

Loose translation of the “Political and strategic framework for biofuels of Mozambique”

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1) Vision

Contribute to energy security and socio-economically sustainable development

2) Mission

Explore agro-energetic resources through stimulating the diversification of the energy mix; contribute to the well-being of the population and create socio-economic development, particularly in rural areas.

3) Principles

Inclusion, Transparency, Social/environmental protection, Gradually, Fiscal sustainability, Innovation

4) Political and strategic pillars

Political pillars

Quick establishment of **national market**

Institutional coordination amongst ministries

Promotion of **collaboration with regional and international** actors

Promote **feedstock use according to agro-ecological zoning**, avoid use of basic food crops and monocultures, and favour biofuel development that enhances biodiversity

Adopt **national blending targets**

Promote local processing capacity by installing processing factories

Support import and distribution of **flexi fuel technologies**

Strengthen **institutional capacity of agencies** involved in National Programme of Biofuel Development (PNDB)

Strategic pillars

"procura" (demand). Dual markets should exist, national must be created, international already exist.

"oferta" (consumption). Value chain of biofuels in Mozambique should include agricultural production, processing capacity and logistic capacity.

Price fixing mechanism should be developed

Management of negative impacts

Institutional framework. Creation of a National Programme for Biofuel Development destined to give financial support to activities and projects that will promote the sector. An interministerial organ will also be created designed by the National Commission for Biofuels (CNB), in charge of supervision of implementation of the biofuel strategy.

Creation of social capital

5) Components

National market for biofuels. (The Renewable Fuel Norms (NCR) will be established together with a Biofuel Purchasing Programme (PCB) that will act within the framework of the Fuel Acquisition. It will buy ethanol and biodiesel for blending with fossil fuels. Blending will take place where fossil fuels are stored after importation. This activity will create an internal demand for biofuels supporting the producers of the sector.)

Implementation in phases

Price agreements based on international market indications

Regional cooperation about biofuels

Biofuel export (Mozambique should embark as a exporter of biodiesel and not of vegetable oil to enable local producers to add value to its production. National production might quickly exceed national demand allowing for increased export)

Fiscal treatment (Biofuel tax (TSC) should be significantly higher than present (between 20-40%) to support the build up of the sector. In the future the taxation of biofuels can be gradually reduced.)

Limitation in land approval (The government will point to selected agro-ecological areas for biofuel production these will be the only areas permitted or production)

Certification (All actors that wish to take part in the Biofuel Purchasing Programme of the government must be certified to prove that their operations are in line with national norms and criteria).

6) Evaluation of biofuel potential in Mozambique

9 feedstock options were analysed closely during the Baseline Study (Estudo Base): sugar cane, sweet sorghum, cassava, maize (for ethanol), jatropha curcas, coco, sunflower, soy, ground nuts (for biodiesel). Based on sustainability of feedstock as well as evaluating their potential for income generation, cost of production, socio-economic and environmental impacts the chosen crops for biofuel production in Mozambique are the following: sugar cane and sweet sorghum for ethanol, Jatropha curcas and coco for biodiesel.

Final use of biofuels in Mozambique will be for cars and industry, agricultural and home electrical equipment. Ethanol is better suited as direct blend with fossil fuels than as an additive. Ethanol can also be used to produce gel fuel as a domestic energy source and this way reduce dependency on charcoal and wood. Biodiesel can be used in generators. Straight vegetable oil can be used in stationary diesel equipments. For the use of cars, a blending of up to 20% biofuels can be implemented without modifications to the engines.

Even with modest expectations of biofuel expansion (450.000ha, compulsory blending of E10, B5) the biofuel industry is expected to generate substantial macroeconomic benefits amongst them 150.000 new jobs.

7) Implementation

Instruments for implementation

- a. Renewable energy regulation
 - Legislation on blending ratios in transport fuels in Mozambique
 - Legislation on biofuel, indicating:
 - i. Implementation period that allow for a gradual introduction of mandatory blending ratios
 - ii. Norms introducing biofuels in to the pricing structure for fossil fuels
 - iii. Defining taxation structure
 - iv. Constitution of the National Commission for Biofuels to coordinate the implementation of the biofuel strategy
 - v. Electricity feed in tariffs
 - vi. Directions for the authorisation of DUATs (land titles) for biofuel projects
 - vii. Regulation regarding criteria for environmental and sustainable biofuel production in Mozambique
- b. Definition of National Norms in the area
 - i. Quality of biofuels

- ii. Certification of biofuel production
- c. Regional Coordination Agreements
 - i. Regional harmonisation of blending targets
 - ii. A common approach to sustainability criteria of biofuel production
- d. Establishing a national agenda for research and innovation

Role of stakeholders in the biofuel strategy

Government. Guarantee adequate and coordinated policy development, promote biofuel industry, direct the development of sustainability criteria and the national norms in this area, allocate financial resources to support the biofuel industry, support rural communities and their bioenergy projects in coordination with investors to increase interest for the role of the communities, guarantee a transparent dialogue, establish national research agenda.

Civil society. Participate in formulation of public policy and the monitoring and evaluation of the implementation of policies, support the communities in preparing to play a role in the biofuel industry as well as in negotiations with project promoters, produce investigations and analyses of feedstock material for biofuels and look at how biofuel projects can contribute to community capacity building, participate in the development of sustainability criteria for biofuels and generate information on best practices.

Small scale producers (and farmers). Produce fuel crops or biofuels in areas defined suitable by the ongoing exercise; establish a monitoring and evaluation mechanism for its inclusion in the whole biofuel value chain.

International collaboration partners. Collaborate in financial and technical aspects as well as support sharing of information about biofuels.

Action plan

The action plan is a dynamic instrument and can be set in action any time during the upcoming 5 years. *(The action plan corresponds to the strategic pillars above – ProBEC explanation)*

Biofuel demand: 1. Establish appropriate mechanism to develop the biofuel industry, 2. Develop legislation of tax regulation, 3. Develop legislation on co-generation of electricity, 4. Develop sustainability criteria for biofuel production, 5. Contribute to a SADC regional agreement.

Biofuel supply. 1. Establish technical support programmes with partners, 2. Adopt mechanisms ensuring biofuel availability according to the gradual adaptation plan.

Price fixing mechanism. Develop a operational manual for activities of Biofuel Commercialisation Programme (PCB).

Management of social and environmental impacts. Develop sustainability criteria.

Institutional framework. 1. Create a National Biofuel Commission, 2. Establish the national Biofuel Development Programme, 3. Establish Biofuel Consumption Programme, 4. Develop credential criteria for certifying service companies.

Social capital development. 1. Support establishment of certifying services, 2. Develop quality norms for biofuels, 3. Specify rules for flexi fuel importation.

Priorities of the National Programme for Development of biofuel

- Flexi fuel introduction programme
- Gel fuel introduction programme
- Small scale biofuel projects
- Funding for educational training programmes
- Funds for projects improving infrastructure
- Laboratories for quality and certification of biofuels
- Investigation and research on new crop varieties

Targets (phases)

Pilot phase: Commercialisation through the initial buying of biofuels by the Biofuel Purchasing Programme from national producers. 2009-2015.

Operational phase: Assumes an expansion and consolidation of the industry with a potential of increasing the blending targets. 2015 and onwards.

Expansion phase: From 2011 and onwards, involves development of separated and paralleled distribution networks for fuel with higher percentage of ethanol (E75, E100) and pure biodiesel (B100) respectively.