Waste management in Chile: National Level: Milestones

1990
- 1980 Res. Nº2444
  Minimum standard operation for dumps
- 1968
  Sanitary Code

1992
- D.S. 685
  Chile ratifies Basilea Agreement

1994
- Law 19.300
  Environmental Act

2003
- D.S 189
  Sanitary Landfills Regulation on sanitation and security

2005
- ISWM Policy
- D.S 45
  Emission standard for incineration and co-incineration

2009
- D.S 6
  Regulation for waste management in health facilities
- D.S 4
  Regulation for wastewater sludge treatment

2009
- D.S 4
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2005
- D.S 148
  Sanitary regulation for hazard waste management

2007
- DS 45
  Emission standard for incineration and co-incineration

2010
- Ley 20.417
  Creation of Ministry of Environment and Environmental Superindendency
- DS 2
  Export ban to used acid-lead batteries

2012
- DS 3
  Regulation for Sludge Management from fruits and vegetables treatment plants

2013
- Recycling and EPR Bill
- 2010
  Chile joins OECD: waste implications
Waste management in Chile: Key Regulations at Municipal Level

- **LOCM (Nº 18.695- Constitutional Law of Municipalities):** gives the exclusive responsibility of waste management in the cities to the municipalities

- **DFL Nº 725/1968 – Sanitary Code:** in emergency cases, the cleaning responsibilities in the city can be assumed by the Sanitary Authority, with costs covered by municipalities

- **Ministry of the Environment:** sets regulations on technical waste management issues
Concepción

- Concepción is the capital city from the Bio Bio Region, located 9 Km from the Pacific Ocean. It’s surface is 261.6 Km², of which 38.24 Km² are urban and 194.56 Km² rural.
- It is a *leading city service* and has 3 traditional and 10 private Universities.
- Population of 216,061 inhabitants, 98% of urban.
- The city is traversed by the Bio Bio and Andalién rivers, has 6 hills and 5 urban lakes.
- Mild Mediterranean climate with maritime influence. Average annual temperatures ranging between 12°C and 13°C in summer. The average temperature is 20°C in summer and 9.1°C in winter.
Chilean Map and the Province of Concepción

73° 59` w
36° 48` S
Bio Bío river and urban center
Rivers and lagoons
Current waste management operations

• The city generates an average of 92.864 tons / year

• The percapita average is 1.13 Kg/person/day

• SW collection is done with the traditional system. Concepción has 2 contracts with privates: one covers waste collection and transport, and the other disposal

• SW are disposed in a landfill located in the neighbouring city of Penco, 14 kilometers away

• SW are collected 3 days a week in the city, but in downtown there is daily collection from Monday to Saturday
Starting this year, the city has 4 little green points in the city.

Only one of them depends from Municipality and we collect around 1 ton/month (paper, plastic, tetrapak and metal).

There are 110 containers distributed in the city to recycle glass. We collect around 118 ton per year.

We collect around 5 ton/year of batteries (in schools and health facilities).
Local or regional challenges in the waste sector

Regional:
• The University of Concepción is now elaborating a SW Master Plan for the whole Bio Bio Region

Local:
• Advance in the minimization of SW (reduce, reuse, recycle)
• Implementation of a SW Master Plan, elaborated by EULA Center of the University of Concepción, specially composting
• Implementation of Green Points (Maritime containers of 6 x 2.5 x 2.4 meters)
City sight from Caracol hill
City sight from Caracol hill
Central Square
Central Square
University of Concepción: Mural of González Camarena
Lo Galindo urban lake
laguna Redonda urban Lake
Laguna Redonda urban Lake
Dinosaur’s Square
Ecuador Park
CCAC City Assessment

• Concepción already finished the CCAC assessment

• The biggest problems was to obtain information from the private sector (collection, transport, disposal)

• Inside of the municipality the process was not easy, because the information depends of many different Directions

• In general we have no experience in RBF Applicability Framework

• As conclusion, this process was very useful to concentrate all the SW information in one point