

Antofagasta, Chile

Status of the project: ongoing technical assistance



Basic Information

Antofagasta urban area: 30,718 km²

Population: 388,545 | Growth rate: 2%

GDP per capita: USD 47,000

Modal Share

Formal public transport: 25.08%

Walking: 28.31%

Cycling: 0.33%

Private cars: 35.13%

Taxis: 9.13%

Freight vehicles: 1.28%

Other: 0.74%

National GHG emissions per capita: 5.92 (tCO₂eq)

Exposure to climate change: MEDIUM

Region capital city

Context

Antofagasta is a city 30 km long and on average 2 km wide, where about 360 thousand citizens live, according to the 2017 census. The city, whose economic development is mainly linked to the copper mining industry, is characterized for being the destination of tens of thousands of migrants seeking job opportunities. The intercensal variation (2002-2017) shows a higher population increase of 22.99%, which is greater than the growth experienced in the country (16.26%). The absolute growth of the population in Antofagasta stands out, with 72,396 new inhabitants in the intercensal period. An important part of them are immigrants who come to the region attracted by the climate and job opportunities.

Around 100,000 vehicles circulate daily in the city, and the average travel distances are between 5.9 and 7.4 km. Geographic restrictions and demographic pressures have pushed the development of the city to the north and the south. More than 60% of the population lives in the northern sector. However, most of the city's services, employment, and economic activities remain concentrated in the centre, creating congestion and putting additional stress on the city's already fatigued and poorly functioning transport network. The transport network has, in turn, only exacerbated urban development and land use challenges. The two branches of the private train that transports materials from the mines to the port pass through the heart of the municipal territory, dividing the city in two, interrupting traffic flows and consuming a large part of the urban territory with its right of way.

Faced with this, the Regional Government, in conjunction with the Local Government and other institutions, have promoted a series of mobility initiatives that complement the current public transport system and the urban transport master plan. However, these are not necessarily linked to each other and their impact, in terms of emissions, has not been modelled.

The regional government of Antofagasta has the mandate and responsibility to finance mass public transport infrastructure, but not its operation. It has the authority to borrow from international finance sources. Systems and procedures are not yet in place to monitor, evaluate and report on urban transport development.

The SUMP process has already achieved important milestones. A Technical Board that institutionally and politically validates the development of the Plan has been established, as well as a Social Board responsible for including demands and perspectives of citizens and other stakeholders into the SUMP. Along with this, a website has been set up (www.movilidadantofagasta.cl) that functions as the main communication tool with citizens, hosting surveys and news, among others.

Phases 1, 2 and 3 of the SUMP development process have now been completed. There is already a consolidated vision, objectives, indicators, and goals for the Plan, being able to start with the planning of measures and the modelling associated with them. The official launch of the SUMP is estimated to be September 2022.

Support from the Partnership

Technical Assistance: Sustainable Urban Mobility Plan

Funded by: European Union

Funding amount: EUR 500,000

Implemented by: GIZ through the EUROCLIMA+ Program

Local counterpart: Regional Government of Antofagasta

Supported Activities:

- Develop an Integrated Sustainable Urban Mobility Plan, which adds environmental goals and monitoring, reporting and verification (MRV) mechanisms to existing measures and isolated modal plans
- Support the integration of various modes of transport and improve existing bike lanes, sidewalks and public transport infrastructure
- Formalise the Technical Board for Sustainable Mobility in the city
- Train regional and municipal government officials
- Promote citizen empowerment and provide them with access to the decision-making arena, with a particular focus on investments

Status of implementation

Project start: May 2018

Expected project completion: Q2 2022

Completed outputs:

- Status quo analysis including emissions inventory
- Implementation of the strategy for communications and participatory process, including the web page and social networks accounts
- Implementation and results of online surveys
- Implementation of the Technical Board
- Implementation of the Social Board
- MRV plan
- Phase I to IV completed
- Draft SUMP policy text was written

Next expected outputs:

- Implement an Observatory for Sustainable Urban Mobility in the city of Antofagasta
- Communications products (graphic summary of the policy text, short video, poster)
- Launching of the Plan

SUMP key measures and cost estimates

The following table highlights the most significant measures identified in the SUMP.

Measure	Cost Estimate	
Mass transit system	USD	518,000,000
Network of high standard pedestrian routes	USD	268,000,000
Extension of cycle lanes network	USD	6,600,000
Traffic calming measures	USD	4,400,000
Incentives for the generation of centralities	USD	2,800,000
Integrated intermodal stations and terminals	USD	14,800,000

The following table summarises the total capital expenses (CAPEX) estimates for different types of measures in the SUMP.

Urban transport investment measures	CAPEX Estimate	
Public transport	USD	520,000,000
Active transport	USD	275,000,000
Disincentive to car use	USD	4,400,000
Land use and public space	USD	4,000,000
Freight and logistic transport	USD	520,000
Intermodality	USD	280,000,000
Governance	USD	15,000,000
Total	USD	1,098,920,000

Core impact indicators baselines

Indicator	Baseline - 2018
Total annual transport-related GHG emissions (Mt CO₂eq)	0.372 Mt CO ₂ eq
Annual transport related GHG emissions per capita (kg CO₂eq)	940 kg CO ₂ eq / capita
Access to public transport Proportion of the population living 500 meters or less of a public transport stop	80.4%
Air pollution Mean urban air pollution of particulate matter (in µg PM2.5) at road-based monitoring stations	10.5 µg/m ³ of PM2.5
Road safety Annual traffic fatalities in the urban area, per 100,000 inhabitants	5.56 fatalities / 100,000 hab

Highlights

Even if it is not a binding policy instrument, ensuring budget at different levels of government and governance bodies can uphold the SUMP.

The SUMP public policy draft is currently under stakeholders' revision, which will be complemented this year with the implementation of a Mobility Observatory for the city and a series of communication inputs to bring the Plan closer to the citizens.

The Antofagasta SUMP is a non-binding public policy instrument, so its approval rests in the hands of the principal, which in this case corresponds to the Regional Government of Antofagasta. However, to secure part of the public funding required for the plan, the Regional Government has committed to sign a "Programming Agreement", which is the public instrument through which Regional Governments commit shared funding with Ministries for the financing of local initiatives.

The Regional Secretariat of the Ministry of Housing and Urban Development has decided to give continuity to the work carried out by the SUMP participatory roundtables, merging them and taking over their leadership. This will make it possible to exercise control over the implementation of the SUMP and to continue empowering the stakeholders involved.

Sustainable urban mobility should be planned in interaction with other urban planning instruments and adapted to the local context

In the case of Antofagasta, the SUMP was conceived to be compatible with other urban public policies, such as regeneration, housing or development plans, since mobility cannot be understood from a single sectoral perspective. Several urban components influence urban mobility and vice-versa.

For the development of the SUMP in Antofagasta, the SUMP methodology proposed by MobiliseYourCity had to be harmonised with existing transport or mobility planning processes and experiences in the local territory. Aspects such as modelling, indicators or measures' scope were already addressed through existing transport plans.

Participation is a crucial component of the SUMP formulation, but related strategies must be the most cost-efficient alternatives considering the available resources

Although the generation of two participatory roundtables (the Technical Roundtable and the Social Roundtable) was a successful process in Antofagasta, it required more resources and the need to cross-reference the work carried out in both spaces. Generating a single broad participatory roundtable (multi-sectoral, multi-level and multi-stakeholder) from the beginning of the Plan can reduce costs and increase efficiency for processes management.

It is extremely important to be able to communicate progress while the Plan is under development so that people can become involved in it to generate a “collective awareness” about the urgency of acting in the transport sector to mitigate the climate crisis. The implementation of the website and other digital tools were of great help in this regard.