Bioethanol for Clean Cooking – NIH Covid Impact Study

Regional Capacity Building Workshop - Introduction to Bioethanol for Clean Cooking
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Harry Stokes, Project Gaia
Over half the world’s population live in urban areas, yet only 12% of cities reporting worldwide achieve WHO guidelines for air pollution.

Globally, 1 in 8 premature deaths are caused by air pollution, amounting to about 7 million premature deaths annually.

By reducing air pollution, cities and countries can reduce the burden of disease from stroke, heart disease, lung cancer, and respiratory diseases for more than 1/2 the world’s population.
Data is scarce for covid impacts in sub-Saharan African countries, in part because statistics on sickness and mortality are not as easy to collect as in OECD countries. Therefore, it would be helpful to ask the workshop participants what you have observed over the past eight months in your countries.

Here is a list of impacts that we have observed in Tanzania. Have you observed these to be true in your community, or have you observed other impacts?

1. Economic dislocations
   a. Cross border commerce has ceased or become more difficult
   b. Prices have increased locally
   c. Scarcity of goods and services
   d. Reduced income/earnings
   e. Shortages of fuels

2. Social dislocations
   a. Uncertainty about what is really happening
   b. Lack of confidence in information being provided by government
   c. Concern about getting sick. Quarantining. Inability to move freely in the community
   d. Change in work behavior
   e. Change in shopping behavior
   f. Direct impact, sickness or death in the family

3. Health considerations
   a. What are pre-existing conditions? What are risk factors?
Air pollution is the leading environmental health risk humans face. The combined effects of outdoor and household air pollution cause around 7 million - one in eight - premature deaths every year, largely as a result of increased mortality from stroke, heart disease, lung disease, and cancers.

According to World Health Organisation (WHO) data, air quality in most cities fails to meet WHO guidelines for safe levels, putting people at additional risk of respiratory disease and other health problems. Cities in low- and middle-income countries are the most affected, with some showing pollution levels ten times, or more, above the recommended levels.

Without action, air pollution in many cities will continue to get worse. While more than half of the world’s population lives in cities today, the global urban population is expected to double by 2050. Most of this growth will occur in low and middle-income cities where rapid urbanization is outpacing their ability to provide necessary infrastructure and services.
Exacerbating the challenge, the COVID-19 pandemic now threatens to reverse any gains that had been achieved towards the government’s objective of reduced charcoal consumption.

The pandemic has conceivably affected both the supply and demand, and importance, of cleaner energy in a number of ways. It is compounding the effects of energy poverty, causing illness as well as loss of income and earnings due to the effects of social distancing and other response measures.

Yet, little data exists to understand and quantify these effects, as well as their implications for the well-being of the population and need for other vulnerability-reducing policies in this very important East African metropolis.
Consumer’s Choice in Dar es Salaam – Ethanol Cookstove and Fuel Distributor
COVID-19 and household energy study: Demand and supply side shocks to Tanzania’s objective of transitioning to clean and affordable energy

Research Questions
The research questions we propose to investigate in this project are the following:

1. How is COVID-19 changing the supply and demand of different fuels in Dar es Salaam, and what are implications for Tanzania’s transition to cleaner solutions, namely LPG and ethanol?

2. What, if any, new barriers/enablers to adoption and sustained use of clean fuels have emerged during the pandemic?

3. In light of the current health crisis and associated disruptions, what policy solutions would build resilience in clean fuels supply chains and enhance the sustainability of clean fuel transitions?
COVID-19

Intervention Characteristics
- Adaptability and complexity of clean fuel interventions

Outer Setting
- Economic, political and social context in which clean fuel supply & distribution occur
- External policies and incentives for clean fuel production, importation, and retailers

Inner Setting
- Readiness for clean fuel implementation and availability of resources for implementation

Individuals (Households)
- Knowledge and beliefs about clean fuels
- Individual stage of change for households
- Personal attributes and household finances
- Willingness to pay for clean fuels
Moto Safi Fuel

For sale:
0.5 liters
1 liter
2 liters
5 liters
Our Mission
To replace gradually the use of environment polluting and unhealth fuels such as wood, charcoal and kerosene with bio-ethanol, LPG and electricity cook stoves and fuels.

Vision
To become the leading and most preferred provider of efficient cook stoves and fuels in Africa.

Value Proposition
We are engaged in producing and selling ethanol fueled stoves and ethanol produced from sugarcane grown in Tanzania. Our customer base is the low to middle income urban woman who uses a mix of charcoal and kerosene fuels.

Our customers pain is using dangerous, unhealthy, expensive, inefficient and environmentally unhealthy cooking fuels and cook stoves.

We strive to provide healthy, clean, affordable, sustainable and environmentally friendly cooking fuels and efficient cook stoves.

Our Slogan
"Enjoyable Cooking Experiences Everyday” "Furahia Mapishi Kiasi"
Shopkeeper in Dar es Salaam

School teachers buying stoves brought into the school
Storage tank and bottling filling plant at the fuel depot.
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Here is a list of impacts that we have observed in Tanzania. Have you observed these to be true in your community, or have you observed other impacts? What can you say about the impact of covid in your country?

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Thank you!

info@projectgaia.com
www.projectgaia.com