

**CSIR-CENTRAL GLASS & CERAMIC RESEARCH DIVISION**  
**BUSINESS DEVELOPMENT & PUBLICATION DIVISION**

i. **Name of Technology:** Active carbon from Water Hyacinth Biomass

ii. **Details of technology:**

**Abstract:**

The developed technology offers a simple and easily scalable method to convert *water hyacinth*, a fast-spreading, environmentally damaging aquatic weed into high-performance activated carbon. This carbon material is suitable for use in energy storage systems and various other applications. The innovation from CSIR-CGCRI simultaneously tackles waste management challenges and promotes sustainable material development by providing an industry-ready process for transforming this problematic biomass into functional activated carbon.

**Deliverables:**

Through this technology, CSIR-CGCRI can provide:

2. A scalable production process.
3. The technical know-how for designing the associated process equipment
4. Activated carbon as the final product

i. **Year of Development:** 2023-2025

ii. **TRL:** 4

iii. **Patenting Status:** Indian Patent application No. 0207NF2025, Title: DUAL-FUNCTIONALIZED GRAPHITIC CARBON DERIVED FROM WATER HYACINTH FOR ELECTRONIC AND ENERGY STORAGE APPLICATIONS

iv. **Whether already licensed:** Not Yet

v. **If so, details of licensing:** N.A.

vi. **Project under which the technology has been developed:** CSIR Waste to Wealth Mission, HCP0054