



Nationally Appropriate Mitigation Action (NAMA)

## Chile - Catalyzing Organic Waste Diversion in the Chilean Industries

### Executive Summary

**Sponsoring Country:** Chile

**Sponsoring Agencies:** Chilean Ministry of the Environment, Environment Canada, Center for Clean Air Policy

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### Introduction

The objective of this NAMA is to catalyze the development of waste management projects focused primarily on the industrial organic waste in Chile. Organic waste is the main source of greenhouse gases (GHGs) in the sector, thus its diversion is aligned with the national policies on climate change and waste management.

There are many financial, economic, cultural, and social barriers for the development of facilities for the management of organic waste projects. Probably the most important barrier is the existence of open dumps, where disposal costs are substantially lower than costs for waste management facilities, which makes such projects unprofitable.

While the law mandates the closure of open dumps, the sector is trapped in a dilemma - the authorities do not close dumps because there are no alternatives available. Additionally no one wants to install a sanitary landfill or other waste management facility as there is uncertainty regarding the closure of dumps. That is why; in many cases companies willing to pay for the proper disposal of their waste have difficulties to do it.

### NAMA Description

The project will solve the organic waste management issues mainly in the industrial sector, which is expected to represent more than 90% of total organic waste diverted. The main beneficiaries will be the agro industry (wine, fruits, crops), fishing (salmon), and livestock (poultry, pigs). Municipal organic waste expected to be diverted are mainly from pruning, street markets and, hotels and restaurants.

This NAMA aims to address this problem by facilitating the installation of a series of facilities that use dry fermentation (indoor treatment, power generation and compost as products obtained from the process). It aims to create a new market and show the technology, which will, in the future, allow private companies to develop the projects independently. In particular, the NAMA has 4 lines of support:

1. Regulatory Improvement: It aims to facilitate the development of diversion and the sale of the products produced (\$ 100,000 - national contribution)
2. Co-financing feasibility studies: Through the Chilean development agency will co-finance up to 50% for feasibility studies of projects (\$ 900,000 - national contribution)
3. Funding Support: It is intended to cover part of the initial investment, to allow gradually increasing tipping fees. The co-financing will diminish over time, because of the greater economies of scale and technological development expected, and because of the predictable increase in the cost of alternative disposing over time (\$ 10,000,000 - international contribution)
4. Partial Performance Guarantee Facility: Due to the use of new technologies, local banks are reluctant to finance waste management projects. As a result, a \$10 million USD partial performance guarantee facility will be created to cover a portion of new technology performance risk of all the projects supported by this NAMA. (\$ 10,000,000 - international contribution)

The NAMA will operate through tenders in which winners will be those requesting less support per ton of CO<sub>2</sub>e avoided. Developers will be required to demonstrate the project's economic sustainability (cash flows, contracts for waste supply, product sales, etc.)

Also, projects will be required to have the formal support of the municipality where it is installed, in return for which the project will create a fund to support community projects and give preferential tipping fees for municipal waste, thus promoting its diversion and eventual selective collection. It is planned to have four biennial contests. Financial support would be deployed based on an affordability assessment analysis, while the partial performance guarantee will be provided for the whole life of a local bank loan.

### Expected Results

In total, the NAMA is expected support the development of between 10 – 15 dry fermentation projects, to divert up to 11 million tons of organic waste and avoid 12 million tCO<sub>2</sub>e over the life of the projects. In addition to these benefits, the NAMA will promote sustainable development by reducing or closing dumps, creating jobs, and increasing economic activity.