



The Democratic Republic of Congo « DRC »



Ministry of Hydrolic Resource and Electricity

THE OVERVIEW ON THE DEVELOPMENT OF THE BIOCARBURANTS IN THE DEMOCRATIC REPUBLIC OF CONGO

by

Rolly BINAMA TSHINGANA

E-mail : rollybinama@yahoo.fr

Tel: 00243 899848480

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1. A Short Overview of The DRC



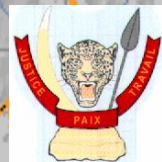
- The following data give the general characteristics of the DRC, namely:
 - A surface: 2.345.441 km²
 - Population: approximately 75 000 000 inhabitants in 2011
 - An exceptional and strategic geographical situation in the heart of Africa
 - The country has a climatic variety, with mainly a rainy season for moreover 8 months around Equateur and a dry season the remaining months of the year and a dense hydrographic network
 - With 9 neighboring countries which are the Republic of Central Africa, Sudan, Uganda, Rwanda, Burundi, Tanzania, Zambia, Angola and the Republic of Congo.



1. A Short Overview of The DRC



- With 120 million hectares of arable land(only 10% exploited so far), and 45% of the African equatorial forest, 6% of the world tropical reserves.





2. SOCIO-ECONOMIC AND POLITICAL SITUATION



- The DRC is one of the largest countries of Africa by its current surface, its demography and its potentialities; however, it has been experiencing for about ten years, a multisectorial crisis characterized by a socio-political instability, wars, dilapidation of the economic fabric, ...
- The economy of the DRC is based on its natural resources (mining, agricultural, etc), however, resolutions taken by the government since 2001 have enabled to stabilize the macro-economic parameters and restart with international financial institutions, which facilitated the installation of several multilateral and bilateral programs, co-operations having succeeded in particular thanks to the “DSCRП” (Strategy Document for the growth and reduction of poverty).





2. SOCIO-ECONOMICAL AND POLITICAL SITUATION



- On the political level, the elections of 2006 and 2011, the installation of the new democratic institutions marked a watershed of the history of the country. They allowed the consolidation of the assets of the last years and the start of rebuilding and its modernization by a responsible and legitimate government through a program which takes as a starting point the DSCRP and OMD (The millenium objective for development) aiming the return to a strong and shared growth .



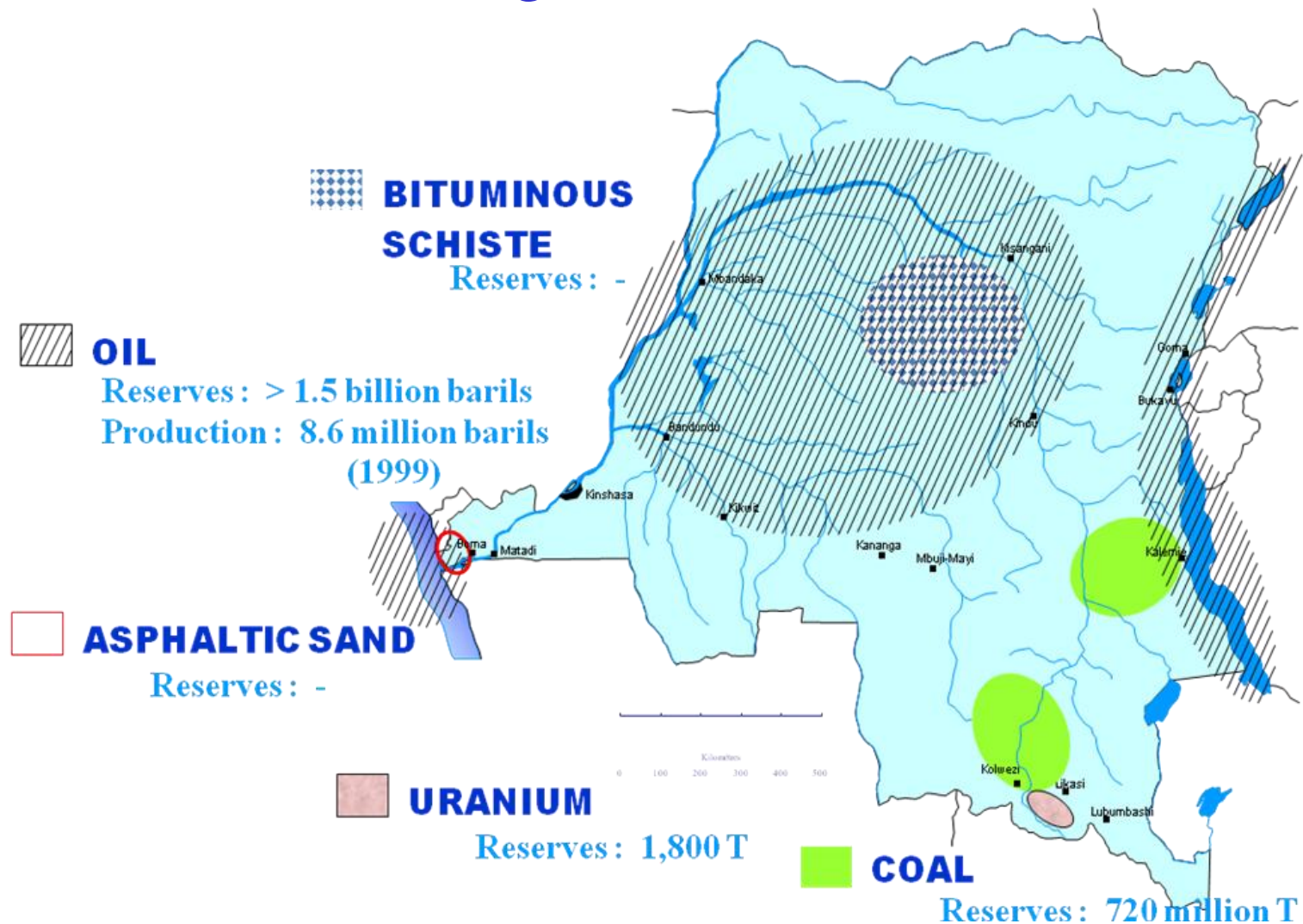
3. Energetic Resources of The DRC



- Natural gases (of which methanes of Kivu lake), tar sand, mineral coal, oil shale, solar potentials and wind, the tidal one, thermal springs, bioenergies, and uranium.
- The energy profile of the DRC shows that it abounds in the abundant and varied natural energy resources, in particular: the biomass (firewood, charcoal, agricultural waste and residues ...), hydraulics, oil,...



Energical Resources





4.BIO ENERGY IN THE RDC

- **For Biogas and Biocarburants**, the country has immense potentialities (but not quantified) in vegetable resources for the development of biogases and the biocarburants in order to reduce the dependence with respect to imported hydrocarbons. The DRC meets favorable conditions to the development of the biocarburants extensions) i)- oilseed cultures (palm nut, colza, soya, sunflower, jatropha, etc.); ii) - The residue fermentation of sugar cane culture (production of methanol, ethanol); iii) - the biogas (methane) of the residue and various waste fermentation.



5. BIO ENERGETIC POTENTIAL IN THE DRC



The bio energetic potential of the Democratic Republic of Congo is characterized by the following agro ecologic zones:

- **The South-west zone** (Kinshasa, Provinces of Bandundu and Bas Congo), characterized by:
 - An equatorial and tropical climate
 - A precipitation between 1200 and 2000 mm per annum
 - A vegetation which evaluates mangroves and passes by the forests, savannas and steppes.

- **The Central-South zone** (Provinces of Kasai Oriental and Kasai Occidental), characterized by:
 - An equatorial climate in North and a tropical one in the South;
 - Pluviometry varies from 1500 to 2000 mm per annum;
 - A vegetation of the wet forests in North and savannas in South



5. BIO ENERGETIC POTENTIAL IN THE DRC

- The South-Eastern zone (the province of Katanga), characterized by:
 - A relief of mountains and plains
 - The precipitations which vary between 145,8 and 1546,8 mm per year
- The zone of Basin Exchange (the province of Equateur and Province Orientale), characterized by:
 - A relief of the Plains whose attitude varies between 320 and 600 m;
 - An equatorial climate and a vegetation of the dense forests
- The eastern zone(provinces of North and South Kivu, the province of Maniema and Province Orientale); characterized by:
 - A relief of the chains of the mountains and valleys;
 - An attitude from 700 to 3000 m and varies even 5000m;
 - An equatorial and tropical climate;
 - A vegetation of the equatorial forest of low alttitude and mountains, forests of the bamboos in high altitude.



5. BIO ENERGETIC POTENTIAL IN THE DRC



- The Northern zone (Northern part of Equateur and the North-Eastern part of Province Orientale); characterized by:
- A relief of the plains whose vegetation is forest galleries and woody savannas



6. INVESTMENT PROGRAMS



Several initiatives of biocarburant production were undertaken in The Democratic Republic of Congo. It is about:

- The Sugar Company of Kwilu-Ngongo in Bas-Congo on more or less 20 hectares;
- Projects of the SADR Company in Mushapo in Southern Tshikapa in the province of Kasai Occidental on more or less 80 hectares of jatropha cultures;
- Project of the electricity production with biocarburants by AGRIMATE in Bumba in the province of Equateur;
- Project of Cd-bwamanda in collaboration with a Belgian Higher Institute installed a machine of palm oil transformation while carburizing;
- The GAZOPALM which uses palm oil in the proportions from 0,1 to 0,3 of gas oil for 1 liter of oil;



7. MANAGEMENT OF BIOCARBURANTS IN THE DR CONGO



The technical Ministries concerned with the management of the field of the biocarburants are as follows:

- The Ministry of Environment which manages the forests, ensures the promotion and the coordination of the activities relating to the environment and the nature conservation;
 - The Ministry of Agriculture which coordinates the agricultural production and ensures the planning of production projects;
 - The Ministry of Hydrolic Resource and Electricity which designs and works out the energy policy in all its forms;
 - The Ministry of Hydrocarbons manages hydrocarbons and intervenes in case of industrial production by expressing its storage, transport and distribution policy;
- ❑ These Ministries, in connection with their respective attributions, make this activity a field of collaboration.



8. THE DR CONGO OPTIONS ON THE DEVELOPMENT OF BIOCARBURANTS



- ❖ Taking into consideration its ecological agro diversity and its great availability out of arable land, the Democratic Republic of Congo has significant assets for the production of agro-fuels. In fact:
 - That the production of the biocarburants make it possible to reduce the dependence with respect to generating fossil energies of significant quantities of GES;
 - That the production of the biocarburants, in particular those of first generations, condemning for the use of the very large surfaces of the grounds do not start the forest capital of the country
 - The development of the biocarburants with the profits which the cultures of revenues generate, does not push the peasants to forsake the food crops with the profit of the biocarburant production. However, the Democratic Republic of Congo retained the option to develop the die biogas and to produce the biocarburants starting from the nonfood cultures like Jatropha.



9. INCIDENCES DUE TO THE DEVELOPMENT OF THE BIOCARBURANTS

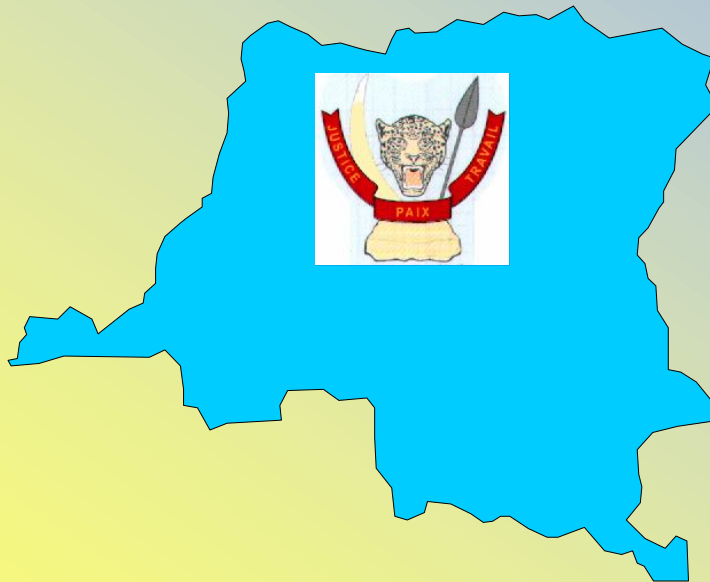


The development of the biocarburants presents many opportunities for the country, because it takes part in the diversification of the energy sources; nevertheless, it is noted certain incidences which are in particular:

- The degradation of zones of high environmental value in fact plantations of the palm trees with oil which require, for their cultures, the demolition of the dense forests.



**Thank you for your
attention**



Rolly Binama Tshingana Chief Officer at Hydrollic Resource and Electricity Ministry

