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Impact Analysis of Cultivation of Jatropha Tree on Fuel Prices and Environment

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Abstract : Globally transportation sector accounts for around 25% of energy demand and nearly 62% of oil consumed. Therefore, new energy sources are required to introduce for this huge demand replenishment of depleting conventional energy sources. Currently, biofuels such as Jatropha trees as an energy carrier for transportation sector are being utilized effectively round the globe. However, climate conditions at low altitudes with an average annual temperature above 20 degrees Celsius and rainfall of 300-1000mm are considered the most suitable environment for the efficient growth of Jatropha trees. The current study is providing a theoretical survey-based analysis to investigate the effect of rate of cultivation of jatropha trees on the reduction of fuel prices and its environmental benefits. The resulted study shows that jatropha tree's 100 kg seeds give 80kg oil and the conversion process cost is very small as 890 PKR. Moreover, the extraction of oil from Jatropha tree is tax-free compared to other fuels. The analysis proved very essential for potential assessment of Jatropha regarding future energy fuel for transportation sector at global level. Additionally, it can be very beneficial for increment in the total amount of transportation fuel in Pakistan.

Keywords : jatropha tree, environmental impact, energy contents, theoretical survey
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