

Preliminary survey of the implications of fuel sources in traditional fish smoking on one health in selected coastal communities of Lagos, Nigeria

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Potential health hazards associated with smoked foods are caused by carcinogenic components of firewood smoke – mainly polycyclic aromatic (PAHs) and derivatives of PAH. Secondly, the country consumes over 50 million metric tons of fuel wood annually and fuel wood extraction rate is estimated to be about 3.85 times the rate of re-growth or afforestation with consequences of serious environmental impacts.

Abstract Reference

PP07

BACKGROUND

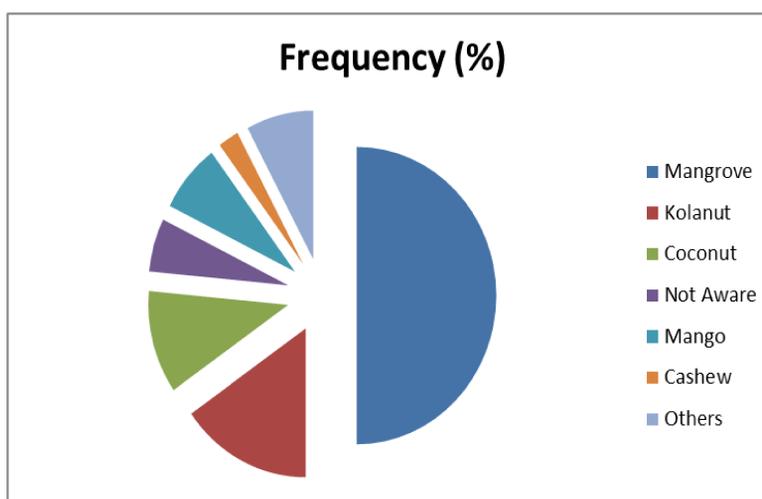
Past and present studies show that potential health hazards associated with smoked foods are caused by carcinogenic components of firewood smoke – mainly polycyclic aromatic (PAHs) and derivatives of PAH. This is further aggravated by the use of some local kilns that allows for direct contact between the smoke and the fishes being smoked which are prevalent in many of these coastal communities in Nigeria. Secondly, the country consumes over 50 million metric tons of fuel wood annually and fuel wood extraction rate is estimated to be about 3.85 times the rate of re-growth or afforestation with consequences of serious environmental impacts. The two scenarios portend highly complex and interwoven problems but the dimensions and convolutions are often loosely described. Therefore, this paper presents a preliminary investigation of traditional fish smoking in coastal communities of Lagos on one health. More specifically, the work investigated the prevalent fuel sources and assessed the effects of smoking fish on the environment, the animal and human health.

METHODS

- Primary data was obtained from administering computer assisted surveys to 412 women fish processors in some coastal communities of Lagos to identify and characterize the frequency of fuel sources used.
- Descriptive analysis was used to analyse the primary data.
- Secondary data were also used to make inferences on the implications of fuel sources on the environment, animal and human health. Add info here.

RESULTS

- The findings are discussed in view of high dependence on trees including mangroves (*Rhizophora* spp.) mango (*Mangifera* spp.), kolanut (*Cola* spp.), teak (*Tectona grandis*) and guava (*Psidium* spp.) among others as sources of fuel, and the uniqueness of major fuel sources highlighted.
- The figure below shows the type of firewood used in the study and the frequency of their usage.
- It was observed that some firewood are peculiar to some location e.g. wood shavings while few such as mangrove was common in all communities.
- Some location close to sawmill collect woods from the sawmill.
- Many of the users were observed not to be aware of the type of wood used revealing they are unaware of One-Health.
- Mangrove is the most exploited specie of wood in all the coastal communities. Though this is good for smoking in terms of human health however with adverse effect on environmental health.
- Nigeria consumes over 50 million metric tons of fuel wood annually.
- The extraction rate of wood is about 3.85 times the rate of re-growth which shows deforestation increase geometrically linked with global warming and ultimately climate change.



CONCLUSIONS

- Overdependence on mangrove and other wood species has led to deforestation, desert encroachment, soil erosion among others which has destroyed ecosystem greatly.
- One health (human and environmental health) have correlation with energy source use in smoking fish, the relationship is inversely proportional
- Findings from this study is to improve awareness on the concept of One health and to start discussion on the adverse effect of firewood usage as energy source in smoking fish.
- Introduction of environmentally friendly sources is hereby encouraged

ACKNOWLEDGEMENTS

Carleton University and Gendered STEAM team Canada.
International Federation of Science (IFS) Sweden
Federal College of Fisheries and Marine Technology, Lagos. Nigeria
Lagos State University, Ojoo. Lagos.

MORE INFORMATION / REFERENCES

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