Farming for Energy, for better Livelihoods in Southern Africa (FELISA)

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Prices Up? Agriculture In!

Prices of biofuels versus petroleum

- Petroleum (USA)
- Crude Palm Oil (Malaysia)
- Anhydrous ethanol (Brazil)
Biofuels, new market, huge market

SOME MARKETS, per year, in bn Euro
- SADC maize: 2
- WORLD maize: 60
- ACP exports to EU: 7
- Crude oil: 1,000
- Biofuel, by 2010: 50

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Biodiesel production capacity, in millions of liters

Source: F.O. Lichts
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Ten reasons to Farm for Energy

1. Rural job creation and food security;
2. Reduction of oil imports, savings on FOREX;
3. Huge market, without SPS nor IPR;
4. Comparative advantage near equator;
5. Improve SADC energy production capacity;
6. Diversification of economy;
7. Reduction in air pollution;
8. Improved soil conservation;
9. Resistant to climatic vagaries;
10. Politically inspiring project.

Potential of biofuels in Tanzania

Current fuel imports 20,000 barrels per day
(source: international Energy Agency)
(1 barrel =160 liters, 1 year = 365 days)

\[\Rightarrow 1,2 \text{ billion liters per year}\]
(1 liter of petroleum = 30 dollarcents)

\[\Rightarrow 0.4 \text{ billion USD per year}\]
(= 20% imports in 2003)

Land needed to substitute this by biofuels

(-productivity per hectare = 4000 liter per year)

\[\Rightarrow 300 \text{ thousand hectares}\]
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Potential of biofuels in Tanzania, cont’d

- Tanzania has 4.6 million hectares under crops (5.3% of its land mass).
- => Tanzania can easily produce its own fuel and it even has export potential.

In the fuel self sufficiency scenario, Tanzania will benefit from biofuels as follows:
- Job creation: 300 thousand (one per ha)
- FOREX savings: 0.4 billion USD per year;
- Growth in GDP: 4% (GDP = USD 10 bn).

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Promotion & Awareness Creation

To physically show what a biofuel plant looks like, how it can be a market and job creator for the neighboring farmers and a fuel producer for local towns.
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SADC FELISA Concept

- Ten plants for bio-diesel production and ten plants for ethanol production.
- Plants with a capacity of 5-10 $10^6$ liters
- Investment, each: 10 million Euro
- In secondary towns in SADC with high biofuel potential

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RESULTS

- Employment created, each: at least 2,500 (farmers, oil extractors, bio-fuel producers, transporters, producers of fertilizers and soaps, traders,…)
- Population served, each: 100,000
- SADC capacity created
Thank you

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