

Managing the Biofuels Boom (and Bust?) – Mozambique's Experience

***Sustainable Biofuels and Human Security:
A Comparison of Brazil and Southern Africa***

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Structure of Presentation

- Emergence of biofuels in Mozambique – context and reality check
- Issues raised by biofuels boom in Mozambique
- Managing the biofuels boom – steps taken
- Some final points

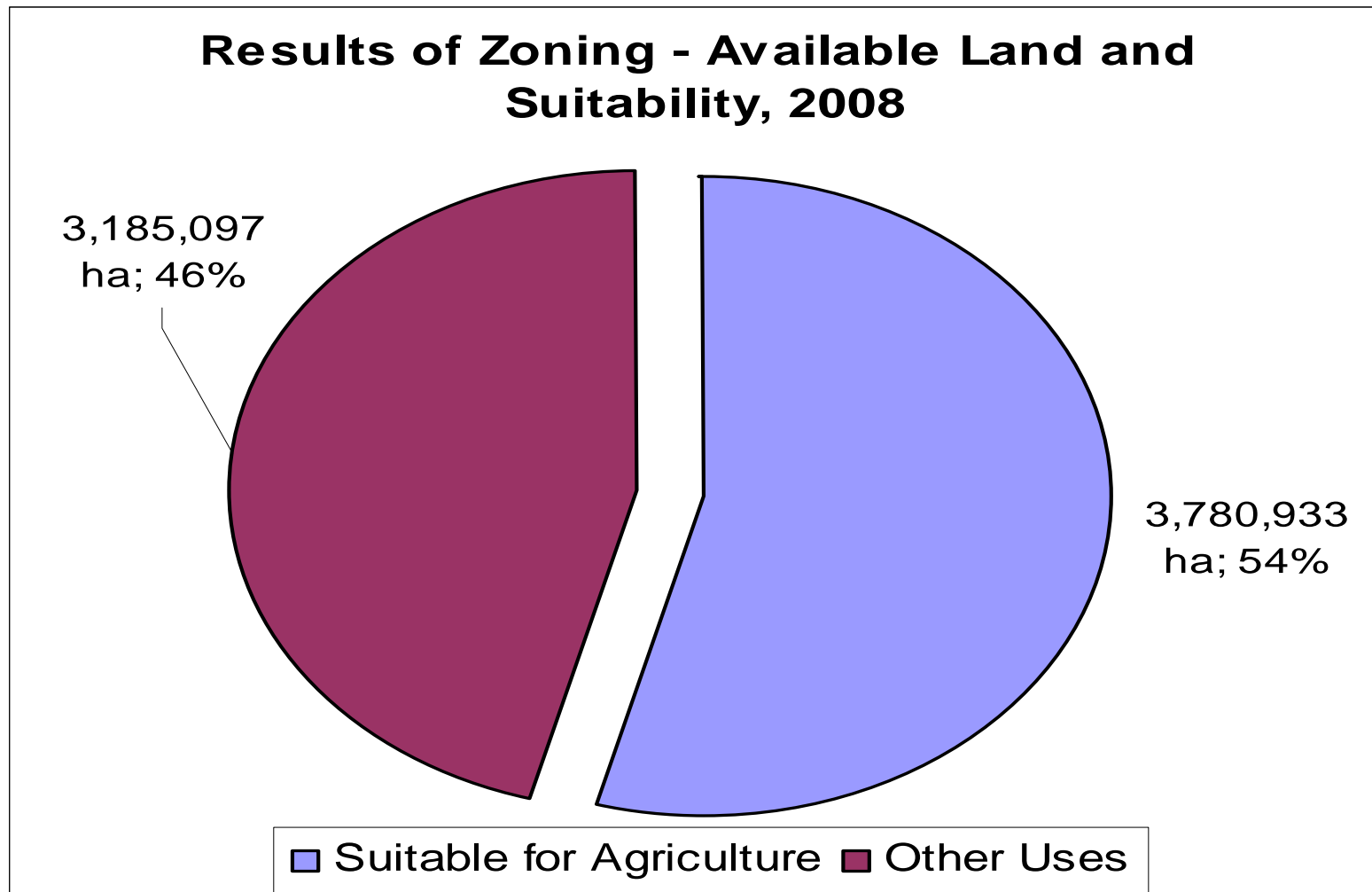
Emergence of Biofuels – Why is Mozambique Interested?

- Increased cost of importing fossil fuels as net importer – rose from US\$400 million in 2006 to US\$700 million in 2007
- Opportunities for economic development given markets created by policies in EU and US

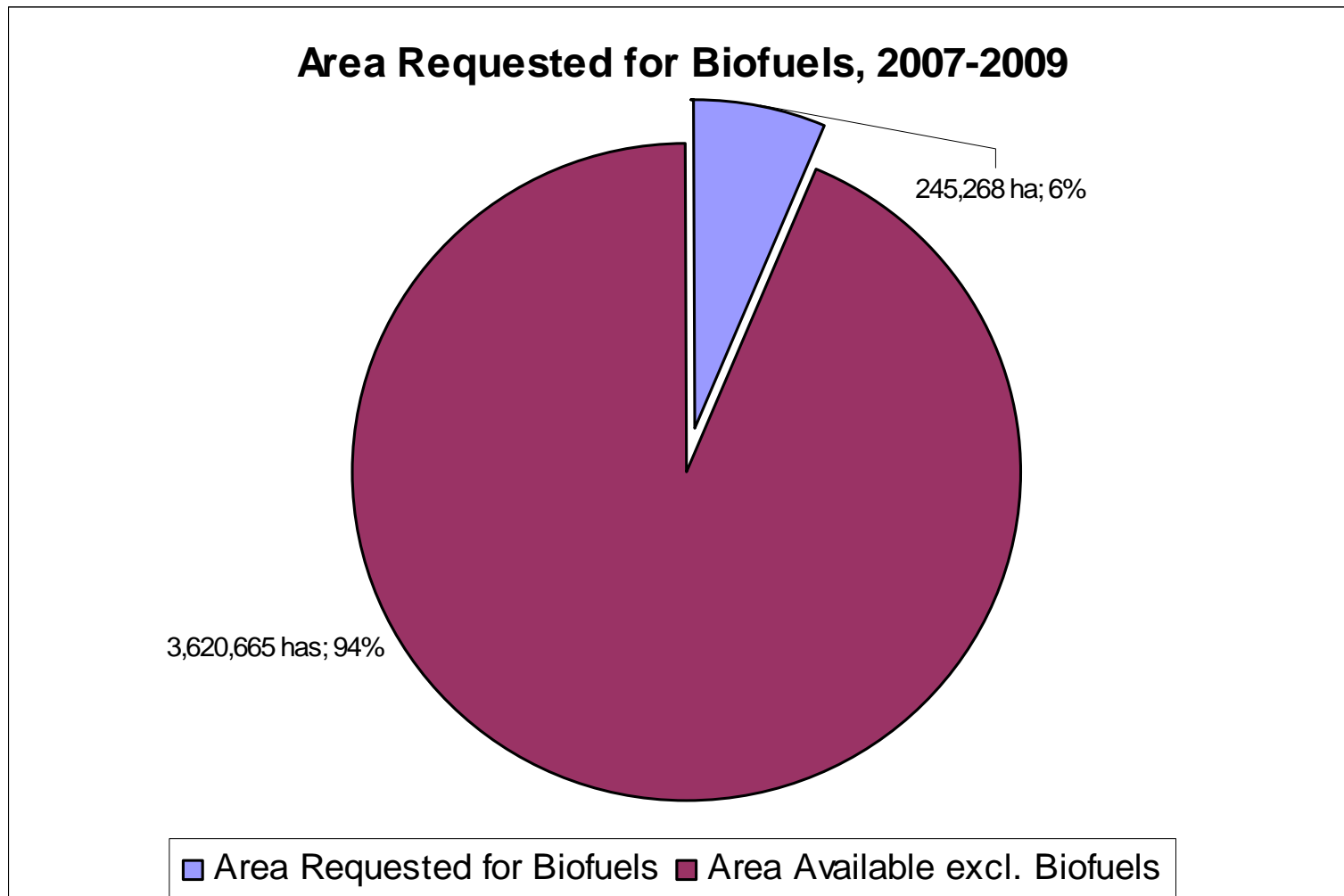
Emergence of Biofuels – is there a boom?

- Comprehensive, official data on land applications in process of compilation but partial public data available
- From end of 2006, surge of interest by private sector in biofuel investment in Mozambique:
 - Just under 5 million hectares cultivated
 - Between end of 2006 and end of 2007, expressions of interest for another 3-5 million hectares – some individual requests for up to 1 million hectares

Emergence of Biofuels – is there a boom?



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Emergence of Biofuels – is there a boom?

- Increased interest also in:
 - Forestry projects (large-scale for paper/pulp)
 - Food production projects (oilseeds, cereals)
- Financial crisis and accompanying drop in petroleum prices resulted in slowdown in investment proposals in second half of 2008 and concern r.e. implementation of existing proposals and approved projects

Emergence of Biofuels – is there a boom?

- Since end of 2006, only 2 biofuels projects formally approved (CEPAGRI, 2008):
 - PROCANA – 30,000 hectares, with 22,500 hectares under sugarcane for ethanol in southern Mozambique; main shareholder - CAMEC (Central African Mining Exploration Company)
 - Mozambique Principle Energy – 18,000 hectares under sugarcane for ethanol in central Mozambique; main shareholder – Principle Energy, UK-based hedge fund
- However, several bio-diesel projects already operating on land transferred from other companies:
 - ESV Bio-Africa: approx. 5,000 hectares under jatropha in southern Mozambique, with total land concession of 11,000 hectares
 - Energem: approx. 650 hectares under jatropha in southern Mozambique, with final goal of 15,000 hectares

Issues Raised by Biofuels Boom

- Control of natural resources:
 - Access to land and sovereignty/liberation struggle
 - State vs. community ownership of land
 - Land speculation - who gets the rent?
 - Access to natural resources for community energy uses (charcoal, wood) or building materials
- Food security/food production:
 - Possible diversion of natural resources and labour from food production
 - Loss of land and fall-back option of food production for peasant farmers
 - Use of food crops as biofuel feedstocks causing increase in food prices
- Socio-economic impact – who will benefit? Emphasis on smallholders; national partnerships
- NOT centred on discussion of GHG emissions or biodiversity

Steps Taken by Mozambican Government

- Land zoning exercise
 - Large-scale land requests frozen from October 2007 until May 2008 while government undertook land zoning at scale of 1:1,000,000 (capturing contiguous areas of more than 1,000 has):
 - Driven by concerns about potential pressure on land, conflict with food production and lack of control over process
 - Original idea - identify distinct areas for food and biofuel production, giving priority to food production

Steps Taken by Mozambican Government

- Land zoning exercise (ctd)
 - Land not considered available for new projects:
 - Land already under use or deignated for other uses:
 - Land titles & concessions (forestry, game farms, eco-tourism, aquaculture mining & mining prospecting areas) – approved or under consideration
 - Community areas or partnerships (community/private investor)
 - Slash and burn agriculture/forestry
 - Resettlement areas for people affected by recent floods
 - Ecologically sensitive areas:
 - Conservation areas
 - Mangroves
 - Final result - zoning identified:
 - Land available for large-scale projects: just under **7 mn hectares**
 - Land suitable for agriculture, livestock and forestry, without specifying obligatory final use: **3.78 mn hectares**

Steps Taken by Mozambican Government

- Land zoning exercise (ctd)
 - Second phase launched:
 - More detailed scale of 1:250.000 in key provinces
 - Details on additional factors to be taken into consideration in identifying suitability not yet finalised
- Action Plan for Food Production – identification of priority districts (more fertile areas) for food production; already being taken into account in evaluation of some biofuel (jatropha) projects
- Land tenure services assistance, funded by Millennium Challenge Corporation, to improve:
 - Land policy monitoring
 - Facilitation of land access
 - Land administration capacity

Steps Taken by Mozambican Government

- Strengthening/clarifying investment evaluation guidelines
 - Shift in emphasis away from purely investment *facilitation* towards investment *selection*
 - Guidelines discussed at inter-ministerial level improving coordination of previously more fragmented process (approved in November 2008)
 - Food production as component of biofuels projects encouraged with possibility of being made mandatory

Steps Taken by Mozambican Government

- Biofuels policy/strategy - approved March 24, 2009
 - Limits on land for biofuels on basis of zoning
 - Feedstock choice:
 - Ethanol – sugarcane and sweet sorghum
 - Biodiesel – jatropha and coconut
 - Sustainability criteria as instrument for project selection and land allocation
 - Strong focus on domestic market creation via blending mandates
- Sustainability criteria
 - Discussion kicked off by request by EC for comments on proposal (Renewable Energy Directive) via seminar in December 2007 with government, private sector and civil society

Steps Taken by Mozambican Government

- Sustainability criteria (ctd)
 - Principal conclusions – sustainability criteria important to ensure that:
 - Mozambique's natural resource base is protected to safeguard national resources for use by future generations of Mozambicans
 - The biofuels industry maximises potential socio-economic benefits and minimises potential negative impacts that could impede government's poverty reduction plans
 - Biofuels produced in Mozambique have access to key international markets (e.g. EU) that require compliance with sustainability criteria

Steps Taken by Mozambican Government

- Sustainability criteria (ctd)
 - Creation of sub-group focused on development and application of sustainability criteria:
 - Monitor evolution of sustainability criteria internationally and enable Mozambique to participate actively in discussions
 - Develop national interpretations of international criteria, adapted to the necessities and realities of Mozambique

Some Final Points – Conclusions/Recommendations

- Positive results from biofuels boom:
 - Important decisions taken to strengthen whole land administration and investment evaluation system
 - Questions raised more vocally about sustainability of commercial agriculture in general (bringing agriculture more closely into contact with environmental issues) and appropriate models of development
 - Some more innovative companies involved in biofuels projects, introducing new ideas and raising the bar on best practices
 - Profile of Mozambique raised internationally as investment destination

Some Final Points – Conclusions/Recommendations

- Outstanding issues (to what extent are steps addressing concerns):
 - Natural resource use:
 - Zoning – sufficient factors taken into account?
 - Water availability?
 - Sustainability criteria?
 - Land administration and project evaluation methodology:
 - Limitations to steps taken (“best use” of land?)
 - Capacity of state to fulfil role implied by state ownership of land? Consistency with liberalisation set in motion by structural adjustment programmes?
 - Capacity of communities to negotiate land rights effectively (extent of community “representation”, understanding of implications of projects and value of land)?

Some Final Points – Conclusions/Recommendations

- Outstanding issues:
 - Biofuels and food security:
 - Need to broaden debate to include other aspects of food security, not just food production by family farmers
 - Problematic focus on “food” crops – precise definition?
 - Potential positive synergies between biofuel (commercial agriculture) development and food security
 - Possible increase in food production and availability by companies and family farmers (access to inputs and technology)
 - Increased access (physical and economic) to food via infrastructure development and increased income
 - Choice of feedstock: need dynamic, flexible means of checking suitability of different feedstocks to take on board varietal development, new research results, etc.

Some Final Points – Conclusions/Recommendations

- Outstanding issues:
 - Sustainability criteria (EU Directive):
 - Possible to fulfil? Commercially viable land vs. soil carbon debts/payback periods
 - Conflict with concerns over food security?
Uncultivated land vs environmental concerns
 - Emphasis of EU criteria on carbon, with specific, quantified targets not matched by detail on soil, air and water quality, which are greater concerns for Mozambique
 - Information available to satisfy EU monitoring requirements?

Some Final Points – Conclusions/Recommendations

- What lessons from the biofuels “bust”?
 - No single sector is a solution to economic development problems
 - Need to clarify what Mozambique really wants to achieve with development of biofuels sector
 - Implications for feedstock choice:
 - Better to opt for more flexible options?
 - New slant on debate on use of “food crops” for biofuels?

Thank you!

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