

# EMBASSY OF INDIA SANTIAGO CHILE

Survey of Lithium Market - Chile  
(March 2019)

Commissioned from Mr. Sandeep Wasnik  
on behalf of the



सत्यमेव जयते

Economic Diplomacy Division  
Ministry of External Affairs



# Introduction of report

## Survey of Lithium Market - Chile

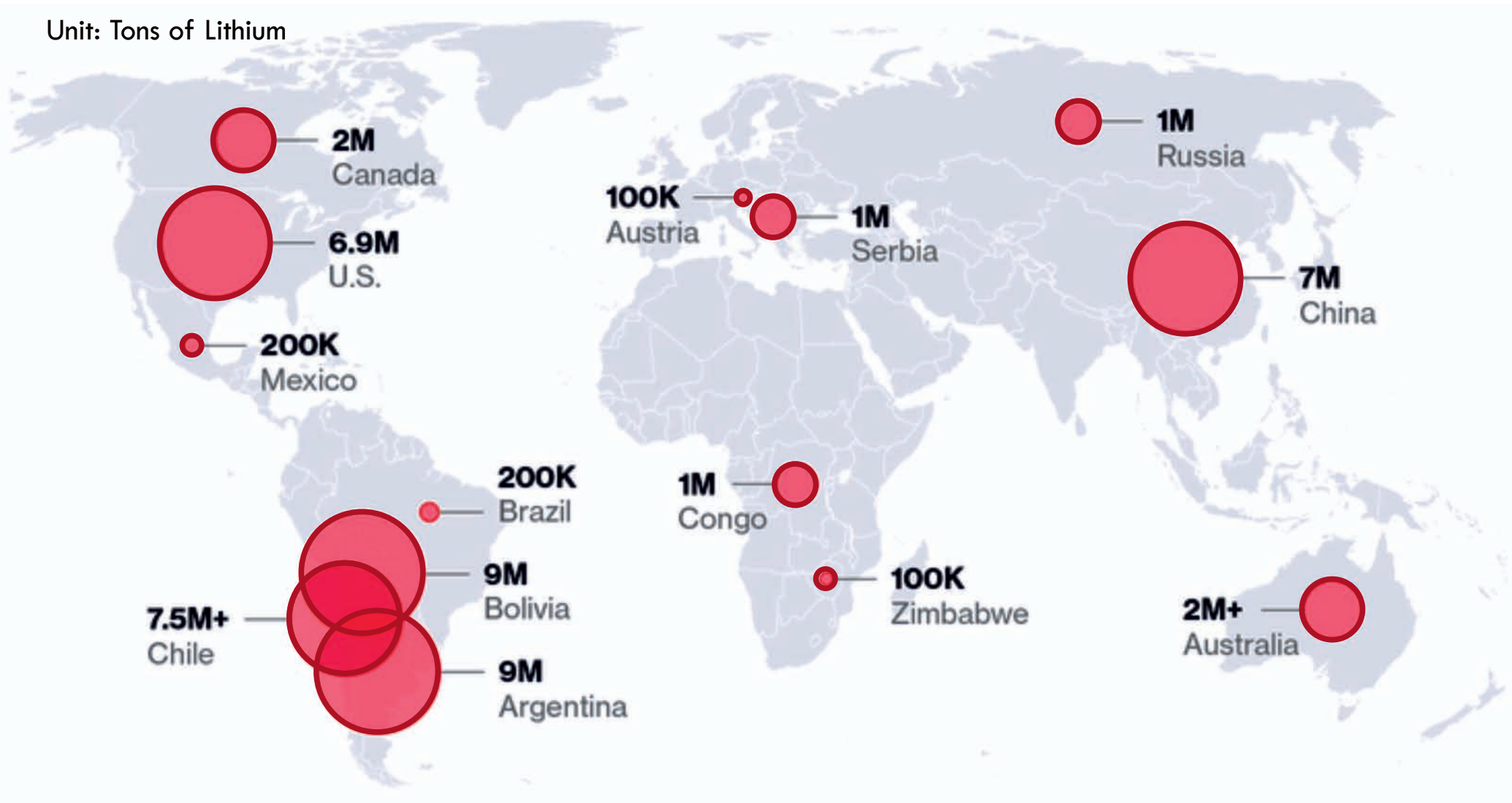
This market survey aims to provide relevant information on the Lithium Minerals and Mining in Chile so that Indian investors and importers may get a deep understanding of it and may also develop and execute a successful market entry into Chile.

The survey includes quantitative information such as Geography of Lithium availability, Lithium market size, Indian imports and Chilean exports statistics, Demand and Supply, Lithium Process, Reserves and Resources, Companies, Government bodies of Lithium Minerals and Mines and other data

# World Resources and Lithium Reserves

Nearly 70% identified resources of Lithium Minerals in South America

Unit: Tons of Lithium



Source : Atlassons Business Services Private Limited

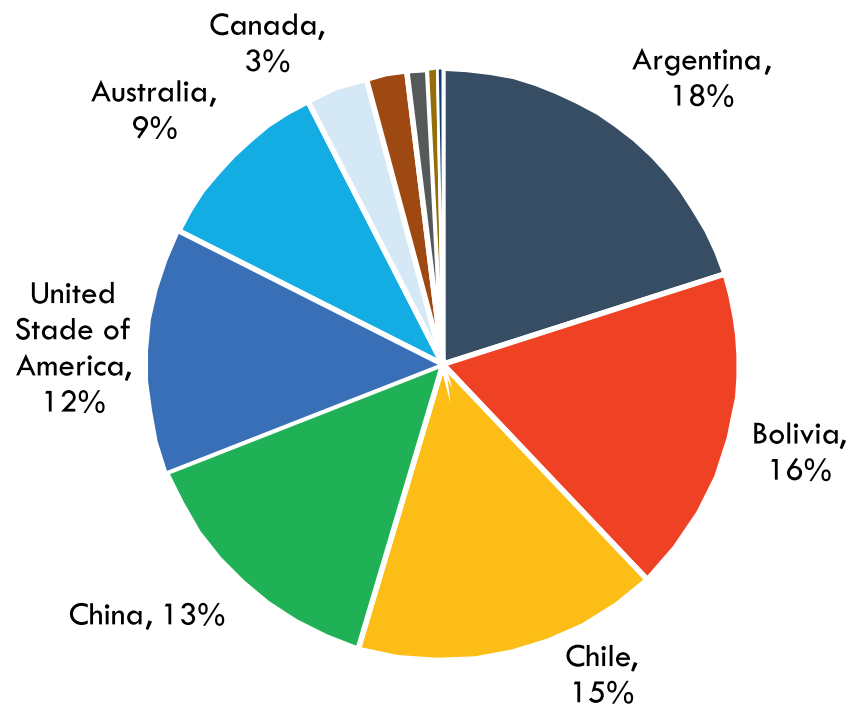
# World Resources and Lithium Reserves

## Role of South America

Update reserves and resources data of 2018 of the world.

- Argentina has the largest lithium resources in the world, due to the high exploration activity that has explored in recent years.
- Bolivia is still not considered part of the lithium reserve, only as part of the resource.
- Chile has 48% of the total lithium reserves in the world, contained mostly in the Salar de Atacama.

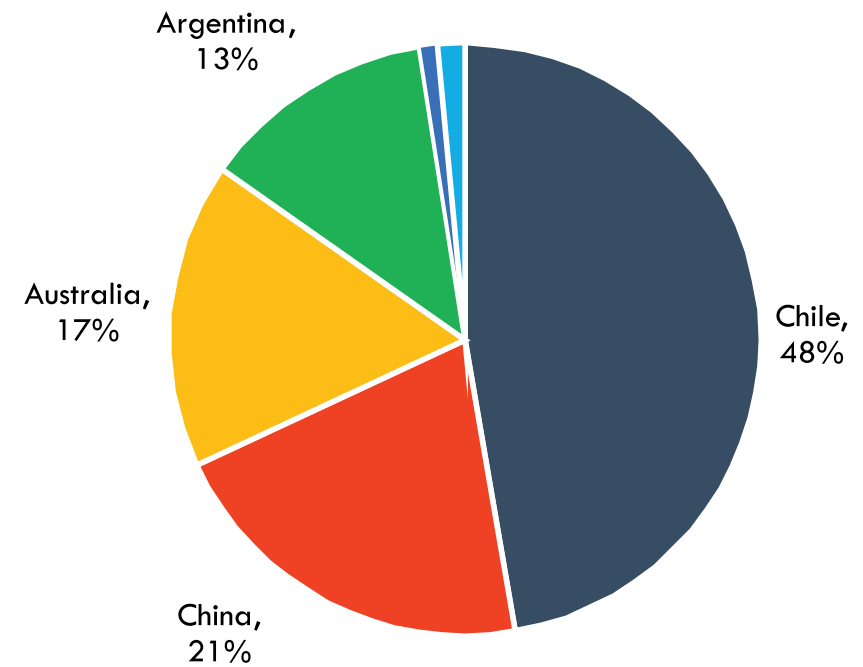
Lithium Resource (2018)



55 Million tons of Lithium

Source : Atlassons Business Services Private Limited

Lithium Reserves (2018)



16 Million tons of Lithium

# Lithium Triangle

Bounded by the Salar de Atacama, Salar de Uyuni and Salar del Hambre Muerto

In South America, the “Lithium Triangle” is located on the borders where Chile, Bolivia and Argentina meet. Bounded by the Salar de Atacama, Salar de Uyuni and Salar del Hambre Muerto, the Lithium Triangle also takes in the northern ends of Chile and Argentina. Over 70% of the World's economic lithium deposits are found in this one small location on Earth. As a result, these three countries dominate world lithium supplies thanks to the tectonic forces that shaped the South American continent. Geological subductions of the Pacific tectonic plate under the Chilean coast, together with the resulting tectonic uplift of South America, created large localised depressions which cause water to collect into lakes, instead of flowing into the sea. The lithium salts that dissolve out of the surrounding rocks gather in these great lakes.



Source : Atlassons Business Services Private Limited

The three countries, Chile, Argentina and Bolivia have not been equitably eager to take advantage of the opportunity. Chile one of the richest sources of high-grade, low-cost lithium in the world, has a head start. Argentina, on the other hand is stepping up to make up for lost ground, while Bolivia has scarcely started to capitalize on them. These differences prove how the South American trio approach both investment and enterprise differently. The trio faces an intimidating challenger in Australia, where lithium is extracted from hard-rock mines and then shipped to China for processing, but the investment conditions are cordial.



# Lithium Triangle

Argentina, Bolivia and Chile have the largest lithium resources in the world.

Data Comparison of South American Salares in the Lithium Triangle (Salar de Atacama, Salar de Uyuni and Salar del Hombre Muerto)

COUNTRIES (Lithium Triangle)	BOLIVIA	CHILE	ARGENTINA
Salar Name	Uyuni	Atacama	Hombre Muerto
Altitude (km)	3.7	2.3	4.3
Area (km2)	8,000	3,000	570
Li Concentration (%/wt)	0.0350	0.1500	0.0620
Mg/Li Ratio	18.6	6.4	1.4
Evaporation (mm / Year)	1,500	3,200	2,300

More than 50% of the world's lithium production is produced in Chile and Argentina.

- Bolivia - YPB, Uyuni
- Chile - SQM, Salar de Atacama, Albemarle, Salar de Atacama and Codelco Project (Maricunga)
- Argentina - FMC, Salar de Hombre Muerto, Orocobre, Salar Olaroz and New projects: LAC + SQM (Cauchari), Galaxy (Sal de Vida), among others.

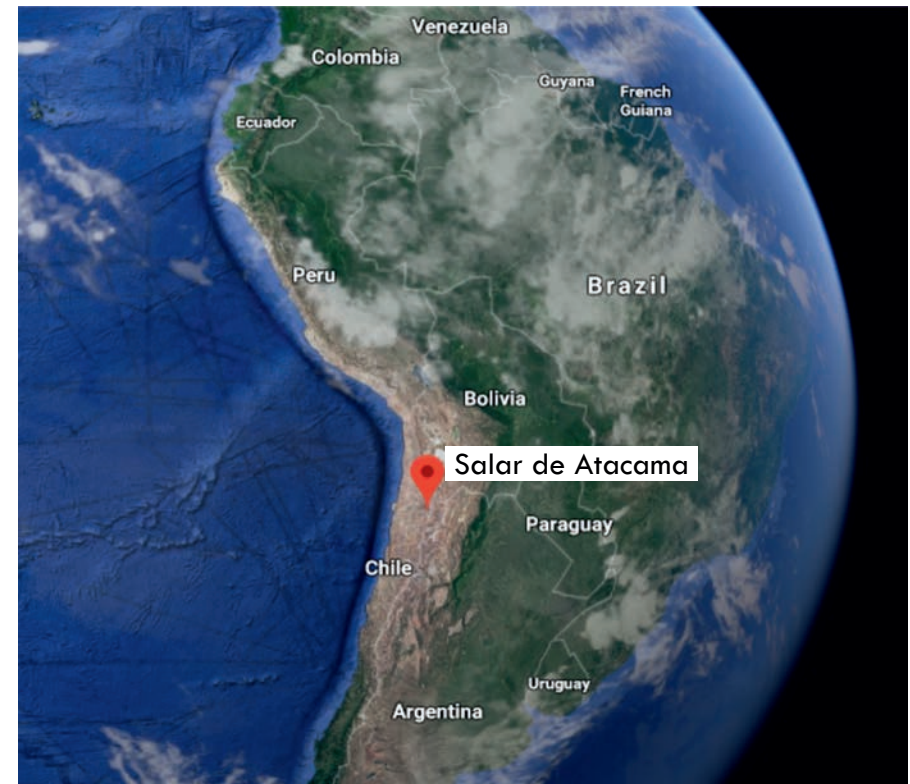
# Chile

## Salar de Atacama

Chile is the world's most endowed country of lithium reserves. It has a reported 7.5 million tonnes in reserves, of which 6 million tonnes come from Salar de Atacama, a large salt flat located in northern Chile. The Atacama salt flat contains the world's richest lithium-brine deposit.

The Salar de Atacama, in northern Chile, is a 3,000 km-sq. desert salt basin and the world's largest producer of lithium. Two companies, Sociedad Quimica y Minera (SQM) and Rockwood Holdings Inc., extract lithium from this brine. SQM has a claim of nearly 820 km-sq. and two operations in the nucleus. It currently produces lithium from its South-Western operation. Rockwood has a claim of nearly 137 km-sq. and one operation in the south-east, part of which is devoted to lithium extraction. A buffer zone of around 100 km-sq. separates the two companies' claims.

Atacama's salt nucleus, in the southern half of the Salar, is a layer of halite (salt) with an area of around 1,400 km-sq. and a thickness of around 360 meters in the centre of the basin. In the uppermost 30 to 40 meters of the halite layer, there are abundant pores between the halite crystals. This porous zone is referred to as an aquifer, and it contains a very saline solution (brine) that contains from 900 ppm to 7,000 ppm of lithium, the world's highest known concentrations in brines of this type. Brine outside of this nucleus has lower but still important concentrations of lithium, up to 1,000 ppm (parts per million). Recent estimates for reserves of lithium in the aquifer range from 1.0 to 7.25 Mt. Tahil estimates that the aquifer contains 1.0 Mt of lithium. SQM estimates that their claim contains 6.0 Mt of lithium reserves. Including SQM's and Rockwood's claims, the buffer zone, and a portion of the area to the north of the nucleus containing 400,000 tonnes of lithium, Evans estimates that the Salar contains a total of 7.0 Mt of lithium reserves. Yaksic and Tilton also accept this estimate. Clarke and Harben have a slightly higher value of 7.25 Mt but provide no information on why they increased the estimate.





# Lithium brines in Salar De Atacama, Chile

General Overview of Salar De Atacama, Chile, Showing Centripetal endoreic drainage



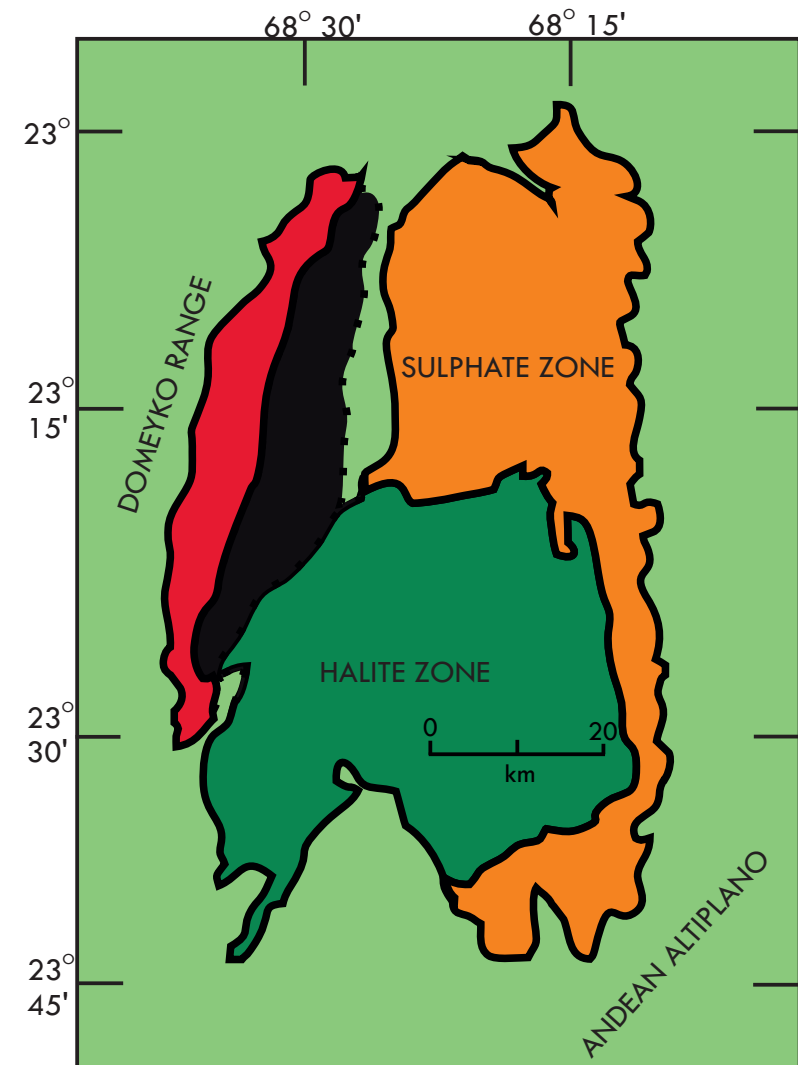
Source : Atlassons Business Services Private Limited



## Lithium brine in Salar De Atacama, Chile

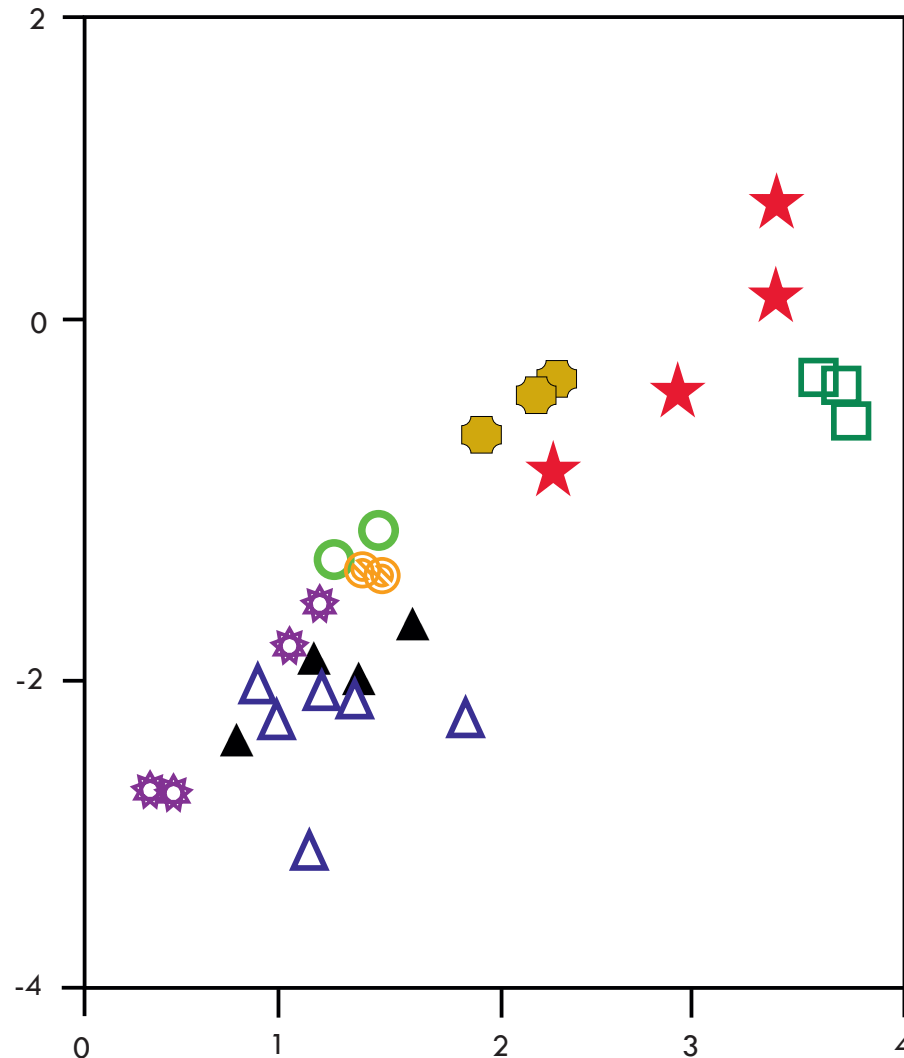
Surface geology showing nearby Neogene evaporite outcrops in the Cordillera de la Sala

Salar de Atacama lies on the Tropic of Capricorn at an altitude of 2,300 m in the Desierto de Atacama, some 200 km inland from Antofagasta. In its more central portions this salt-encrusted playa contains a massive halite unit (nucleus) that is more than 900 m thick, with an area  $\approx 1,100 \text{ km}^2$ . Fringing saline muds, with an area  $\approx 2,000 \text{ km}^2$ , surround the nucleus. Salts dissolved in inflow waters have a double origin. Weathering of volcanic rocks supplies K, Li, Mg, B and, to a lesser extent, Na and Ca. Leaching of ancient halokinetic evaporates sourced in a mother salt layer beneath and piercing the volcanic formations provides additional amounts of Na, Ca, Cl,  $\text{SO}_4$  to the most saline inflow waters. The mass-balance of the upper halite nucleus in the salar shows a strong excess of NaCl with respect to the bittern solutes Mg, K, Li, B. According to Alonso and Risacher (1996), this suggests that the nucleus did not originate from evaporation of inflow waters similar to the present groundwater. Rather, the excess of NaCl is due to NaCl-rich inflow waters that formerly drained the Cordillera de la Sal, a Tertiary-age evaporitic ridge along the western rim of the present-day salar.











# Lithium brine in Salar De Atacama, Chile

## Lithium content of wells in the halite nucleus and other nearby brine sources



The current salt crust atop this halite nucleus contains a sodium chloride interstitial brine that is rich in Mg, K, Li, and B (Alonso and Risacher, 1996). Lithium contents of the pore brine range from 200-300 ppm in the marginal zone, some 500-1,600 ppm in the intermediate zone and 1,510-6,400 ppm in the salt nucleus). The nucleus zone averages 4,000 ppm lithium and is asymmetric with respect to the salar centre due to the sump offset via ongoing faulting. Main inflows to the salar drain volcanic formations of the Andean Highlands located to the east of the basin.

-  San Pedro River and Tributaries
-  Vilama River and Tributaries
-  Tatio Geyser
-  North-eastern Inflows
-  South-eastern Inflows
-  Atacama and Marsh
-  Artesian Well
-  Llano de la Piedad salar

# Chilean Resources and Reserves

## Other Resources and Reserves of Lithium in Chile

In Chile, lithium is a strategic mineral of national interest, whose property is exclusive to the State, as established in Decree No. 2886 of the year 1979. Its property is under the control of three state institutions:

The Corporation for the Promotion of Production (CORFO) in the Salar de Atacama, Antofagasta region, the Copper Corporation (CODELCO) in the Salar de Pedernales and Maricunga in the Atacama region and the National Mining Company (ENAMI) in the Salar de Aguilar in the same region.

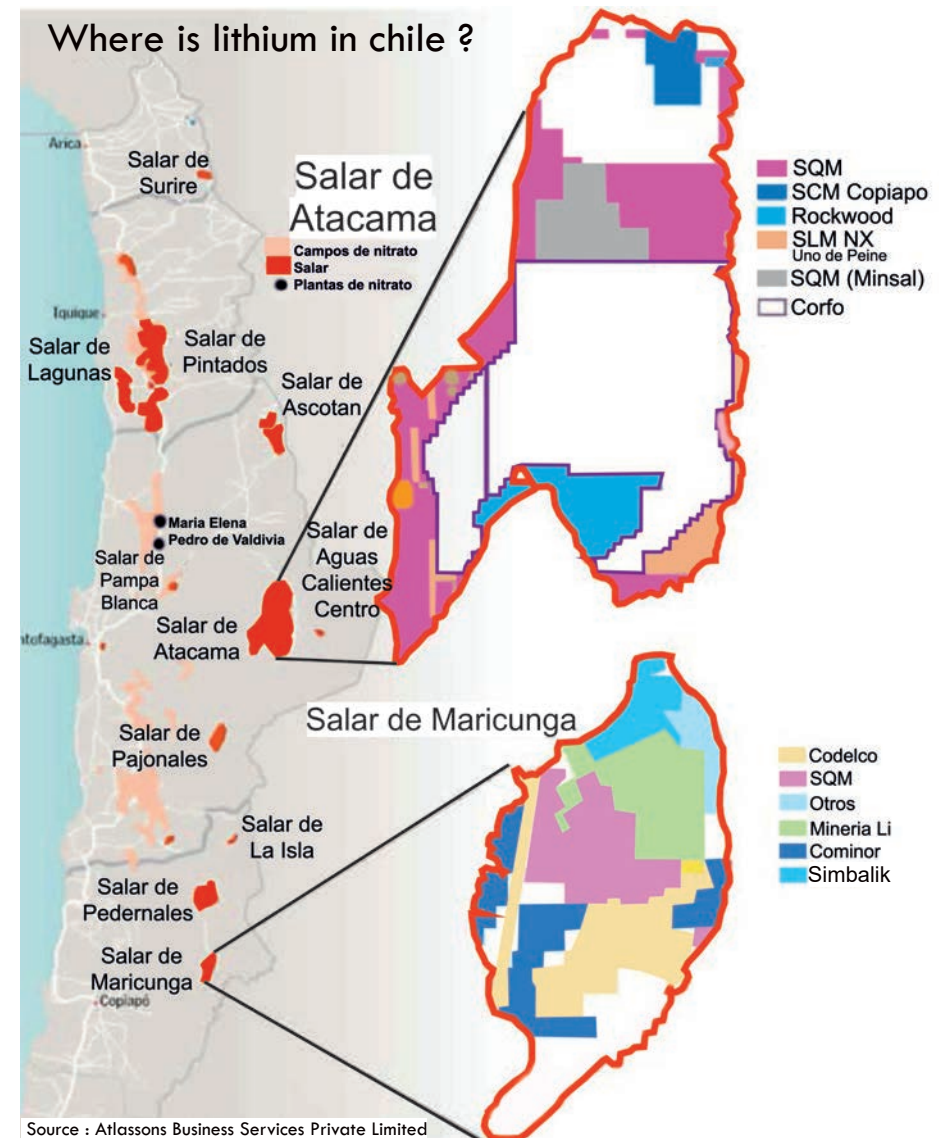
These institutions directly deliver special lithium operation contracts (CEOL) or administrative lease contracts for the extraction of certain amounts in a given period of time to private companies.

Main deposit is the Salar de Atacama

- SQM and Albemarle extract brines from the Atacama salt flat.
- SQM produces lithium hydroxide carbonate.
- Albemarle produces lithium chloride and lithium carbonate.
- Maricunga is the second best salt in Chile after Atacama.
- Codelco developing project, in the search for a partner.

Problems:

- Atomised Property
- High calcium
- Difficulty in evaporation





# Chilean Resources and Reserves

## Resources and Reserves of Lithium in Chile

Two companies currently operating in Chile Lithium: SQM is Chilean and Canadian capital located extraction in the eastern sector of the Salar de Atacama (San Pedro de Atacama, Antofagasta Region). Last year SQM had authorized extraction fixed 180 thousand tons of lithium metal equivalent (LME) valid till 2023.

After much controversy with CORFO by constant breach of contract, tax fraud and payment of fraudulent ballots to numerous parliamentarians and other government authorities, in January 2018 the mining company reached a controversial agreement with such public agency authorizes an expansion of no less than 349,553 tons of equivalent lithium metal (LME) until 2030, which translates to approximately 950,000 tons of lithium carbonate equivalent (LCE).

This authorization may be change because there are resources protection by Atacameñas communities. Because of this there must be full approval of The Comptroller General of the Republic and the Chilean Nuclear Energy Commission (CCHEN) to give effect to these exports. In this regard, the 2021 production of 147 thousand tons of LCE counting the current production of Albemarle and SQM in quantifying the new authorization to SQM that is still in process (COCHILCO 2017).

American mining Albemarle (ex Rockwood and former Chilean Society of Lithium, SCL) is also exploiting lithium in the Salar de Atacama and has its tasks in the southeast sector of the salar. Albemarle is authorized for fixed quota of extraction of 200 thousand tons of LME til the year 2043 but in 2017 it signed a new agreement with CORFO, authorizing a tripling of production going to produce 26,000 to 82,000 tons per year lithium salts of technical grade and battery grade (or battery grade lithium carbonate

Moreover, in the Northern sector of the same Salar exist exploration projects lithium Canadian Wealth Minerals Company, and in the Atacama region are undergoing the necessary preparations to begin the exploitation of lithium in the Salar de Pedernales and in Siete salares , where they have the projects of Talison mining and Wealth minerals group.

These salt flats projects are owned by state mining company CODELCO and ENAMI (Salar de Aguilar), which are conducting biddings to start the joint exploitation of mineral.

# Companies active in Chile

## Companies involved in Lithium Projects in Chile

### Companies active in Chile

➤ Albemarle Litio Ltda.  
Isidora Goyenechea Nro. 3162  
Oficina 202, Las Condes,  
Santiago de Chile, Chile  
Phone: +56-55-2351008  
Website: [www.albemarlelitio.cl](http://www.albemarlelitio.cl)  
Email: [invest@albemarle.com](mailto:invest@albemarle.com)

➤ Rockwood Lithium  
Isidora Goyenechea 3162, of 202  
Las Condes, 6500786, Chile  
Telephone: 56 55 235 1008  
[www.rockwoodlitio.cl](http://www.rockwoodlitio.cl)  
E-Mail:  
[maria.carrasco@rockwoodlithium.com](mailto:maria.carrasco@rockwoodlithium.com)

➤ Lomiko metals inc  
7184 120th Street  
Suite 439, Surrey, BC V3W 0M6  
Canada  
Phone: 604-729-5312  
[www.lomiko.com](http://www.lomiko.com)

➤ Li3 Energy, Inc.  
Matias Cousino 82 Oficina.  
Santiago 802, Chile  
Telephone: 56 2 2206-5252  
Website: [www.li3energy.com](http://www.li3energy.com)  
Email: [jsilber@kcsa.com](mailto:jsilber@kcsa.com)

➤ Sociedad Quimica y Minera  
El Trovador 4285, 10th Fl.  
Las Condes, Santiago, Chile  
Tel: 56 2 2 425 2000  
Website: [www.sqm.com](http://www.sqm.com)  
Email: [contacto@sqm.com](mailto:contacto@sqm.com), [ir@sqm.com](mailto:ir@sqm.com)

➤ Talison Lithium Ltd  
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Website : [www.talisonlithium.com](http://www.talisonlithium.com)  
Email: [perth@talisonlithium.com](mailto:perth@talisonlithium.com)

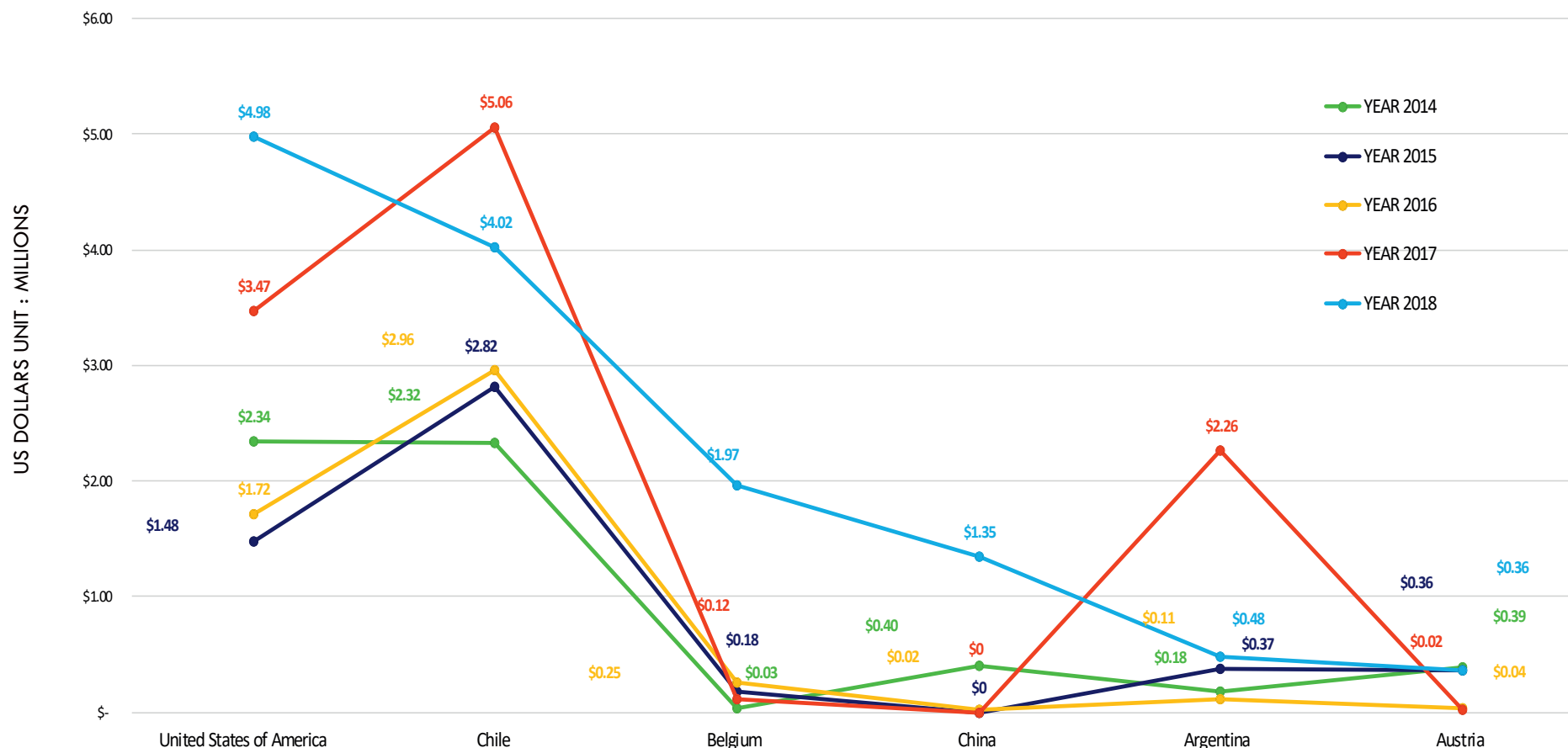
➤ Sociedad Chilena del Litio  
Ltda.  
Panamericana Norte KM 1357  
La Negra, Antofagasta, Chile  
Telephone : 56 5 535 1013  
[www.chemetalllithium.com](http://www.chemetalllithium.com)

➤ Lithium Power International  
Av. El Golf 40, Piso 20,  
Santiago, Chile  
Website: [www.ithiumpowerinternational.com](http://www.ithiumpowerinternational.com)  
Email: [info@lithiumpowerinternational.com](mailto:info@lithiumpowerinternational.com)

➤ Wealth Minerals Chile Spa  
Pedro De Villagra 2351  
Vitacura, Santiago Chile  
Telephone : Toll-Free: 1-888-331-0096  
Website : [www.wealthminerals.com](http://www.wealthminerals.com)  
Email : [info@wealthminerals.com](mailto:info@wealthminerals.com)

# Import of Lithium Carbonate

India Import Lithium Carbonate (HS Code : 28369100) from the world



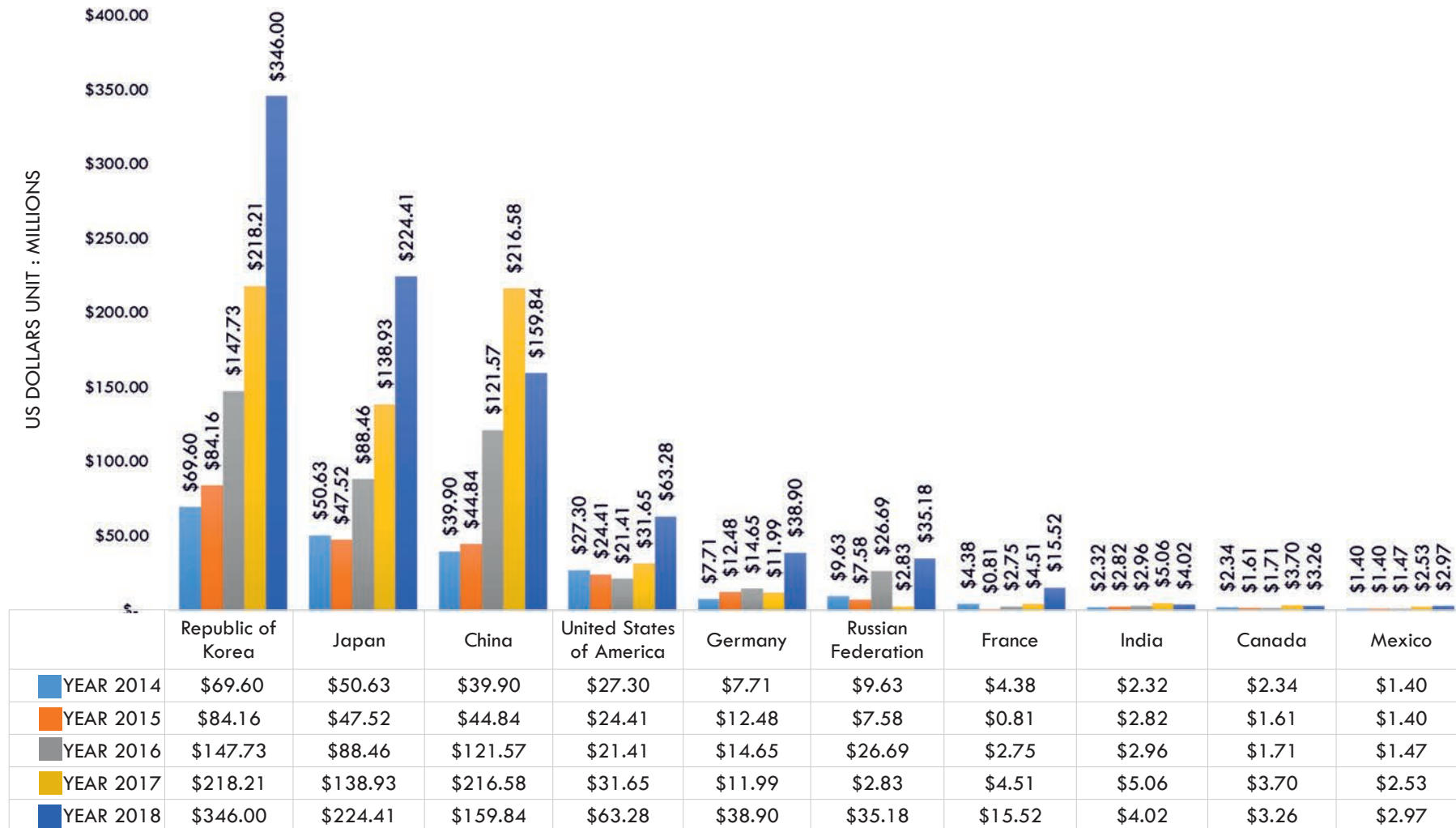
Source : Atlassons Business Services Private Limited

India import Lithium carbonate (HS Code : 28369100) from the world of \$ 14.504 Million in 2018. Where United States of America was the top exporter and Chile was the second top exporter for the india in 2018.



# Export of Lithium Carbonate

## Chile Export Lithium Carbonate (HS Code : 28369100) to the World



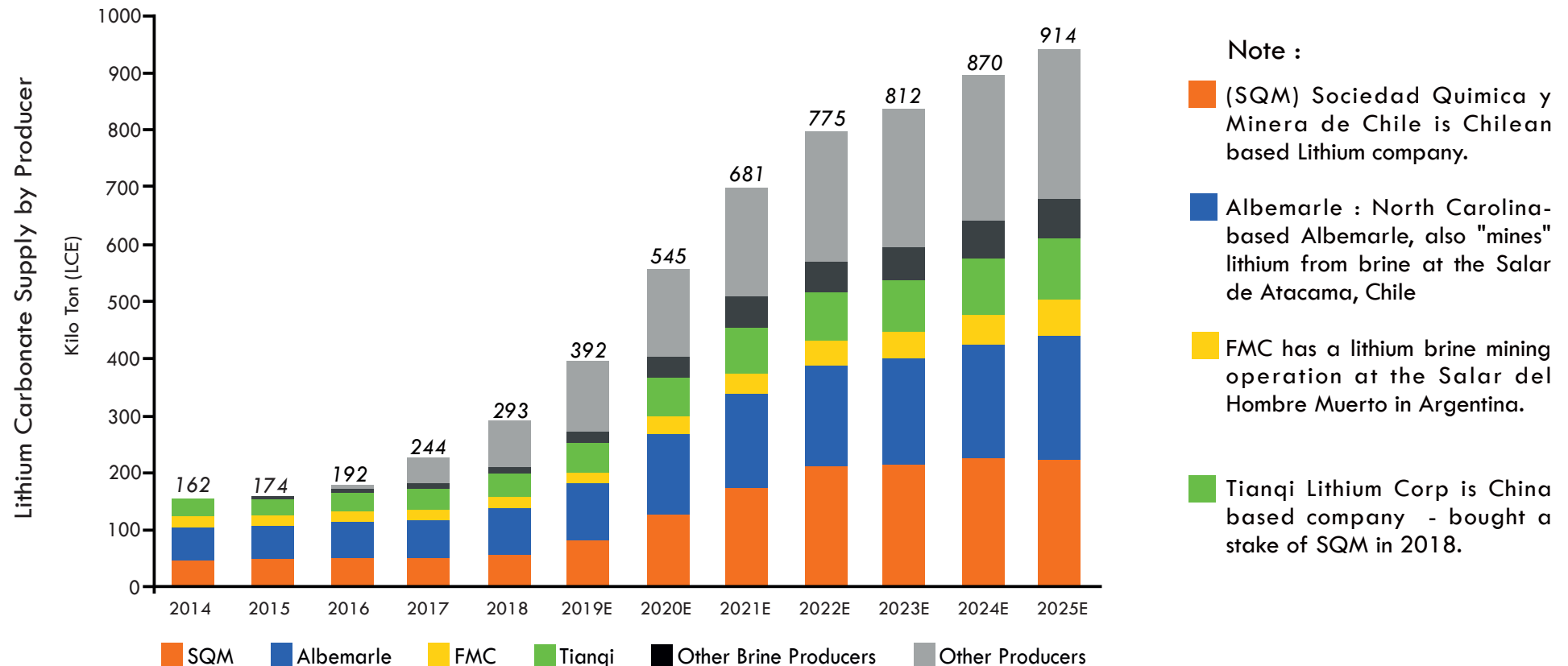
Source : Atlassons Business Services Private Limited

Chile Export Lithium carbonate (HS Code : 28369100) to the world of \$ 896.353 Million in 2018. Where Republic of Korea was the top importer, Japan was the second top importer and China was the third top importer in the world.

# Lithium Supply by Producer

## Lithium minerals continues to shine

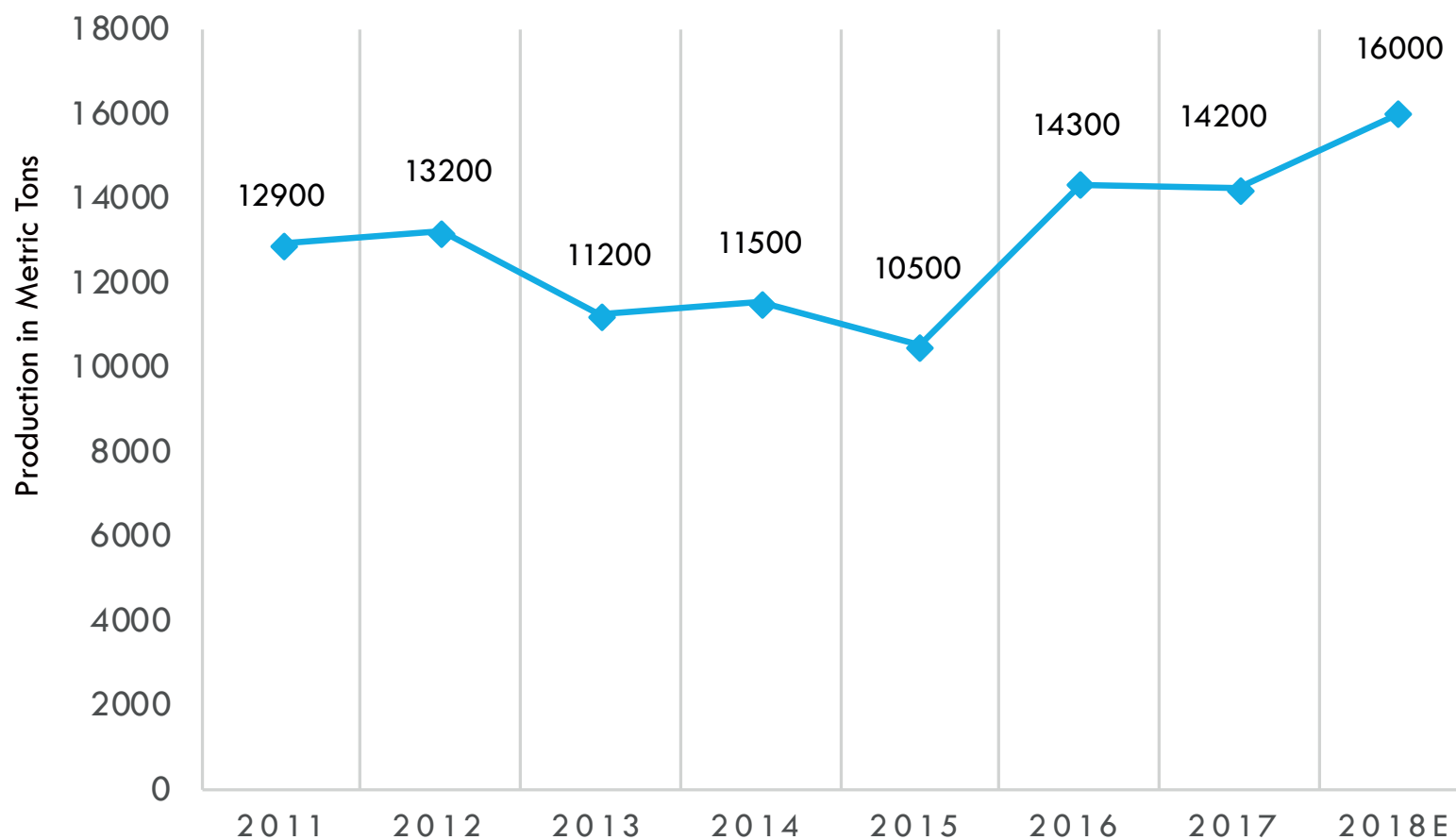
Lithium minerals continues to shine, with demand from companies that produce batteries to power electric cars, laptops and other high-tech devices, expected to increase 650% by 2027, with overall lithium demand forecast to rise more than threefold over that period, a new study shows. While the next nine years will drain less than 1% of the reserves in the ground, battery makers will need more lithium to support their production, which will boost demand for the key metal almost 16% to reach 1 million tonnes, expected supply is far from the astronomical figure forecast by the research firms and expecting between 80,000 and 91,500 tonnes of lithium coming from mines by 2025.



# Lithium Production

## Lithium Mine Production in Chile

Lithium mine production in Chile from 2011 to 2018. It has been estimated that some 16.0 thousand metric tons of lithium were produced in Chile in 2018



Source : Atlassons business services Private Limited



# Social, Environmental impacts and Conflict

## Social, Environmental impacts and Conflict of lithium mining in the Salar de Atacama

In the communities of Atacama salar water supply is a constant problem. This is due to water stress generated by the indiscriminate exploitation of their sources (mainly mining) and excessive delivery of water rights over the recharge capacity of the basin and flows of small rivers in the area.

The major socio-environmental impact of mining lithium lies in the indiscriminate consumption of water for evaporation of brines and production of the necessary tasks. Given that the Salar de Atacama is one of the regions of greater aridity worldwide, the Atacama Desert, the large-scale extraction of water and basic processing of lithium brines generates severe damage to fragile ecosystems that they depend on these sources.

Conflict is the Collective Chañar of San Pedro de Atacama, a small organization formed by some young Lickanantay, people linked to tourism and other people who have been articulated almost two years ago in defense of the Salar de Atacama by indiscriminate exploitation of mining in the basin of it, and those who participate in the various actions in resistance that have emerged in the area. They maintain good relations with the other organizations mentioned, but maintain a strong social and environmental speech against lithium mining denouncing the strong impact has left on the salar and their communities.

The Tanti Foundation is an organization formed a year ago by members of the Chañar group that is dedicated to promoting agro-ecology and sustainability in San Pedro de Atacama, manages projects with government and external sources for activities in San Pedro Atacama, and he has supported the mobilizations against mining in the area, part of another application for protection from environmental damage salar against the recent agreement between CORFO and SQM to expand quotas extraction of lithium, which is also found in Procedure.

Meanwhile, mining companies SQM and ALBEMARLE are directly involve so far in the conflict by lithium mining, so both corporations have established strong policies of corporate social responsibility in the locations of the salar.

# Lithium regulation in Chile

## Regulatory framework of Lithium regulation in Chile

- Decree Law 2,886 of 1979 two changes to the current system
  - Establishes the State's reservation on lithium given its strategic nature.
  - Requires the authorization of the CChEN for the exploitation of lithium . (Natural atomic materials and lithium) shall not be subject to any kind of legal acts but when they run or held by the Chilean Nuclear Energy Commission by this or prior authorization.
- 1983: Organic Law of Mining Concessions enters into force and the new Mining Code that ratified the 1979 decree, adding lithium as non-concessible substance, with the exception of mining concessions validly constituted prior to this law:
  - CORFO's belongings in the Salar de Atacama.
  - Ana María belongings in the Salar de Pedernales in CODELCO domain.
  - Furthermore it establishes the grantable mineral reserves can be exploited by notifying the authority of the existence of the non-concessible mineral.
- Therefore, exploration / or exploitation of lithium may only be exploited / or executed by the state directly, by state enterprises, through administrative and mediante special operating contracts concessions with the requirements and conditions as the President of the Republic determined, in each case by a supreme decree.

# Lithium regulation in Chile

## Production companies of Lithium regulation in Chile

### ➤ Chilean Society of Lithium (SCL):

- 1980: Corfo (45%) and Foote Mineral Co. (55%) form SCL
- 1989: Corfo sold its stake to Foote Mineral Co.
- Contract Property: 3,343 hectares, plus free strip of 1,370 hectares..
- Authorized in the original contract production: 200,000 tons like Lithium
- indefinite, renewable of contract every 5 years.
- Lithium products do not have to pay lease rate.

### ➤ SQM

- 1986: Corfo (25%), AMAX (63.75%) and Molymet (11.25%) are MINSAL Ltd.
- 1992: Acquires potasios SQM AMAX and Molymet.
- 1995: SQM buys Corfo
- Contract belongings: 16,483 hectares, more than 11,670 guard area.
- Authorized in the original contract production: 180,100 tonnes of Lithium.
- Contract Term : 2030
- Lithium products pay fixed rate of 6.8% on the selling price.

# Lithium regulation in Chile

## CEOL - Presidential Commission of Lithium regulation in Chile

- In 2012 the Chilean Government carried out bidding process by 100,000 tons of Lithium in 20 years, in a sealed envelope, which won by SQM but later declared null and void.
- The President Bachelet formed in of June, 2014 on Presidential Commission of Lithium.
- Principal recommendations:
  - Maintain non-concessionable lithium status (for sensitive environments).
  - Mandate CODELCO for the development of Maricunga project with partners.
  - Creation of governance Salares
  - Creation of a state company in Chile

# Government policies

## CORFO New contracts in Salar de Atacama

- Albemarle :
  - Albemarle signed New contract in 2017
  - End in year 2043
  - Lithium production quota expansion will increase from 1 25,000 to 1 40,000 tonnes per year of (LCE) Lithium Carbonate
  - Lease progressive rates depending on the sales price
  - Sales of 25% of production at preferential prices
  - Contributions to communities.
  
- SQM : January 2018 conciliation / arbitration Term
  - New contract in 2018
  - End in year 2030.
  - Expansion share of lithium production will be 349,553 tons of lithium. (additional of remaining 64,816 tons of Li): Both quota are equivalent to 2.2 million tonnes LCE.
  - Contract progressive rates depending on the sale price
  - Sale of 25% of production at preferential prices
  - Contributions to communities
  - Marketing ban lithium brine



# Investing in Lithium

## Investment in Chilean Lithium

- Chile is the most favourable mining jurisdiction in South America and is highly attractive to foreign mining companies for a number of reasons.
  - Country has stable legal framework and transparent mining code which facilitates low-cost acquisitions and streamlined process for moving projects through exploration and development.
  - Country is also home to a highly skilled labor force which includes mining specialists with deep knowledge of the industry.
  - Recently, President has brought about the lifting of that restriction with the issue of the first new lithium production and export licenses in years alongside other more Pro-Mining changes to mining regulations including permitting. For an example, Chilean government granted such a license to Minera Salar Blanco (MSB), a joint venture between Lithium Power International (ASX: LPI) and Bearing Lithium (TSXV: BRZ) for the Maricunga project.
  - Investment in Chilean projects has been modest due to licence concerns regarding the export of lithium from Chile. With new extraction and export licence, the Chilean government is signalling the end of those obstacles.
  - Encourage other international developers into the under-explored but highly prospective region in Chile, home to half of the world's known reserves of the metal that is in hot demand for batteries grade Lithium.
  
- Chile plans for the revamping of lithium industry :
  - Chile's plans for the revamping of its lithium industry extends beyond just the mining of battery materials and to the production of the batteries themselves.
  - Announced plans to develop a domestic downstream lithium processing and battery industry.
  - Corfo has approved a total of \$754 million in proposed lithium industry investments by companies from Chile, China and South Korea.
  - Chile's own Molymet and China's Sichuan Fulin Industrial Group (a Joint Venture with South Korea's Samsung SDI Co Ltd and POSCO) won technology development contracts with the potential to produce a total of 58,000 tonnes of cathode each year by 2020.
  - Chile is working to develop and expand not only its lithium mining industry but its battery industry as well, presenting wide open opportunities for lithium companies in a market that until fairly recently has been hard to crack.

# Investing in Lithium

## India on the ways to invest in Lithium

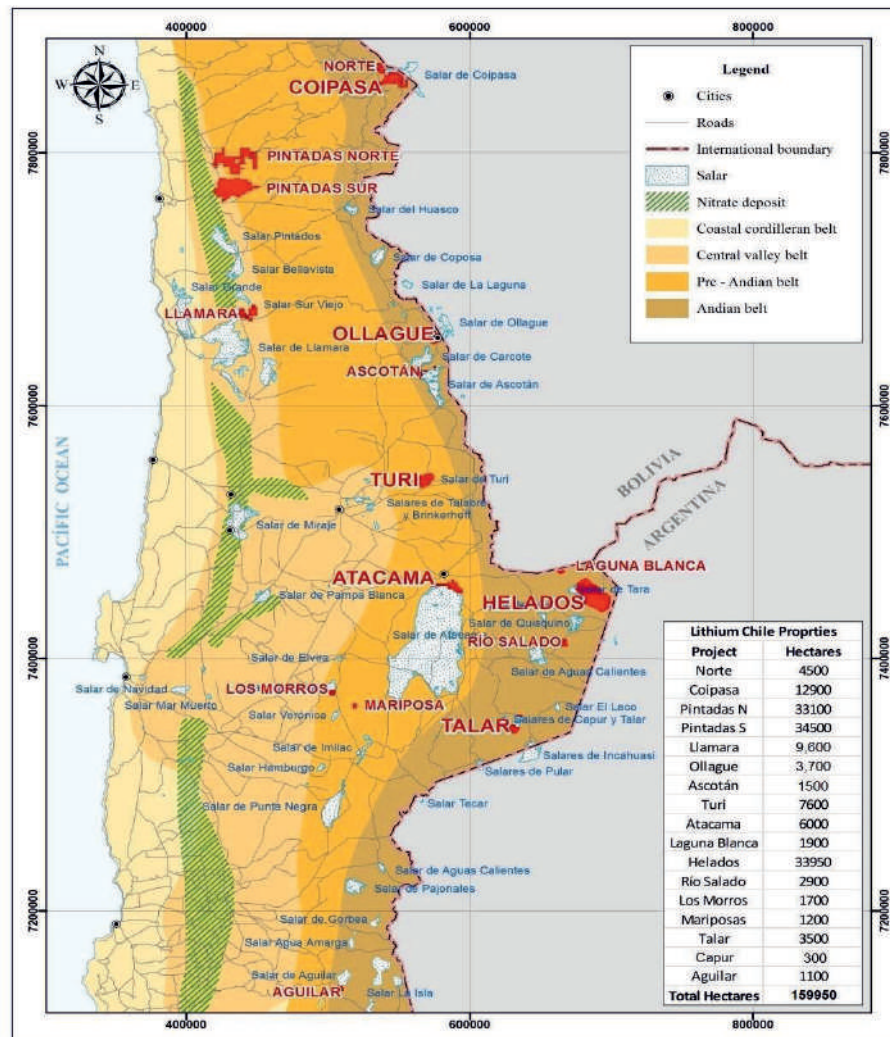
- India is scrambling to acquire lithium mines abroad along with other resources to ensure that it has access to such strategic minerals also eyes on South American lithium reserves for battery manufacturing.
  - India had a vision for converting all vehicles in India to electric vehicles by 2030 this is only possible Battery grade Lithium which is used in Lithium-ion Batteries for Power supply. But as of now, India do not have any Lithium Batteries Manufacturing plant which is required to complete the vision.
  - in February 2019, A delegation from Khanij Bidesh India Ltd already visited to and from 'Lithium Triangle' in South America comprising Chile, Argentina and Bolivia. India is in the process of setting up large lithium-ion battery plants.
  - A Chennai Based company Munoth Industries Limited (MIL) promoter of Munoth Group is setting-up the india's firts Lithium Batteries cell for Mobile phone.
  - Automobile sector Maruti Suzuki's parent company Suzuki Motor Corporation (SMC) has tied up with Toshiba and Denso to set up the country's first lithium-ion battery manufacturing facility in Gujarat.
  - Mahindra & Mahindra has firmed up plans to set up a R&D centre and a new battery manufacturing unit in Chakan, Maharashtra. Mahindra has forged an alliance with South Korea's LG Chem to make lithium-ion batteries in India.
- How Indian Companies can Invest in Lithium
  - There is no direct way to invest in what will be the energy of the future, but Can do it mainly by buying shares of companies that work with lithium. Lithium ETFs (Exchange-traded fund) hold securities that are engaged in some aspect of the lithium industry, including exploration, mining, and production of lithium-based goods.
  - Mainly have an action that works exploiting the lithium basins in Chile SQM (Spanish : Sociedad Química y Minera de Chile, English : Chemical and Mining Society of Chile)
  - There are also 17 Lithium Projects in Chile where India or Indian Companies can Invest and can enter in it by Bidding System, which is Organize by CORFO

# Investing in Lithium

## India on the ways to invest in Lithium

Lithium Chile has staked claims on 17 lithium properties totalling 159,950 hectares in Northern Chile, all within a 300-kilometer radius of the Atacama salar and also holds over 17,400 hectares of the Chilean side of the Salar de Coipasa

Lithium Chile Claims 17 Lithium properties, Where Indian companies as seek JV which Lithium Chile



Project Name	Hectares
Norte	4,500
Coipasa	12,900
Pintadas Norte	33,100
Pintadas Sur	34,500
Llamara	9,600
Ollague	3,700
Ascotan	1,500
Turi	7,600
Atacama	6,000
Helados	33,950
Laguna Blanca	1,900
Rio Salado	2,900
Talar	3,500
Capur	300
Los Morros	1,700
Mariposas	1,200
Aguilar	1,100

# Investing in Lithium

## India on the ways to invest in Lithium

As an investment, lithium makes for an enticing play on the growing demand for energy efficient technologies. Lithium batteries, which are far more efficient than traditional nickel-metal hydride batteries, are seeing an increase in demand from the automobile and electronics industry alike. Limited supply is another appealing factor that makes this metal a potentially lucrative investment. For those looking to invest in lithium, there are a number of options in the marketplace. While physical exposure is not possible, investors can buy a number of companies which are engaged in some aspect of lithium production. Lastly, investors can also purchase a lithium ETF (Exchange Traded fund) which offers exposure to a basket of commodity producers.

Junior Lithium Project : There are some projects, where india can seek the opportunities.

### ➤ Junior Lithium Projects in Chile

- Simbalik
- Li3 Energy
- Lomiko Metals
- Pan-American Lithium
- Talison Lithium
- Mammoth Energy
- Grupo Errázuriz

Note :

- Page No - 9, An interactive Map of Chile, (Where is lithium in Chile ?) Shows the Salars in Chile, where Indian Companies seeks for lithium resources
- Page No - 11, Active companies in Chile in Lithium minings.