

## 対象国廃棄物処理分野における開発ニーズ(課題)

- ・廃棄物が増加し現在の埋立処分では処理しきれない
- ・温室効果ガス規制から焼却処分が難しい中、最終処分場の残余年数が逼迫している
- ・リサイクル施設が未整備で廃棄物が無分別のままほぼ全量最終処分場へ埋立されている

## 調査概要

- ・調査期間：2025年6月～2027年12月
- ・対象国・地域：コスタリカ国サンホセ首都圏
- ・カウンターパート機関：農産物総合マーケティング機関(PIMA)、国立中央卸売市場(CENADA)
- ・案件概要：破碎分別機のデモ機を現地製造し、実証事業を行うことで、飼料・肥料・燃料化等の資源循環型廃棄物処理の推進に貢献し、喫緊の課題である最終処分場の負荷軽減および延命化に貢献する

## ビジネスモデル

- ・想定対象顧客：CENADA(パイロット事業)・廃棄物処理業者・ホテルや大規模商業施設等の民間企業を初期ターゲットとし、次いで自治体も対象とする
- ・現地製造を行い、据付設置・運用指導、定期点検やメンテナンスの提供、将来的には現法設立を目指す
- ・契約時に前払金、据付・運用開始後に残金を回収

## 提案製品・技術：破碎分別機

- ・包装容器入り廃棄物(弁当、缶詰、プラスチック容器入りの飲料等)をそのまま投入可能
- ・金属が混入しても故障しない堅牢な作り
- ・食品残渣と包装容器(廃プラスチック・紙・金属類)等を分別して排出、有機性廃棄物は堆肥・飼料化、廃プラ類は燃料化によるリサイクルが可能



## 対象国に対し見込まれる成果(開発インパクト)

- ・廃棄物の分別とリサイクルにより、最終埋立処分量を5年間で6割削減し、環境負荷が軽減される
- ・有機性廃棄物の飼料化や燃料化、コンポスト化、廃プラ利用により、廃棄物が再資源化・有効活用される
- ・リサイクルの浸透により新規産業・雇用が創出される
- ・不衛生な環境が改善され公共衛生が向上する

## Development Issues in the Country/Sector

- Waste generation has exceeded the capacity of current landfill disposal methods.
- As stringent greenhouse gas regulations make incineration more difficult, the remaining capacity of landfills is approaching a critical limit.
- Due to the lack of adequate recycling facilities, nearly all waste is landfilled without being sorted.

## Products of the Company: Rotating Blade Type Sorting Machine

- Waste contained in packaging can be disposed of as is, without prior sorting.
- The robust construction prevents malfunction even if metal objects are accidentally introduced into the machine.
- Food residues and packaging materials (such as waste plastics, paper, and metals) are separated and disposed of appropriately. Organic waste can be recycled into compost or animal feed, while waste plastics can be converted into fuel.

## Survey Outline

- Survey period: Jun. 2025 to Dec. 2027
- Countries and regions covered: San Jose Metropolitan Area, Costa Rica
- Counterparts: Programa Integral de Mercadeo Agropecuario (PIMA), Centro Nacional de Abastecimiento y Distribución de Alimentos (CENADA)
- Survey Overview : A demonstration model of the Rotating Blade Type Sorting Machine will be manufactured on-site to carry out a pilot project. This initiative aims to promote resource-circulating waste management and to help reduce the burden on final disposal sites and extending their operational lifespan.

## Rotating Blade Type Sorting Machine



Size: WDH 2.5x2xH2.5 4.5x 3 x 2.8m

Available indoors or outdoors (rain protections required)

## Business Model

- The initial target customers; CENADA (for the pilot project), waste management companies, and private enterprises such as hotels and large commercial facilities, with municipalities to follow as the next target group.
- The company aims; 1) to manufacture in Costa Rica, 2) to provide installation and operational guidance, 3) to conduct regular inspections and maintenance, and 4) to establish a local subsidiary in the future.
- The payment terms include an upfront payment upon contract signing, with the remaining balance due after installation and commencement of operations.

## Expected outcomes (development impact) for the target country

- Waste separation and recycling expected to reduce landfill disposal by 60% over the next five years, thereby mitigating environmental impact.
- Organic waste will be recycled and effectively utilized through its conversion into feed, fuel, compost, and the reuse of waste plastics.
- The widespread adoption of recycling practices will create new industries and job opportunities.
- Improvements in waste management will enhance public health by alleviating unsanitary conditions. As of June 2025