Bioethanol Production as an Output to Optimize Sugar Industry
STRUCTURE OF PRESENTATION

I. SITUATION OF THE SUGAR INDUSTRY

II. MARKET
   - SUGAR
   - MOLASSES

III. STRATEGICAL CHALLENGES
I. SUGAR INDUSTRY

- In Mozambique, the sugar industry has a potential for the development of the rural economy, with immediate impact on local communities and job creation in poor areas.

- Investments in rehabilitation and expansion in 4 sugar mills in operation, resulted in increased sugar production for 13.000 tones in 1992 to 296.000 tones 2011;
I. SUGAR INDUSTRY

- **Sugar cane processed**

- **Production Molasses**
I. SUGAR INDUSTRY

- Sugar industry, in rural areas is an opportunity for the transformation of rural subsistence farmers into commercial farmers;

- The production of Outgrowers, increased from 80 hectares in 2000 to 9,000 hectares in 2013, and with participation of 3,500 farmers.
II. MARKET

- **Evolution of Domestic Market**
  
  *(2009 – 2013)*

![Graph showing the evolution of domestic market from 2009 to 2013. The graph includes lines for Castanho, Refinado, and Total Tons.]
II. MARKET

☐ Export of Sugar

- Main market European Union within the ACP / LDC initiative, free of charge and unlimited quota;
- The industry exports to the EU in 2013, 222,000 tons of brown sugar

☐ Potential threat to industry

- Entry into force in October 2017, the Common Agricultural Policy of the EU;
- Increased domestic production of sugar in the EU; and
- Reduced imports of sugar
II. MARKET

- **Molasses**
  - Production estimated at 120,000 tonnes and about 10,000 tonnes absorbed by the domestic market;
  - Exports to South African and European market

- **Opportunities of Use Molasses in Nacional Market**
  - Potential to produce 35 million tonnes of Ethano;
  - Enough to meet national needs for blends (E10) - 20 million liters;
III. KEY CHALLENGES

- Finalize approval of the legal framework for the sector;
- Investments in research to support the diversification of the cane sugar chain, focusing on market needs, transforming the sugar industry in the sugar cane Industry;
- Ensure an increase in revenue based on gradual and complete processing of sugar cane (ethanol, co-generation of electricity, chemical sugar-based products);
- Ensure the ongoing financial attractiveness of production of cane sugar, ensuring continuous income to small farmers;
- Production scale, and improved joint logistics infrastructure to enable access to the international market, with operationalization the investments of the following approved projects:
### III. KEY CHALLENGES

<table>
<thead>
<tr>
<th>Localization</th>
<th>Nº</th>
<th>Crops</th>
<th>Areas (ha)</th>
<th>Products</th>
<th>Quant (Ton/Year)</th>
<th>First Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>South (Gaza)</td>
<td>1</td>
<td>Sugar Cane</td>
<td>30.000</td>
<td>Sugar</td>
<td>160.000</td>
<td>2017</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Ethanol</td>
<td>240.000.000</td>
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</tr>
<tr>
<td>Central (Sofala)</td>
<td>2</td>
<td>Sugar Cane and Sweet sorghum</td>
<td>15.000</td>
<td>Ethanol</td>
<td>1.400.000</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Co-generation</td>
<td>4 MW</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sugar Cane</td>
<td>17.000</td>
<td>Ethanol</td>
<td>150.000.000</td>
<td>2016</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Co-generation</td>
<td>32 MW</td>
<td></td>
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</table>
MUITO OBRIGADO

“PELA PRODUTIVIDADE AGRÁRIA, SEGURANÇA ALIMENTAR E GERAÇÃO DE RIQUEZA”