



FOSSIL FUEL REDUCTION & ENVIRONMENTAL CONSERVATION

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PROBLEMS SETTO ADDRESS

- Health Hazards from high dependence on fossil fuels
- High cost of fossil fuels
- Environmental Pollution
- Fossil fuel hazards

PROPOSITION

Provision of safe and affordable alternative renewable energy through the production of moringa bio-gel for 67% of Nigeria's low income rural and peri-urban households still using fossil fuels for household cooking energy.

METHODOLOGYUSED

Moringa stem wastes from herbal tea production, treated and distilled was used to produce the moringa bio-gels



Fig.1

RESULT

- Production of patent cellulosic ethanol bio-gel cooking fuel (Patent No: NG/PT/NC/2018/2796)
- Over 120 households participated in the research.

Impact made:

- Guaranteed safety from cooking hazards
- Environmental sustainability
- Economic development

CONCLUSION & FUTURE WORK

- More research to break the lignin in moringa stems to enhance high yield ethanol from the wastes.
- More research is required to take this project to a level of proof of concept

REFERENCES

- Institute of Research & Training of Obafemi Awolowo University, Ile-Ife.
- Nigerian Agricultural Journal

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