Local Use of Jatropha Oil for Rural Electrification in Mali:

The case of the Garalo « Bagani Yelen » Project- A New Paradigm of Energy for Sustainable Development

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Durban, 2nd December 2011

INFORSE HELIO SSNC Side Event at UNFCCC COP17

http://www.inforse.org/europe/conf11_COP17.htm

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Background to the project

- With climate change now bigger issue than ever, **biofuels have become a hot new topic for renewable energy based development projects in the World**,

- The potential for **climate change mitigation/adaptation, energy autonomy** and **local economic and social benefits seem almost limitless**; but there is also downside to this development,

- In many developing countries **biofuel projects have been conceived from an export based perspective, with the main focus being on supplying cheap feedstock for biofuel consumption** in the global North,

- This has led to **massive monoculture production, vast scale slash and burn practices** to create new fields for production,

Background to the project

- In such scenarios the **economic benefits for large international companies are important**, but the **local communities are not feeling the benefits and the potential environmental benefits of biofuel use are completely negated,**

- With this background Mali-Folkecenter Nyetaa, has brought a new idea for biofuel promotion; which is based on:
  - **local production,**
  - **local transformation and,**
  - **local use.**

- This model has been piloted through the Garalo Jatropha fuelled rural electrification project

The Garalo Model for local production, local processing and local use of Jatropha oil

- The Jatropha growers in the commune of Garalo are organised in **a Cooperative of Jatropha Growers**,
- The cooperative is made up **of Jatropha committees that regroup jatropha growers at the village level,**
- Jatropha growers set up many **small plantations (ranging between 0.5 and 5 hectares) in intercropping with other cereals,**
- These **plantations provide seeds that are processed in the jatropha seeds pressing facilities** owned by the cooperative,
- **The Jatropha residues** after the seeds pressing is **used by the members** of the cooperative in their farms **as organic fertiliser**,
- The **oil is sold by the cooperative to the private operator** running the power plant **to produce electricity that is distributed to the customers,**
- **An electricity committee** comprising the representatives of the community, the local authorities, the private operator and the Rural Electrification Agency **set up the electricity price.**

Characteristics of the Garalo Project

- The Garalo project comprise:
  - **1, 000 ha** of small Jatropha plantations ranging between **0,5 and 5 ha intercropped** with other cereals,
  - **Seed-oil extraction presses** and filtration equipment,
  - Electric power plant with installed capacity of **3X100 kW giving a total of 300 kW,**
  - **A grid of 15 Km long** distribute electricity to the **10,000 inhabitants** of the village of Garalo

Benefits of the Garalo Model

- **Local production of jatropha means:**
  - **Local generation of income for local people through sale of jatropha seeds,**
  - **Intercropping and sustainable agricuture techniques,**
  - **No land grabbing,**
  - **No competition between food and fuel production,**

- **Local processing of Jatropha means:**
  - **Availability of Jatropha residues that can be use as organic fertiliser that help improve the fertility of soils and the agriculture yields,**
  - **Local job creation for the pressing of the seeds,**

- **Local use of jatropha oil means:**
  - Rrural people can produce their own fuel enabling them to **access modern energy services**
  - **Stimulating the local economy** (added value through processing of local products,) and **improvement the livelihoods:**
  - Protecting the country against the **economic shocks of increasing fossil fuel prices and insecurity of supply**.
  - **Contributing to the global efforts against climate change mitigation** (jatropha oil is from renewable source). It has been estimated that the Garalo project can save up **to 9,000 tonnes of CO_2/year**

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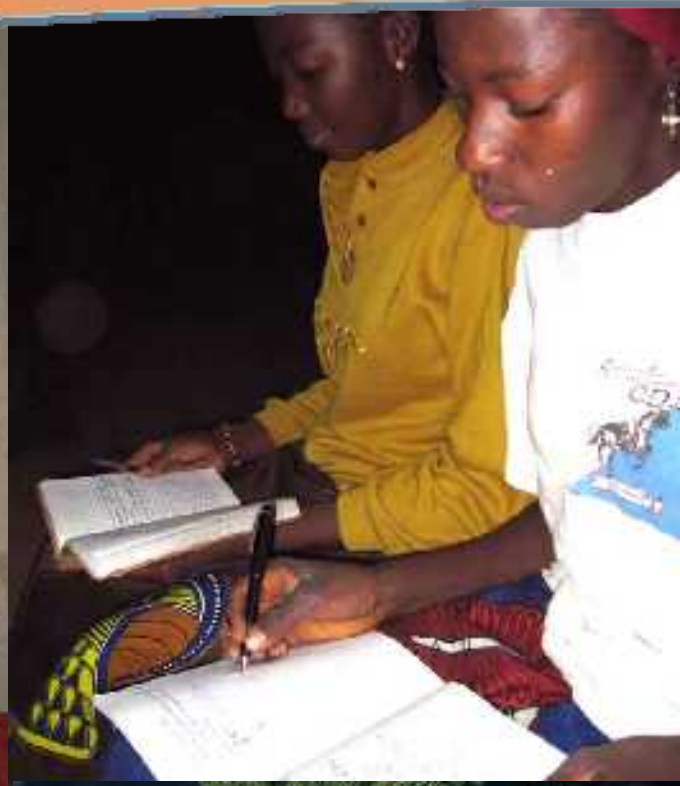

Conclusion

- The Garalo project Cleary show that biofuel production can be sustainable without jeopardising food security if properly designed with focus on **local production, local processing and local use,**

- **The project Model is currently being replicated in 10 others villages in Mali**

Awnitié

MERCI

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