# SUSTAINABLE INTEGRATED SOLID WASTE MANAGEMENT PLAN VIÑA DEL MAR, CHILE

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# Viña del Mar: Overview

- Is known as "The garden city" for its large amount of parks, gardens and green areas. Main activities are Tourism and Universities.
- Is located in the country's central zone and it has a 122 Km<sup>2</sup> surface with a 5 Km coast, and a population of 330.110 people, distributed on flat and hill areas, with an important floating population during summer and holydays.
- Is an important city because usually every new initiative and project developed in Viña del Mar is replicated in other cities of the country.







# Viña del Mar: Strategic Vision

- Gives high importance to landscapes and natural resources within the city, for its touristic role.
- Involve programs of collaboration agreements between Municipalities, Universities and Private Companies.
- Involve Applied Research Project's Management for the commune's interest with Public – Private funding.
- Include treatment plans for Household Solid Waste.











# Solid Waste (SW) Overview

- The city generates an average of 120,000 tons / year
- SW collection is done with two systems: traditional (45%) and the containers system with side haulage (55%)
- SW are disposed in a landfill located in the neighbouring city of Valparaiso, 26 kilometers away
- Main challenges:
  - Advance in the minimization of SW (reduce, reuse, recycle)
  - Implementation of a Sustainable SW Management Plan

## **Climate and Clean Air Coalition**

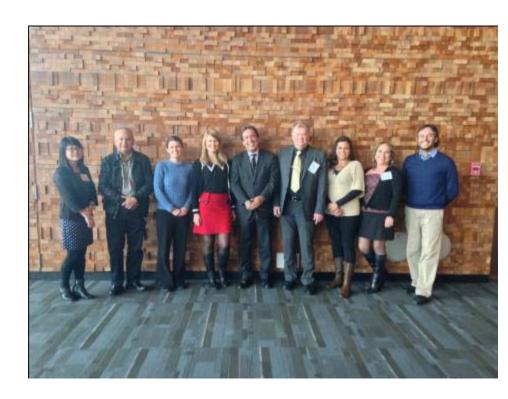


# Mitigating SLCPs from the Municipal Solid Waste Sector

This initiative aims to reduce methane and air pollution across the municipal solid waste sector by securing city and country commitments to undertake a variety of best practice policies and strategies for waste management. Through technical assistance, training, capacity building, and awareness-raising, cities work to mitigate emissions of methane, black carbon and other pollutants as they transition to more sustainable waste management options.

Source: http://www.unep.org/ccac

- In March 2013, during the CCAC meeting in Vancouver, Sweden EPA, Chilean Ministry of Environment, City of Stockholm and City of Viña del Mar, agreed to collaborate at national and local level.
- During the following months, an MOU was prepared between the parties.













- Viña del Mar will develop a Sustainable Integrated Solid Waste Management (SISWM) plan for the City under the CCAC initiative, with the technical guidance of the Swedish EPA and the City of Stockholm. Indeed, Viña del Mar will use Stockholm s methodology to develop the SISWM plan.
- To begin identifying and adapting appropriate policies, Swedes conducted a one-week site visit to Chile (August 27<sup>th</sup> September 2<sup>nd</sup>) to meet local and national government representatives, private sector, and other stakeholders.
- In January 2014, Chilean staff visited Stockholm to learn the best practices on waste management at national and local level.



































Mayor Virginia Reginato: "the city is working on several programs for recycling and reducing household and commercial waste, however the city needs a guide in order to make progress in a sustainable manner"





# **Project Objective**

- Developing a Sustainable Integrated Solid Waste Management Plan (SISWM Plan)
- The Plan will follow Stockholm s plan structure

### **Chapter I: Present Waste Situation**

 Data collection about recycled quantities and recycling intuitions requirements to improve Commune recycling.

### **Chapter II: Evaluation of the Present Waste Situation**

• Identifying current MSW Management strengths, weakness, opportunities and threats.

### **Chapter III: Projects and Priorities Definition**

- Identification of the main priorities for the MSW management improvement.
- Definition of projects to improve MSW current situation.

### **Chapter IV: Political and Technical Visions**

- Existing long and short term visions or targets.
- Definition of new long and short term visions or targets.

**Chapter V: Methods to reach Long and Short Term Visions or Targets** 

**Chapter VI: Evaluation and follow up of targets** 

**Chapter VII: Further Information** 



# **SISWM Plan Initiatives**

### 1. Food waste separate collection

- First initiative of its kind in Chile (pilot in downtown)
- The work includes identification of great organics generators; definition of collection routes; modification of collection tariffs; educational campaign; "sustainable certificate" for large producers; etc.



- Initiative aligned with the Chilean Waste NAMA
- Activities include identifying treatment technology; identifying municipal land to install the facilities; estimating GHGs and co-benefits; negotiating with industrial generators; etc.







# **SISWM Plan Initiatives**

### 3. Pilot program of food waste prevention at schools

- This initiative came up after the study trip to Sweden in January 2014
- The municipality is identifying the most suitable municipal school(s) to start the pilot and is working with the Swedish EPA to design the program

### 4. Facility to turn pruning waste to briquettes

- Today pruning waste is collected and turned to compost.
- The city generates a lot of pruning waste, and they are analyzing building a facility to turn the pruning waste into briquettes for heating.







# **SISWM Plan Initiatives**

### 5. Storage facility for recyclable materials

- Most materials collected are transported to Santiago for recycling
- Collection companies doing the collection don the have a place to collect and compact it
- Municipality will request companies to expand the areas of the city covered and standardize the collection bins

### 6. Collection center for recyclables

- The objective is building a large collection center for different types of recyclable materials
- There are only three facilities like these in the Chile, all in Santiago







# **Next Steps**

- Finish the SISWM Plan for Viña del Mar by April 2014
- Start looking for support to start its implementation (national government, international donors)







# ¡GRACIAS!

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www.ccap.org.