WAYS AND MEANS TO MINIMIZE THE NEGATIVE AND MAXIMIZE THE POSITIVE INCOME OF BIOFUEL PRODUCTION AND USE ON SUSTAINABLE BIODEVERSITY

RESUME OF THE REGIONAL MEETING BANGKOK 25-27 NOVEMBER 2009

By:

Eng. Domingos Cairesi Bendito Bere Mau Gomes, M.Sc

Timor-Leste

According to the regional workshop for Asia and Pacific on the ways and means to promote the sustainable production and use of Bio fuels, and participate through experience to develop the raw materials in access of the bio fuel production. In generally, Timor Leste satisfy with conclusion of this workshop. As we know Timor Leste just independent past 7 year (20 May 2002) and total of population about 450.000 and 14.962 KM^2. To strengthen develop of bio-energy plant, our National Policy through Secretary of State Energy Policy decided five component of renewable energy, i.e. ; a). Bio-energy trough *Jatropha curcas* plantation, b) Biogas, we built and try up 100 m^3, c) Hydro Power, d) Win Power and 5) Solar PV. The main of five component was mentioned above base on visibility study of transfer of environmentally sound technology exchange of information refer to the best practices and we would like to carry out a feasibility study in order to gather information and plan for a sustainable Jatropha oil production project in East Timor. **Taken to the output of this workshop is a how to promote bio fuel energy program to recommend for sustainability of biodiversity, i.a**:

1. Promote and develop marginal land and wet land through *Jatropha curcas"*[1] plantation for socio economic aspect to improve the local community livelihood and protect the biodiversity impact and create and develop sustainable nature- and culture-based local communities participate.
2. An Agro Energy program has been initiated by the Secretary of State for Energy Policy Timor-Leste to help farmers to improve the livelihood rural community. We recomended this program or why use the Jatropha curcas for alternative energy ?"[2]
3. The Secretary of State for Energy Policy has asked for assistance in continuance and supplement of the project in order to transform it into a profitable business in East Timor.

[1] Jatropha is one of the world's most productive biodiesel feedstock crops, It is a bush that once planted, can last well over 40 years, Jatropha requires little water and grows in arid climates, Jatropha can grow in regions not suited to other crops. Filtered jatropha oil can be used diesel engines with only a small modifications required to the engine, Jatropha oil can be used as a kerosene substitute for heating and lamps, Jatropha oil burns with a clear smokeless flame.

[2] a) Jatropha grows well on low fertility soils however increased yields can be obtained using a fertilizer containing small amounts of magnesium, sulphur, and calcium, b) Jatropha can be intercropped with many cash crops such as coffee, sugar, fruits and vegetables with the Jatropha offering both fertilizer and protection against livestock, c) atropha needs at least 600mm of rain annually to thrive however it can survive three years of drought by dropping its leaves, d) Jatropha is excellent at preventing soil erosion, and the leaves it drops act as a wonderful soil enriching mulch.

Growing of Jatropha Curcas and production of electricity




Localization

- Baucau
- Manatutu
- Suai

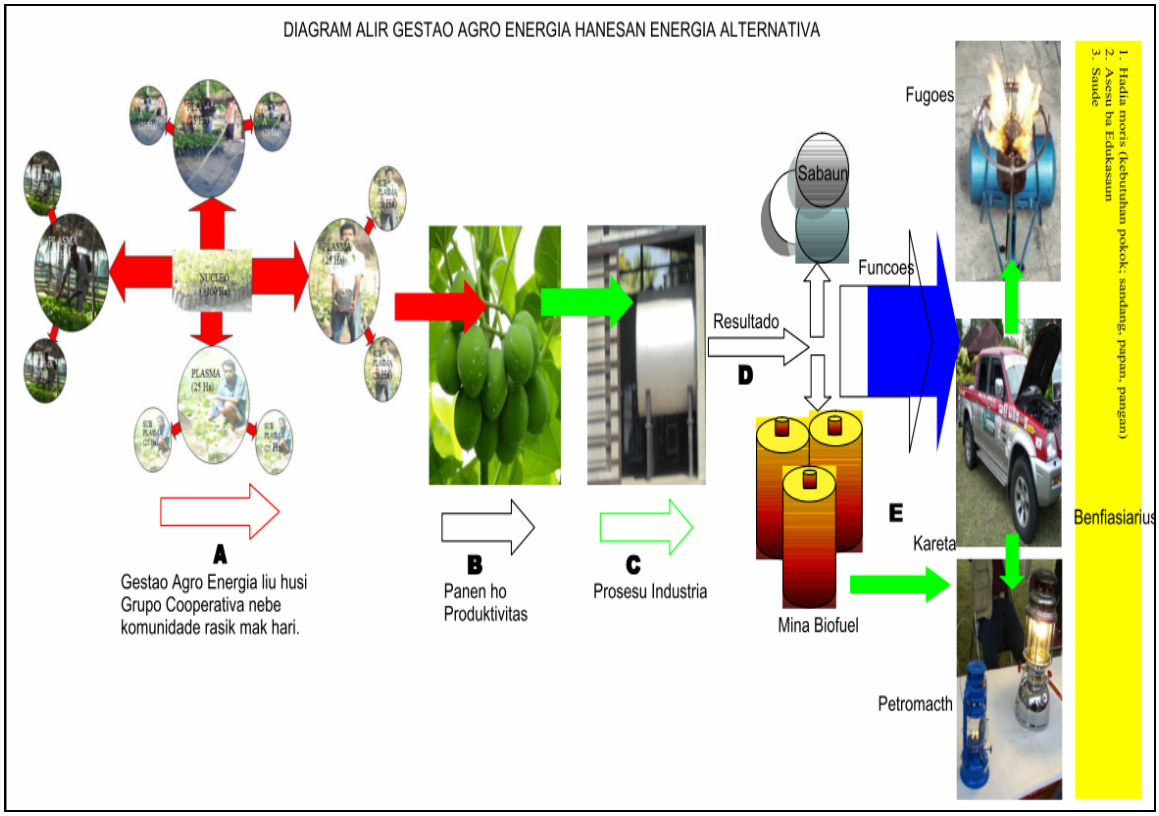

Figure 1. Scheme of Use Bio fuel on Sustainable Biodeversity in Timor-Leste

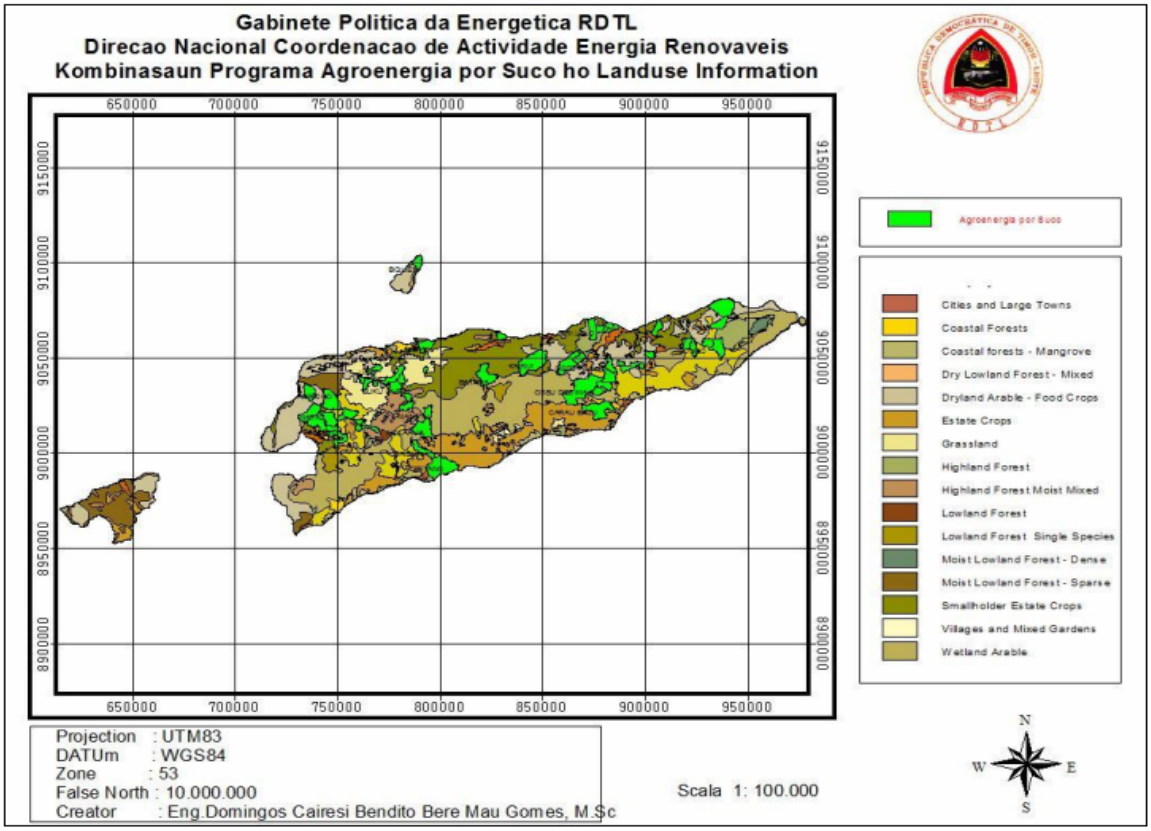

Figure 2. Distribution of Jatropha plantation in Timor-Leste