

# Hydrothermal carbonization

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## Why in news?

The method of hydrothermal carbonization (HTC) has been tailored by IIT Kharagpur research team to the Indian environment and is capable of effectively handling mixed, high humidity, urban solid waste (MSW).

## What are hydrothermal charges?

- Presently, India has adopted a waste incineration process similar to developed countries that mainly focuses on the treatment of drier waste.
- These processes require high energy consumption for the burning of urban solid waste in India.
- Due to tropical weather, open collection systems and mixed waste, only 20-30% of organic fraction of municipal solid waste is being recycled to biofuel.
- The new technology of Hydro Thermal Carbonization (HTC) can convert wet municipal solid waste to biofuel, soil absorbents.
- The moisture in the waste is used to the advantage of the process which uses water for the reaction.
- The biofuel generated as the recovered output is comparable to lignite coal thus significantly addressing the fossil fuel depletion issue and helping curb air pollution issues.
- The product can further be used as an absorbent to manage soil contamination which could significantly help brownfield sites or contaminated industrial sites or landfills.
- The technology can be used by the civic bodies to effectively manage solid waste.
- Once the organic waste is entered into the process, the outputs generated are all usable.

