

The World Day for Glaciers - 21 March 2025

Protecting Glaciers: Combating Plastic Pollution in Mountain Ecosystems



Tackling plastic waste in Argentina's and Chile's mountainous regions: project launch

**BCRC Argentina - CRBAS
"Plastic Waste in
Remote and Mountainous Areas"**

**Lic. Alberto Santos Capra – BCRC Director
20 March 2025**

14 REGIONAL AND COORDINATING CENTRES OF THE BASEL CONVENTION

Established under Article 14 of the Basel Convention, the Regional and Coordinating Centres assist the regions and subregions of UNEP: Latin America and the Caribbean (GRULAC); Africa; Asia and the Pacific; Eastern Europe; Western Europe and others (developed countries).



- **Their functions include training and technology transfer in the management of hazardous and other wastes, as well as in the prevention and minimization of their generation.**
- These are autonomous institutions operating under the authority of the Conference of the Parties (COPs), the decision-making body of the Convention, composed of all Parties to the Convention.
- They have been established within intergovernmental institutions or national institutions with the relevant expertise and capacity to provide technical assistance and capacity-building at the regional level.
- They operate under a framework agreement between the host government or institution and the Secretariat of the Basel Convention on behalf of the Conference of the Parties.

TECHNOLOGY TRANSFER AND TRAINING ASSISTANCE IN SOUTH AMERICA 10 LATIN AMERICAN COUNTRIES

El **Centro Regional de Basilea para América del Sur para la Capacitación y Transferencia de Tecnología (CRBAS, BCRC Argentina)**. The Basel Regional Centre for South America for Training and Technology Transfer (CRBAS, BCRC Argentina) on hazardous and other wastes has been located at the National Institute of Industrial Technology (INTI) since 1999.

It serves as a key reference for the environmentally sound management of waste, technology transfer, and legislative assistance in the South American region, providing training and strengthening national capacities on the international agenda of chemicals and waste in the region's productive sectors.

Established under Article 14 of the Basel Convention



Major Mountains bordering Argentina and Chile

Argentina:

The Andes mountain range runs along the western edge of the country.

Some of the highest mountains include:

- Aconcagua (6,959 m): The highest mountain in the Americas.
- Ojos del Salado (6,893 m): The highest volcano in the world.

Chile:

The Andes also dominate the eastern Chile's geography.

Notable mountains include:

- Nevado Tres Cruces (6,200 m).
- Monte San Valentín (4,058 m): The highest peak in Patagonia.



Glaciers in Argentina and Chile

Argentina:

The country is home to several glaciers, especially in Patagonia, such as the **Perito Moreno Glacier**, one of the few glaciers in the world that is still advancing.

Chile: In the Aysén and Magallanes regions, glaciers like the **San Rafael Glacier** are known for their impressive size and color.

These glaciers are crucial for fresh water supply, local biodiversity, and tourism.



Perito Moreno Glacier - Argentina



San Rafael Glacier - Chile

Importance of Mountains and Glaciers for Argentina and Chile

- **Natural Resources & Ecosystem Services:** Mountains and glaciers are essential for freshwater conservation, agriculture, and hydroelectric energy, providing water regulation and climate stabilization.
- **Tourism:** These regions attract thousands of tourists every year, contributing significantly to the economy.
- **Biodiversity:** Home to endemic species and unique ecosystems, they sustain diverse flora and fauna.
- **Ecosystem Services Provided by Glaciers:**
 - **Water regulation and supply:** Glaciers act as natural reservoirs, releasing freshwater that feeds rivers and groundwater.
 - **Climate regulation:** They reflect solar radiation and influence atmospheric temperatures.
 - **Carbon storage:** Cold environments slow decomposition, playing a role in carbon cycle regulation.





Population at High Elevations in Argentina and Chile

- In **Argentina** and **Chile**, populations living above 2,000 meters are low, with very few permanent settlements due to the extreme conditions.
- There are very few towns or cities in glacier regions or in high mountain areas. For example, **Las Cuevas** (3,160 meters) in Argentina has a population of around 100 to 150 people, with more people arriving during the tourist season.
- In general, most of the population in both countries lives in **lower areas**, where the climate is more temperate and accessible.
- Population Estimate: In **Argentina**, **less than 1%** of the population lives above 2,000 meters, while in **Chile**, **around 2%** live in these high-altitude regions.

Challenges of Plastic Waste at High Elevations

- **Pollution:** Plastics, such as bottles and wrappers, accumulate in remote areas due to tourism and lack of waste management infrastructure.
- **Environmental Impact:** Plastic can take centuries to decompose, affecting local wildlife and flora.
- **Solutions:** Recycling initiatives and environmental awareness efforts to reduce plastic footprint in these areas.

Las Cuevas
Argentina

Tourism in high-altitude and glacier regions are a major attraction in Argentina and Chile, drawing thousands of visitors each year.

These areas offer unique landscapes and adventure activities but also face environmental challenges due to increased human presence.

Popular Activities:

- In Glacier Regions:
 - Trekking, ice climbing, boat tours, and sightseeing. Example: Perito Moreno Glacier (Argentina), San Rafael Glacier (Chile).
- In High-Mountain Areas:
 - Mountaineering, skiing, hiking, and wildlife observation. Example: Aconcagua (Argentina), Nevado Ojos del Salado (Chile).
- Tourist Infrastructure:
 - Mountain shelters and base camps: Used by climbers and trekkers (e.g., Plaza de Mulas in Aconcagua, Refugio Tejos in Ojos del Salado).
 - Visitor centers: Provide information and services in national parks and glacier areas (e.g., Glaciarium in Argentina, Torres del Paine Visitor Center in Chile).
 - Ski resorts and lodges: Found in mountain areas, attracting seasonal visitors (e.g., Las Leñas in Argentina, Portillo in Chile).
- Environmental Impact:
 - Plastic waste: Improper disposal of food packaging and water bottles.
 - Soil erosion: Trails and campsites degrade natural landscapes.
 - Air pollution: Transportation and tourist facilities contribute to carbon emissions.



Plastic Waste in Remote and Mountainous Areas

Funding and Support:

- This project is supported by the Work Programs of the Basel, Rotterdam, and Stockholm Conventions, with funding allocated through a Small-Scale Funding Agreement (SSFA) between BRS/UNEP and BCRC Argentina

Main National Stakeholders:

- Argentina: Undersecretariat of Environment
- Chile: Ministry of the Environment



Project Overview



Duration

February - November 2025



Implementing Agency

CRBAS (BCRC Argentina)



Grant

USD 70,000



Main Beneficiary Countries

Argentina and Chile



Main Project Objective

The project aims to enhance the capacity, knowledge, and expertise of relevant decision-makers regarding the environmentally sound management (ESM) of plastic waste and the reduction of plastic waste generation in mountainous areas. It is part of the broader initiative "Plastic Waste in Remote and Mountainous Areas".

Key Activities

- Activity No. 1 - Execute awareness raising, education activities and capacity building
- Activity No. 2 - Field monitoring and research into plastic waste degradation in mountainous Areas
- Activity No. 3 - Implement a pilot project in a selected mountainous area in Argentina and Chile
- Activity No. 4 - Improve the ESM of plastic waste in mountainous areas in Argentina and Chile
- Activity No. 5 - Disseminate knowledge and results of the Project

Expected outcomes

- Increased awareness and capacity among key stakeholders.
- Strengthening of the inter-laboratory research network on plastic pollution.
- Implementation of effective plastic waste management models in remote and mountainous regions.
- Policy recommendations and best practices for plastic waste management in high-altitude areas.
- Greater engagement with international organizations to standardize methodologies and share research results.

Proposal: Pilot Site in Argentina: Santa Cruz Province Los Glaciares National Park

Key Stakeholders:

- Municipality of El Chaltén
- National Parks Administration (APN - Administración de Parques Nacionales)
- Provincial Agrarian Council (CAP - Consejo Agrario Provincial)

Private Sector - Tourism:

- Green Hotels (Hoteles Más Verdes - HMV)
- El Chaltén Chamber of Commerce

Civil Associations:

- Friends of Los Glaciares National Park Association
- Santa Cruz Province Guides Association (AGUISAC)
- High Mountain Guides Association (AAGM)
- El Chaltén Andean Center (CACH)



Environmental National and Provincial Laws – Santa Cruz:

National:

Law 25.675/02 – General Environmental Law

Law 26.639/10 – Glacier Protection Law

Argentina has a National Glacier Inventory, which identifies and monitors glaciers to ensure their protection.

Law 26.331/07 – Native Forest Protection Law

Law 25.916/04 – Urban Solid Waste Management Law

Law 24.051/91 – Hazardous Waste Law

Provincial:

DPRH Provision 4/96 – Water resources quality control and protection

Law 229/61 – Soil conservation and natural resource utilization

Law 65/58 – Forestry Law. Amended by Law 1154/77

Law 786/72 – Regulations for provincial parks, monuments, and reserves

Law 2567/00 – Hazardous Waste. Regulatory Decree 712/02

Law 2829/05 – Treatment and final disposal of urban solid waste



Ordinance 13 - Non-Toxic Municipality Declares El Chaltén as a "Non-Toxic and Environmentally Sustainable Municipality. "Prohibitions: Industrial and mining activities using toxic substances (e.g., chemical leaching). Installation of metallurgical laboratories and use of explosives or harmful chemicals. Entry, use, storage, and transportation of hazardous substances (as per Law 24.051).

Ordinance 82 - Code of Infractions Serious Offenses: Environmental pollution and lack of hygiene. Improper handling of hazardous waste. Failure to separate waste at the source. Businesses failing to comply with environmental regulations. Protection of Urban and Natural Spaces: Prohibition of littering in public spaces. Penalties for open-air waste burning. Control of noise and light pollution.

Ordinance 93 - Ban on Single-Use Plastics. The distribution of disposable plastics is prohibited. Businesses must replace them with biodegradable packaging.

Ordinance 94 - Greywater Management. Mandatory use of solid and grease separator chambers.

Ordinance 96 - Biodegradable Detergents. Detergents containing more than 20% non-biodegradable substances are banned.

Ordinance 114 - Integrated Solid Waste Management Plan (GIRSU). Objectives: Improve environmental management and reduce pollution .Promote recycling, composting, and environmental education. Implement differentiated fees for funding. Actions: Mandatory source separation and differentiated waste collection. Creation of infrastructure: CADIF (Environmental and Final Disposal Centre). CARRI (Collection Centre for Inorganic Recyclable Waste). Home composting program. Registry of special waste generators. Penalties and ban on plastic bags in businesses.

FACT SHEET

Proyecto "Desechos Plásticos en Áreas Remotas y Montañosas"

✓ Estado del Proyecto
En proceso de firma
del acuerdo

📅 Duración
Febrero -Noviembre 2025

⚙️ Agencia de
Implementación
CRBAS (BCRC Argentina)

💰 Donación
USD 70000

📍 Países Beneficiarios Principales
Argentina y Chile

Las áreas remotas y montañosas se encuentran entre las más afectadas por los desechos plásticos. Aunque en los últimos años se ha prestado gran atención a la contaminación en los océanos, la contaminación en estas regiones ha recibido poca visibilidad. El plástico es el tipo de desecho más común en estos entornos, y su aumento se debe en gran parte al turismo. Además, los microplásticos pueden viajar largas distancias y acumularse en estas zonas.

Estas regiones, especialmente en países en desarrollo, enfrentan desafíos particulares para minimizar y gestionar los desechos plásticos, como:

- su aislamiento geográfico,
- condiciones climáticas y naturales adversas,
- falta de economías de escala,
- recursos financieros y humanos limitados, y
- escasa infraestructura.



Esta iniciativa busca abordar los principales desafíos del manejo ambientalmente racional de los desechos plásticos en áreas remotas y montañosas a través del fortalecimiento de capacidades y la concienciación en áreas remotas y montañosas.

Proyecto "Desechos Plásticos en Áreas Remotas y Montañosas"

Objetivo principal del proyecto:

El proyecto tiene como objetivo mejorar la capacidad, el conocimiento y la experiencia de los responsables de la toma de decisiones relevantes en cuanto a la gestión ambientalmente racional (GAR) de los desechos plásticos y la reducción de la generación de desechos plásticos en áreas montañosas. Forma parte de la iniciativa más amplia "Desechos plásticos en áreas remotas y montañosas".

Actividades clave:

- Concientización, educación y fortalecimiento de capacidades
- Monitoreo de campo e investigación
- Implementación de proyectos piloto
- Mejora de políticas y mejores prácticas
- Difusión de conocimientos y alcance

Resultados esperados:

- Mayor concientización y capacidad entre los principales interesados.
- Fortalecimiento de la red de investigación inter-laboratorios sobre la contaminación por plásticos.
- Implementación de modelos efectivos de gestión de desechos plásticos en regiones remotas y montañosas.
- Recomendaciones políticas y mejores prácticas para la gestión de desechos plásticos en áreas de gran altitud.
- Mayor compromiso con organizaciones internacionales para estandarizar metodologías y compartir los resultados de la investigación.

Financiamiento y apoyo:


Este proyecto cuenta con el apoyo de los Programas de Trabajo de los Convenios de Basilea, Rotterdam y Estocolmo, con financiamiento asignado a través de un Acuerdo de Financiamiento a Pequeña Escala (SSFA) entre BRS/PNUMA y BCRC Argentina.

Contrapartes Nacionales

Argentina: Subsecretaría de Ambiente
Chile: Ministerio de Medio Ambiente

<https://bcrc-argentina.net.ar/>



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**BASEL CONVENTION REGIONAL CENTRE FOR THE SOUTH
AMERICAN REGION IN ARGENTINA**

Contacto



Thank you!

Alberto Santos Capra

acapra@inti.gob.ar

brc-argentina@inti.gob.ar

<https://brc-argentina.net.ar/>