

# Green Power Environ

Singrauli - Madhya Pradesh

**S**ingrauli, the energy consortium and home to tribal communities, forest dwellers and some of the most threatened forests in central India has recently turned over a green leaf. The city is the source of 11% power required for developmental projects across the country. Blessed with abundant coal supply, the district is dotted with coal mines and coal-fired thermal power plants, which together have an installed capacity of about 12,700 MW. The mines produce nearly 83 tonnes of coal per annum (MTPA). However, non-judicious coal mining practices have endangered the pollution control level of the district. In 2010, the Ministry of Environment, Forest and Climate Change (MoEF), Government of India, declared Singrauli a critically polluted area on the basis of the Comprehensive Environmental Pollution Index (CEPI) of 81.73. Incremental coal mining activities in the region and the rapid development of coal-based thermal power plants resulted in acute air



## CHALLENGES FACED

- Singrauli was rated ninth most critically polluted area of India
- Spread of mercury pollution
- With seven power plants running in and out, large number of carbon credit units were being lost on daily basis





#### FINAL OUTCOMES

- About four lakh trees planted in an area of 400 hectare
- All 17 types of units installed ambient air quality monitoring system at source
- Improved disposal of bio-medical waste
- 13 Reverse Osmosis plants installed in CEPI area of Singrauli for improved supply of portable drinking water to common public

absorption rate of 22 kg per annum, each. In addition to the afforestation drive, specific recommendations were given for fly ash management through 100% fly ash utilisation. The District Administration utilised the fly ash in the construction work done under Pradhan Mantri Awas Yojana (PMAY) and Swachh Bharat Mission (SBM). The Committee also banned the discharge of fly ash slurry in the Rihand reservoir and local water bodies. Industrial effluents from coal power plants are also put under monitoring. Operating industries were mandated to install air quality monitoring stations at their own cost.

Singrauli is one of the first regions in the country to use conveyor belts for coal transportation, which has reduced the air pollution and has also checked road accidents. National thermal Power Corporation (NTPC) and Northern Coalfields Limited (NCL) coal mines of the Singrauli area in Madhya Pradesh installed RO water purifying systems for CEPI area in order to provide clean drinking water to the inhabitants.

The District Administration adopted modern technology to monitor and prevent environmental hazards in the area. Global Position System (GPS) devices to track speed and movement of road based coal transportation and Speed Governors to limit the speed of road based coal transportation were installed. Ambient Air Quality Monitoring Systems was also put in place. Power plants in NTPC, Vindhyachal adopted Advance Technology Flue Gas Desulfurisation (FGD) for removal of oxides of sulphur from the chimney gases. In order to curb pollution in the area, door-to-door waste collection is encouraged by Nagar Nigam in all its 45 wards for proper disposal of household waste.



and water pollution, leading to serious health problems among the residents of the locality. A special Committee was formed with district officials, major industrial stakeholders and civil society groups to look into the matter on priority basis. The Committee deduced that the pollution was a direct result of overburdening on coal mining and poor management of hazardous waste by industries.

Based on the findings of the Committee, several initiatives were adopted which included an afforestation drive. The first step towards solving an environmental crisis is by encouraging mass afforestation initiatives. The district planted 4,46,000 trees with pollution