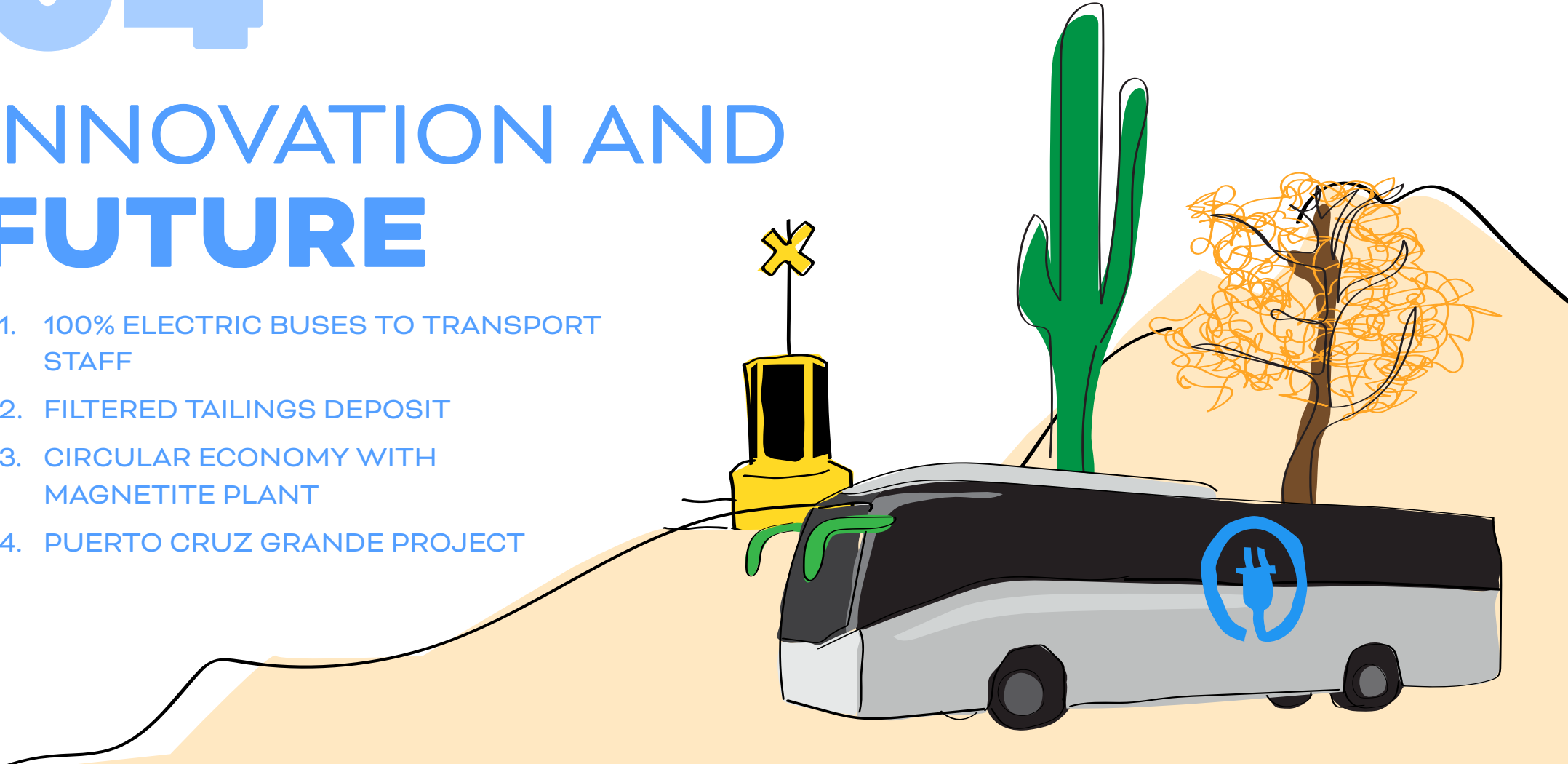


# 04

## INNOVATION AND FUTURE

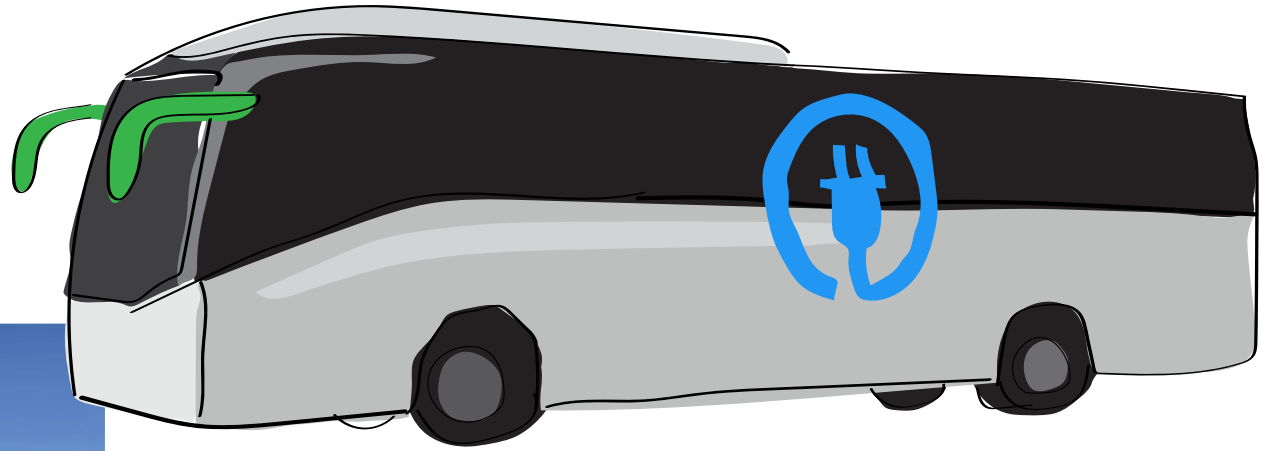
- 4.1. 100% ELECTRIC BUSES TO TRANSPORT STAFF
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- 4.4. PUERTO CRUZ GRANDE PROJECT



## 4.1. 100% ELECTRIC BUSES TO TRANSPORT STAFF

(CMP 2)

In September 2023, CMP became Chile's first private mining company to switch its buses to electric, powered by renewable energies. In partnership with Verschae, Flex, and Enel X, a fleet was implemented that will reduce more than 3,000 tons of CO<sub>2</sub> per year and save 50% in operating costs compared to diesel buses while generating no noise.



The key innovation of electric buses is their dual power supply system, which **reduces CO<sub>2</sub> emissions by 43%** compared to traditional vehicles.



## Pilot of natural gas extraction trucks

In an effort to reduce emissions, CMP, in collaboration with ENGIE Chile, launched an innovative pilot project in October 2023 that uses a “dual fuel” system in its extraction trucks. This project, which started in 2022, seeks to optimize performance and sustainability and is currently in the operational adjustment phase. An LNG refueling station was installed as part of the process, and a truck was adapted for testing.

The “dual fuel” system mixes natural gas with traditional fuel, lowering CO<sub>2</sub> emissions by 20% to 25% and particle emissions by more than 30% without affecting performance. It also has economic savings for mining.

## Arrival of the first dual-system vessel

In May 2023, CMP received the first vessel with a dual natural gas and conventional fuel system for maritime transport. Mount Ita's arrival achieved this. The vessel's main innovation is its dual power supply system, which allows it to reduce CO<sub>2</sub> emissions by 43% compared to traditional ships.

By receiving the dual-system vessel, CMP brought forward the International Maritime Organization's **emission reduction targets for 2030**, moving towards its goal of reducing Scope 3 emissions related to the transportation of its products to other continents.

“The arrival of Mount Ita aligns with CMP's strategy of promoting sustainable mining for the development of the region and its people”, Francisco Carvajal, CEO.



*Mount Ita in Compañía Minera del Pacífico's Guacolda II Port of, the first hybrid natural gas and diesel vessel to arrive in Chile.*

**CMP has made significant progress in projects aimed at promoting innovation and the integration of advanced technologies. These projects focus on the transition to cleaner fuels and the implementation of renewable energies in its operations.**

## 4.2. FILTERED TAILINGS DEPOSIT (FTD) AND LANDSCAPE REHABILITATION PROJECT

(GRI 3.3)

The filtered tailings deposit is part of a project that seeks to provide a sustainable solution for the final disposal of tailings generated at the pellet plant in Huasco. This project uses electric trucks to transport tailings from the discharge building to their final disposal in the Filtered Tailings Deposit (FTD), which is about to enter operation.

The process consists of building a reservoir that will be filled using terraces as it progresses and covered with sand and native plant species thanks to an ecological restoration project with the universities of Santiago, Católica de Santiago, and Católica de Valparaíso.

The filtered tailings are a solid material, easy to handle, and low in moisture, facilitating their transport and reducing environmental impact.

The FTD was fully built in 2023, and the operational lines were managed to comply with Chilean environmental resolutions, sectoral permits, and regulations (Supreme Decree No. 248 and Instruction No. 31 SMA). Currently, the FTD is undergoing adjustments to reach optimal operating capacity, allowing Huasco Valley's operational continuity under the commitment acquired with the approval of the Environmental Compliance Program.

Creating an innovative and scientific solution led InnoVaChile-CORFO to fully certify the **investment of more than \$1.6 billion** in this initiative under the R&D Tax Incentive Law.

This is the largest project of its kind in Atacama and one of the largest in Chile so far.



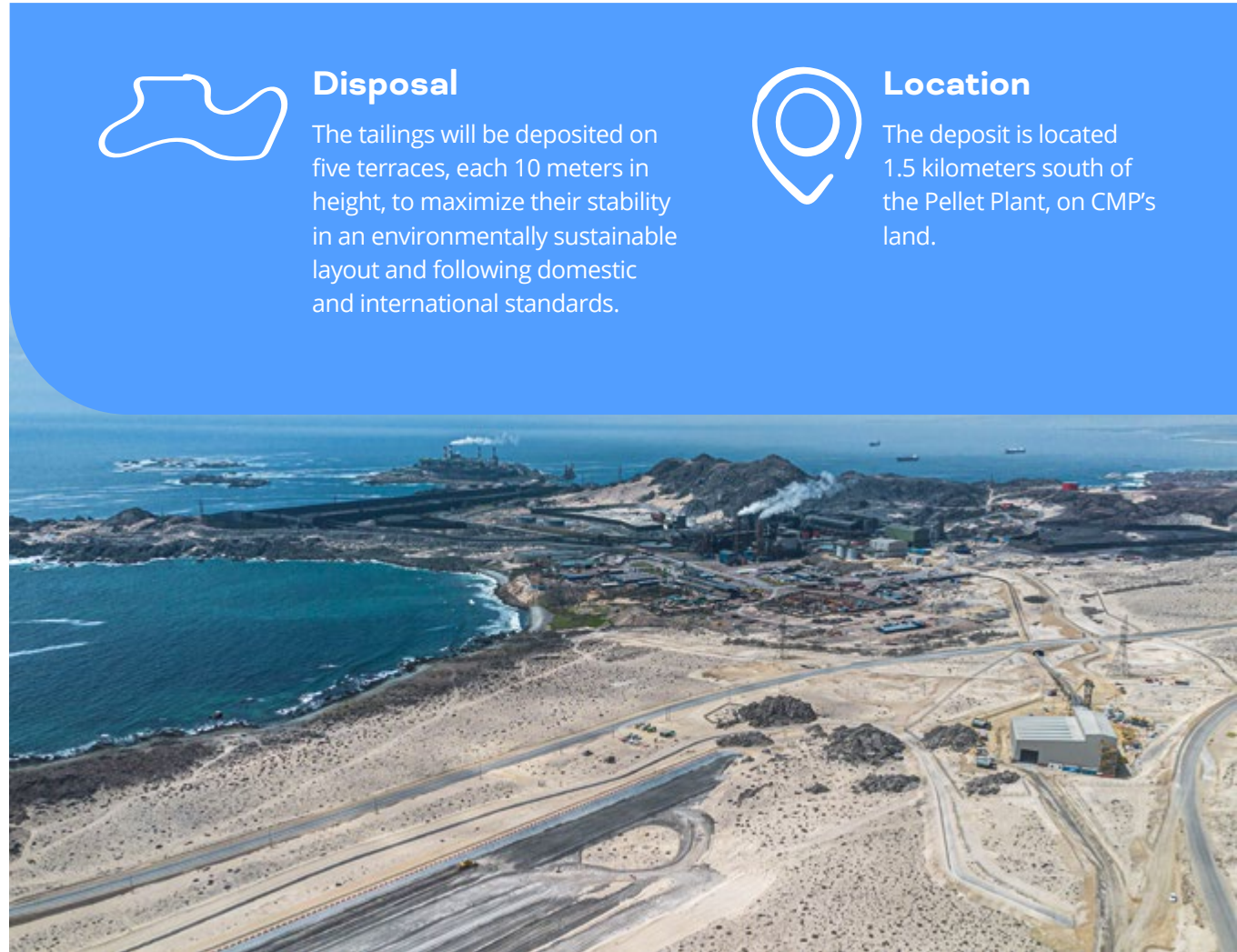
### Disposal

The tailings will be deposited on five terraces, each 10 meters in height, to maximize their stability in an environmentally sustainable layout and following domestic and international standards.



### Location

The deposit is located 1.5 kilometers south of the Pellet Plant, on CMP's land.



# Mining Tailings Landscape Rehabilitation Project

With the support of CORFO, the Landscape Rehabilitation project aims to develop a method to revitalize the landscape of the Pellet Plant's Filtered Tailings Deposit in Huasco by planting native flora.

This progress is feasible because the tailings produced by CMP, obtained after pressing and filtering the rock during iron extraction without using chemicals, are inert. This allows them to be covered with granular material and sand, creating an environment conducive to plant growth.

The project represents a sustainable strategy to manage tailings, applying phytotechnology to solve environmental problems through this innovative approach in Chile. This will contribute valuable scientific knowledge in a still emerging field, offering a long-term solution that is less invasive and has significant benefits from the second year of operation.

Approximately 2,900 plants of five local species have been grown at the Los Olivos nursery, and four additional species are planned to be incorporated by 2024. The experiments have been conducted in the laboratories of the Department of Biology of USACH in Santiago and CMP's nursery in

Huasco, where nine species have been successfully reproduced.

The third phase will begin with the operation of the Filtered Tailings Deposit, implementing a pilot

program with the first tailings disposed of. The fourth and final stage will include elaborating a methodological guide based on the project's findings.



# Circular Economy Project

Work is underway to incorporate circular economy principles into the design of the tailings deposit based on pilot studies. Phase three of this project is underway, and the experimental pilot is expected to be ready at the FTD in 2024.

This collaborative effort involves the University of Santiago de Chile, the Catholic University of Valparaíso, and the Pontifical Catholic University of Chile.



## Archaeological findings during the works

Archaeological findings were made in constructing the Filtered Tailings Deposit (FTD) project, whose recovery was authorized by the National Monuments Council (CMN, in Spanish).

According to the protocol, the work in the sector was suspended, and a permanent inspection of the area by an archaeologist and a specialized team was implemented.

In addition, talks are held for personnel who carry out earthworks and excavations, given the importance of preserving Huasco's archaeological and cultural heritage.





## Cybersecurity

The IT team has strengthened and improved its digital security measures, which has allowed it to prevent major problems and protect systems and information. In 2023, there were no incidents with customers' personal information. Data security and privacy are very serious concerns for CMP, and the company follows all relevant standards and the best strategies in the sector. The policies and methods for handling personal data guarantee the greatest care and protection of customer information, preventing access or improper use by third parties.

**In 2023, CMP faced no IT security problems thanks to our firm commitment to IT security and investment in advanced technology.**



## 4.3. CIRCULAR ECONOMY WITH MAGNETITE PLANT

(GRI 3.3) (GRI 306-1) (GRI 306-2)

At CMP, we have focused on promoting recycling and reducing waste generation in our value chain.

We promote reuse or recycling by guaranteeing an environmentally safe final waste disposal through different programs.

Our main circular economy project is the Magnetite Plant, which is world-renowned for its mining waste reprocessing capacity.

In this plant located in Tierra Amarilla, Atacama, iron ore is extracted from copper tailings from Minera Candelaria. Simply put, what was considered waste is transformed into high-value raw material through non-polluting processes to convert it into Pellet Feed, a product for export.

The Magnetite Plant constitutes the largest mining recycling project in the country and one of the largest worldwide, being an example of circular economy and sustainable operation. In 2023, an additional 25% of reuse was achieved compared to 2020. Tailings are considered environmental liabilities. They are waste from mining processes,

comprising water and ground rock fragments, in which many unused minerals may be present.

From this mining waste, an iron concentrate (or Pellet Feed) is produced at this plant for export. This

confirms that the circular economy is a sustainable business and contributes to the environment by using environmental liabilities, such as tailings, to give them a second productive opportunity.



The Magnetite Plant started operating in 2008, and a significant milestone was the approval of an Environmental Impact Statement in 2022, particularly for the operational adjustments' initiative.



This plant is also sustainable, using water recovered from the tailings and desalinated water.

One of the magnetite plant's great values is that it reduces an environmental liability in a saturated area. "Thanks to Magnetite, we can do mining that is considered *sustainable development for the region and its people. A very noble process is achieved at the plant because it is done considering the magnetic concentration. Using magnets, we recover iron from the tailings*", Paulina Andreoli, CMP Environment and Climate Change Manager.

**Project:**  
**Tire recycling**

**Progress in 2023**

- Implementation of Supreme Decree No. 8, which establishes goals for collection, recovery, and other obligations for tires.
- CMP is committed to collecting and valorizing 25% of the not-for-use (NFU) Grade A and B tires purchased in 2022 in collaboration with Bridgestone company.
- Valorization of 224,826 kg of NFU in 2023, meeting the goals established by law and receiving recognition from Bridgestone for exceptional compliance.
- 35,480 kg of historical NFU were reused, and 42,330 kg were recycled, transforming them into rubber mats for CMP's gyms.

**Expectations for 2024**

- Continue to comply with the established regulations.
- Make progress with initiatives to reintegrate the by-products generated by the valorization of NFU into CMP's processes.

**Project:**  
**Plastic bottle recycling**

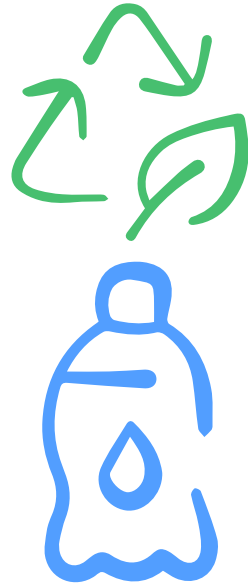
**Progress in 2023**

- Start campaigns to reduce and eliminate the use of plastic bottles in our facilities.
- Implementation of pilot initiatives that included the delivery of reusable water bottles to all workers.

- Installation of water dispensers at all work points to encourage using reusable bottles.
- Installation of purified water dispensers in schools, sports centers, and venues for community use.

**Expectations for 2024**

- An expected 60% reduction in the generation of PET plastic by continuing and expanding the initiatives implemented in 2023.



## Project: Electronic waste revalorization

### Achievements in 2023

- Valorization of 2,318 kg of electronic waste.
- Preparation for the reconditioning of waste in 2024.
- Planning of donations to schools and fisher's organizations.

### Expectations for 2024

- Reconditioning of electronic waste.
- Planned donations to Fisher's colleges and organizations as part of our social and environmental responsibility efforts.



## Project: Reuse of corporate clothing

### Initiatives in 2023

- Installation of containers in the 9 worksites to collect corporate clothing.
- Launch of a dissemination campaign about the project.
- Preparations for the first shipment of clothes for recycling and reuse were scheduled for March 2024.
- Carried out with authorized suppliers, ensuring compliance with legal requirements for operation.

### Expectations for 2024

- Receiving by-products from recycling, such as threads.
- Using threads in community workshops.
- Restoring clothing suitable for reuse, handing it over to local communities.

## 4.4. PUERTO CRUZ GRANDE PROJECT

### What is the Puerto Cruz Grande project?

This consists of a port for the shipment of mining bulk, with the capacity for cargo ships of up to 250,000 metric tons.

It is located in the Coquimbo Region, La Higuera commune, in the Chungungo Cove, 30 kilometers south of the Humboldt Archipelago, almost opposite Pájaros Islet.

Its initial objective is to provide reception, collection, and shipment services for 13.5 million tons of minerals annually.

The project consists of maritime facilities, such as a pier with an access bridge, pivot platform, quadrant platform for the loader, ship loader, and elements for docking maneuvers.

Onsite facilities such as a collection yard, recovery system, and conveyor belts are also included. In addition, there is an administrative building, a

control room, and a maintenance workshop, and basic service facilities.

As part of CMP's plan, the Puerto Cruz Grande project included defining a work plan with the community and identifying key areas to contribute to the economic development of La Higuera and Chungungo beyond creating jobs for port operations.

Surface area of the project



**31**  
hectares.



## Tourism development plan

Through Puerto Cruz Grande, CMP set out to confirm its purpose of creating a different mining that contributes to the region and its people. The Chungungo Tourist and Historical Development Plan emerges from this, highlighting the area's cultural, mining, and gastronomic heritage, becoming an important showcase for entrepreneurs in the sector.

15 lines have been developed: branding, Chungungo space, tourist office, emergency brigade, Chungungo Expo, historical positioning of the El Tofo mine, training, competitive funds, positioning within local tourism, kitchens, signs and signage, agro-apiculture project, diving school, viewpoint, and entrepreneurial route.

Thanks to this tourism development project, more than 50 initiatives have been developed for the community, many with their respective training. More than 30 suppliers and entrepreneurs have also been formalized, generating employment and economic development in the area.

**“Without a doubt, this initiative will produce very positive results for entrepreneurs, who value this activity as part of the Tourist, Local, and Historical Development Plan that CMP supports. This seeks to promote tourism in the locality and promote the development opportunities for the residents of Chungungo”,** Claudia Monreal, CMP Assistant Development Manager.



## Some projects to highlight

### Tourist routes led by entrepreneurs

Bicycle and/or hiking tours, the Lucumillo (endemic shrub) Route, a coastal route characterized by native plants such as Lucumillo and other types of endemic species and shrubs. It starts at the Plaza de Chungungo and heads towards the coastal sector, a route where you can enjoy postcard views of Cruz Grande Beach and see Damas, Choros, Chañaral, and Chungungo Islands.

### Historical Chungungo

It is the perfect route to appreciate the mining vestiges of past decades, the old pier, and the El Francés Ruins, ending with the great view from the Wharf.

### Expo Chungungo

40 versions and 18 formalized entrepreneurs, mainly dedicated to local crafts and gastronomy. One of the great milestones was the Fiesta del Churrasco Marino, which was held in February 2023 and attracted 4,000 visitors.



### Beekeeping Project

This is a novel initiative for honey production using desalinated water. A nursery was installed 500 meters from the sea, and 15 entrepreneurs from the area were trained. Currently, the nursery has 3 beehives, each with 20,000 specimens.



*“This is a wonderful project, which we love because we have worked hard moving earth, stones, and planting. We have brought bees from La Serena, a hive, with queen bee eggs and experimented with this, feeding them with desalinated water.”* Ericka Araya, Beekeeping partner at Entre Costas y Nieblas



This innovative agro-beekeeping project in Chungungo looks to promote tourism in the commune and, mainly, the care and protection of the environment, as it is developed close to native plants such as quillay, peumos, litres, lucumillo, and aromatic plants such as chamomile, mint, and rue. Of these, 600 are fragrant, 45 from large native trees, and 45 are shrubs.

*“It is an exciting project. We think that in the long run, it will bring great benefits for the commune and region. In addition, it is a method that can be implemented by other sectors or regions so that we can all contribute and adapt to climate change, which is hitting harder and harder. The benefit that bees bring to our ecosystem is very relevant, and these opportunities that benefit the development of life and the care of the environment cannot be missed”,* Claudia Monreal, CMP Assistant Development Manager.

## Community Aid Brigade:

Conducting workshops for neighbors to act in an orderly manner in emergencies such as earthquakes, fires, or tsunami warnings. The National Disaster Prevention and Response Service, SENAPRED (former ONEMI) carried out the training.



*“We are delighted with the formation of the community response brigade in Chungungo. It will allow us to attend to different requirements and emergencies that occur in the sector thanks to the voluntary interest of neighbors who now have essential knowledge in the matter, being able to participate in or request help, for example, from the Police, the municipality, or Firefighters, more quickly in a given situation on being residents. We are grateful for the training given by ONEMI, a relevant actor in the entire process, and to CMP for sponsoring and promoting initiatives of this kind, which are replicable in other sectors of the commune”,* the Mayor of La Higuera, Yerko Galleguillos, pointed out.

