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GRÜNE BÜRGERENERGIE
(GREEN PEOPLE'S ENERGY)
SMALL PROJECTS FUND (SPF)

AWARENESS,
COMMUNICATION
AND SENSITISATION

Using Water Hyacinth Blend for Biogas and Fertilizer Production

SUMMARY

Country	Ethiopia
Implementer	Arsi University
Target groups	Population of Arsi zone, Oromia Regional State
Duration	06/2022 – 12/2022
Type of energy use	Other

CHALLENGE

In Ethiopia's Oromia region the invasive water hyacinth plant has infested several lakes. The plant threatens native habitats, but also depletes water bodies of oxygen, increases water loss and provides a breeding ground for mosquitoes. In addition to drinking water these lakes provide large parts of the local population with a source of living and income through fishing, agriculture or animal herding. Thus, water hyacinth actively endangers large parts of the population living in the vicinity of the infested lakes. Furthermore, many of the fishers and farmers in this region face growing economic hardships as the impact of global climate change worsens their working and living conditions.

IMPACT LOGIC

A technical viability study is conducted to determine in what capacity water hyacinths pose a threat to the local population and to present possible solutions for the identified problems. This study also assesses to what extent water hyacinth can be harvested and used in the localized production of biogas and fertilizer. The study features an initial pilot survey, in which 5 % of the total sampled households are interviewed to get feedback on the developed research question. Through this pilot the survey design is tested to determine whether the questions are clear and relevant to the participants. In the final data collection a representative sample of biogas value chain actors is interviewed using a standard survey questionnaire. Additionally, focus group discussions are held with biogas value chain enablers and supporters to identify the key opportunities and bottlenecks along the biogas value chain. The final results of this study are then presented to key stakeholders to discuss next steps.

INNOVATIVE PROJECT ELEMENTS

The idea of using water hyacinth plants to produce biogas and fertilizer (which is a by-product) presents the unique opportunity to develop an integrated solution to a local problem. While the water hyacinth plant threatens the natural habitat around the lakes in the Arsi zone and thus also endangers the local population, there also exists the potential to transform this problem into a new avenue for income generation. This solution not only aims to solve the problem at hand, but also larger socio-economic issues. The produced fertilizer helps livestock and vegetable production and reduces the impact of climate change on local farmers.

FURTHER INFORMATION

www.gruene-buergerenergie.org

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