

Energy Crop (Bio-diesel)

The potential of future energy generation lies in the use of liquid bio-fuels for vehicle and cottage industries. Presently the fuel used for vehicles and to produce motive-energy (energy to power vehicles) is gasoline, diesel or kerosene from the fossil. The introduction of bio-diesel to such applications will increase the self-sufficiency of communities in their energy supply. In addition, bio-fuels are a clean source of energy with a high potential to generate employment for those in remote areas. While the policy for the promotion of bio-energy exists, implementation is slow. A community based energy plantation of non-edible liquid bio-fuel crops like Jatropha and castor plant is to be established for the production of biodiesel. The oil content of the seeds varies from 30 to 60% depending on the variety, place and the method of oil extraction. About 3 - 4 kg of Jatropha seeds are needed to produce one litre of Jatropha oil. One hectare of Jatropha farm can yield ten tones of Jatropha seeds (i.e.10 tones/hectare). This can further calculated to mean that approximately 3,000litres of oil can be obtained per hectare of land.

Level 1

Jatropha plant, cultivation on wasteland is projected to be at 0.4 million hectares by 2050; oil yield to 0.24 million tonnes and biodiesel production is 0.12 million toe by 2020.

Level 2

Jatropha, cultivation on wasteland is projected to increase to 0.8 million hectares by 2050; oil yield to 1.02 million tonnes and biodiesel production to 0.51 million toe by 2050.

Level 3

Jatropha, cultivation on wasteland is projected to increase to 1.4 million hectares by 2050; oil yield to 2.4 million tonnes and biodiesel production to 1.20 million toe by 2050. At this level other oil seed crops like castor, neem and shear butter are been cultivated to meet oil need for biodiesel production.

Level 4

Jatropha, castor, neem, and shear butter, cultivation is projected to reach 3.9 million hectares by 2050; oil yield to 6.23 million tonnes and biodiesel production to 3.12 million toe by 2050.



Jatropha farms (Source: Field work)

