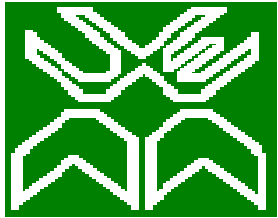
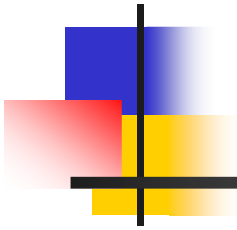




CCS: A Capacity Building Effort in Africa



**EDUARDO MONDLANE UNIVERSITY**



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**CCS WORKSHOP NAMIBIA**  
**[15 & 16 APRIL 2010]**  
**MOZAMBIQUE FACTSHEET**



# Introduction

- Population of 20 million inhabitants;
- Surface of 800,000 Km<sup>2</sup>
- Per capita GDP (2008): 956 US\$;
- GDP growth rate (2008): 6.5%.





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# Part 1

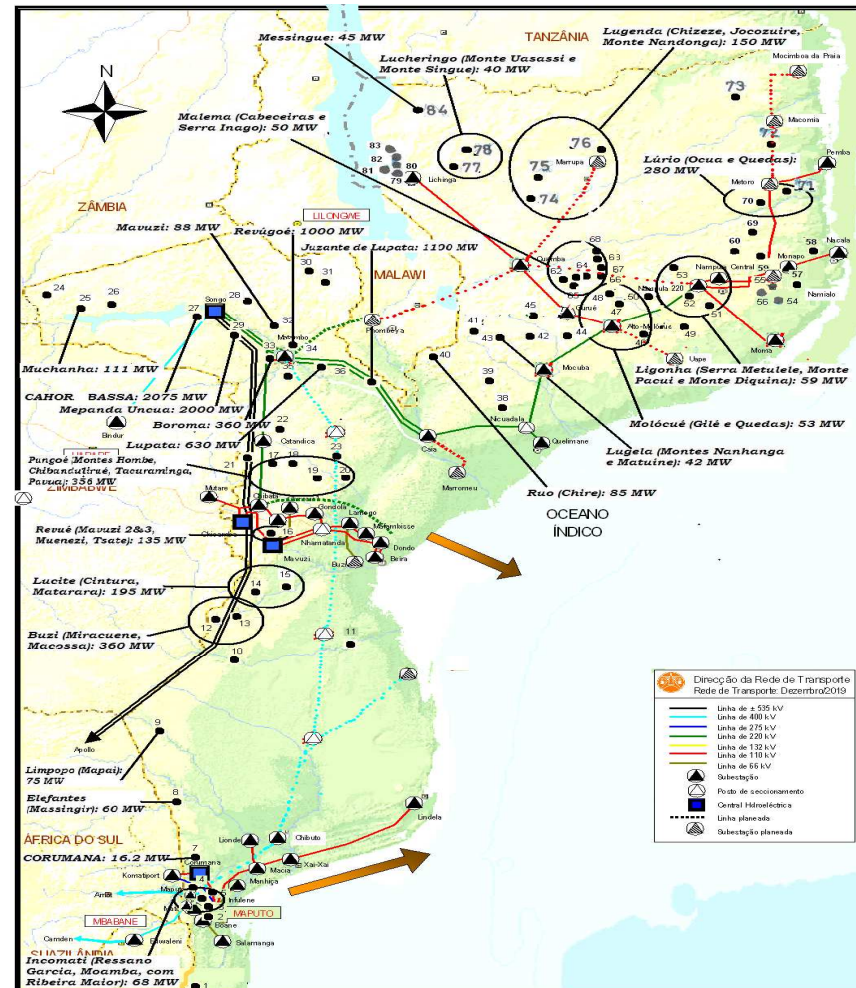
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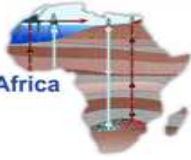
## Energy Resources and Electricity Production



# Energy Potential (Hydro)

- Hydroelectric potential: 12500 MW;
- 2184 MW have been developed, 2075 MW in Cahora Bassa, and the rest in different rivers.

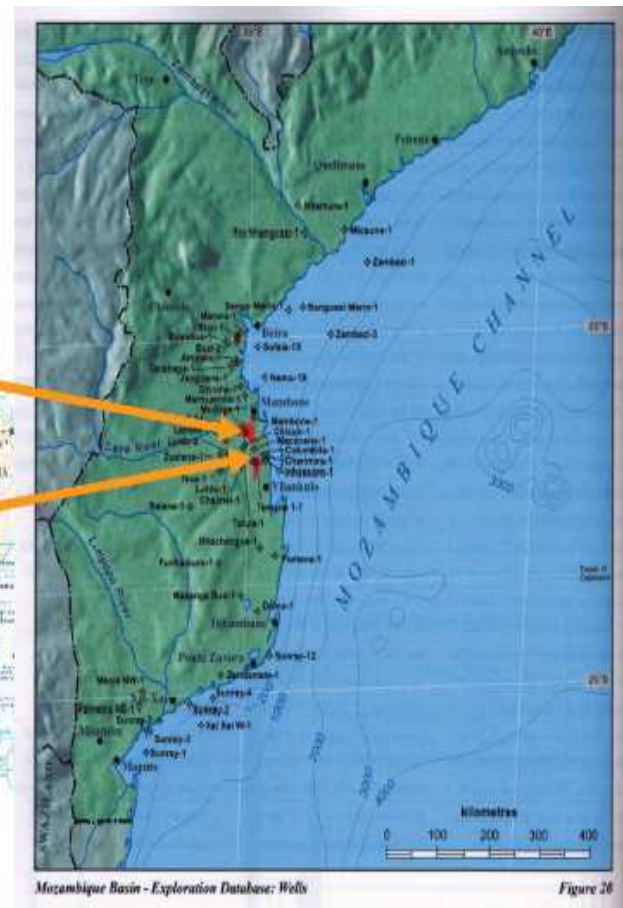




# Energy Potential (hydrocarbons – natural gas 1)

- Accumulations of gas in provinces of Inhambane and Sofala;
- Total gas reserves estimated at more than 3.5 TCF.

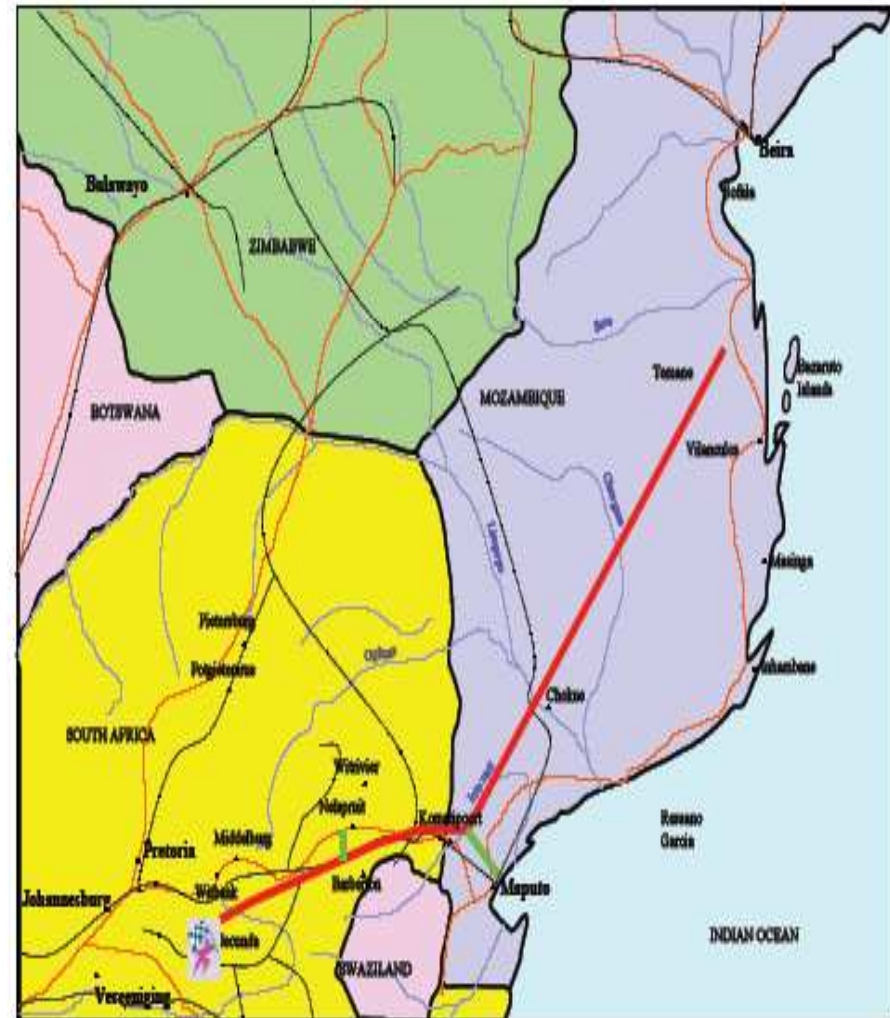
## Gas in Mozambique



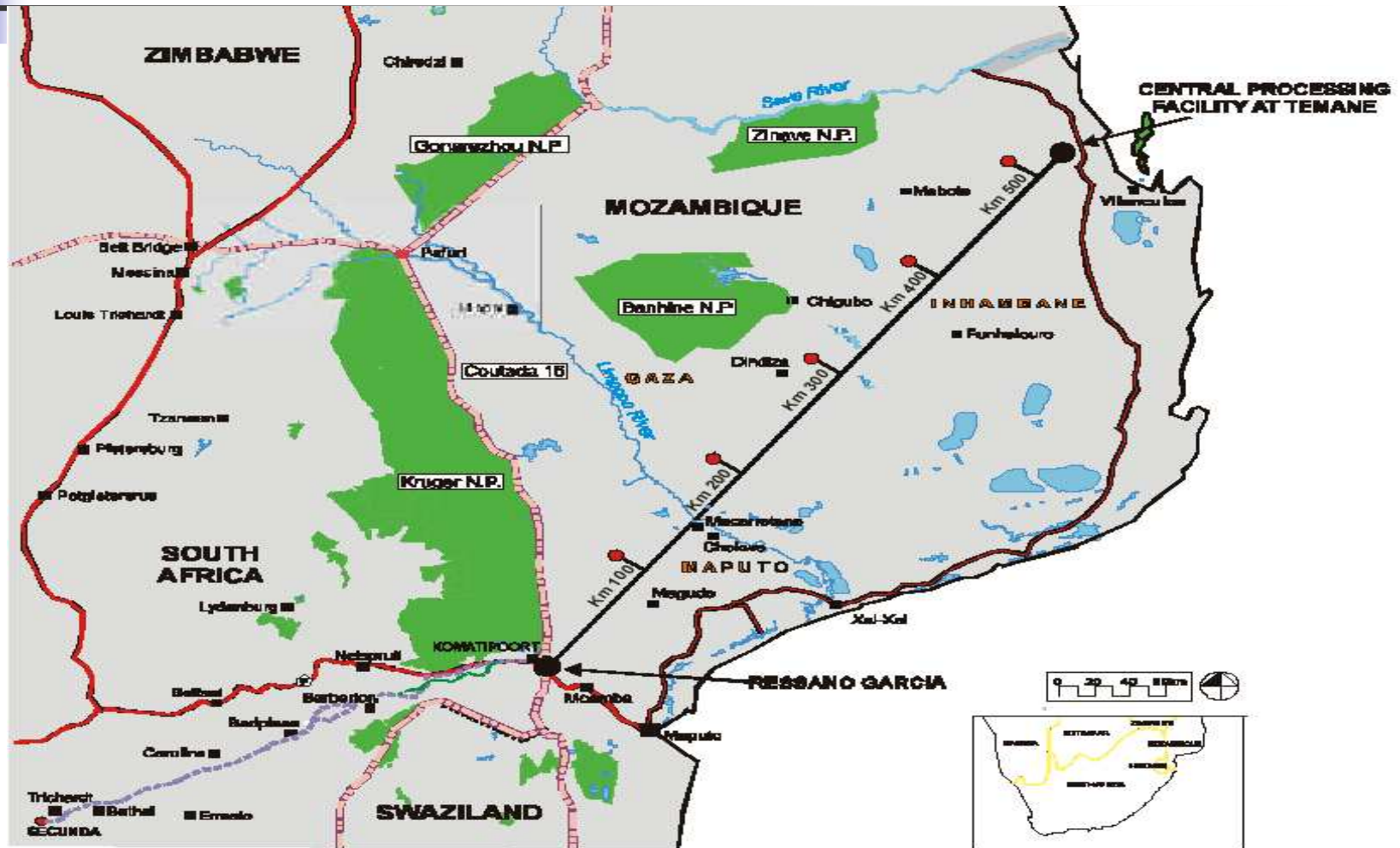


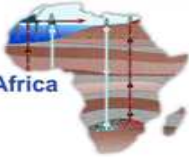
# Energy Potential (hydrocarbons – natural gas 2)

- Gas from Temane is being explored. Most is exported to South Africa via pipeline to Sekonda, in South Africa, in a distance of 865 km, 340 km of which in South Africa.



# Energy Potential (hydrocarbons – natural gas 3)

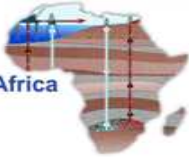




# Energy Potential (hydrocarbons – natural gas 4)

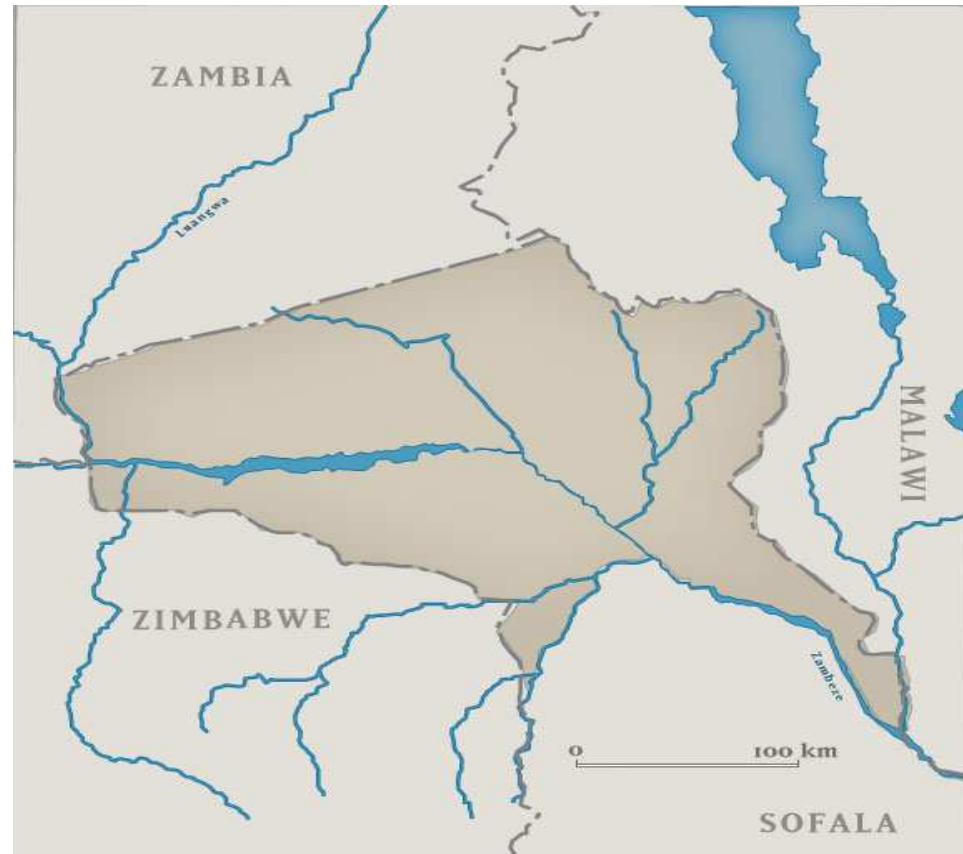
- Some gas is being used locally for electricity generation and for industrial production in Maputo.

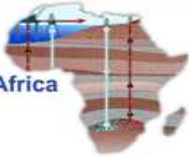




# Energy Potential (hydrocarbons – coal)

- Large accumulations of coal in the Province of Tete (Moatize and Benga);
- Total reserves: 3 billion tonnes

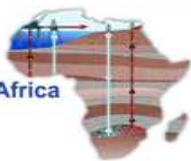




# Energy Potential (renewable energies)

- The country has also substantial renewable energy resources, namely solar, wind, ocean, geothermal, biomass, among others.

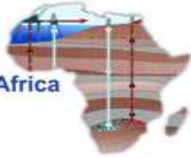




# Energy Production


*Table 1. Electricity Sources in Mozambique*

	<b>Capacity (MW) in 2008</b>
<b>Hydro</b>	<b>2183.85</b>
<b>Diesel</b>	<b>198.8</b>
<b>Gas</b>	<b>90.5</b>
<b>Fuel oil</b>	<b>6.88</b>
<b>Natural gas</b>	<b>0.660</b>
<b>Total</b>	<b>2480.69</b>
<b>Internal consumption:</b>	<b>500.0</b>



## New Energy Development Projects

NAME OF PROJECT	CAPACITY (MW)
Cahora Bassa North Bank	1250
Mphandha Nkuwa	1500
Moatize Coal Fired Power Plant	600
Benga Coal Fired Power Plant	500
Moamba Natural Gas Fired Power Plant	750
<b>TOTAL:</b>	<b>4600</b>



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# Part 2

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## CO2 Emissions



# Commitment to the Global Climate Agreements - 1

- Mozambique is part of the UNFCCC ;
- The country ratified the Kyoto Protocol;
- The country has established the Designated National Authority;
- CDM activities are being promoted;
- The country is open to implement other type of activities aiming at protecting the global climate.



# Commitment to the Global Climate Agreements - 2

- First National Communication to UNFCCC reported direct CO<sub>2</sub> emissions of 9,265 kton per annum (with 2004 as the reference year);
- The emissions were released mainly LULUCF) (about 82.9%) and energy (about 16.5%) sectors;
- The remaining trace amounts were released by industrial processes.



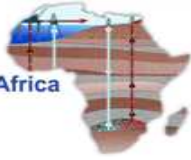


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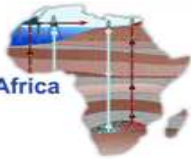
## Part 3

# Carbon Capture and Storage



# CCS Activities in Mozambique - 1

- Participation of Mozambican stakeholders in seminars on CCS both in Botswana (2007) and in South Africa (2009);
- Organisation of a CCS seminar in Maputo (12 & 13 April 2010);



## CCS Activities in Mozambique - 2

- The geological storage potential has not yet been assessed;
- But the seminar pointed out that the sedimentary basin in the southern part of the country may be appropriate (particularly future depleted gas fields)



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**Fim – The End**

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**Muito obrigado!**  
**Thank you very much!**