

Activity Report – Workshop on Plastics in High Mountain Areas

Date: November 7, 2025

Location: Cable Carril Hall, Cerro Catedral, San Carlos de Bariloche

Participants

Institutions present:

- EAMCEC
- Catedral Alta Patagonia
- Technical Directorate of INTI-Plastics
- INTI Chemistry and Environment Submanagement
- CRBAS (Basel Convention Regional Centre for South America)
- Secretariat of Environment and Climate Change of Río Negro (SAYCC)
- Municipality of San Carlos de Bariloche
- Provincial Water Department (DPA)
- Finor Servicios
- Parador Punta Princesa

Attendees:

- Gabriela Munizza – Technical Director, INTI-Plastics Centre
- Cecilia Lorenzo – INTI-Plastics Centre
- Ailín Ríos – Secretariat of Environment and Climate Change of Río Negro (special waste area)
- Federico Hollman – Andean Zone Manager, SAYCC
- María Elena Roldán – INTI Chemistry and Environment Submanagement
- Soledad Barbelli – INTI Chemistry and Environment Submanagement
- Sebastián Ojeda – Finor Servicios
- María Cristina Villarreal – Catedral Environmental Management
- Gastón Aturano – Catedral Infrastructure
- Andrés Schwab – Catedral Infrastructure
- Gastón Muñiz – Municipality of Bariloche, delegate
- Carina Condarcuhu – Municipality of Bariloche
- Lucas Olivera – Inspector, Cerro Catedral
- Pamela Oswald – Inspector, Cerro Catedral
- Roxana Rey – Parador
- Florencia Fasani – Provincial Water Department

- Rocío Laiz Quiroga – INTI CRBAS
 - Alberto Capra – INTI CRBAS
 - Deivis Vanessa – Parador Punta Princesa
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Workshop Development

Introduction

The workshop began with a presentation by CRBAS and an introduction to the Basel Convention, highlighting the differences between hazardous and non-hazardous wastes, as well as the global challenge posed by plastics.

The scope of the Basel, Rotterdam and Stockholm Conventions (COPs), the plastics amendment, and the importance of controlling plastic waste within their framework were explained.

It was emphasized that prevention begins with individual behavior:

“It all depends on us in order to convey the issue to users. The first step is not bringing plastics to the mountain.”

Andrés Schwab mentioned having found containers with old Coca-Cola logos, illustrating the persistence of plastics in the environment.

Technical Presentations

Gabriela Munizza (INTI-Plastics):

She presented on plastic degradation in the environment and its impact as an endocrine disruptor.

She explained INTI’s studies on food-contact packaging and the need to unify sampling and analysis methodologies.

She referred to the report prepared by INTI on plastics in high-mountain environments, noting knowledge gaps and the urgency of strengthening applied research.

Cecilia Lorenzo (INTI-Plastics):

She noted that macroplastics are easier to manage before they degrade, since microplastics are more difficult to address.

She emphasized the importance of designing measurement and characterization protocols, stressing that “the smaller the particle, the harder it is to detect.”

She highlighted the need to harmonize scientific methodologies to compare results with European standards.

Alberto Capra (CRBAS):

He reiterated the precautionary principle of international conventions and the relevance of these projects for unifying regional information.

He emphasized that although there is abundant information in the Northern Hemisphere, there are few systematic studies in South America, making these efforts essential to bring global knowledge into the local context.

Exchange and Discussion

Gabriela Munizza:

She noted that “in many cases, imported PET is cheaper than recycling domestic PET,” creating distortions in the value chain.

Andrés Schwab (Catedral Infrastructure):

He described the challenges of waste management during the winter season, when the volume of materials and clothing increases.

He explained that requiring all businesses to place their own bins was initially challenging but ultimately improved collection and order.

They currently carry out recycling campaigns.

Presentation by Finor Servicios

Sebastián Ojeda (Finor Servicios):

He explained that the family-run company—managed by six siblings—works with large generators committed to reducing their environmental footprint. He mentioned that national policies do not currently favor the circular economy and that their collection service involves a cost many companies are unwilling to assume.

“The more bins you place, the more disorder is created. The key is color-coded bins and strategic placement.”

He detailed that they classify, compact and send recyclable materials to factories, separating plastic streams (labels, caps, containers, etc.) and offer differentiated rates depending on separation quality.

They also conduct composting and biodigestion of organic waste, sending only non-recoverable materials to landfill.

Intervention by the Municipality of Bariloche

Municipal representatives indicated that there is currently no infrastructure for differentiated collection and that the local system does not allow recycling of all materials.

They highlighted that large generators receive discounts on municipal fees if they demonstrate efficient waste management.

They acknowledged the need to promote public-private partnerships with companies and technical institutions.

“The challenge is logistics; we started with five schools and are expanding. What matters is preventing accumulation and promoting prior treatment.”

Final Remarks

Cecilia Lorenzo noted that successful recycling campaigns often display the final products made from recycled material, motivating community participation.

Alberto Capra warned about the risk of greenwashing, emphasizing the importance of real material traceability.

Finor Servicios added that programs such as “Botella de Amor” are counterproductive, as they mix materials and hinder recycling.

The Municipality agreed that such methodology must be reconsidered and valued the workshop experience, emphasizing that younger generations are key agents of change.

“We often underestimate children; we have worked in schools, and they were able to take these ideas and apply them—they are the real drivers of change.”

It was highlighted that promoting local innovation, strengthening links with technical institutions such as INTI, and advancing toward applicable, sustainable, and technically sound solutions is essential.

Participants agreed that financing and investment in machinery are crucial to expand productive and recycling capacities.

Closing

The meeting concluded with an agreement to continue coordination among the actors present—province, municipality, concessionaire, INTI, CRBAS, and the private sector—to develop a comprehensive plastic management plan for Cerro Catedral. The importance of designing prevention, education, and material recovery actions tailored to the local context and aligned with a circular economy approach was underscored.

Note

Likewise, once the workshop concluded, participants divided into two working groups to carry out the planned practical activities. The first group conducted transects and macroplastic collection in the designated area; the material obtained was subsequently weighed, classified into samples, and transported to Buenos Aires, where it will be analyzed and characterized in the Technical Directorate Laboratory of INTI-Plastics. The second group conducted waterbody sampling, an activity carried out by the INTI Chemistry and Environment Operational Submanagement, with the aim of assessing the presence of microplastics and other parameters related to water quality. Both complementary actions strengthen the project's technical foundation and deepen the understanding of the issue within the territory.

Photographic Annex



Image 1. Awareness session with key stakeholders.





Images 2, 3 and 4. Manual collection and cleaning transect in high-mountain area.



Images 5 and 6. Classification of collected waste.



Image 7. Weighing and documentation of collected plastic waste.



Image 8. River sampling for microplastic detection.

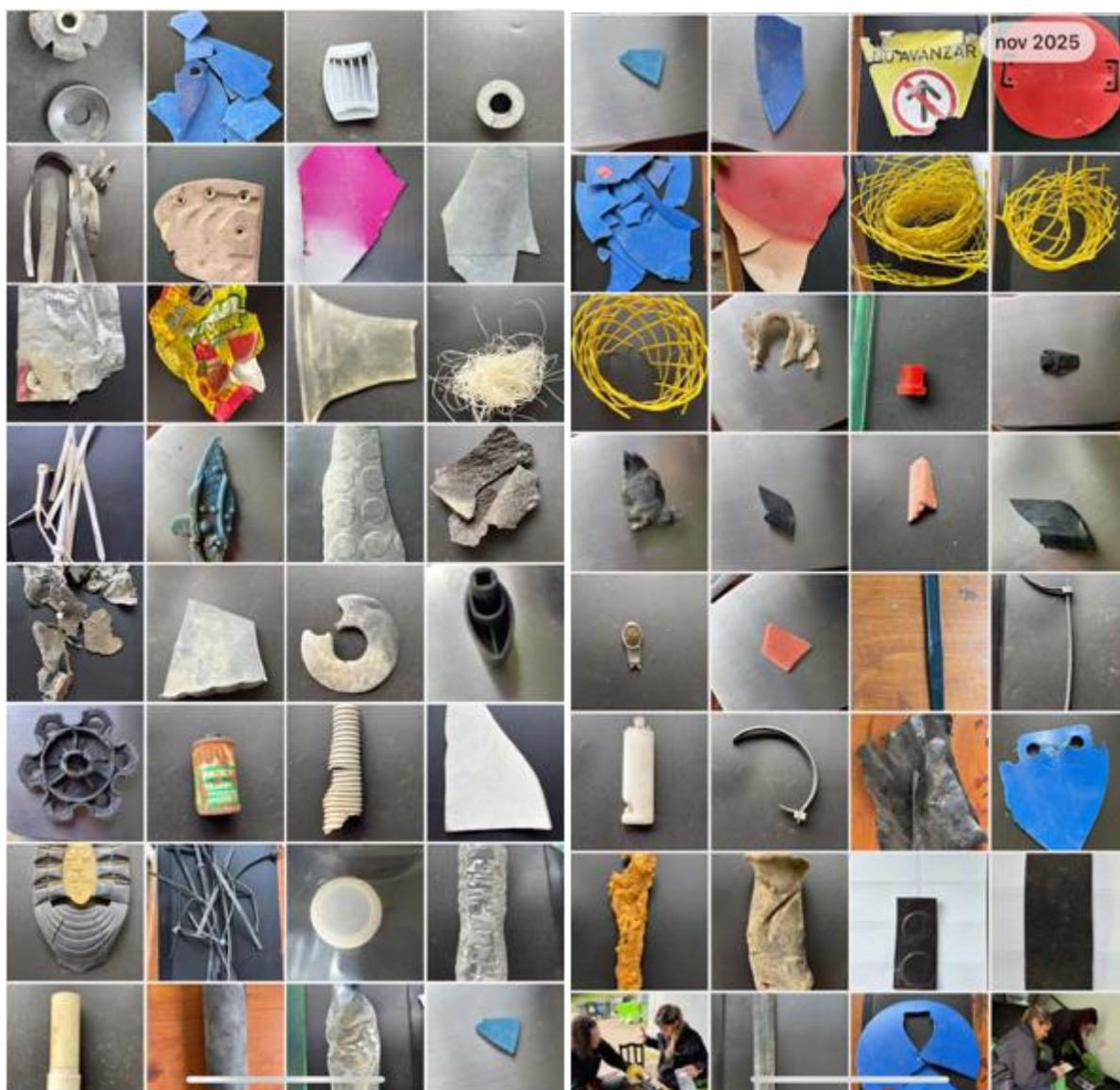


Image 9. Selected photographs of the macroplastic samples collected.