

6. Sustainable Alternative towards Affordable Transportation (SATAT)

Prelims Level: Climate change and its Impacts

Mains Level: GS-III Conservation, environmental pollution and Degradation, Environmental Impact

Assessment.

Why in News?

- SATAT is an initiative aimed at setting up of Compressed Bio-Gas production plants and make it available in the market for use in automotive fuels as a developmental effort that would benefit both vehicle-users as well as farmers and entrepreneurs.
- The initiative was launched by the Ministry of Petroleum & Natural Gas in association with Public Sector Undertaking (PSU) Oil Marketing Companies (OMC) Indian Oil Corporation Ltd., Bharat Petroleum Corporation Ltd. and Hindustan Petroleum Corporation Ltd.

Biogas:

- It is produced naturally through a process of anaerobic decomposition from waste / bio-mass sources like agriculture residue, cattle dung, sugarcane press mud, municipal solid waste, sewage treatment plant waste, etc.
- After purification, it is compressed and called CBG, which has pure methane content of over 95%.
- Compressed Bio-Gas is exactly similar to the commercially available natural gas in its composition and energy potential.
- With calorific value and other properties similar to CNG, Compressed Bio-Gas can be used as an alternative, renewable automotive fuel.

Implementation:

- Compressed Bio-Gas (CBG) plants are proposed to be set up mainly through independent entrepreneurs.
- CBG produced at these plants will be transported through cascades of cylinders to the fuel station networks of OMCs for marketing as a green transport fuel alternative.
- There are multiple benefits from converting agricultural residue, cattle dung and municipal solid waste into CBG on a commercial scale:
 - ✓ Responsible waste management, reduction in carbon emissions and pollution
 - ✓ Additional revenue source for Farmers
 - ✓ Boost to entrepreneurship, Rural Economy and Employment
 - ✓ Support to national commitments in achieving climate change goals

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- ✓ Reduction in import of natural gas and crude oil
 - ✓ Buffer against crude oil/gas price fluctuations

