

Frequently Asked Questions

Sal de Vida Lithium
Mining Project
- Argentina

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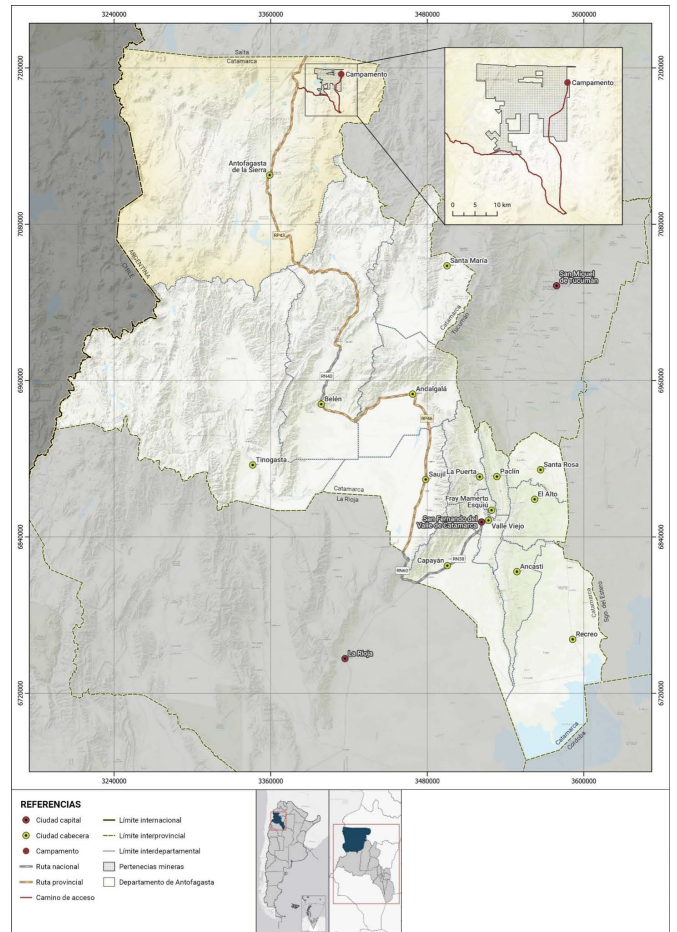
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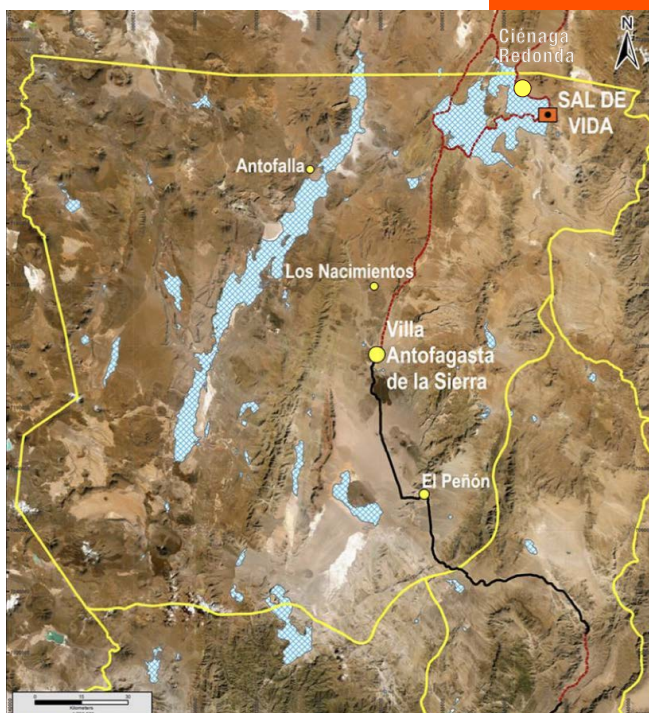
Project Location

Catamarca Province, Argentina

The Sal de Vida Project consists of the construction and operation of a lithium mining Project in Salar del Hombre Muerto, located in the province of Catamarca, Argentina, 4,100 meters above sea level and approximately 90 km north of the departmental capital of Antofagasta de la Sierra. The Project will be operated by Galaxy Lithium (Sal de Vida) S.A., a subsidiary of the Allkem Limited group, the fifth-largest lithium producer worldwide.



Map, Province of Catamarca and detail of Project.



Map, Communities near Sal de Vida Project

Communities near Sal de Vida

Communities in the direct and indirect area of influence of the project (at distances greater than 150 km from the Project site) include:

- Villa de Antofagasta
- Antofalla
- El Peñón
- Ciénaga Redonda
- Los Nacimientos

01

What is the Sal de Vida Project?

The Sal de Vida Project (SdV) consists of the construction and operation of a lithium (Li) mining project in Salar del Hombre Muerto, located in the province of Catamarca, Argentina, 4,100 meters above sea level and approximately 90 km north of the departmental capital of Antofagasta de la Sierra. The Project will be operated by Galaxy Lithium S.A., a subsidiary of the Allkem Limited group, the fifth largest lithium producer worldwide.

SdV will extract brine with more than 500 parts per million (ppm) of Li from an aquifer whose depth ranges from 200 to 350 meters, and then preconcentrate it through a natural evaporation process. Submersible pumps in 8 wells located in the eastern sub-basin will be used to extract brine during the Project's first stage of development. The main components of the Project include: i) a well field, together with its brine distribution system; ii) solar evaporation concentration ponds for halite and muriate salts; iii) a lithium carbonate equivalent (LCE) production plant; iv) harvested salt stockpiles; and v) ancillary infrastructure (camp, administrative and support buildings). All industrial process facilities and ancillary services will be located in the East of the Los Patos River alluvial cone within the company's mining easement and property.

In its first stage of development, the Project is expected to generate around 15,000 metric tonnes of LCE per year, which will be mainly exported to the European and U.S. markets, where lithium will be used as a key component in the manufacture of electric vehicle batteries.

02 Is the Project Paris Aligned?

The Project is considered Paris Agreement aligned based on an analysis conducted in accordance with the [IDB Group Paris Alignment Implementation Approach](#). Allkem has committed to decarbonise its overall operations and targets to reach net zero Greenhouse Gas (GHG) emission for Scope 1 and 2 for the group's own operations including all of Allkem's assets by 2035.

03

How will IDB Invest monitor this Project going forward?

Site visits will be performed on a bi-annual basis and with the support of an independent environmental and social consultant. The monitoring activities will be coordinated with other lenders.

04 What are the differences between freshwater, brackish water, saline water and brine?

It is generally accepted that:

Freshwater



is water that contains a very low concentration of TDS, (Total Dissolved Solids), usually less than 0.05% salinity.

TDS < 2,000 mg/L
or ppm

Brackish water



is a mix of freshwater and saltwater, with a salinity level higher than freshwater but lower than seawater. The salinity is typically between 0.05% and 3% and normally requires desalination for drinking or agricultural use.

Between **2,000 mg/L** and **10,000 mg/L**

Saltwater



is water that contains a high concentration of dissolved salts, with salinity around 3.5%, but it can vary depending on location and environmental factors. It is not suitable for drinking without desalination.

> 10,000 mg/L

Brine

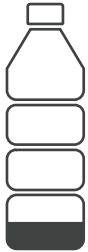


is a highly concentrated saltwater solution with a salinity level much higher than that of typical seawater, varying between 3% to 26% or even higher.

> 35,000 mg/L

There are no defined or absolute thresholds because these may vary depending on water availability or scarcity and the regional and local context from the users perspective.

05 How much water will the Project use?



Freshwater: No freshwater is or will be used in the Project. SdV will not extract fresh water directly from the Los Patos River or from any other superficial water body in the Salar del Hombre Muerto basin.



Brackish water: SdV will extract brackish groundwater from the shallow aquifer **(30-40m deep)** near Rio Los Patos. The Province of Catamarca has permitted the following extraction volume: **130 m³/hr**. Project will only use a fraction of the permitted amount: **75 m³/hr** of groundwater. The brackish water quality analysis indicates that the extracted ground water is not suitable for human consumption due to the high concentration of salts and metals (Arsenic, Boron and Sulfur).

It will be processed through a reverse osmosis plant to remove Total Dissolved Solids (TDS) and metals for domestic supply and for demineralized water required in the processing plant.



Brine: The process plant will require input of 864m³/day. The Project uses brine extraction from the deep aquifer underneath the Salar approximately 250-350 meters deep.

The brine is then stored in large ponds on the surface where a natural evaporation process increases the salt content and, correspondingly, lithium concentration.

06

How much water is lost in the evaporation process?

No freshwater is lost in the evaporation process. The ponds used to store and concentrate Lithium salts are filled up with brine (no freshwater is stored in these ponds). Solar radiation is used for brine evaporation.



Ponds used to store and concentrate Lithium salt and solar radiation for brine evaporation.

07

Will the Project's water needs compete with those of the communities?



View from inside of local house to Catamarca Province landscape.

There is no direct competition between Project and communities, since both target different water resources: The nearest community (Ciénaga Redonda) is located 8km from the Project and depends on different freshwater resources of a different water stream and basin. The Project targets brine as its resource and will also use relatively small quantities of brackish water from the Rio Los Patos shallow aquifer (30-40m deep).

Ciénaga Redonda main source of water is from a natural surface water source (rio La Redonda) and piped from the East (approx. 10 km) to the community. In other “puestos” (small rural settlements) that are relatively close to the Project, people sourced water for domestic and animal consumption from different surface water sources such as rivers and nearby vegas (wetlands), such as the Vega Parinayu, Vega Ciénaga Redonda and others.

08

What will be the Project's impact on the Salar's water resources?



Catamarca Province landscape, with local water resources near to Sal de Vida Project.

SdV's hydrogeologic surveys, studies, data interpretation and modeling to date indicate potential for limited impacts to shallow aquifers and surface water bodies as a result of brine extraction during the modeled timeframe of 40 years of operation.

The Salar del Hombre Muerto is an endorheic basin (closed water system). The hydrology of the salt flat is regulated by Los Patos River which creates the delta and braided streams that filter into the Salar. This river system feeds into Laguna Verde and Laguna Catal and also forms several wetlands ("vegas").

The potential effects (if any) on these features need to be monitored and, for that reason, the Water Studies Roadmap consider the development of an adaptative management plan for environmental protection.

The Water Studies Roadmap (WSR) will assess connectivity across aquifers and surface water features and provide assurance that any potential impacts on ground water resources and in turn on the biota and ecosystem services will be properly managed during the project life cycle.

09 What is the Water Studies Roadmap?

The WSR describes Allkem’s approach and planning to establish a wide-ranging water resource management strategy that will be progressively implemented during the development of the Project as data is generated from the well field and hydrogeological assessments and modelling work are updated.

The WSR includes 5 key studies and tools:

01

conduct ecological flow studies of the Rio Los Patos, the vegas and lagoons

02

update the water balance incorporating the effects of climate change over the life of the operation

03

update hydrogeological models to estimate effects on shallow aquifer and surface waters

04

develop a comprehensive surface and groundwater water monitoring program

05

design and implement an adaptive management plan for environmental protection

The implementation of the WSR will be verified by an independent auditor and the results will be publicly disclosed on an annual basis.

10

Is Sal de Vida monitoring surface and ground water? How does it work?

SdV has implemented an Environmental Monitoring Participatory Program to monitor both surface and ground water (quality and quantity). It is regulated by the competent authority, in which representatives from the communities assist and participate in the monitoring and review of the Project environmental impacts and the resulting management and control measures.

The water monitoring program initiated with the water baseline many years ago and it is under implementation and will be enhanced with the inclusion of some additional monitoring points, as part of the WSR. The monitoring activities will be verified by an independent auditor and the results will be disclosed to the general public annually.



Catamarca Province landscape, with local water resources near to Sal de Vida Project.

11 How will the Monitoring and Adaptive Management Plan work?

Monitoring: The monitoring program will be comprehensive and include surface and groundwater water monitoring. It will be designed to capture data to show effects of pumping brine and raw water for the process, including potential drawdown effects on shallow surface waters and areas of valued habitat. The monitoring will be participatory in nature, and will include water sources and extraction points

Adaptive Management: It will be an ongoing Management Plan for environmental protection on the basis of all the steps included in the Water Studies Roadmap, including the updated model and annual calibration. It will define “alert levels” to evaluate corrective changes when negative effects are predicted or observed. It will be an adaptive management tool because it evolves with the knowledge of the system, and with the monitoring of the natural environment and ecosystems.

The implementation of the WSR will be performed by Allkem’s technical team with the support of external consultants. It will be verified by an independent auditor and the results will be disclosed to the general public annually.

12 **Are there indigenous peoples in the Project area of influence?**

Allkem undertook a supplemental baseline Environmental and Social Impact Assessment (EIA) of the communities and hamlets in a 50 km radius of the Project. The supplemental social baseline determined that there are groups of people within communities (such as Ciénaga Redonda) who identify as indigenous Peoples (IPs) and members of an indigenous group – the Atacameños del Altiplano – that are in the process of submitting documentation to be formally recognized by the government.

The study included participatory community mapping to determine, irrespective of legally recognized land ownership, whether Project activities overlapped with community cultural, traditional, religious use of land and natural resources.

The mapping exercise determined that Project activities and facilities do not overlap with indigenous people's use of land and natural resources.

Moreover, the EIA determined that no material negative impacts to residents in the direct area of influence are anticipated, while multiple positive benefits (employment, increased access to health care, social investment in schools and productive activities) are expected to contribute to the areas' socio-economic conditions.

The presence of SdV will not limit the formalization of the Atacameños del Altiplano should RENACI* accept the community's petition.

Two other Indigenous organizations are present within a 50 km radius of the project, both formally recognized by the government of Argentina as Indigenous Communities, in the Salta region, North of the Project area: "Comunidad Andina de Santa Rosa de los Pastos Grandes" and "Comunidad Incahuasi Ratonés".

None of these communities will be directly impacted by the Project, other than through inclusion in social investment programs.



Sal de Vida lithium ponds at project location..

*Dirección de Tierras y Registro Nacional de Comunidades Indígenas (Directorate of Lands and National Registry of Indigenous Communities) - Is responsible for carrying out the National Territorial Survey of Indigenous Communities Program, through which the technical, legal and cadastral survey of the territory is carried out. In this Directorate, the National Registry of Indigenous Communities also operates, which allows communities to process their Legal Status.

13

Does Free, Prior, Informed, Consent (FPIC) apply to Sal de Vida?

Based on the social baseline and technical assessment studies done by expert third parties, including IDB Invest's due diligence, which included a site visit and interviews with community members and review of information provided by the Company, FPIC does not apply to this Project for the following reasons: i) the supplemental social baseline carried out indicated that the Project does not impact lands and natural resources currently subject to traditional ownership – one of the requirements for FPIC to apply; ii) there is no physical relocation of indigenous peoples from traditional lands; iii) there are no significant impacts on critical or cultural heritage or on land or resources that are used for cultural, spiritual or ceremonial aspects; and

iv) the Project will not make use of cultural heritage including knowledge or traditional practices for commercial purposes.

As per Performance Standard 7, the project will apply Informed Consultation and Participation (ICP) to the stakeholder engagement process throughout the life of the Project and will, in collaboration with Indigenous Peoples, if they wish, develop an Indigenous Peoples Framework (IPF) applicable to Indigenous People (formally recognized or not), self-identifying as indigenous or not, within a 50 km radius.

14 Are there social impacts expected from the Project?

The EIA determined that the Project would be able to limit adverse environmental and social impacts through adequate project design and implementation of appropriate mitigation measures.

The community mapping conducted in an area 50 kms around the Project site, determined that the Project's facilities and operations do not overlap with community land and natural resource use.

Some community members, however, remain concerned about Project impacts to superficial and shallow water sources, a concern that will be addressed through an adequate water management program and stakeholder engagement activities.



Sal de Vida Project site overview.

15 What social benefits are expected from the Project?

SdV currently employs 298 direct workers. Of these, more than 70% are from the Catamarca Province.

During the construction phase, SdV expects to employ up to 400 workers. Total operations' labor force is expected to be 150 people for 2 years post construction, rising to 178 for the remainder of operations. SdV anticipates that the majority of staff will continue to be from the area of influence.

Several social investment initiatives have risen out of the stakeholder engagement process including a commitment for local hiring, construction of a school cafeteria and health post (Antofagasta de la Sierra), and construction of a school building in Ciénaga Redonda. In 2021, 655 residents of the area of social influence received employment, provision of services, productive projects and health education training.

Sal de Vida has a number a social projects to support and improve living conditions in the area, which includes a Community Health and Wellbeing Program that provides support with primary and emergency health care, and an Infrastructure and Productive Projects Development Program, that includes the construction of sanitary units; the installation of solar water heaters; and the installation of Wi-Fi services.

Sal de Vida signed with IDB Invest an agreement for technical advisory services to develop a strategy to promote economic diversification, with a particular focus on tourism. The advisory services will include a i) diagnosis that considers the insights from women and indigenous communities, ii) a roadmap including recommended initiatives to promote economic diversification and partnerships needed; and iii) a capacity building plan.

16 **What consultation processes were carried out with civil society to ensure social compliance and sustainability?**

Meetings were held in Antofagasta de la Sierra, Ciénaga Redonda, and five other communities and included technical presentations. SdV has continued to engage communities in the area of direct social influence (Department of Antofagasta de la Sierra), including the communities of Ciénaga Redonda and the hamlets around the Salar.

Since 2020 more than 200 consultations were held. Based on these discussions, SdV has established written agreements with most communities in the Municipality of Antofogasta de la Sierra, including social investment (schools, clinics, educational programs, vocational training, and employment). To date, more than one thousand people have received vocational training.

Additionally, to be compliant with IFC's Performance Standards, SdV will apply an informed Consultation and Participation process (enhanced stakeholder engagement) to all residents within a 50 km radius of the Project to develop an Indigenous People's Framework for all peoples willing to participate in the same area.

17

What type of habitats are affected by the Project's footprint?

Based on the Offset Feasibility Study prepared by Allkem, the Project has a direct footprint of 888 Hectares (Ha) of which the majority are located within the Salar, with little to no vegetation cover. The remaining 13Ha are located in a vegetated area with scattered shrubs. There will be no direct footprint of the Project in lagoons, wetlands ("vegas") or the Los Patos river.



Catamarca Province landscape, with habitat near to Sal de Vida Project.

18

What are the alternatives being defined for the environmental offset?

The Offset Feasibility Study prepared by Allkem has considered interventions of different kinds, both “restorative” (i.e. improving current state of the habitats) and of “adverted lost” (i.e. preserving threatened habitats).

The offset alternatives are still under evaluation but as of now the most reliable, is a “restorative offset” within the client’s concession. This maximizes the chances of success, since the area will be under the direct control of Allkem.

This offset would restore salt pan habitat that has been impacted by previous operators and past activities and will improve water flow from Rio Los Patos into the Salar’s inner lagoons (especially Laguna Catal).

The restored water flow is expected to benefit the critical habitat and natural habitat values associated with the lagoons.

The offset feasibility study has also identified additional conservation actions that aim at collaborating at regional level to monitor the critical habitat species and at catchment level to develop a system to monitor cumulative impacts to freshwater.



Sal de Vida Project infrastructure at project location.

19

What are the mitigation measures being planned for Sal de Vida with respect to biodiversity?

The Project's infrastructure has been situated to avoid areas of biodiversity value. The Restoration Plan will include methods for soil restoration and revegetation (if it is needed). Targets and metrics will be developed by a botanical specialist.

Allkem will restore a previous system of culverts to ensure there is no alteration of the water flow dynamics in the Salar.

SdV will conduct additional studies as part of the Water Studies Roadmap, which will include ecological flow studies to ensure that water levels are sufficient to sustain the ecology of flora and fauna within the area of influence of the Project.

20

How cumulative impacts will be managed in the Salar del Hombre Muerto?

The Project has conducted a Rapid Cumulative Impact Assessment (RCIA) to assess if the combined impacts from SdV and other projects and activities in the Salar could adversely affect Valued Environmental and Social Components and to determine corresponding mitigation and management measures.

SdV will incorporate the recommendations derived from the RCIA into the Project's Environmental and Social (E&S) management plans and procedures. This will ensure that existing management and monitoring programs are updated to incorporate provisions within Allkem's scope and responsibility.

Such recommendations will be subject to review and discussion with IDB Invest as part of the Project supervision. Sal de Vida has also agreed to participate in future sector and regional working groups focused on cumulative impact management. Moreover, in addition to the activities that will be developed at the Project level, there are technical cooperation activities being carried out by the IDB Group in the provinces of Catamarca, Jujuy and Salta that support the review and improvement of legal frameworks and administrative procedures, transparency and access to information, education and capacity building on mining issues, and related multistakeholder engagement platforms.

Looking ahead, the IDB Group is exploring a potential broader engagement with these Provinces to support initiatives and technical studies related to sustainability in the lithium mining industry, particularly in areas related to water, communities, biodiversity, and cumulative impacts.