a **minimum 5 years.**

### ▪ Initiatives to Reduce Pollution from Coal Power Plants:

- **Stringent emission standards** for coal based thermal power plants have been notified.
  - Compulsory adoption of emissions standards for installing **Flue Gas**

**Desulphurization (FGD)** units that cut emissions of toxic sulphur dioxide.

- **Approved automatic transfer of coal linkage from inefficient power plants to new supercritical plants** subject to certain conditions to promote setting up of supercritical units in place of old ones.
- Thermal power plants within 50 km of sewage treatment facilities will **mandatorily use treated sewage water**.

▪ **Other Initiatives to Reduce Air Pollution:**

- [Bharat Stage-VI \(BS-VI\) emission norms](#).
- [UJALA scheme](#).
- [International Solar Alliance](#).
- [National Action Plan on Climate Change \(NAPCC\)](#).

## **Biomass**

▪ **About:**

- **Biomass** is plant or animal material used as fuel to produce electricity or heat. Examples are wood, energy crops and waste from forests, yards, or farms.
- Biomass has always been an **important energy source for the country considering the benefits it offers**.

▪ **Benefits:**

- It is **renewable, widely available, carbon-neutral** and has the potential to provide **significant employment in the rural areas**.
- It is also capable of providing firm energy. About **32% of the total primary energy use in the country is still derived from biomass** and more than **70% of the country's population depends upon it** for its energy needs.

▪ **Biomass power & cogeneration programme:**

◦ **About:**

- Initiated by the **Ministry of New and Renewable Energy**.
- For efficient utilization of biomass, **bagasse based cogeneration in sugar mills and biomass power generation** have been taken up under the programme.
- **Biomass materials used for power generation include** Rice husk, straw, cotton stalk, coconut shells, soya husk, de-oiled cakes, coffee waste, jute wastes, groundnut shells, saw dust etc.

◦ **Objective:**

- **Promoting technologies for optimum use** of the country's biomass resources for grid power generation.

**Source: PIB**