

APPENDIX



Questionnaire

Title: Analysis of bio-fuel utilisation in Nigeria

Introduction

In this questionnaire, your opinion is needed as regards bio-fuel production and utilisation. Information is needed for analysis in order to identify the major problems and suggest solutions to these problems. Your cooperation is highly needed and will be therefore highly appreciated.

General information

Date.....

Name of respondent.....

Name of company.....

Name of enumerator.....

Name of village.....

Name of city.....

Section A – Demographic information

This section refers to biographical information. Information from this section is needed for comparison of respondents for proper analysis. Your identity will be kept confidential due to the sensitivity of the question in this section.

A1. What is your gender?

Male	1
Female	2

A2. What is your age?

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A3. What is your occupation?

Farming	1
Student	2
Civil service	3
Self-employed	4
Retiree	5
Private sector	6
others	7

A4. Your highest educational qualification?

Primary	1
Secondary	2
Tertiary	3
Post-tertiary	4
No Formal Education	5

A5. What is your marital status?

Single	1
Married	2
In relationship	3
Divorced	4

A6. Do you have children?

Yes	1
No	2

A7. What are the sources of income?state.....

A8. What is your monthly income?

₦0-50,000	1
₦50,001-200,000	2
₦200,001-1,500,000	3
Over ₦1,500,001	4

Section B

This section comprises of questions relating to farming, biofuel crops, biofuel policies, ecology , biofuel technology, food provisioning, economy, adoption, production and application.

B1. Are you into farming?

1.Yes	1
2. No	2

B2. How much arable land (ha) is used in farming?

1. Less than 1 hectare	1
2. 1-2 hectares	2
3. 2-3 hectares	3
4. 3 hectares or more	4

B3. What is the total unused arable land (ha) you have?

1. Less than 1 hectare	1
2. 1-2 hectares	2
3. 2-3 hectares	3
4. 3 hectares or more	4

B4. How much arable land did you use last season?.....

B5. Did you buy the land?

1.Yes	1
2.No	2

If no, how?

Lease	1
Rent	2
Inherited	3
Other(specify)	4

B6. Do you produce biofuel feedstock?

1. Yes	1
2. No	2

If yes, which biofuel feedstock do you produce?

Cassava	1
Maize	2
Sugarcane	3
Sorghum	4
Potatoes	5
Rice	6
Oil palm	7
Coconut	8
Other	9

Do you sell biofuel feedstock?

1. Yes	1
2. No	2

B7 Are there scarcity of food crops for consumption as a result of biofuel feedstock cultivation?

Yes	1
No	2

If yes, please state which crops?

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B8. Are you into biofuel production?

1.Yes	1
2. No	2

If yes, what kind of biofuel do you produce?

Ethanol	1
Biodiesel	2
Green diesel	3
Butanol	4
Vegetable oil	5
Other	6

B9. Is the feedstock needed for biofuel production expensive?

1.Yes	1
2. No	2

B10. What kind of feedstock is used in producing your biofuel?

Cassava	1
Maize	2
Sugarcane	3
Sorghum	4
Potatoes	5
Rice	6
Oil Palm	7
Coconut	8
Other	9

B11. Where do you get your biofuel feedstock from?

Selfproduced	1
Bought	2
Imported	3
Other	4

B12. How many litres of bio-fuel were sold in 2014 and 2015?

Bio-fuel	2014 (Litres)	2015 (Litres)	
Ethanol			1
Biodiesel			2
Green diesel			3
Butanol			4
Vegetable Oil			5
Other			6

B13. How much biofuel feedstock (Kg) have been used between 2014 and 2015 for biofuel production?

Feedstock	2014(Kg)	2015(Kg)	
Maize			1
Sugarcane			2
Sorghum			3
Potatoes			4
Rice			5
Oil Palm			6
Coconut			7
Cassava			8
Other			9

B14. Are farmers well orientated about cropping culture?

Yes	1
No	2
Undecided	3

If no, why?

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.....
.....

B15. Are plants used for producing biofuel reducing soil nutrients on land?

Yes	1
No	2
Undecided	3

If yes, which of the plants?.....

B16. There is conversion of land used for grazing to biofuel feedstock plantation?

Yes	1
No	2
Undecided	3

B17. Biofuel production activities have caused environmental pollution?

Yes	1
No	2
Undecided	3

B18. Irrigation used for feedstock cultivation is affecting water availability?

Yes	1
No	2
Undecided	3

B19. Fast conversion of arable lands for feedstock cultivation?

Yes	1
No	2
Undecided	3

B20. Are more investors getting large areas of land for cultivation of biofuel feedstock?

Yes	1
No	2
Undecided	3

B21. Do you think in future there will be a decline in the availability of land used for planting food crops needed for consumption as result of feedstock production?

Yes	1
No	2
Undecided	3

feedstock?

Yes	1
No	2
Undecided	3

B22. Presently, does Nigeria have capacity for producing

B23. In future do you think there will be an increase in production of feedstock used for biofuel in Nigeria?

Yes	1
No	2
Undecided	3

B24. How many biofuel installations do you have in your state?

1-10	1
10-20	2
20 and above	3
None	4

B25. Are there sufficient engines to produce biofuel in Nigeria?

Yes	1
No	2
Undecided	3

B26. Biofuel companies have access to financial assistance in purchasing biofuel producing engines?

Yes	1
No	2
Undecided	3

If yes, from whom?

Banks	1
Government	2
Private individual	3
other	4

B27. What is the preferred engine type in Nigeria?

Petrol	1
Diesel	2

Why?

B28. What kind of engine uses biodiesel in Nigeria?

Two strokes	1
Four strokes	2
None	3

B29. Do you think the adoption of biofuel would reduce the level of unemployment in Nigeria?

Yes	1
No	2
Undecided	3

B30. Has the domestic application of biofuel increased in the last two years?

Yes	1
No	2
Undecided	3

B31. Has the industrial application of biofuel increased in the last two years?

Yes	1
No	2
Undecided	3

B32. Is the sales of Keke Napep increasing ?

Yes	1
No	2
Undecided	3

If yes or no , why?

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B33. Is the Kike Green Cook stove been widely used in Nigeria?

Yes	1
No	2
Undecided	3

B34. Has the demand for Kike Green Cook stove increased in the last two years?

Yes	1
No	2
Undecided	3

Why (If yes or no)

B35. Do you think Nigeria has enough technical know-how on biofuel production?

Yes	1
No	2

Undecided	3
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B36. The Nigerian biofuel policy has been beneficial to Nigeria in the area of food security, jobs creation, environmental protection, provision of energy and water conservation?

Yes	1
No	2
Undecided	3

B37. Biofuel production has caused economic growth in Nigeria?

Yes	1
No	2
Undecided	3