

**NIGER REPUBLIC REPORT ON
INTERNATIONAL
CONFERENCE ON
BIOENERGY POLICY IN
AFRICA LUSAKA ZAMBIA 26 TO
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Country Background

Niger is a Landlocked country with area of 1,267.000 km². Almost two thirds of the area is a desert. Niger is boarded in East by Chad, in North Libya and Algeria, in West by Mali and Burkina Faso and in South by Nigeria and Benin. In 2006 Niger population is estimated to 13,044.973 hbts and the rate of grow is 3.3%



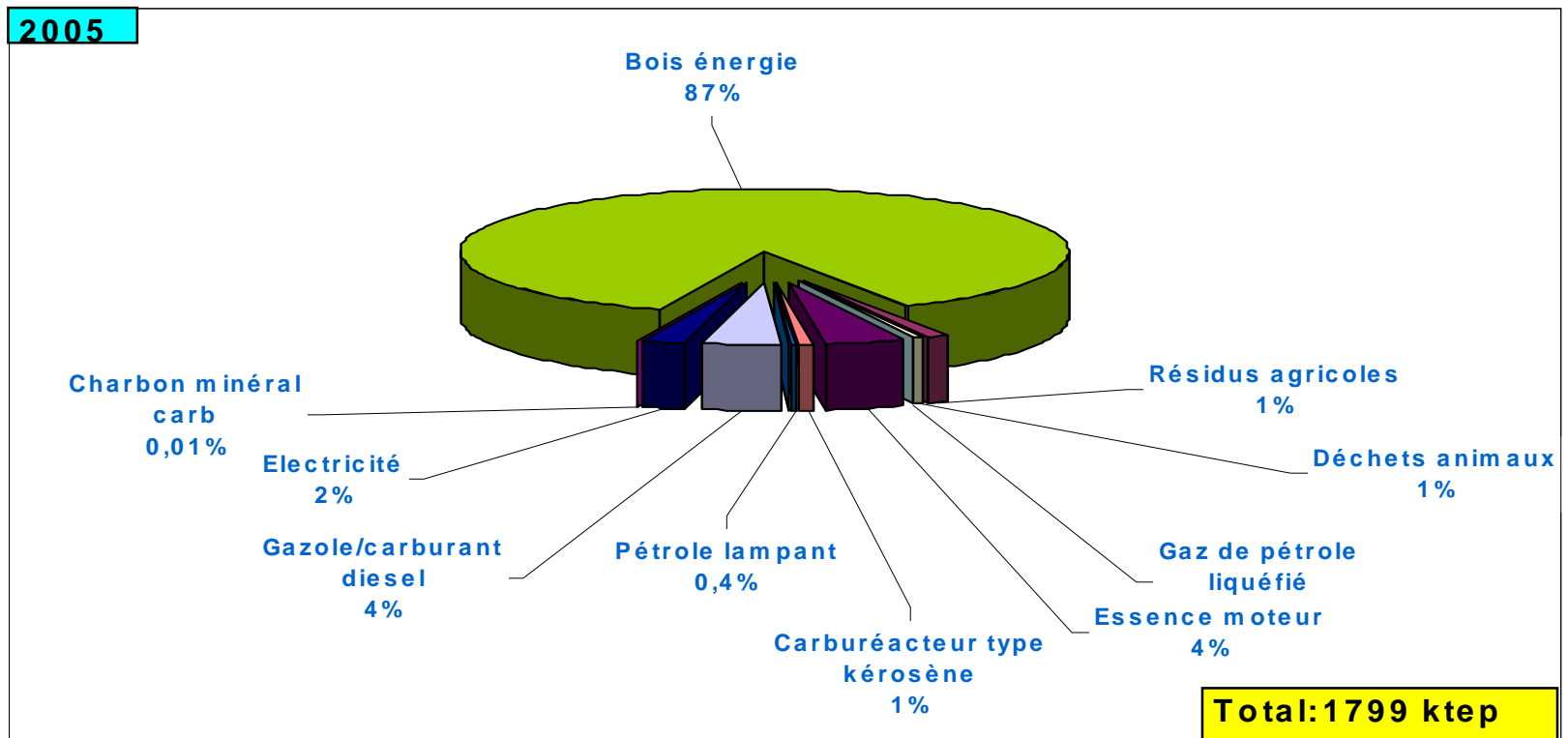
CLIMATICS ZONES

Niger has four agro climatic zones:

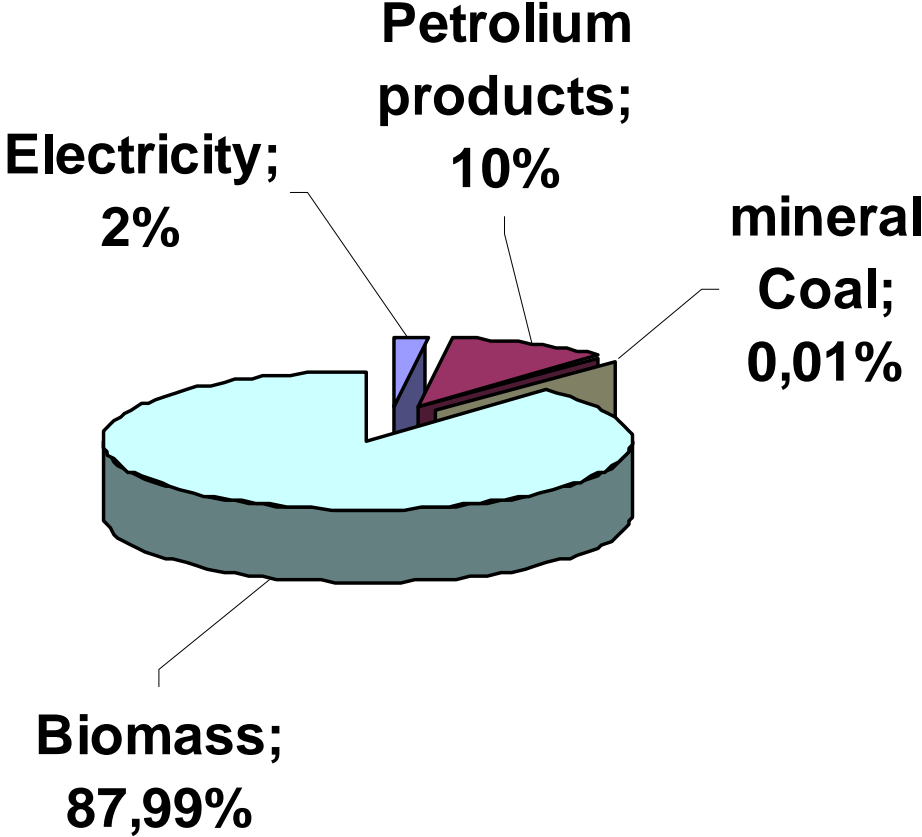
- **The Sahara zone zone covers 77% of the country and receives less than 150 mm per year;**
- **The Sahelo-Sahara zone 12% of the land with 150 to 350 mm of rain;**
- **The Sahel zone covers 10% of the country and receives 350 to 600 mm of rain;**
- **The Sudan zone about 1% of the total country with 600 to 800 mm of rain**

ENERGY SITUATION

- **Figure 1: Final Distribution Energy Consumption by product in 2005**



Energy Consumption partition in 2005



Final Distribution Energy Consumption by product in 2005

- In 2005, the total final energy consumption is about 1799 Ktpe. This consumption is characterized by a predominance of the biomass 88%. The oil products and electricity represent 10% and 2% respectively. The consumption of mineral coal charred is even marginal with 0, 01%.**
- The wood energy is the principal produces clear soup, with about 87% of the total final consumption. The conventional energies (electricity, oil products and mineral coal) represents less 13%.**

ENERGY RATE PARTITION

- **In 2006, the rate of the renewable energies in the balance is very weak (0, 01%).**
- **The rate of access to electricity for households is 8, 1%. This middle value hides makes big disparities from urban zone 47% to rural area 0, 40%.**
- **If one excludes the energy coming from the woody products, Niger is in dependence situation to aboard in energy 100% because oil products and electricity are imported from Nigeria**

POLICIES DOCUMENTS

SRP: POVERTY REDUCTION
STRATEGY

SENR: NATIONAL RENEWABLE
ENERGY STRATEGY

PRASE: REFERENCE PROGRAM
OF ENERGY ACCESS

SPECIES OF BIOENERGY PLANTS

- **Totally, fourteen (14) species of plants of which three (3) exits of the natural population (Balanites, karité and papinari), four (4) exits of artificial plantations (pourghère, neem, moringa and sunflower), four (5) species of pension cultures (sesame, cotton, sorrel, peanut, corn) and two (2) of irrigated cultures (cane to sugar and cassava) can serve for the production of biofuel in Niger. However, of all these species Three (3) present an immediate interest only for Niger to know:**

NIGER EXPERIENCIES IN BIOENERGY

INTRODUCTION

Niger Republic has little experience in bio energy while the potential is very important. Some experiments were done in biogas since 1985 and bio fuels two or three years ago. But now is no bio energy project.

BIOGAS

- **From 1985 to 2000 more than 20 installations were done to satisfy the energy need in rural area for lighting, sanitary water, cooking and some time for diesel engine running to generate electricity. But all those installations even they worked very well and satisfied their users. However the utilizations was very bad**

BIODIESEL

- **The only experiment that has been made on neem oil with good result (see table below) by EIP Peace Instrument School**

Comparison of fuels mixtures

Neem Oil, Gas oil and kerosene

Fuel/ Para meters	Diesel 100%	Neem oil 50%, Diesel 50%	Neem oil 50%, Kerosen e 50%	Neem oil 70%, Keros 20% Pet 10%
Motor running	Noisy	Normal, less noise	Normal	Normal
Engine sound	Knockin sound	Normal sound	Good sound	Better than petrol

Fuel efficiency	1 liter for 3 hours and 34 minutes	1 liter for 4 hours and 35 minutes	1 liter for 4 hours and 34 minutes	1 liter for 4 hours and 30 minutes
Price of mixture (CFA)	575	412	325	255

Conclusions and Recommandations

- While the medicinal and agricultural properties of those trees are well known and documented, the potential of their oil as a bio fuel has not been fully explored
- Identify and determine all ressources availability and their opportunity (production, plantation, adaptation);
- R/D must be intensify

THAKS YOU