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## India to focus on achieving efficiency - Energy body

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BL reported that as a strategy to combat climate change in the global attempt to reduce carbon dioxide emissions in the coming decade's major focus has been on China and India 2 of world's most populous countries that continue to register rapid economic growth and by implication are rapidly growing emitters of CO<sub>2</sub>.

### 1. Devoting attention

Admittedly there are substantial challenges for all countries and regions in their Endeavour to reduce emissions but how the two Asian giants play ball with other nations will determine the total quantum of global emission in future.

No wonder in its recently published Energy Technology Perspectives 2010 report containing scenarios and strategies to 2050 the International Energy Agency has devoted a lot of attention to China and India in addition to OECD Europe and the US.

Each of these regions will have a crucial role to play in helping achieve 50 % reduction in global CO<sub>2</sub> emissions as envisaged by the IEA in its ETP report. Admittedly currently India has by far the lowest absolute emissions and average emissions per capita the latter being only 6% of those in the US. However going forward things are not going to be the same.

### 2. Relative increase

The Baseline scenario under ETP is that CO<sub>2</sub> emissions in India show the largest relative increase rising nearly 5 fold by 2050. Consistent with varied fuel mix and varied levels of emissions in different regions the BLUE Map scenarios drawn up by ETP 2010 envisages large scale investment and government policies supportive of carbon reduction.

### 3. Measures to improve

According to this scenario while emissions in India rise by 10 % in the US, Europe and China emissions decrease but at varying levels. Critically the BLUE Map scenarios show that measures to improve energy efficiency and reduce CO<sub>2</sub> emissions in energy intensive sectors such as iron and steel, cement and chemicals should be a priority as they will have significant impact on the country's overall energy use and emissions.

### 4. Electricity demand

As India will exhibit strong electricity demand growth over the next 40 years to sustain economic development and meet increasing household electricity needs huge additional capacities will be required.

The report observed that this opens up the possibility of building a low carbon electricity system almost from the scratch.

Solar is identified as the most promising renewable energy technology for India. Solar could play an important role along with nuclear and some fossil fuel with carbon capture and storage. Although India has some of the world's most efficient industrial plants it also has a large share of inefficient plants.

### 5. Income increase

The report noted that there exists potential to achieve overall energy efficiency but it may be seriously constrained by the unhealthy combination of a large number of small scale plants, the low quality of indigenous coal and the quality of some primary sources such as iron ore. Increase in household incomes and in industrial production will generate large increases in demand for transport.

### 6. Improvement

However improvements in new vehicle technology and the penetration of hybrid, plug in hybrid, battery and natural gas vehicles will limit increases in CO<sub>2</sub> emissions for which investment and favourable policies are necessary.

### 7. Role of migration

Strong growth in the buildings sector both household and commercial means strong growth in energy demand driven by improved standards of living and higher demand for services.

Migration from rural to urban areas will also play a role in increasing energy consumption. Efficiency improvements in space cooling and appliances will be critical in restraining growth in energy consumption and emissions.

(Sourced from Business Line)

