

The Ravages of Lithium Extraction in Chile

By <u>Yanis Iqbal</u> Global Research, July 16, 2020 <u>Dissident Voice</u> 12 July 2020 Region: Latin America & Caribbean Theme: Oil and Energy

In Chile, the Covid-19 pandemic is raging with an unprecedented speed. There are <u>more</u> than 300,000 confirmed cases with one of the highest per capita infection rates of 13,000 cases for every 1 million people. The economy is severely experiencing the repercussions of Coronavirus-caused restrictions and the historically high national unemployment rate of 11.2% is an indicator of such damage. Chileans have took to the street to protest against the malfunctioning right-wing government of the <u>billionaire</u> president Sebastian Pinera and the police force has responded aggressively by <u>shooting dead</u> a young agitator.

Amid this Coronavirus chaos, the Chilean lithium sector is poised to economically expand itself due to an anticipated increase in demand. Albemarle, a North Carolina-based corporation and one of the two companies extracting lithium from the Chilean salt plain Salar de Atacama with Sociedad Química y Minera (SQM) or Chemical and Mining Society, said that "the current slump in prices is belying a looming supply shortfall, especially as expansion projects are delayed by the crisis". TDK, a Japanese multinational electronics companies and battery giant, predicts that the global market is going to witness a surge in demand for lithium. Shigenao Ishiguro, the CEO of the company, told in an interview that "Digital transformation is a huge opportunity for us and I have no doubt that the coronavirus will push the world to go that direction at a faster pace,".

In spite of Covid-19 pandemic, the battery market is expected to grow "at a compound annual growth rate of about 7% during 2019-2024. The market in cathode for lithium ion batteries, the most common rechargeable car battery, is expected to jump to \$58.8 billion by 2024 from \$7 billion in 2018". According to Bloomberg, the pandemic can prove to be an opportunity for the lithium market "with at least some governments, including those of Germany and France, using virus recovery funds to help accelerate a transition from internal combustion engines to battery-powered alternatives. France will offer about 8 billion euros (\$9 billion) to its auto sector to bolster support for electric vehicles; Germany's stimulus package includes about 5.6 billion euros for the sector and will require gas stations to install charging units."

A likely intensification of lithium exploitation in Chile does not bode well for the working class and the myriad indigenous communities such as the Atacameños, Licanantay, Colla, Aymara and Quechua living in the Atacama desert. The most recent manifestation of the exploitative practices of lithium mining companies has been the maintenance of "operational continuity" to achieve a minimal impact on output. This basically translates into a policy of profit maximization, brutally indifferent towards the existential conditions of workers. In the lithium mining region of Antofagasta, the Coronavirus positivity rate was a stupendous <u>46.1%</u>. Along with this sheer infliction of necropolitical violence upon the working class, the indigenous people are also reeling under the pressures of lithium extraction in the form of a <u>water crisis</u>. While singular focus has been placed on the issues of

water scarcity in urban areas, it is important to remember that indigenous communities living in Salar de Atacama too are coping with an acute water scarcity, artificially caused by lithium operations. In the aforementioned mining region, <u>65%</u> of water has been consumed by lithium activities. This is one among the many environmental injuries sustained by the ecosystem of the Atacama desert due to the unhindered workings of lithium imperialism.

Instead of seeing the ongoing suppressive squeezing of the working class and indigenous communities in Chile as a one-off phenomenon, it is necessary that it be contextualized in the global structure of lithium imperialism. Lithium imperialism came to be installed as a fraction of global capital and primary commodity production due to two major developments – planetary mine and green extractivism. Firstly, planetary mine, as <u>said</u> by Martin Arboleda, "designates a convoluted terrain where fences, walls, and militarized borders coexist with sprawling supply chains and complex infrastructures of connectivity." This denotes the establishment of an extractive economic exoskeleton on a planetary scale through the simultaneous use of violent and militarized techniques of oppression and policing.

Secondly, green extractivism <u>refers</u> to "the subordination of human rights and ecosystems to endless extraction in the name of "solving" climate change." Lithium serves as an important modality for substituting fossil fuel extractivism with green extractivism and consistently maintaining a relentless system of commodification. <u>Instead</u> of "tackling the systemic bloating of northern economies and the excessive demands this places on the world's resources.", green lithium extractivism allows capitalists to stabilize the unequal imperialist architecture of core-peripheral countries. Tesla, for examples, uses the discourse of electronic vehicles to cloak its <u>capitalistic carnage</u> of Latin America with the cosmetic coverings of climate change.

Lithium imperialism indicates the cohesive amalgamation of planetary mining with a climate change-covered discourse of extractivism. The fusion of these two distinct strategies initiates a reign of hyper-exploitation, extraction, violence and dispossession in the name of climate change. But this oppressive underside of lithium business is sordidly shadowed by the propagandist puffery of an energy transition which actually feeds upon the body of oppressed workers of Global South. Lithium imperialism, therefore, involves the perpetuation of core-periphery relations under the discursive regime of climate change.

Chile is a victim of contemporary lithium imperialism due to the vast lithium reserves which it has. The country has <u>48%</u> of the total lithium reserves in the world which amounts to 7.5 million tonnes of lithium, of which 6 million tonnes is found in Salar de Atacama. Chile is part of the lithium-rich area christened and commodified by the bourgeoisie as the "Lithium Triangle". It is formed by northern Chile, northern Argentina and south Bolivia and has <u>70%</u>of the world's lithium brine deposits. Apart from the abundance of lithium, Chile is also attractive for lithium neo-conquistadors "because it costs about \$2,000 to \$3,800 a ton to extract lithium from brine, compared with \$4,000 to \$6,000 a ton in Australia, where lithium is mined from rock." Capital cost for exploration and construction is lower in brine extraction than hard rock extraction due to the different locations of brine lakes and hard rock lithium reserves: "A hard rock project in a remote mountain location with limited access to transportation and energy infrastructure is going to require a lot more money in the exploration budget than a salar in flat terrain...with well-established mining roads and a line to the electrical grid." In terms of guality, Salar de Atacama "has the best guality reserves of lithium in terms of lithium to potassium concentration as well as low magnesium to lithium ratio."

The low-cost and high-grade lithium brine deposits have spelled doom for the indigenous people living in the Atacama Salt Flats (AFSs). While lithium brine extraction is economically viable for capitalists, it has deleterious effects on water availability and is therefore, injurious to the social metabolism of indigenous communities. In <u>lithium brine extraction</u>, "up to 95 per cent of the extracted brine water is lost to evaporation and not recovered". Furthermore, to extract a ton of lithium from brine, 500,000 gallons of water is required. The two companies, Albemarle and SQM, operating in Salar de Atacama have been given "licences to extract almost 2,000 litres of brine per second." Besides brine water, mining companies "need the fresh water to clean machinery and pipes, and also to produce an auxiliary product from the brine – potash – which is used as a fertiliser." The use of fresh water by mining companies is indicated by the fact that between 2000 and 2015, the amount of water that was extracted from Atacama was <u>21% greater</u> than the flow of water to that area.

According to a report produced by the Observatory of Mining Conflicts of Latin America (translated from Spanish), "The greatest socio-environmental impact of lithium mining lies in the indiscriminate expenditure of water for the evaporation of brines and the production of the necessary tasks. Considering that the Atacama salt flat is located in one of the most arid regions in the world, the Atacama desert, the large-scale extraction of water and the basic processing of lithium brines generates severe damage to the fragile ecosystems that depend on those sources." In the same report, it is written that "the communities originating from the high Andean salt flats suffer serious environmental damage due to the indiscriminate and poorly controlled extraction from the hydro-saline deposits of the salt flats, thus reinforcing their historic place of marginalization, exploitation and subordination."

This indicates that water scarcity is not a localized phenomenon, restricted to a mere depletion in water levels. Rather, water scarcity contributes to a *generalized impoverishment of indigenous people* and drastically degrades their everyday living. Degeneration of existential conditions happens, inter alia, through the degradation of soil and vegetation covers. In the Atacama region, indigenous collectivities grow quinoa and look after llamas. For the growth of quinoa plants, an evenly moist soil is <u>required</u> and for herding llamas, it is <u>necessary</u> that there be an adequate vegetation cover on which they can feed. But lithium operations have undermined both these prerequisites and School of Sustainability at Arizona State University <u>reports</u>that "An expansion of lithium brine mining area of one square kilometre was found to correspond to a significant decrease in the average level of vegetation and in soil moisture."

Through the deliberate disorganization of traditional occupational configurations, lithium companies are able to culturally colonize and proletarianize the spiritual and agro-pastoral practices of communal indigeneity. In the international value chains of lithium, the utter subjugation of indigenous people to the deformed logics of e-mobility is cruelly concealed and as <u>said</u> by the Plurinational Observatory of Andean Salares (translated from Spanish), "The incessant production of disposable electronic devices and the growing market for electric cars for the energy transition of countries in the global north...is becoming today the main threat to the subsistence of any form of life in the basins that host these [lithium] mining deposits".

Chilean indigenous people have not acquiesced to the economically destructive and culturally catastrophic operations of mining corporations and have reacted strongly to lithium imperialism. In 2019, indigenous people <u>protested</u> against the water-intensive mechanisms of lithium brine extraction and the state, in response, paradoxically <u>charged</u>

some communities for "water robbery". The protests were initially triggered by the <u>underhand dealings</u> of SQM in which "the Chilean economic development agency CORFO signed a contract with SQM that enabled the company to triple its lithium extraction over the coming years and extended its mining access to the Atacama until 2030." The tripling of lithium extraction till 2030 <u>raised</u> SQM's lithium extraction quota to 350,000 tons. It is not entirely coincidental that a month after the agreement, Eduardo Bitran, head of CORFO, met with Tesla to propose "a project to Tesla in which SQM would provide brine, the raw material from which lithium is produced, to the carmaker for refining into battery component lithium hydroxide in Chile."

It was in opposition to this intricate complex of lithium imperialism that indigenous people protested. These protests smoothly synchronized with the larger <u>anti-neoliberal protests</u> occurring in Chile and bolstered the indigenous-working class alliance. But this working class-indigenous movement was soon suppressed by the Chilean state which, in order to stabilize neoliberalism and lithium imperialism, cracked down on protests through rapid detentions, declaration of a state of emergency and the deployment of more than 9,000 soldiers. Because of the protection provided by the state, Ricardo Ramos, the CEO of SQM, was able to <u>say</u> that the protests won't "be a strong issue in our business goals in the medium and long term." He further <u>added</u> that "We are going to deliver our products to our customers according to our previous forecast despite the situation in Chile,". From Ramos's statement, we discern that there exists a structural arrangement for the cementing of lithium imperialism: companies like SQM economically exploit and culturally hegemonize lithium-rich areas; indigenous people combatively confront the predatory mechanisms of these companies; the Chilean state ultimately intervenes in order to regularize mining operations through the violent deactivation of protests.

While it may seem that the 2019 protest against lithium extraction was a spontaneous eruption of anger, it is necessary that we briefly examine the historical background against which it took place. Apart from signing a shady deal without any consultation, <u>SQM</u> "has been investigated for several cases of tax evasion, money laundering and illegal campaignfunding. In a major public scandal in 2014, politicians from across the spectrum were found to have received major sums of money to look after the company's interests." SQM also has a dubious distinction of causing major conflicts and in <u>2007</u>, for example, there was a skirmish between the company and the Toconao community. Increased extraction of water from unauthorized wells and the contamination of water sources by sewage discharge were the contributory causes behind the SQM-Toconao conflict. Albemarle too has been progressing in its march towards class struggle-free lithium imperialism and in 2017 CORFO amended the corporation's agreement through which Albemarle got "sufficient lithium to produce over 80,000 MT annually of technical and battery grade lithium salts over the next 27 years at its expanding battery grade manufacturing facilities in La Negra, Antofagasta."

The rapid ramping up of lithium production by two companies in Chile has successfully benefitted major electronic companies such as Samsung, Apple and Panasonic. In the automobile sector, Toyota, General Motors, Tesla, Volkswagen and BMW are some of the companies reaping economic advantages of the lithium sources of Chile. Figure 1 and 2 depict the multiplex and labyrinthine circuit of lithium in the international market. To satiate the vampire-like thirst of different companies for lithium, there has been a global increase in production and the role of Chile in catering to the lithium hunger of "white gold rush" is indicated by the <u>contemporaneous expansion of Chilean lithium output with world lithium output</u>: "The value of Chile's lithium carbonate production rose to US\$200 million by 2007,

to US\$500 million by 2012 and to more than US\$800 million by 2017. It exceeded US\$1 billion in 2018. There was a parallel surge in the value of world first-stage lithium output—reaching US\$484 million in 2007, US\$998 million by 2013 and US\$2865 million in 2017."

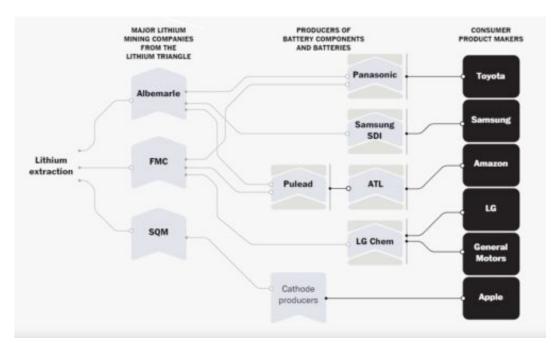


Figure 1, Source: *Washington Post*, "Indigenous people are left poor as tech world takes lithium from under their feet"

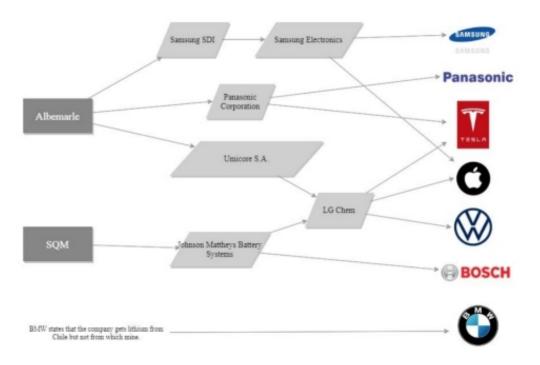


Figure 2, Source: Danwatch, "<u>There's probably Chilean lithium behind the screen you're reading this</u> <u>on</u>"

With the demand for lithium <u>expected</u> to grow in the global market, indigenous people and the working class would start encountering greater difficulties in sustaining themselves as indigenous ecosystems are efficiently eradicated and labor productivity is ruthlessly increased. During the <u>Fastmarkets' 11th Lithium Supply and Markets Conference</u> in Santiago, "Producers Albemarle, SQM and Tianqi [which has a 23.77% stake in SQM]... agreed that flexibility in production remains vital for addressing diverse industrial and

technological challenges." This was a colloquial way of saying that workers need to be ready to be exploited, discarded and denigrated as mere commodities. For the indigenous people in Chile, life would be wrung economically dry as energy transition occurs in the Global North and magnificent Tesla vehicles silently operate on their blood-stained lithium batteries.

We need to remember that this dystopia of EVs parasitically procuring lithium from the open veins of Chile is avoidable and as <u>said</u> by Thea Riofrancos, "A world buzzing with hundreds of millions of Teslas (or worse, e-Escalades), made with materials rapaciously extracted without the consent of local communities, manufactured under a repressive labor regime in polluting factories — in other words, a world not unlike our own, but powered by wind and sun — is not an inevitability." To move away from such lithium imperialism, we need to listen to the smothered voices of the Global South. An economic-ecological model based upon the anti-imperialist foundations of the Global South is radically different from capitalist models of extraction. *Instead of conceptualizing a "development alternative", the oppressed masses of the Global South imagine an "alternative to development".* In the interstices of this "alternative to development", one can locate the seeds of resistance to lithium imperialism.

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Yanis Iqbal is a student and freelance writer based in Aligarh, India. <u>Read other articles by</u> <u><i>Yanis.</u>

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