

Report on Zero Waste Initiatives in the Municipality of Balcarce

**Prepared by BCRC Argentina within the framework
of the International Zero-Waste City Network**

May, 2024

Introduction

The concept of “zero waste city” includes a 100 percent recycling rate and the recovery of all resources from waste materials. There are strategies based on tools, systems and technologies that can help cities in their transformation towards “zero-waste cities”; however, they must also be affordable, practicable and effective within your local regulatory framework. Next, a survey was carried out on the initiatives present in the Argentine Republic, considering the private sector, the public sector and the initiatives carried out by non-governmental organizations.

About BCRC Argentina

The Basel Regional Center for South America for Training and Technology Transfer (BCRC Argentina) has been located at the National Institute of Industrial Technology (INTI) since 1999. It is the technological reference for the South American region, whose objective is the training and strengthening of the control and productive structures of the region (Argentina, Bolivia, Brazil, Colombia, Chile, Ecuador, Paraguay, Peru, Venezuela and Uruguay) to execute the objectives of the Basel Convention, acting as a link through the focal points and the competent authorities of these countries. The center's activities are:

Development of training programs, workshops, seminars and projects in the field of environmentally sound management of hazardous waste,

Strengthening mechanisms for the transfer of environmentally sound technology and the minimization of hazardous waste generation in the region,

Training of instructors; and promotion of the ratification and application of the Convention and its instruments,

Collection, evaluation and dissemination of information on new or proven environmentally sound technologies and knowledge.

Overview of Municipality of Balcarce

Balcarce is a municipality within the Province of Buenos Aires, in Argentina. It has an area of 4,120 km² and 51,736 inhabitants. It is divided between an urban and rural commune.

It has a landscape of hills and the drainage network is well defined with streams that come down from the mountains, some of which are temporary, or flow into the plain, which makes this area suitable for agriculture.

The climate is temperate with oceanic influence, which affects the formation of soils and vegetation. In the summer, the temperature average is 25° C and in winter 11° C. The average annual rainfall ranges between 950 and 1000 mm.

It has a strategic location near the main ports that allow the export of raw materials and processed products.

Balcarce has an agricultural and livestock area well positioned in the Market. Its agricultural production is based on a variety of cereals: The main crops are soybeans, sunflowers, corn, barley and oatmeal. In addition, it is considered the city of potatoes due to its great potato production.

With respect to livestock production, it is mentioned that cattle, sheep and, to a lesser extent, although with a greater boom in recent times, the porcine. The predominant livestock

production system is the pastoral although they have also proliferated in recent feed lots have been around for years and there are 15 dairy farms in the territory.

As for the industrial sector, construction activities, potato processing, manufacturing of irrigation pumps and manufacturing of agricultural implements have recently been incorporated.

Zero Waste Initiatives in Balcarce

The municipality has a series of specific objectives related to sustainable development:

- Promote the rational use of energy consumption in state buildings, public spaces, companies and private homes.
- Apply mechanisms to minimize contamination from the source.
- Encourage the reduction, recovery, recycling and/or generation of new products from urban solid waste.
- Promote environmental awareness in the population, through formal and informal education.
- Develop citizen practices that allow the city to be “friendly” towards its inhabitants, in the various facets of social, work, economic, community, sports, and recreational life.
- Promote the use of renewable resources at a slower rate than their regeneration.
- Help conserve and enhance biodiversity and preserve ecosystems and a landscape environment that guarantees a better quality of life.
- Plan and adequately manage land use, making the development of the Municipality compatible with the conservation of the landscape.

Below, and in order to exemplify the implementation of these objectives, the initiatives (both public and private) related to sustainable development and the scope of zero waste are highlighted:

Urban Solid Waste (MSW) classification and separation plant: Plant operated by a cooperative made up of men and women of different ages from our city. It seeks to promote a triple social, economic and environmental impact as well as equality of opportunity and gender.

Green Wednesday for the city of Balcarce: It consists of educating and raising awareness among residents about the importance of separation at source, stipulating that on that day only inorganic, dry and clean waste is taken out for collection.

Installation of Eco Points: Spaces created for the separation of waste obtained from inter-institutional work with the Mc Cain company and with the Adult Primary School No. 701.

Micro-garbage dumps Cleaning: Carrying out cleaning and eradication tasks of micro-garbage dumps in different parts of the city through specific campaigns and with the collaboration of different areas of the municipality (Secretariat of Urban Works and Directorate of Public Spaces), environmental volunteers and environmental promoters within the urban and rural areas.

Collection and awareness campaign regarding WEEE: In 2023, 6,100 kg of electronic waste were collected. In this way we remove them from the formal collection circuit, which generally end up in the landfill or causing a clandestine micro-garbage somewhere in the city. With the implementation of this campaign, the possibility of recovering them or giving them the correct final disposition is offered.

Community Compost Bin Construction and Installation Campaign: This campaign includes the implementation of community compost bins built from pallets in common use spaces. The green remains of parks and squares in our city, tree leaves and organic waste that neighbors bring will be dumped into it. In addition, advice will be provided on what and how it should be deposited, how to assemble homemade compost bins and the task of stirring and removing the compost generated for use in family and community gardens in our city will be carried out.

Collection of used vegetable oil (AVU): The objective is the generation of economic resources for the participating social organizations. It is used as raw material for the production of Biodiesel. They will be in charge of the collection and collection of the AVU. It is coordinated with the Undersecretary of Production and Employment.

“Los Pinos” Bio digester: Based on the problem of fly invasion, the installation of this technology was proposed, which allows the production of biogas. This has caused members of the municipality to get involved by forming a cooperative. Waste from livestock production in the “Los Pinos” livestock sector is processed.

Industrial Establishment and Certificate of Environmental Aptitude: The analysis of the establishment of industries in the district is carried out taking into account their level of environmental complexity and compliance with the environmental regulations in force in them is verified based on industrial inspection tasks. Depending on the industrial category determined by the Ministry of Environment of the Province of Buenos Aires, the environmental evaluation of the industries is carried out for the granting of the corresponding Certificate of Environmental Aptitude (CAA), necessary for their municipal authorization.

Municipal Inventory of Greenhouse Gases (GHG): Carried out with the technical support of the Argentine Network of Municipalities Against Climate Change (RAMCC).

“Pun Antü” Geo Park (name coming from indigenous people): This is an extension project of the National University of Mar del Plata in conjunction with the Municipality of Balcarce. The aim is to preserve and value the geological, paleontological and cultural heritage in different settings of the city. This route has seven geosites, suitable for carrying out multiple activities.

Municipal Nursery garden (production and multiplication of species): The mission of the nursery is to promote knowledge and appreciation of flora, its importance and value, thus contributing to the conservation of biodiversity and its sustainable use, as well as the production, planting and care of various seedlings that are then used in the different public spaces and boulevards of our city. This program will coordinate visits with schools and neighbors in general so that they know how the trees and plants produced by the nursery are produced and cared for.

“Protected Landscape of Provincial Interest”- Laguna La Brava and its surroundings.

“Procens” Company: This is a company based on a circular economy whose production process is based on the breeding of flies, valorizing food waste by generating protein for livestock feeding. It is done through an innovative process where a protein meal is generated from the larvae for the animals.

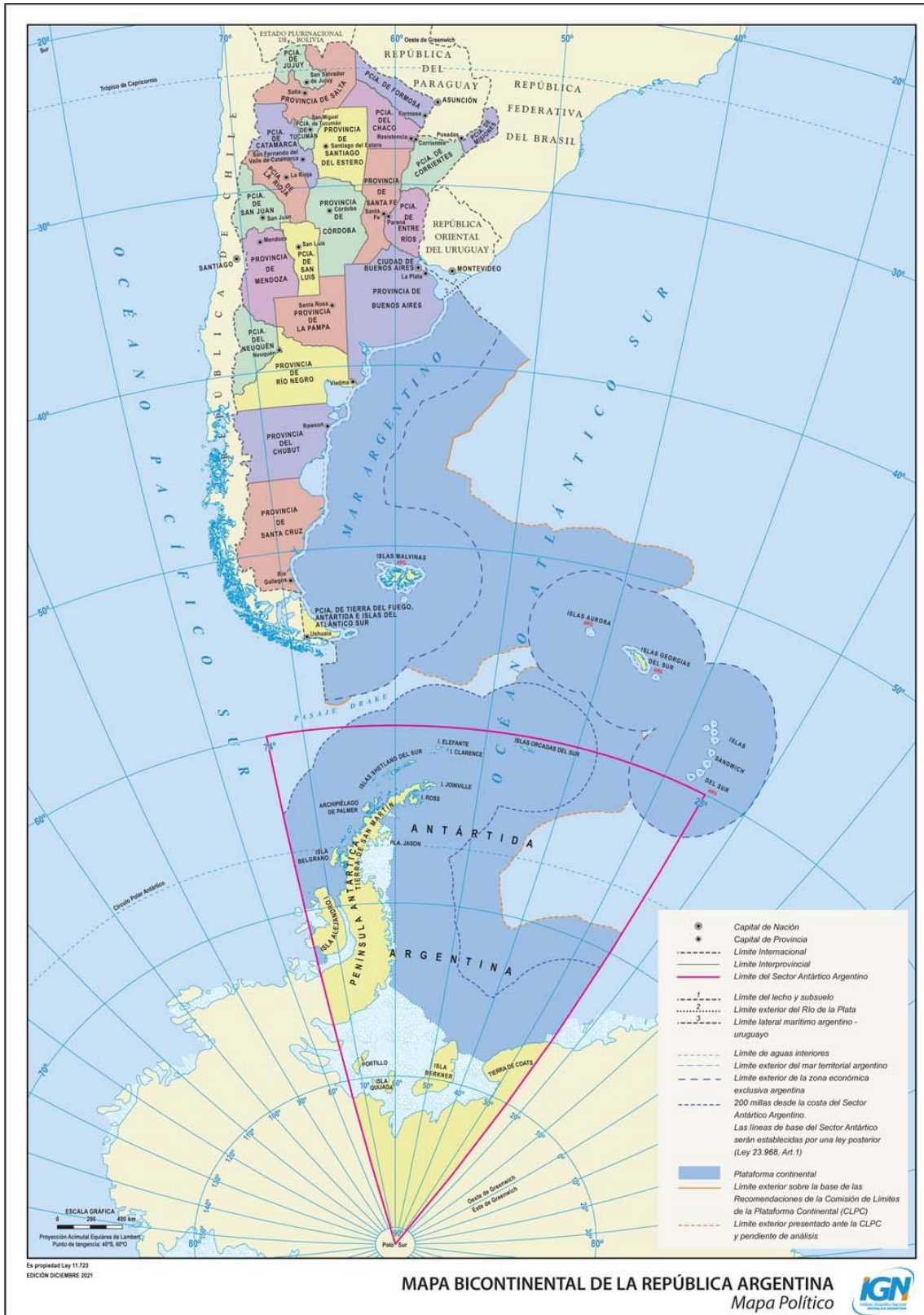
Conclusion

- Argentina has several initiatives and tools for the recycling and recovery of waste.
- It is a challenge to integrate these initiatives that allow municipalities to achieve the category of Zero Waste Cities.

- Coordination among stakeholders (private sector, public sector, civil associations, NGOs) is necessary to achieve a successful result that implies a higher percentage of recycling rate and the recovery of all resources from waste materials.
- The environmental education of neighbors is a fundamental point for the goal of zero waste in the municipalities, as well as the support of the provincial and national governments.

Annex

1. Map of Argentina



2. Map of Buenos Aires Province (Balcarce Municipality marked)



Es propiedad Ley 11.723 EDICIÓN OCTUBRE 2017

3. Photographs from Municipality of Balcarce



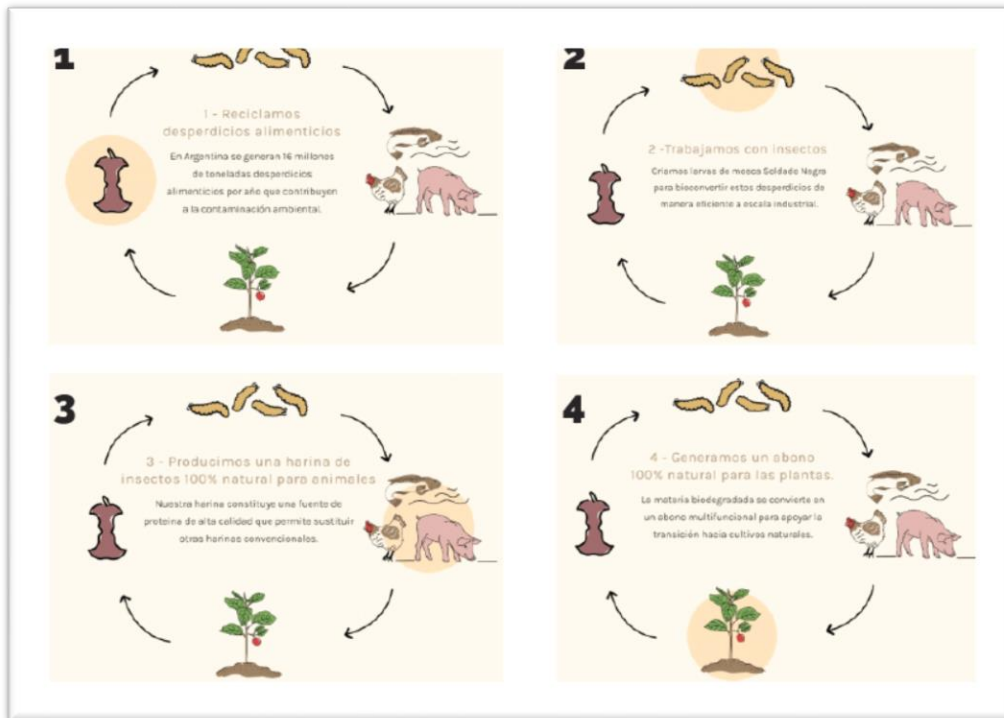
3.1: Electronic waste collection campaign.



3.2: Waste separation and classification plant.



3.3: Eco points (waste separation at origin).



3.4: Graphic about the production process of the company Procens.



3.5: Municipal Nursery garden (for production and multiplication of species).



3.6: Industrial Establishment and Certificate of Environmental Aptitude.