

Partnership with the Ministry of Railways



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UNDP is proud of its productive partnership with the Ministry of Home Affairs

UNDP's partnership with the Ministry of Railways is promoting energy efficiency in the Indian railways, one of the world's largest railway networks. Transporting close to 13 million passengers every day, the Indian railways is also amongst the highest consumers of electricity in the country.

Since 2009, UNDP has been privileged to support a project with the Ministry aimed at removing key barriers that prevent wider adoption of energy efficiency technologies and measures in the railway system. In addition, the Ministry of Railways in partnership with UNDP has developed a proposal for the Global Environment Facility to accelerate the deployment of rooftop and on-land Solar Photovoltaic systems by effectively utilizing waste land and rooftops of platforms, buildings, hospitals and railways offices.

The partnership has supported key priorities

A number of impressive milestones have been reached through the partnership.

R&D on energy efficiency

A Centre of Excellence on energy efficient technologies and solutions has been established at the Indian Railways Institute of Electrical Engineering at Nasik, Maharashtra introducing new courses on practical energy performance training. Energy audit guidelines and manuals have been prepared for each of the rail operations like production units, maintenance units and traction substations.

Real-time data on energy consumption

Energy consumption from across 16 railway zones is being monitored and the data fed online through a web-based platform developed with the help of the Centre for Railway Information Systems (CRIS). The Centre has also designed and developed a website – IRGREENERI - to disseminate information on the green initiatives taken by the Indian Railways. Periodic demonstrations in energy efficient technologies are being conducted for the staff of the Indian Railways to show how these measures can be applied in Indian conditions.

Expanding solar energy use

The partnership is already exploring use of private sector investment for 75MW solar installations in Gujarat and Rajasthan on railway UNDP and the Ministry of Railways submitted a proposal to the Global Environment Facility (GEF) on improving private sector investments for 75MW solar installations in covering railway platforms and unused railway land. This also forms the core of the proposed 4GW solar installations across Indian railways.

Climate-friendly compartments and buildings

The partnership has taken numerous steps to reduce greenhouse gas emissions. Across India, electrical lights in 150 compartments in passenger trains, have been replaced with energy efficient LED lights. Maintenance costs have declined, lighting quality is much better and its expected that this measure will save over 4 million units. Optimal optimal light control systems in the Delhi division have helped reduce energy consumption by reducing voltage, but ensuring illumination remains adequate.

Under its on-going partnership, it has been agreed that UNDP will:

- **Install** 500 Automatic Meter Reading (AMR) meters that will automatically collect and analyse data on energy consumption.
- **Establish** a Technology Information Resource and Facilitation Desk at the Research Design and Standards Organization, Lucknow, Uttar Pradesh
- **Roll out** energy audit guidelines for all railway operations and energy audits in six Railway zones
- **Demonstrate** energy efficient technologies in traction and non-traction operations to establish their cost-effectiveness and demonstrate their applicability in the Indian environment.