

INFOGRAPHICS

14 DECEMBER – NATIONAL ENERGY CONSERVATION DAY

TODAY'S WASTAGE TOMORROW'S SHORTAGE



ENERGY CONSERVATION

- Using energy efficiently by avoiding unnecessary use

TYPES OF ENERGY

- **Renewables**—are replenished by the environment over short periods
- **Non Renewables**—are not easily replenished by the environment

MAJOR CHALLENGES

- Gap in the demand and supply
- Energy consumption doubled between 1990 & 2013
- India's energy generation capacity—70% from fossil fuels, 40% from coal, 24% from crude oil, 6% from natural gases
- Energy resources are limited—India has approximately one percent of the world's energy resources, however, it comprises of 16 percent of the world's population
- Energy use is faster than its production
- Increasing dependency on imported fuels
- Electricity shortage—insufficient fuel supply, power generation & transmission capacity

THE BACKGROUND

- Celebrated all over India on 14 December every year
- The Energy Conservation Act 2001—implemented by the Bureau of Energy Efficiency, Govt. of India
- BEE promotes energy efficiency & conservation



ENERGY CONSERVATION MEASURES

- **Self-cleaning Solar Power Tree by CSIR-CMERI**
 - » Novel solar cells designed for urban & rural regions
 - » Produces 5kW of energy using just four square feet of space
- **Biomass Gasifier Technology by TERI:**
 - » De-centralized source of energy, low initial investment, affordable
- Eco-friendly oil recovery by Microbial Technology
- New Biofuel Technologies—cellulosic ethanol & biodiesel from microalgae
- Use of natural lighting
- Installation of energy efficient windows & appliances



FACTS

- The global primary production increase in 2015 (0.8%) has been the lowest recorded since 1999 (except in 2009)

Total Energy Consumption (Unit: Mtoe)

Top five countries with highest energy consumption	
China	3,101
United States	2,196
India	882
Russia	718
Japan	435

Total Primary Production (Unit: Mtoe)

Top five countries with highest energy production	
China	2,640
United States	2,012
Russia	1,341
Saudi Arabia	650
India	593

Total Energy Trade (Unit: Mtoe)

Top five countries involved in energy trade	
China	483
Japan	418
India	300
United States	255
South Korea	238

Source: yearbook.enerdata.net

14 DECEMBER – CREATE AWARENESS REGARDING

- Need for energy conservation
- Energy efficiency
- Frugality in energy use

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