



Chhattisgarh Celebrates World Biofuel Day

Why in News?

The **Chhattisgarh Biofuel Development Authority (CBDA)** celebrated **World Biofuel Day** (on 10th August 2024) in Gorhi village, Durg district, with enthusiasm and dignity.

- The event highlighted green energy, rural engagement, and biofuel promotion, with **CBDA successfully producing biodiesel from non-edible** oilseeds and used cooking oil, and future plans for biojet fuel, bioethanol, and green hydrogen.

Key Points About World Biofuel Day

- It **aims to raise awareness about non-fossil fuels** as sustainable energy alternatives and to highlight government initiatives that **support the biofuel industry**.
- The **day commemorates** the successful **operation of an engine on peanut oil by German engineer Sir Rudolf Diesel** on 9th August 1893.
- **Theme for 2025: "Biofuels: A Sustainable Pathway to Net Zero"**

Biofuels

- **Biofuels** are fuels derived from **plant biomass or animal waste** and are renewable energy sources. Common biofuels include:
 - **Ethanol:** Made by **fermenting crop residues like corn and sugarcane**, then blended with petroleum to reduce emissions. The common blend is Ethanol-10 (10% ethanol).
 - **Biodiesel:** A biodegradable **fuel produced from used cooking oil**, recycled grease, or animal fats, made by reacting oil or fat with alcohol and a catalyst.
- **Significance of Biofuels:**
 - **Environmental Benefits:** Biofuels reduce greenhouse gas emissions, resource depletion, and improve waste management.
 - **Energy Security:** With over 85% of oil imported, biofuels can enhance India's energy security.
 - **Economic Benefits:** Biofuels can reduce oil imports, lower the import bill, and boost farm incomes, especially from surplus crops like corn and sugarcane.
 - **Abundant Availability:** Biofuels can be produced from crops, waste, and algae.

Note

- **India is the world's 3rd largest oil consumer** (behind the US and China).
 - **India aims to achieve a 20% ethanol blending target by 2025.**
 - The first **2G ethanol project** was inaugurated in **Panipat**, Haryana in 2022.
 - 2G ethanol is a biofuel produced from non-food sources like agricultural residues and waste.

