

# In Hyderabad, a lake that's calm and compost

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## Scientists convert water hyacinth choking Kapra lake into organic fertilizer that meets official standards

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Hyderabad's lakes have been a source of concern for the Greater Hyderabad Municipal Corporation on several counts. They are polluted, they are breeding grounds of mosquitoes, and they are choked by water hyacinth.

Now, the Indian Institute of Chemical Technology (IICT) has come out with a plan that could resolve several problems at once: turning the water hyacinth into organic manure.

Residents of Sainikpuri,

east of the city, would be the first beneficiaries of this unique effort. A pilot project on the sprawling Kapra lake took off last month, with workers pulling out the plant with the help of an earthmover. The lake's original spread was 164 acres. Despite encroachments, it still occupies 113 acres, of which 80 acres are covered by hyacinth – an estimated 16,000 tonnes of plant matter.

“The discharge of industrial waste and sewage into waterbodies leads to



The hyacinth is removed, to be turned into organic fertilizer. ■ NAGARA GOPAL

the growth of water hyacinth (*Eichhornia crassipes*), which affects the lake's ecosystem and causes

groundwater contamination. Hence the need for remedial action,” said A. Gangagni Rao, senior principal scientist, bioengineering and environmental sciences division, IICT.

Mr. Rao's team was tasked with “recovering nutrients from water hyacinth in the form of compost” by IICT Director S. Chandrasekhar. A laboratory-scale anaerobic composting experiment with the roots and stem of water hyacinth proved successful. The final product turned out to be good quality organic fertilizer

with adequate content of carbon, nitrogen, phosphorous and potassium, as per the standards stipulated by the Fertilizer Control Order.

The technology was transferred to KHAR Energy Optimizers (EO), a green initiative company. GHMC was roped in to initiate the project.

“I am yet to tie up with anyone commercially but am sure this will take off. We want this process to spread to villages too,” said Raju L. Kanchibhotla, CEO, KHAR EO.