

ケニア国

バイオマス炭化装置を用いた有機廃棄物処理技術展開に関する案件化調査

企業・サイト概要

- 提案企業 : 明和工業株式会社
- 提案企業所在地 : 石川県金沢市
- サイト・C/P機関 : メルー郡・メルー郡政府



ケニア国の開発課題

- 急激な人口増加、都市化および経済成長により、都市ごみの量が増大
- 農地拡大、人口増加などにより、水需要が拡大する一方、気候変動により降雨量が減少、降雨パターンが不安定になり、水不足、干ばつ被害が深刻化

中小企業の技術・製品

- 特許方式により、含水率の高い有機廃棄物でもランニングコストを抑えた高効率な炭化処理が可能
- 炭化装置で生成された炭化物は保水性・保肥性向上、pH調整等の効果をもつ高付加価値な土壤改良材として農業利用が可能

調査を通じて提案されているODA事業及び期待される効果

想定ODA事業: 普及・実証・ビジネス化事業

- 炭化装置を配置することで、経済的インセンティブを伴う有機廃棄物処理技術が導入できる
- 市場の野菜ごみや植林地の剪定枝等を農業利用可能な炭化物に再資源化することで、最終処分場の容量逼迫問題を緩和するとともに、農家の水不足や干ばつ被害が軽減される
- 炭化装置の現地製造や炭化物の販売支援を通じ、技術移転や農民女性の家計改善が期待される

日本の中小企業のビジネス展開

- 製品の現地最適化及び炭化物の有用性実証により、メルー郡を当社技術導入事例のモデル地区とする
- 現地企業との連携により炭化装置の製造販売や炭化物の販売体制を確立し、ケニア全土や近隣国を含めた、より広範への事業展開を目指す

Feasibility Survey with the Private Sector for Utilizing Japanese Technologies in ODA Projects Republic of Kenya, "Feasibility Survey for a Carbonization Technology for Sustainable Organic Waste Management"



SMEs and Counterpart Organization

- Name of SME : Meiwa Co., Ltd.
- Location of SME : Kanazawa, Ishikawa Pref.
- Survey Site ▪ Counterpart Organization : Meru County ▪ Meru County Government

Concerned Development Issues

- An increase in the amount of municipal waste due to rapid population growth, urbanization, and economic growth.
- As water demand rises due to increases in population and farmland, water shortages and droughts have become worse due to less rain and unstable rain patterns resulting from climate change.

Products and Technologies of SMEs

- With our patented system, highly efficient carbonization can be achieved at a reduced running cost even with high moisture content organic waste.
- Generated biochar can be used agriculturally as a soil conditioner, not only for high value pH adjustment, but also waster and nutrition retentions.

Proposed ODA Projects and Expected Impact

- Proposed ODA Project: SDGs Business Verification Survey with the Private Sector
- By installing our carbonization equipment, an organic waste disposal technology with economic incentives can be introduced.
 - Vegetable waste from markets and pruned branches can be recycled into biochar for use in agriculture, mitigating the problem of final disposal site capacity, as well as reducing the damage caused by drought and lack of water for farmers.
 - Through local production of the carbonization plant and biochar sales support, a transfer of technology and betterment of female farmer households can be expected.

Japanese SME Business Development

- Through local optimization of our product and the demonstration of the usefulness of biochar, Meru County will be made a model case study for the introduction of our technology.
- Through cooperation with local companies, we aim to establish manufacturing and sales of the carbonization plant, as well as a sales structure for biochar, and expand our business, including throughout Kenya and its neighboring countries.