

DEVELOPMENT WOR

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Jatropha plantation. Picture: AFP

WARNING: Experts call for further studies before jatropha is grown on large scale in Kenya

Biodiesel wonder plant could spell doom for Kenya

A JOINT REPORT
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ISSUES SCIENTISTS WANT DEALT WITH

Doubts are emerging over the much hyped potential of the Jatropha plant to solve Kenya's fuel challenges, especially since it is an environmentally friendly source of biodiesel.

Experts are warning of the plant's setbacks and are now calling for further studies before the crop is grown on large scale throughout the country. The plant is expected to provide raw material for the production of biodiesel that will not only power vehicles, but also light up rural homes using tin lamps.

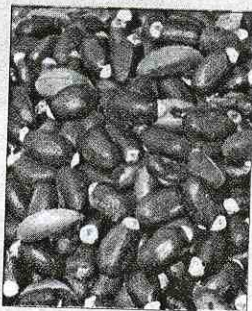
Michele Leone, a climate change expert at the International Development Research Centre, argues that there is a need for studies to back the emphasis on the plant's potential to solve all energy challenges, while growing on little water, yet producing a lot of biofuel. "Energy is not created from nothing," says Dr Leone.

An expert at the National Environment Management Authority who spoke on condition of anonymity because he is not authorised to speak on behalf of the organisation, warned that the zeal with which Jatropha is being promoted in Kenya could spell a biodiversity disaster.

"Since it is an invasive species that is not native to the region, it could outcompete and wipe out other species in areas where it grows," he argues. "It would be wise to restrict the plant only to areas that are not biodiversity-rich."

However, carrying out such restriction remains tricky since the country does not have a biodiversity inventory, listing all species and ar-

- That the jatropha plant can produce a lot of biofuel while growing on little water needs backing because "Energy is not created from nothing."
- Since it is an invasive species, it could wipe out other species in areas where it grows, hence a need for restrictions.
- Restrictions remain tricky since Kenya lacks a biodiversity inventory.
- Conservationists concerned about loss of biodiversity and damage to water catchment areas, as the plant requires a lot of water to grow.



reas where they are found.

This comes against a backdrop of several projects being rolled out in different parts of East Africa. The latest attempts at tapping into the biodiesel wonder plant is the planned cultivation of 50,000 hectares of jatropha at the Kenyan Coast by an Italian firm Nuova Iniziative Industriali sri, that has been contested by environmental lobby groups.

The project on land leased from the Malindi County Council, targets biodiesel production for local use and export to Italy, besides injecting electricity to the national

grid and generating gas for domestic use.

But environmentalists opposed to the project cite the huge cost of sustaining the venture's water requirements. According to Michael Gachanja, the deputy director of the East Africa Wild Life Society, it requires up to 130 boreholes to sustain the 50,000 ha plantation.

"No studies have been done on whether the ground aquifer can replenish the boreholes," Mr Gachanja says.

A study conducted by Endelevu Energy, World Agroforestry Centre and the Kenya Forestry Research Institute discourages the establishment of plantations in arid and semi arid areas of the country.

"All current initiatives in arid and semi arid Kenya have failed because of the enormous amounts of water and soil nutrients required by the plant," Mr Gachanja argues.

A report of the study dubbed *Jatropha Reality Check* that was com-

missioned by the German Technical Cooperation also notes that the plant is not commercially viable in the country. It notes that each plant produces only 0.6 kilogrammes of oil per year, yet it is promoted to produce up to six kilogrammes. The report proposes the growing of the plant as a natural fence.

The executive director of Nature Kenya, Paul Matiku, says large-scale cutting of Dakatcha woodland, to pave the way for the plantation will damage its capability as a water catchment area and lessen its ability to protect soil erosion.

"This would have a negative effect on the environment since the Jatropha is not well suited to absorb carbon dioxide from the atmosphere," Mr Matiku said. He adds that loss of the woodland would also sound a death knell to some rare bird and animal species that should be conserved as tourists' attraction.

Those opposing the 50,000 hectare Jatropha plantation, also mention deprivation of economic and social gains to the local community.

The latest controversy over Jatropha opens a new warfront in the trade off that has been environmental conservation and economic development.

It has erupted in a year that has been designated as the 'International Year of Biodiversity' by the UN to draw attention towards the conservation of the existing variety of plant and animal species of the world.

This follows growing concern over loss of biodiversity, a development that could spell doom to the tourism industry.



6kg

Amount of oil (biodiesel) each jatropha plant is proposed to produce per year, but scientist put this at 0.6kgqs.