

WHAT KIND OF PROBLEMS?

In Tanzania 70% of the population corresponding to 35.14 million people in 2013 live in rural areas. 7% of these rural areas are electrified resulting in only 2.5 million people having access to electricity. The presence of electricity is necessary to fulfill human basic needs and encourage local entrepreneurship in rural areas. The common clean alternatives such as solar are still out of reach for most households in Tanzania, of which the GDP per capita per year is estimated at \$488 per year. This makes it clear that there is an untouched market that can be served by means of a not yet offered energy alternatives. **Low-income rural and peri-urban households are stuck in the middle and can use a push.**

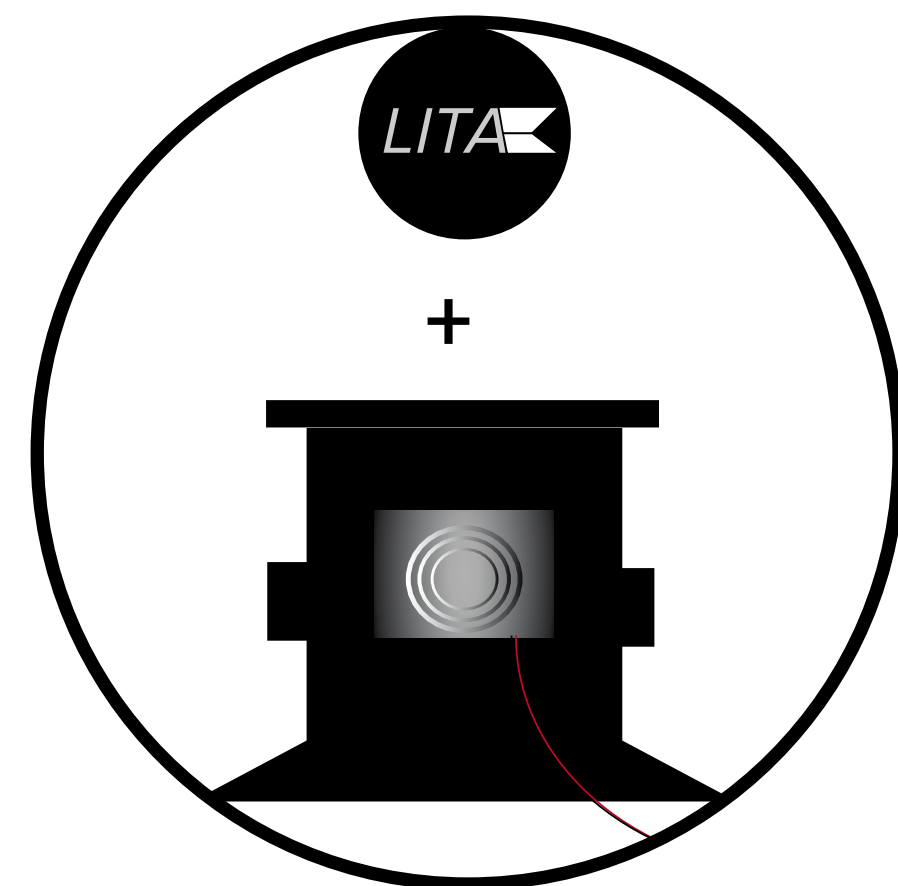
SO...?

So the assignment was set: **"Design of a feasible product-service system and an accompanied market strategy for clean energy generation in rural Tanzania"**. After exploring the assignment in the broadest sense: desk research, prototyping and field research for two months the solution space came down to cooking. Why? Cooking is currently done with polluting sources such as kerosene, charcoal and wood: killing 4.3 million people per year according to the WHO. However, clean woodstove adoption is low! Why again? (1) Use or sort of cookstove is based on affordability of the fuel. Even if I get a clean stove, if I cannot buy the fuel, I will not use it. (2) It requires changing daily habits. Whenever innovations are too far from people's world of experience they act up. So, why not take them by the hand and step by step realize the change together?

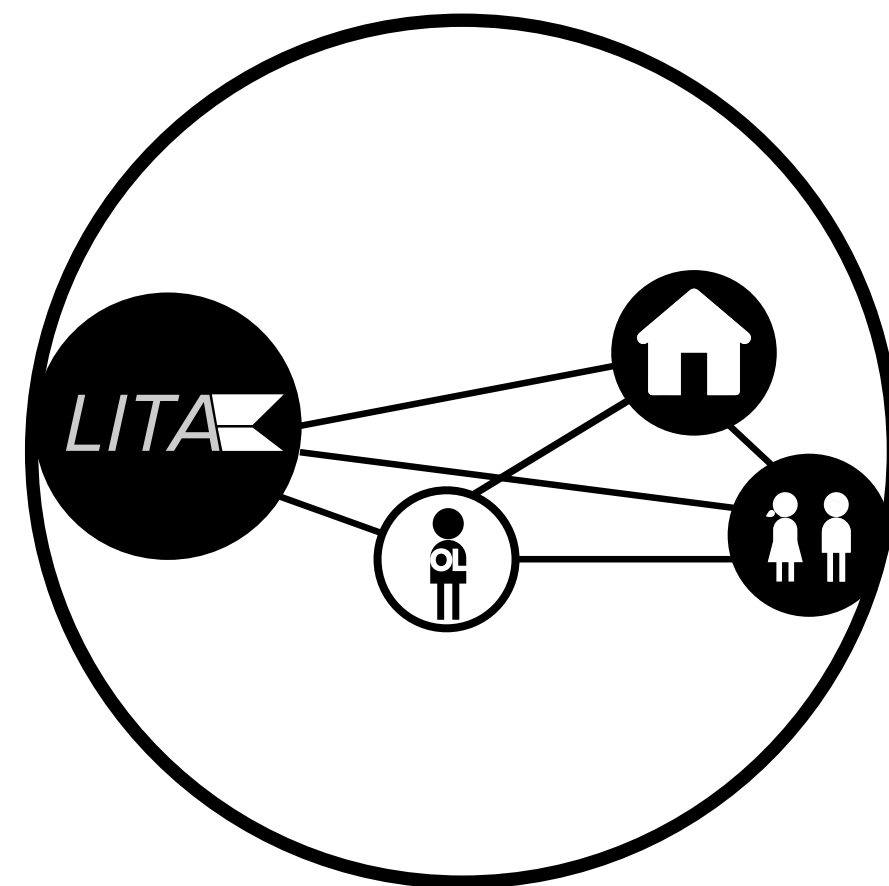


COOKING UP SOME ELECTRICITY

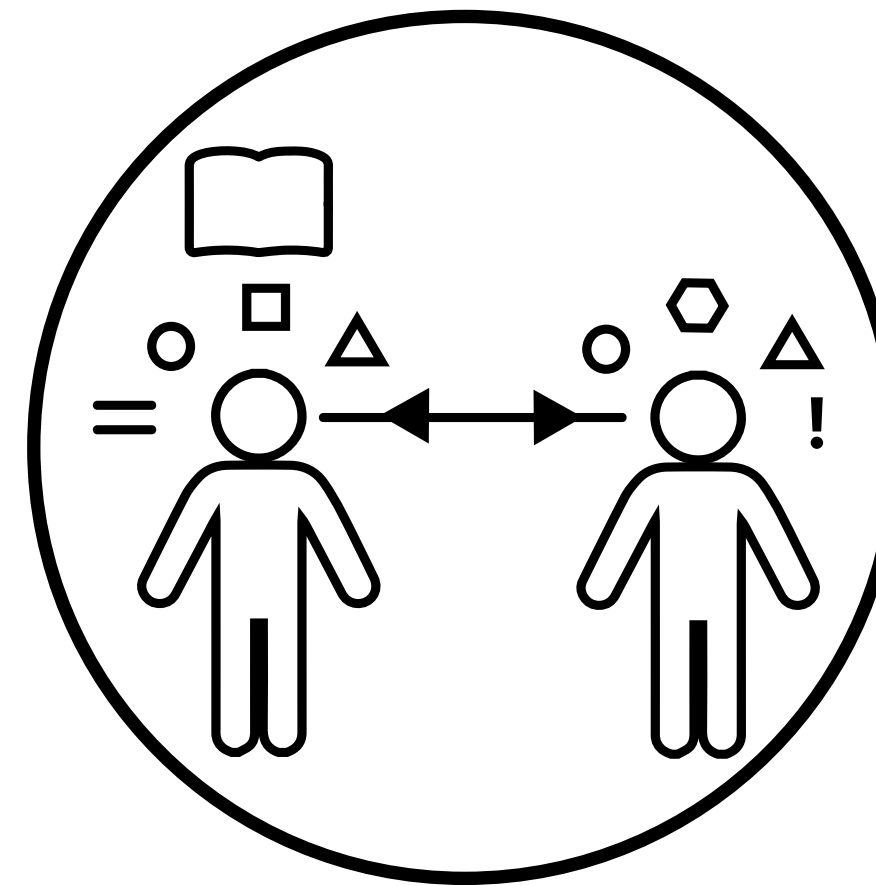
Strategy applied to energy exploration in Tanzania.



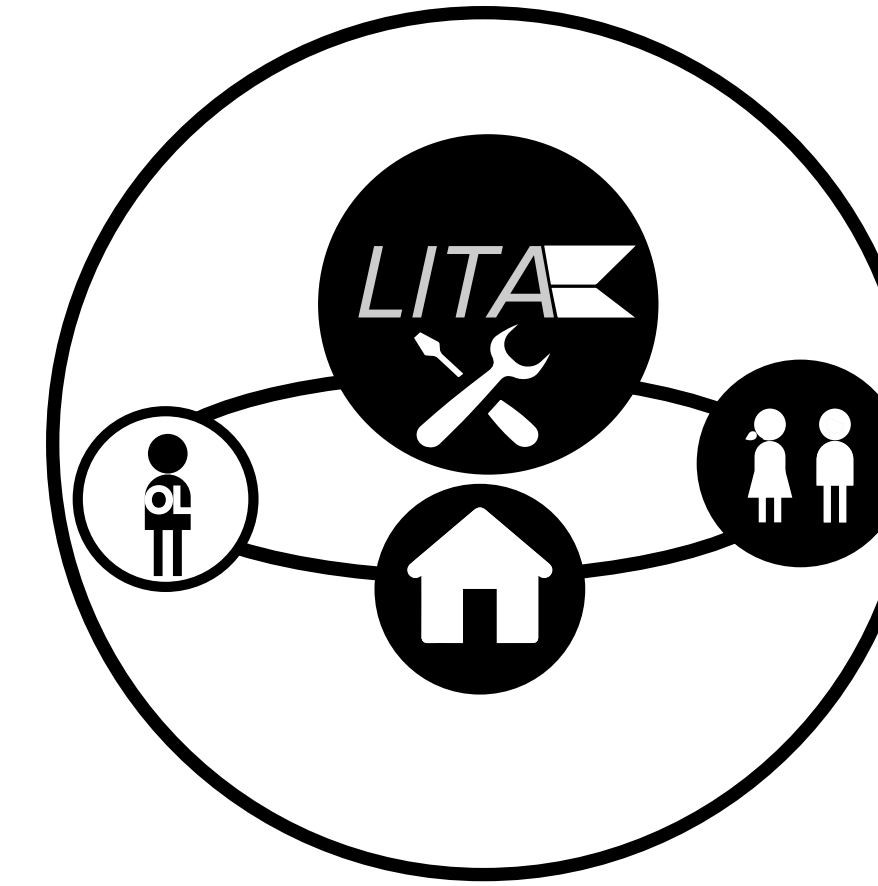
1. Introduce LITA as an accessory for the current cook stove. Limited change is required on part of the customers.



2. Set up an infrastructure by working with front runners in the community. Sales will benefit from this, but the same channels can be leveraged later when new products will be designed.



3. Exchange knowledge with customers to learn more about their behavior patterns and to teach them about the principles behind the use of polluting sources



4. Leverage on the infrastructure set up and the trust gained through knowledge exchange. Invite locals to be part of the new solution. Designing and giving feedback for improvement.



5. Decide which direction to go into: also designing a new clean cook stove or developing more accessories to improve the current local ones.

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A Strategic Endeavor: Exploring Alternative
Energy Generation Opportunities in Tanzania
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Strategic Product Design

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