

GOOD EARTH

Is there wealth in water hyacinth?

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Is the water hyacinth a formidable threat to biodiversity or can it be used beneficially?

The common water hyacinth is a plant that has travelled far. It originated in the Amazon Basin. This plant, which proliferates rapidly, has caused a series of ecological and health problems. The thick layer that a mature plant creates on the surface of water bodies can be up to two metres high and this cuts off light and oxygen affecting the flora and fauna. Water that it sucks up then evaporates and this leads to an increased loss of water. It creates a habitat for insects that carry diseases. It hinders activities such as fishing and marine transport. It is now being considered as a formidable threat to biodiversity and efforts are being made to control its growth.

Three different ways of controlling water hyacinth have been attempted — chemical, biological and physical. Using chemical herbicides creates further problems, especially when people are using the water body for drinking or washing. Such herbicides are effective on a small scale. Biological control involves introducing insects and fungi that naturally feed on water hyacinth. So far this has been the safest and most effective way, with the only drawback being that it takes some time for the insect population to grow big enough to tackle the entire hyacinth. The third way is to physically remove the hyacinth — a difficult task — since the plant is bulky, heavy and expensive to move. In some countries like Africa, physical removal may also involve confronting crocodiles: a risky venture indeed!

Variety of uses

Yet, the water hyacinth has also lent itself to a variety of uses and is now helping people earn money! Its qualities are being exploited to create several products.

The fibres of the water hyacinth when dried prove useful. In Bangladesh, water hyacinth fibre is being mixed with jute to create paper and pressed into fibre boards which can be used for construction of partitions. The fibres render a yarn or rope that is used to make furniture in Bangladesh and baskets in the Philippines. Some people are experimenting with water hyacinth to create a source of fuel. When mixed with animal waste, it can be used to produce bio-gas. Water hyacinth has also been used for water purification as it is capable of absorbing heavy metals, organic compounds and pathogens from water. In South East Asia, water hyacinth is used as animal fodder to feed livestock, and can easily be converted into a rich compost. In Sri Lanka, water hyacinth is mixed with organic municipal waste, ash and soil, composted and sold to local farmers and market gardeners.

In India, water hyacinth has now appeared almost all over the country. It grows all year round, and is costing municipal corporations a lot of money to keep their waterways free. In Pune, the

municipal corporation works with NGOs such as the Clean River Committee to remove the water hyacinth from its rivers. In Bangalore, water hyacinth poses a serious threat to the lakes like the Hebbal lake. And in Kerala, the picturesque backwaters are now all covered with this invasive species.

The water hyacinth can, in fact, provide an eco-sensitive livelihood to Indian communities as well. Apart from a few groups in South India, we have not really explored the potential of this plant in our country.

What can I do?

Do you have water hyacinth near where you grow? Try experimenting with it at home or as a school project. The easiest thing to do would be to try and make a compost out of it, to use in your potted plants or in your garden.

In collaboration with Kalpavriksh Environment Action Group