Land Dedicated to Bio-energy

Attention is now being focused globally on renewable energy as alternative to depleting fossil fuel and its effects on the environment. Nigeria is not an exception in this process. About 50% of Nigeria renewable energy potential is from agricultural residue and forestry residue of approximately 152 and 43.4 million tonnes (dry). The Nigeria land mass is 923,768 km2.

Trajectory 1

This trajectory assumes land dedicated to Arable and Grass land remain the same as at 2010. 5% of the total land mass will be dedicated to arable land used for food crops, first and second generation's energy crops. While 20% of the total land mass is dedicated as grass land used for second generation energy crops and livestock.

Trajectory 2

This trajectory assumes an increase in the arable land to 11%, with food crop having 7%, first and second generation's energy crops having 2% each. Percentage of land dedicated to grass land remains the same. Afforestation has reduced the desert land area from 35% in the base year (2010) to 25% of the total mass land area by 2050.

Trajectory 3

This trajectory assumes a further increase in arable land to 19% with food crops, first and second generation's energy crops contributing 9%, 5% and 5% respectively. More aggressive afforestation exercise has further reduced the desert land area to 18%.

Trajectory 4

This is same as trajectory 3 above.

Crop residues (Rice husks)