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BONNE GOUVERNANCE - DÉVELOPPEMENT ÉCONOMIQUE LOCAL - ENVIRONNEMENT

MFC Jatropha activities & case studies: barriers to & opportunities for financing

Dr. Ibrahim Togola



COMPETE Financing Conference, Dakar, 28 Sept - 1 Oct 2009



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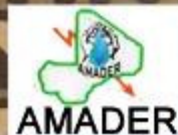
Appropriate solutions



GARALO BAGANI YELEN

- a new paradigm of energy for sustainable development

A Jatropha-fuelled rural electrification project
for 10 000 people in the Municipality of Garalo



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Garalo Bagani Yelen - a new paradigm of energy for sustainable development

- ◀ 300 kW of gensets, to run on locally produced Jatropha bio-oil
- ◀ Part funded by AMADER (Malian Agency for the Development of Household Energy & Rural Electrification)
- ◀ 15 years of clean electricity production will transform the local economy. African villages need power - (biofuel or it can be diesel)
- ◀ Largest project of its type in Mali (in terms of plantation size and power output), possibly in West Africa.
- ◀ Electricity will be a catalyst for local SME/SMI development and job creation



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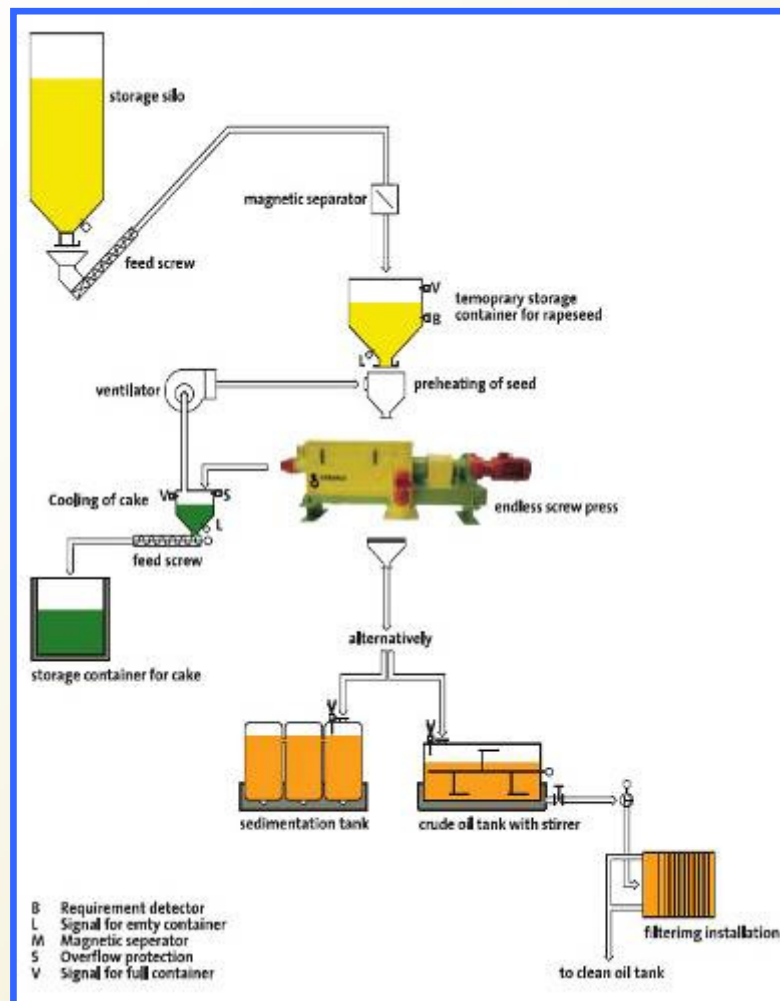
- ◀ The village of Garalo is in the south of Mali, 2 hours south of the regional town of Bougouni.
- ◀ The population is 10 000, and the principal economic activities are agriculture (both subsistence food crops and cash crops particularly cotton), raising cattle, and trade on the local market.





Pure Plant Oil (PPO) or Straight Vegetable Oil production:

- Basic equipment generally consists of an oil press & filter to clean the oil.
- But this can become more sophisticated and automated, with electronic control and several filtration steps
- Schema Source:*
www.straehle-maschinenbau.de





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Project partners:

- ◆ **Municipality of Garalo**
- ◆ **MFC Nyetaa** developed and now coordinates the project in Mali
- ◆ **ACCESS SARL** an innovative Malian energy service company, is responsible for sale of electricity
- ◆ **FACT Foundation** International group of biofuel specialists based in Netherlands provides technical support
- ◆ **SHGW Foundation** based in Netherlands provides finance for the jatropha part
- ◆ **AMADER** Malian Agency for Rural Electrification & Domestic Energy provides WB/GoM/GEF subsidy to finance electric part



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Garalo Bagani Yelen - results so far...



- ◀ 300 kW of specially converted gensets installed, currently being tested in Diesel but will eventually to run on locally produced Jatropha bio-oil
- ◀ 320 000 jatropha seedlings planted out
- ◀ 700 hectares of Jatropha fields planted in small scale out grower approach
- ◀ Local jatropha cooperative created
- ◀ Powerhouse and offices built
- ◀ Village electricity committee created to represent the population in discussions around the electricity supply
- ◀ More than 300 electricity connections (serving >3 000 people)



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Rural electrification
based on jatropha
oil....



- ◀ Renewable energy can drive local sustainable development, leapfrogging the fossil fuel stage.
- ◀ Diversification of incomes
- ◀ Deeply embedded in local society with support from the village and the municipality
- ◀ In 2 years a total 1 000 hectares of Jatropha distributed among peoples fields
- ◀ Local sustainable projects of this type need prioritisation and protection



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The challenges & barriers :





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Must have sufficient time & resources to ensure community participation and appropriation



- ◀ The village of Garalo contacted MFC in 1999 to request electrification
- ◀ Consultation with village and municipality at each step
- ◀ Village ownership and participation
- ◀ This was a learning process for MFC - but it is really allowing MFC to disseminate the model in 13 other villages



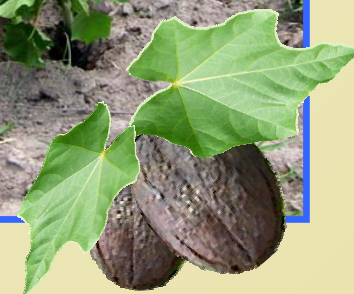
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Economic potential must exist in the village before it can be catalysed by the project.

This in turn will sustain the project in the future.





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Limited number of biofuel networks and professionals with concrete first hand experience which can be tapped





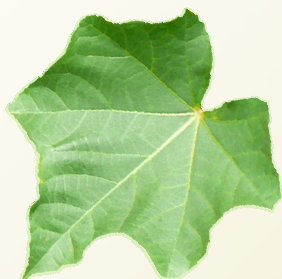
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No differentiation between small scale locally oriented and sustainable biofuel activities and vast unsustainable monoculture projects:

Food vs. fuel campaign has made it harder for small scale sustainable projects





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Mali is an agro-pastoral country, like most of the Sahel, with a huge potential for development of small scale sustainable biofuels as a source of energy. With the right approach, there are big perspectives for financing biofuel projects.





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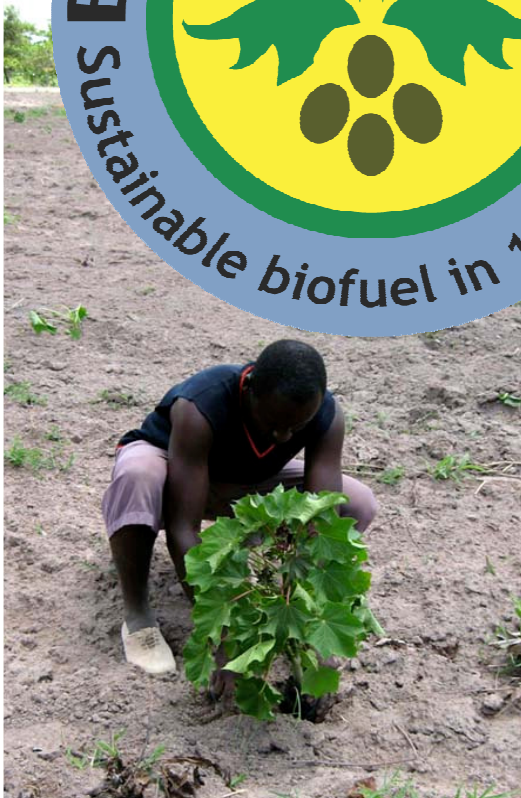
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Bagani Courant 10 - taking it to the next level

- ▶ MFC Nyetaa has secured funding for a 1.8 million multi-partner project which will upscale the Garalo model to 10 villages
- ▶ Partners include SenterNovem (Netherlands), DOEN Foundation (Netherlands), Christian Aid, ACCESS & AMADER





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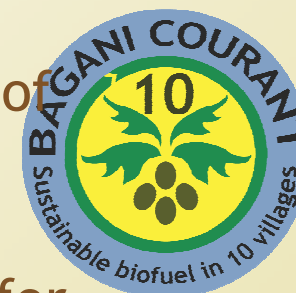
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Bagani Courant 10 -



- ▶ The project will plant 1500 ha of Jatropha using intercropping techniques
- ▶ 2400 connections (domestic & for productive users of all kinds) will give access to 19 200 people + 6800 will be served by battery charging
- ▶ 500kW installed capacity
- ▶ It will provide support to cooperatives in the target villages which will be productive users – i.e. using clean electricity to transform local agricultural and other local produce and add value in the villages





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**MFC is now developing with the
Government of Mali and the World
Bank a biomass-based electrification
of more villages**





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Financing is a big challenge especially considering problems getting long term credit from local banks and the poor reputation of biofuels with some donors.

To develop this kind of project there is a need for multi-donor cooperation with strong support from beneficiary communities and countries.

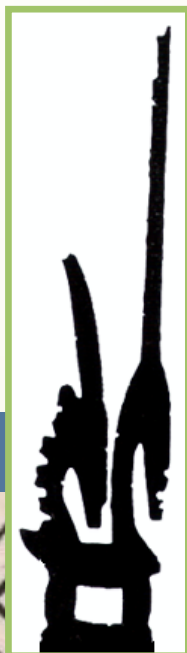




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Anicié - Merci -
Thank you!