Kuttappan Vijayakumar

Investigating the value the impact of Jatropha cultivation for bio-fuel, India

2009

Vijay is from Southern India, has BSc in Forestry from Kerala Agricultural University and studied for an MSc in Environmental Sciences, Policy & Management (MESPOM) at The Central European & Manchester Universities. She has worked in Government and Commercial Forestry in India and has visited scholar studying environmental issues in the USA. She investigated the indirect consequences of Jatropha cultivation, some of which are considered to be detrimental, by interviewing farmers in both North and South India.

Below is Vijay's PowerPoint presentation on her project.

A social assessment of biofuel as a climate change mitigation option: Indian stakeholder opinion of *Jatropha curcas* cultivation.

Structure of the presentation.

a) Rationale for the study

b) Aims and objectives

c) Drivers of biofuel development in India and U.K.

d) Why Jatropha?

e) Existing policies

f) Field observation

g) Potential threat

h) Conclusion and Recommendation

Rationale for the present study.

- Opposing claims
- Biofuelwatch et al argues that growing jatropha in poor countries like India and Africa will threaten the existing forests
- Falling ground water
- Food Vs Fuel controversy

But.....

- D1/BP oils claims that their jatropha operations in Chhattisgarh is helping to reduce poverty and create employment generation

So what's the truth?

Drivers of biofuel development in India and UK.

For India:

- Saving foreign exchange
- Promoting energy security in the country
- Promoting environmental security
- Meeting climate change commitments
- Promoting renewable energy sources
- Generating rural employment opportunities

For UK:

- European Commission mandate
- Renewable Transport Fuel Obligation(RTFO)

Why Jatropha?

- Can grow in low fertile marginal, degraded, and wasteland with rainfall requirements of only 200mm.
- Low gestation period
- Amelioration of 65 million hectares of the problematic soils of India.

Existing policies.

- Biodiesel purchase policy
- Blending requirements
- Target set by national biodiesel mission
- Buyback scheme

Field observation.

- Visited 3 provinces.

Existing models of biofuel production and practices,

- Government driven
- Company driven
- Private farmers

Various models found are- Chhattisgarh.

Boundary plantation

Contract farming

Jatropha under JFM

Involvement of women SHG

Andhra Pradesh.

Private farmer growing crop in his unproductive land

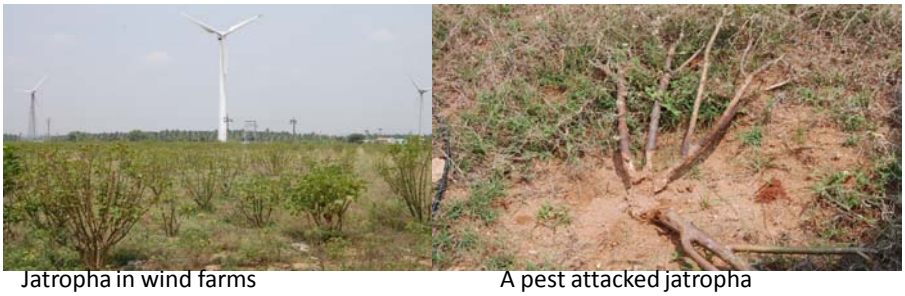
Jatropha in the bunds of rice field(Food crops with fuel crops)

Jatropha in hilly and barren lands

Jatropha as an intercrop

Tamilnadu.

Intercropping with maize, castor and coconut



Jatropha in wind farms

A pest attacked jatropha

Potential threat to biodiesel in India.

- Cost of production
- Oil production/ha
- Modifications of vehicles
- Clogging
- absence of market

Conclusion and Recommendation.

- Should be restricted to non-edible plant (mostly Jatropha followed by Pongamia) grown in wastelands
- High yielding varieties
- Policy mechanism to induce the market demands for Jatropha cultivations
- Strengthening of Reseach&Development
- Back-ended credit linked subsidy

Contd.....

- Compulsory blending requirement
- Autonomous biodiesel board
- Healthy competition
- Encouraging small and marginal farmers
- Establishment of cooperative societies
- Clear policy mandates
- Public-private partnership
- Special scheme for Jatropha in line with National Rural Employment Generation Scheme (NREGS)