

The feasibility of a crop should be investigated before it can be promoted for adoption by farmers

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-With rising food and energy costs, smallholder farmers are looking for alternative crops that can generate more income and provide a better livelihood; however, bringing in new crops without tried and tested evidence about its viability may be counter productive.

A study conducted in Kenya shows that crops should be promoted and adopted when farmers have knowledge about its cultivation and there is access to a reliable market.

In Kenya, Jathropa was promoted as a wonder crop that could improve farmer incomes and aid rural development, but the crop failed. A study recently published in *Energy for Sustainable Development*, scientists from the World Agroforestry Centre (ICRAF) say farmers were motivated to grow Jathropa because they wanted to have additional income and [energy](#) supply but they did not have access to information about its low economic value.

"Jatropha is just not viable in Kenya," says Violet Mogaka, a researcher with the World Agroforestry Centre, and lead author of the study "results show that promotion and adoption took place in the absence of an established and reliable market for jatropha products, and without tried processes for local use".

Many farmers were unable to sell their harvest or to use it for their own

[energy supply](#) leading to the conclusion that the promotion and adoption in Kenya was not well integrated in the existing economic context.

"The consequences were poor economic returns and widespread disappointment as witnessed in other parts of the developing world"

Jatropha (*Jatropha curcas*) is indigenous to Central America and produces oil rich seeds that can be processed into biodiesel for use as an energy source. While jatropha has been grown in Kenya for many years, this has been for traditional uses such as medicinal or as fence, windbreak or to mark graves.

Between 2004 and 2005, jatropha was widely promoted in Kenya. The plant was promoted by NGOs, community based organizations and private investors, but allegations that jatropha would increase farmers' incomes, provide locally available energy, grow well in arid areas, be resistant to pests and not compete with food crops all turned out to be unrealistic.

"Farmers often used poor quality planting material and inadequate management practices which led to low yields and the spread of pests and diseases," says Mogaka. "On average they obtained 0.8 tonnes per hectare each year, which was well below expectations."

This case study has shown that in the future, extension services should be prepared to provide the necessary structures, advice, and incentives to guide the adoption process and provide information to [farmers](#).

The study stresses how important it is to analyze the anticipated impact before introducing a new plant and introducing extension services and regulatory systems into the process of new crop promotion if the crop is found to be feasible.

The researchers hope their conclusions will help decision makers, agricultural departments and extension officers in Kenya and other parts of East Africa to avoid some of the mistakes of the past and develop better biofuel development strategies in the future.

Provided by World Agroforestry Centre (ICRAF)

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