



## SFI Tanzania sisal waste water biogas production

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### **What impact is intended?**

- SFI Tanzania Ltd. Kwaraguru Estate in Tanzania, a typical example of traditional sisal industry, produces an estimated total volume of 425 m<sup>3</sup> solid waste and 2000 m<sup>3</sup> of waste water every week. This is currently leading to high greenhouse gas (GHG) emissions, water pollution and water loss in a drying environment, and loss of nutrients in an area with depleting soils.
- Sisal waste water can be used for biogas production as part of the water treatment process through anaerobic digestion. After digestion the water can be reused in the process. The digestion process also generates high quality sludge that can be used as fertilizer on the sisal fields, in addition to composted solid sisal waste.
- An anaerobic digester is proposed as the principle step in a process of water cleaning, water recycling and nutrient recycling at SFI Tanzania.

### **What financial leverage can be realised?**

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**What are the strengths of the instrument?**

- Valorize the energetic potential of waste streams contributing to climate change mitigation.
- Avoid GHG emissions by converting sisal waste into biogas, which can be used by the sisal factories and surrounding communities.
- Increase water recycling capacity of sisal processing plants and reduce water pollution impacting on livelihoods downstream.
- Use composted solid waste and residual sludge as high quality fertilizer on the sisal fields.
- A cost-effective sisal waste solution with the potential for a business case that can be replicated to all sisal estates in- and outside Tanzania experiencing the same problems.
- The established sisal waste management model will be shared throughout the sisal industry.

**Requested input:**

- Expertise is needed to further develop and implement the sisal waste management model for SFI Tanzania's estates.
- Funding is needed for a feasibility study in order to further develop the sisal waste management model.
- Considerable investments are needed for full implementation of the project.