

# Contested Relations Between Resource Extraction and Alternatives to Development

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The Case of Lithium Production in Bolivia

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<p>This Master's thesis examines the contested relations between extractivism and Bolivian endogenous view of 'development' through the case of lithium production in Bolivian Salar de Uyuni, Potosí. During the past ten years under president Evo Morales's administration, Bolivia has introduced the concept of Vivir Bien, living well, in official state strategies replacing at least to an extent the concept of development. Vivir Bien is based on indigenous cosmologies that hold social justice, community and being one with the nature as priorities, and according to these ideals, nature should not be reduced to a commodity. But in practice dependency on extractions of natural resources in Bolivia has only increased in this time period.</p> <p>Lithium deposits in Bolivia are vast, and lithium is a growing industry that could be coupled with sustainable alternatives to hydrocarbon-based sources of energy. But industrialising a high-expertise raw material in a poor and fairly uneducated country such as Bolivia is a complicated endeavour. The principle methodology this research uses is semi-structured qualitative interviewing, which is complemented by critical analysis of policy documents and academic studies that connect with the topic. The empirical findings of the lithium production project unveil issues with planning, transparency and the centralisation of decision making, as well as dubiousness in regard to the environment of the area.</p> <p>The thesis contributes to the academic literature that has shown that while Vivir Bien is a promising and interesting alternative to development at an ideological level, in political practice it remains to a large part a rhetorical instrument and actual politics of the Morales administration can be described as neo-extractivist human development. Additionally, it offers further demonstration of the inherent contradictions within neo-extractivism as a political economic strategy. The findings also underline the significance of resource nationalism in Bolivian politics, which this research argues that functions as a bridge between seemingly incongruous Vivir Bien and extractivism.</p>			
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<p>Tämä Pro Gradu-tutkielma tarkastelee ekstraktivismiin ja Bolivialaisen vaihtoehdon kehitykselle välistä suhdetta Bolivian Salar de Uyuniissa tapahtuvan litiumtuotannon kautta. Viimeisten kymmenen vuoden aikana presidentti Evo Moralesin hallinto on tuonut konseptin Vivir Bien, elää hyvin, Bolivian valtion virallisiin strategioihin ja korvannut sillä ainakin osittain ‘kehityksen’ käsitteen. Vivir Bien perustuu alkuperäiskansojen kosmologioihin, joissa sosiaalinen oikeudenmukaisuus, yhteisöllisyys ja luonnon ja ihmisen välinen yhteys ovat prioriteetteja eikä luontoa pitäisi redusoida taloudelliseksi resurssiksi, mutta käytännössä Bolivian taloudellinen riippuvaisuus luonnonvarojen käytöstä on vain pahentunut tänä aikana.</p> <p>Bolivian litiumvarannot ovat laajat, ja litiumilla on kasvavat markkinat. Sen käyttötarkoitukset liittyvät mm. hiiliperäisten energialähteiden korvaaviin ekologisesti kestävämpiin vaihtoehtoihin. Mutta litiumin tuottaminen vaatii teknistä osaamista, ja näin ollen sen teollistaminen verrattain köyhässä ja matalan koulutustason maassa on haastavaa. Tämän tutkielman pääasiallisena metodologiana on puolistrukturoitu kvalitatiivinen haastattelututkimus, jota täydennetään aiheeseen liittyvien poliittisten dokumenttien ja akateemisten tutkimusten kriittisellä analyysillä. Empiiriset löydökset tuovat ilmi ongelmia projektin suunnittelussa, läpinäkyvyydessä, päätöksenteon keskittyneisyydessä, sekä epämääräisyyksiä alueen ympäristön kannalta.</p> <p>Tutkielma kontribuoi akateemiseen kirjallisuuteen, jossa on osoitettu, että vaikka Vivir Bien on ideologisella tasolla lupaava ja mielenkiintoinen vaihtoehto kehitykselle, se on jäänyt sovelluksessa poliittiseen toimintaan pitkälti retoriseksi työkaluksi, ja Moralesin hallinnon käytännön toimet muistuttavat enemmän neo-ekstraktivista ihmiskeskeistä kehitystä. Lisäksi se tarjoaa lisänäyttöä neo-ekstraktivismiin sisäsyntyisistä ongelmista talouspoliittisena strategiana. Löydökset myös korostavat resurssinationalismin merkitystä Bolivian politiikassa, ja tämä tutkimus argumentoi, että resurssinationalismi toimii siltana näennäisesti ristiriitaisten konseptien Vivir Bien ja ekstraktivismi välillä.</p>			
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## List of Acronyms

CEDLA	Centro de Estudios para el Desarrollo Laboral y Agrario
CIRESU	Complejo Industrial de los Recursos Evaporíticos del Salar de Uyuni
COMCIPO	Comité Civico Potosinista
COMIBOL	Corporación Minera de Bolivia
CPE	Constitución Política del Estado
FDI	Foreign Direct Investment
FRUTCAS	Federación Regional Única de Trabajadores Campesinos del Sudoeste Potosino
GNRE	Gerencia Nacional de Recursos Evaporíticos
IFI	International Financial Institution
IMF	International Monetary Fund
IRD	L’Institut du Recherche pour le Développement
Lithco	Lithium Corporation
MAS	Movimiento al Socialismo
MIR	Movimiento de Izquierda Revolucionaria
MNR	Movimiento Nacionalista Revolucionario
NGO	Non-Governmental Organisation
ORSTOM	Office de la Recherche Scientifique et Technique Outre-Mer
PND	Plan Nacional de Desarrollo
PODEMOS	Poder Democrático Social
TIPNIS	Territorio Indígena y Parque Nacional Isiboro Securé
UATF	Universidad Autónoma de Tomás Frías
UMSA	Universidad Mayor de San Andrés
YPFB	Yacimientos Petrolíferos Fiscales Bolivianos-Corporación

# 1 Introduction

## 1.1 General Introduction

Bolivia<sup>1</sup>, like many of Latin American countries, is abandoning Eurocentric ideals of capitalism and development, and replacing them with strong state-led economics and a set of values that hold social justice, community and being one with the nature as priorities. The notion of Vivir Bien, living well, calls for an end of endless and unsustainable development, and instead of a better life it petitions for a good life. It has an inherent role in the Bolivian constitution, and has for a large part taken the place of development as a concept for nation building in Bolivia.

However, Bolivia is among the poorest countries in Latin America, and living well, even if not better, requires resources. Subsequently, the government of Bolivia is strongly engaged in constructing state-led extractive economy, and natural resource extractions that help to build social welfare are a source of contradiction. In order to pursue Vivir Bien, Bolivia engages in extractive actions that seem to go against the ideologies of Vivir Bien.

One of the natural resources Bolivia is placing their economic aspirations for the future on is lithium. According to estimates, up to half of the known lithium reserves in the world reside in Bolivia<sup>2</sup>, at the salt brines of Salar de Uyuni<sup>3</sup>, where there is an on-going pilot project on lithium production with plans of industrialisation on the way. As lithium industries, for example batteries in electronics and electric cars, are growing, these resources could prove to be very lucrative to Bolivia and help them further alleviate poverty and promote welfare. Developing lithium production is not, however, unproblematic in the context of Bolivia. This study unveils some of the difficulties in lithium production in Salar de Uyuni, which reflect various issues and contradictions that often arise from extractivism, and lead to dissonance in relation to Vivir Bien.

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<sup>1</sup> Map of Bolivia in appendix 1.

<sup>2</sup> Programa de Gobierno MAS-IPSP 2010-2015: 85.

<sup>3</sup> Map of Salar de Uyuni and surrounding areas in appendix 2 and pictures of the Salar de Uyuni in appendix 3.

### **1.1.1 Vivir Bien and the Bolivian Context**

Vivir Bien is a current and popular theme in Latin American politics. In Bolivia, while it had been long developed by indigenous activists, scholars, and non-governmental organizations (NGOs), it first emerged as a concept in the context of state policy making after president Evo Morales was elected into office in 2006. His political party Movimiento al Socialismo (MAS) gained rapid support with a melange of indigenous motives and growing opposition towards Western values, and his victory marked the first time indigenous activists and peasant union leaders have gained political power in Bolivia. Since this historical shift in the political sphere, Vivir Bien was presented in the National Development Plan of 2006 (Plan Nacional de Desarrollo: Bolivia digna, soberana, productiva, y democrática para Vivir Bien, PND) as the central concept directing new state development policies, and later in the 2009 constitution in the moral and ethical values of the State.<sup>4</sup>

In the new constitution economic activities are seen from a culturally plural point of view, and their objective is to secure Vivir Bien.<sup>5</sup> This can be seen as major statement of intent towards a more humane and environmentally sustainable way of arranging society.<sup>6</sup> The constitution also addresses the rights of indigenous people and local communities,<sup>7</sup> and the governmental slogan of Bolivia is ‘No se puede vivir bien si los demás viven mal o si se daña la naturaleza’ (‘You cannot live well if others are living poorly, or if you damage the nature’).

### **1.1.2 Lithium – a Material of the Future**

Lithium is a chemical element, the lightest of metals and highly reactive and flammable. It has multiple applications in different industries, such as ceramics and glass, (rechargeable) batteries, aluminium, air treatment, rubber and pharmaceuticals. What makes it an especially interesting and current resource is its ability to store vast amounts of energy in very light weight. As oil reserves are depleting and polluting internal combustion vehicles are starting to get replaced with hybrid or even fully electric vehicles, and climate change demands a comprehensive switch to renewable energy

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<sup>4</sup> Ranta 2016: 428; Gudynas 2011a: 443.

<sup>5</sup> Gudynas 2011a: 443.

<sup>6</sup> Villalba 2013; Walsh 2010.

<sup>7</sup> Lalander 2014: 14-15.



sources, lithium could offer a solution to the dilemma of optimised storage of energy. Solar power and wind power both are energy sources dependent on the ability to store the energy gathered during windy and sunny days to be used when needed. Likewise the biggest challenge in electric vehicles is to pack the automobile with batteries that last long but do not weigh too much or require disproportionate amounts of space.<sup>8</sup>

Lithium is not a scarce material per se, but it is usually found only in small concentrations and its extraction can be a difficult task. The main deposits in which it can be found are salt lakes, pegmatite stone and the sea. The largest reserves are located in the ABC/lithium triangle of Argentina, Bolivia and Chile.<sup>9</sup> Assessments of the world's lithium reserves vary a lot, and Bolivia's own estimation of the quantity of lithium in Salar de Uyuni is more than 100 million tons, equalling about 49 percent of world reserves<sup>10</sup>, although other, more cautious calculations approximate Bolivia's reserves at 27 percent of the world's in-situ resources.<sup>11</sup> Extraction from salt lakes is the most cost-efficient and environmentally friendly of the options, although it is also a slow process. In general, starting production takes two to three years due to the necessary processes of sampling and pilot production. Lithium in salt lakes is found in the salt brine beneath the surface, from where it is pumped to large evaporation ponds, where sun and wind induce the concentration of different elements, and the last point of the production is refining lithium in an industrial plant.<sup>12</sup> This process can take several years depending on the climate and weather conditions.<sup>13</sup> The process requires a lot of water, a resource that is very scarce in the dry desert and semi-desert areas where the salt lakes are situated.<sup>14</sup>

Lithium production has been in rapid growth since the turn of the millennium especially due to the increasing markets of lithium-ion batteries and the fact that EVs are becoming more common. Lithium prices are in constant rise, and while demand right now is on the rise, there are still relatively few producers of the material. In other words, there seems to be a market for the thus far undeveloped reserves of Bolivia. At the same time the price is not likely to grow so high that it would no longer be attainable for the

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<sup>8</sup> Fletcher 2011; Grosjean et al, 2012.

<sup>9</sup> Kesler et al. 2012.

<sup>10</sup> Programa de Gobierno MAS-IPSP 2010-2015: 85.

<sup>11</sup> Gruber et al. 2011.

<sup>12</sup> A diagram of the traditional extraction process in appendix 4, picture of evaporation pools in Salar de Uyuni in appendix 5.

<sup>13</sup> Espí Rodríguez and Sanz Contreras 2013; Fletcher 2011; Grosjean et al. 2012.

<sup>14</sup> Espí Rodríguez and Sanz Contreras 2013: 10.

EV markets, and a report by Grosjean et al. finds that the world's lithium resources should “guarantee resources for – ten times the current world number of automobiles”<sup>15</sup>.

### 1.1.3 Research Questions and Objective

The main research questions of this study are: What is the relationship between lithium production and Vivir Bien? How does lithium production in Bolivia fit to or contradict with the ideals of Vivir Bien? How is dissonance between seemingly conflicting ideals and practices mitigated?

The sheer size of Bolivian lithium reserves makes this an exceptionally interesting case, especially as this resource is yet to be exploited on an industrial scale. The current Bolivian government led by Morales and the MAS has nationalised some natural resources and envisions to profit from lithium without succumbing to conditions dictated by foreign companies. Existing research on lithium extraction in Bolivia portrays an arena mixed with hopes and uncertainties, and this research complements to those sentiments. Lithium is a fairly new commodity, especially in its modern applications that have only recently extended the scope of its economic importance. Therefore, there remain many uncertainties surrounding the implications of lithium extraction and production, and this research examines them especially in relation to (neo-)extractivism and Vivir Bien.

Theoretically this thesis is positioned within post-development, the branch of theory that challenges the notion of ‘development’ and its hegemony as an object of human life and endeavours. Furthermore, the theoretical-conceptual framework is provided by political economy and especially the discussions of extractivism and neo-extractivism. This is further extended with analytical tools of political ecology: the case of lithium production through which I examine the relations between extractions and an alternative to development is a concrete operation with environmental and ecological consequences and prerequisites, and therefore I argue that an approach combining political economy with political ecology opens new angles to the theoretical discussion of extraction. Like Bebbington and Bury have displayed, the issues within extraction are more divergent than traditional framing through political economy and resource governance imply.<sup>16</sup>

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<sup>15</sup> Grosjean et al. 2011: 1741.

<sup>16</sup> Bebbington and Bury 2013.

The primary objective of this thesis is in presenting, analyzing and offering possible explanations to contradictions and dissonances within the relations between extractions and Vivir Bien as seen in the lithium production project, and two key concepts I use in this analysis are neo-extractivism and resource nationalism. ‘Neo-extractivism’ differs from traditional extractivism in that the actor conducting extractions is the state, and these activities are justified by redistribution of revenues. ‘Resource nationalism’<sup>17</sup>, on the other hand, is a concept that I use to refer to the sense that natural resources are seen as a part of national patrimony, and tied closely with identity and sovereignty, a phenomenon existing not only in popular politics but prevailing in other arenas of the society as well<sup>18</sup>.

As academic literature on Vivir Bien has shown, the notion, while offering an interesting ideological alternative to development in theory, has not as of yet translated to practice. This is also confirmed in my empirical findings, and illustrates a dissonance between stated priorities and actuality in current Bolivian politics. Furthermore, this thesis offers the finding that within these contradictory relations, resource nationalism, both as a notion explaining the strong ties between identities and natural resources and as a political rhetoric tool, has a meaningful role in mitigating the seemingly conflicting concepts of neo-extractivism and Vivir Bien.

## **1.2 Methods and Material**

The principle methodology this research uses is semi-structured qualitative interviewing, which is complemented by critical analysis of policy documents and academic studies that connect with the topic. The main material consists of 13 transcribed interviews with 10 different people that I conducted during fieldwork in Bolivia.<sup>19</sup> All interviews were recorded and transcribed except for one, where my recording device fell during the interview and only written notes remain. The people I interviewed were researchers working in different universities and research institutions, current and former officials of the Bolivian state directory for extractions of evaporitics, (La Gerencia Nacional de Recursos Evaporíticos, GNRE), local politicians and people who were active in their communities in the Potosí department; both in the city of

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<sup>17</sup> See, for example, Young 2017.

<sup>18</sup> Bebbington and Bury 2013.

<sup>19</sup> List of interviews in appendix 6.

Potosí and the municipalities of Uyuni and Colca K in the province of Nor Lipes, where Salar de Uyuni is located. In order to obtain deep and confidential insights from my informants, I opted for conversational technique in my qualitative interviews. As a result, the contents of my interviews were quite diverse, and this provided me with a very rich and multifaceted material. At the same time this meant that my material did not provide substantial evidence in such subjects that I discussed only with few or even just one of my interviewees, necessitating the use of other documentary material. Therefore, I complement my findings with a literary review on articles regarding the subject, and policy material such as the National Development plans of Bolivia. I have not aimed at achieving an exhaustive literary review in order to keep this thesis concise and on point, but have used articles that are most relevant to my case in order to either prove my findings or illuminate contradictions.

I have made certain divisions of my interviewees in order to explain and highlight trends and viewpoints different people had. Age- and gender-wise my informants are a fairly homogenous group, a fact that limits the scope of my findings, but also enabled me to analyse the answers according to more specific groupings. The two clearest distinctive traits that seemed to correlate with certain kinds of answers were the level of education of the informant, and whether they lived in the Potosí department, where lithium reserves are located, i.e. had a strong personal interest in the lithium project, or in La Paz, the administrative capital of the country. Also people I met at GNRE had very distinctive views of certain things, but this I will refer to explicitly where necessary. The other two divisions, level of education and personal ties to Potosí, I will use as descriptors throughout my analysis in order to outline connections.

While I refer to these groups they should never be read as an estimation of the significance or validity of what was said. In many instances I found myself aligning more with critical opinions both of the project and more widely of the government and their actions. This was partly because in my assessment, the informants did not have a reason to be against the project, other than the problems that were present in the project itself. Some of the people even clearly stated that they wanted lithium production to succeed, and that initially they had been very pro Morales, and many of them still were. These more critical views were usually also expressed by those informants whose background was in research and academics, and I have tried to be careful not to empathise too much with them, as they do represent my own group of reference and

hold a status that I respect. After acknowledging these possible motives that could affect my analysis, I have come to the conclusion that while the information I got from the informants with higher education seemed at certain points factually more accurate, on other levels, such as how things were experienced and how, for example, worries were expressed, all information that I was given provided me with interesting insights, and I have tried to treat all findings equally.

### **1.2.1 Fieldwork**

My fieldwork took place from the end of November 2015 until the end of January 2016, and was comprised of the above described interviews and a visit to the project's pilot production site. I was mainly based in La Paz, but travelled to Potosí department and visited the town of Uyuni and the city of Potosí as well. In Uyuni after visiting the pilot production area in Llipi Llipi I also made a stopover at Rio Grande, which is the closest habitation to the production site. My personal observations from different locations in Bolivia helped me both to contextualize the contents of the interviews and to complement the data I gained from them.

The interviews were semi-structured, and I had a list of open-ended questions that I used as a basis in all of the interviews.<sup>20</sup> In some I was able to ask more or less all of them, but in others where the interviewee was very talkative, I only introduced my subject and asked a few questions, and they would go on long tangents of everything they felt was related to the subject. Some of my interviews, especially towards the end of my time on the field when I got more confident, resembled more informal conversations than structured interviews, although this varied depending on the status of the interviewee. In all instances I kept my questions broad, as I wished to get answers based on what the informants viewed as the main issues and did not want to impose on them. Some clearly felt this was obscure and would had wanted to understand what my agenda was, so I tried to emphasise that I had none and was specifically interested in their views and opinions.<sup>21</sup>

Being able to visit the pilot project was very beneficial and helped in understanding the scope of the enterprise and also gave insight to how the project is run. As a state-led operation it was strictly regulated who, when and with whom it was possible to visit the

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<sup>20</sup> Interview guide and interview questions in appendix 7.

<sup>21</sup> Ranta discusses a similar approach to interviewing in Ranta 2014: 40-43.

area, and gaining access was bureaucratic and complicated. But once I had been cleared for visitation I was treated very respectfully and the manager of the plant himself took the time to give me a tour around the facilities.

### **1.2.2 Main Concerns and Drawbacks**

One of the main issues I was worried about going into this research endeavour was whether my level of Spanish would be adequate for carrying out the interviews. This troubled me especially because these were also my first ever interviews. In the end and especially after the first few interviews, my language skills proved to be decent enough for the purpose. I had my questions very well formulated so I did not have to worry about my own vocabulary while asking questions, and I understood the answers well enough to stay on track even if I did not catch every single word. With more fluent Spanish I probably would have been able to be more reflexive in the interview situations and ask more accurate follow-up questions, but in a few instances I was also able to use my lacking skills as an excuse to get clearer answers and probe more without seeming too provoking.

Language barrier was, however, an on-going issue throughout my fieldwork, also because to many of my informants and other people I met and relied on in practical concerns Spanish was not the first language either. The instance where I felt that this limit to communication was hindering me most was actually arranging the interviews and getting in touch with possible informants, not the interviews themselves. This also became the most difficult and frustrating part of my fieldwork, and the part that – combined with time constraints – limited the scope of my data collection most. I had the names of a few contacts already before going to Bolivia, and I used the method of snowball sampling, asking each of my informants for new contacts to get in touch with at the end of each interview. I tried to enlarge my network of contacts through every interview, but the further I got from my initial interviewees, the harder it was to get in contact with these people. To some extent this was a practical issue: it was challenging to reach people by phone, and almost no-one answered emails. Phone calls in a foreign language are also more demanding than conversing face-to-face, and I do not know how but at one point one potential informant thought that I was trying to buy cement from their company, diverted me and never answered my calls again.

Through reflexivity of my difficulty of arranging encounters I came to realise that Bolivians rely considerably on social relations in all of their exchanges. My experience was that if I just marched into a building and was able to meet a potential informant in person, they were very amenable for an interview either straight away or later in the same day. But this was difficult to accomplish when I did not know where people lived or worked, who to ask directions from for certain offices, people travelled a lot, or I knew of an institution but not any specific people working there. Getting in touch with informants in these circumstances proved even more challenging with Christmas holidays cutting into my time on the field, and with people living and working in cities quite far away from each other. Travelling was time and money consuming, and therefore I would have needed to arrange interviews beforehand to ensure that I would be in the same city with someone at the same time, but making plans in advance like this was not something most of my contacts were used to doing, and their schedules were fluctuating. Many also lamented that the end and the beginning of the year was the busiest time for them, making it difficult to arrange time beforehand for an interview.

### **1.2.3 Power Dynamics and Ethics in Interviews**

Going in to my fieldwork I was apprehensive of the fact that the people I was interviewing and who I wanted to get in touch with had higher statuses in the society. Be it a leading economist in Bolivia or an activist in a local community, they were people in positions of power, and people with specific knowledge or expertise in this particular subject. The fact that my informants were far from powerless meant that I did not quite know what kinds of issues this dynamic might entail, other than that possible problems would probably not be the typical ones of development studies. Traditionally fieldwork in development studies involves a researcher from the North studying poor or marginalised groups in the South<sup>22</sup>, and the power imbalances associated in these interactions are well documented and there are many methods in mitigating them.<sup>23</sup> Power dynamics in researching the elite have not been studied as much<sup>24</sup>, but I was encouraged to embark on this field work by my supervisor, Eija Ranta, who has studied political elites at the state level in Bolivia.<sup>25</sup> Therefore I knew that although challenging,

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<sup>22</sup> Nader suggests that this is due to researchers studying what they like, and many prefer the underdog. Nader 1972: 19.

<sup>23</sup> Scheyvens and Leslie 2000; Scheyvens et al. 2003; Chambers 1997.

<sup>24</sup> Scheyvens et al. 2003.

<sup>25</sup> Ranta 2014.

this research endeavour was achievable. Some of the obstacles of ‘studying up’ have also been mapped out by Laura Nader: for example access to interviewing the elite might be difficult, which was certainly true in my study.<sup>26</sup> The person that I made most attempts to arrange a meeting with was Luis Alberto Echazu, the head of GNRE, but all my efforts fell short. My actual study subject was not however the people who I interviewed, but the processes and structures related to relying on natural resource extractions (lithium) in welfare building. I was not interested in my interviewees themselves, as much as the processes they were involved in, and I believe that my subject matter being less personal helped dispel reservations in the interview situations.

Another aspect that I was conscious of in many ways was gender. All of my interviewees were men, and I am very aware that this is far from ideal. I wished to find women to interview as well, but I was only given the names of two women who might have been good informants and was not able to get in contact with them. The difficulty of accessing women’s knowledge is a wider problem of development fieldwork, as appreciation of a female perspective is relatively new and men do not often see them as active participants in decision making even when they do have concrete roles.<sup>27</sup> This was also accentuated with my deliberate decision to focus on the structural and concrete levels of the state lithium project, which was – as far as I could see – a completely masculine endeavour. I am not sure whether this reflected the views of my male informants, or whether there truly were no women involved in the stages of the project that I was mostly interested in, but the only women I met in the office of GNRE and the pilot plant were a receptionist, a nurse and what looked like assisting staff at the Llipi Loma pilot site. At the time of my fieldwork there were no women listed in the GNRE contacts on their website, either. Therefore, the fact that there is no female perspective represented in my material seems to reflect the reality within the state project at the time. Since then there has been at least one woman added to the list of essential contacts at GNRE. At community levels and within activist groups the gender distortion seems more of an imbalance in my material, and a female perspective would have undoubtedly brought more diversity to my understanding, as women often hold different kinds of

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<sup>26</sup> Nader 1972.

<sup>27</sup> Momsen 2006.



knowledge than men.<sup>28</sup> This will remain a drawback, and one that I believe I could have mitigated better with a little bit more time on the field.

The gender imbalance also meant that in every instance I was a young woman interviewing much older men with high statuses. I was afraid that my youth and gender were going to affect how seriously I would be regarded. This was also something I was continuously conscious of in terms of safety and comfort – I was careful to arrange meetings in public or formal places and to dress in a neutral way. In the end it did not feel like these aspects of my person affected my interviews in a significant way. Some informants – especially those with academic background – spoke to me in a “teaching manner”, and in order to make them comfortable I encouraged this dynamic by asking more clarifying questions than I would have in another kind of situation. Interviewees with less or no academic training seemed to respond to me with a mixture of apprehension and respect, and mostly all of my interviews were carried through with surprising ease.

The lithium endeavour in Bolivia is currently gathering some international scholar interest<sup>29</sup>, and many of my informants had been interviewed on the subject before, and by Western women too. This was told to me usually with some pride, and it seemed that academic interest in Bolivian issues was welcome to at least those people who I met. This might reflect the fact that people viewing Western researchers more critically might not be so willing to participate and would therefore not even be recommended as interviewees by other contacts, or it might just be that while foreign companies are regarded with some distrust in Bolivia, scholars are more welcome.

Another potential problem I tried to be conscious of was that as this was a state-led project that I was studying, some people might not feel comfortable sharing critical views. I ensured that I was not affiliated with any governments or NGOs, not Bolivian nor foreign, and that all material would be treated with confidentiality and anonymity, a prevalent practice in doing qualitative research<sup>30</sup>, and an important aspect of conducting fieldwork with people in positions of power.<sup>31</sup> In the end only one of my informants expressed their worries over this. Those who held the most critical views were already vocal in the public, and people further away from La Paz and the government did not

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<sup>28</sup> Momsen 2006.

<sup>29</sup> See, for example, Revette 2016 and Hodson 2015.

<sup>30</sup> Mauthner et al. 2002.

<sup>31</sup> Scheyvens et al. 2003; Ranta 2014: 50-51.

seem too concerned when they had views that were conflicting with the State's interests. People in or closest to the GNRE or the government were certainly more tight-lipped and on few occasions I was told in a very straight-forward manner that there could be no questions about politics. The only person within GNRE that could have answered these questions was Echazu, with whom I had an interview scheduled but which was cancelled and we were unable to arrange a new one. In text I have changed names of all informants except for two, who had published research relating to the subject and whose general views and opinions were widely known. The people referred to by name are addressed by their first and last names and others by first name pseudonyms.

### **1.3 Disposition**

The structure of this thesis is as follows: First I will present my theoretical framework, which consists of three parts. I begin with post-development criticism, which offers the large theoretical backdrop for all other, more specific conceptualisations that I use. After this discussion I will concentrate on Latin American political transformations, which follow the framework of post-colonialism, post-neoliberalism and, according to some, post-modernisation. I will then look at *Vivir Bien* as a specific instance of an alternative to development, and criticism that its practical application in Bolivian politics has invoked. After this I will turn to the problems of resource extractivism in the Global South and especially Latin America, where neo-extractivism has become a central concept in describing current strong state policies regarding natural resources. Finally, I will look at political ecology in its application to the subsoil as a theoretical tool for analysing relations different actors have to natural resources.

After this I will concentrate on the findings of my field study, which I will discuss in three parts as well. I start with a survey of the history of lithium: how the current project got started and has been executed thus far, offering explanations for different problems and phenomena that emerge within this review. I will also look at the potential environmental impacts of the project, and how they are related to politics. Second, I will look at different issues on structural levels that surround the project, such as the contested relations between a strong, centralised state that is running the project, and departments and communities demanding for more autonomy. I will also review the problems that arise when a very technical project is furthered in a country where

expertise in the area is lacking, and how these were experienced to be connected with politics. Finally, I will discuss the economics of lithium.

Third, I shall analyse the larger ideological issues raised in my interviews and reflected in the earlier chapters. These were the criticism and worries of neo-extractivism and heightened importance that was placed on exportable resources, resource nationalism as both a social and cultural phenomenon and as a political rhetoric, and finally how *Vivir Bien* was related to all of this. In the final chapter I will offer some concluding remarks, first in the form of a summary of both my findings and the central arguments of the study, and then with a short review of further implications this research has to offer.

## 2 Theoretical-Conceptual Framework

The theoretical-conceptual framework of this thesis combines post-development theories with literature on the realities of extraction-led political economy. I will first discuss alternatives to development, and how these theoretical aspirations can be seen in practice in contemporary Latin America. I will then turn to the concrete alternative concept of *Vivir Bien*, which has been adopted in Bolivia in the state policies, garnering both heightened academic interest and critique of its shortcomings in practice. Finally, I will examine the current realities of resource extractions and economic dependency on natural resources, and I will complement this theoretical juncture with a look at political ecology of the subsoil in order to better conceptualise the multifaceted relations societies and states have with natural resources.

### 2.1 Alternatives to Development

#### 2.1.1 Dismantling Development

‘Development’ is generally accepted as a nearly universal object of human life and endeavours. Its hegemony is pervasive throughout the globe, and despite increasing criticism, the division to ‘developed’, ‘developing’ and ‘underdeveloped’ nations is often still taken as a granted. The roots of the developmental age are usually traced to President Harry Truman’s speech in 1949 after the Second World War<sup>32</sup> and the

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<sup>32</sup> This starting point of ‘development’ is also contested, as it can be argued that it disregards the meaning of the concept in earlier applications with Eastern European late industrialisations and Soviet

subsequent end of colonialism.<sup>33</sup> The concept of development was first rather synonymous to economic growth<sup>34</sup>, in which social equality was thought to proceed from growth and redistribution of assets<sup>35</sup>. Later, when it became clear that economic growth would not magically bring prosperity to everyone, ‘development’ elaborated to entail social aspects of life, and in 1990 the Human Development Index was formed as a measuring method for development beyond economic growth.<sup>36</sup>

The environmental harms of constant growth were first addressed in the 1970s. Economic growth and industrialisation in the North has always depended heavily on natural resources, the reserves of which are not infinite, and the 1972 report *The Limits to Growth* which was commissioned by the Club of Rome think tank from the Massachusetts Institute of Technology (MIT) was the first to question the idea of constant growth as a basis of development. The response to this was the launch of sustainable development in the early 1980s, where it was argued that economic growth could be attained in such a fashion that would not endanger the following generations’ ability to enjoy the same resources.<sup>37</sup> Since the first introduction of the concept of development, it has gone through many transformations and now entails different forms or models of alternative developments, such as human development and sustainable development, along with other variations like the capacity approach and participatory methods that emphasise the role of the recipients of development aid and cooperation.<sup>38</sup>

But with the accelerating rate of climate change and global inequality, it seems safe to say that the development apparatus, as the system created by the development discourse that exerts power over and produces knowledges of formerly colonised South has been identified by Arturo Escobar<sup>39</sup>, even after all reforms and adaptations is not working, and that alternatives not just within but to development itself are long overdue<sup>40</sup>. There is a robust intellectual critique, post-development, originating from the South, where the flip side of the developmental project has always brought about inequality and

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economic planning, and disrupts the continuity from practices already at place during colonialism.

See, for example, Pieterse, 2000.

<sup>33</sup> Koponen et al. 2007; Escobar 1995.

<sup>34</sup> Gudynas 2013: 18.

<sup>35</sup> Berthoud 1998.

<sup>36</sup> Gudynas 2013.

<sup>37</sup> Gudynas 2013.

<sup>38</sup> Hettne 2009.

<sup>39</sup> Escobar 1995: 9.

<sup>40</sup> Gudynas 2016.

environmental ills<sup>41</sup>, and I will be examining this discussion especially through its vibrancy in Latin America.

As claimed by post-development, development is a construction of the Western world, tightly linked with modernisation, the monoculture of globalism, capitalism and the illusion of constant growth<sup>42</sup>, and because the adjustments in the nature of development have always happened within that paradigm, the alternative development models have not and never will be able to make a difference. According to this thinking, alternative developments only mask the true problems, and actually by making development look better on the outside while remaining the same within, they can be even more harmful than development in its earlier, cruder forms.<sup>43</sup> Jan Nederveen Pieterse compiles popular aspects of critique towards development comprehensively:

Development theory and practice are rejected because it is the ‘new religion of the West’ (Rist, 1990), because it is the imposition of science as power (Nandy, 1988), giving rise to ‘laboratory states’ (Vishvanathan, 1988), because it does not work (Kothari, 1988), because it means cultural westernization and homogenization (Constantino, 1985), because it brings environmental destruction -- development has been and still is the Westernisation of the world (Latouche, 1993).<sup>44</sup>

First essential works in post-development were written in the 1990s by scholars such as Escobar and Gustavo Esteva, who argued for the need of an alternative to development, not just within it by positioning the story of development in the context of post-colonial theories. In his book *Encountering Development: the Making and Unmaking of the Third World* Escobar uses Foucault’s discourse analysis and builds on quintessential post-colonial works such as Edward Said’s *Orientalism*<sup>45</sup>, and asserts that not only is the ‘third world’ conceptualised from a Western viewpoint and rendered dependent on the industrialised countries, but development in and of itself is actually the cause of underdevelopment – the problem that the development apparatus aims at solving.<sup>46</sup> In *The Development Dictionary: A Guide to Knowledge and Power*, another fundamental work of criticism on development edited by Wolfgang Sachs, the relationship between

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<sup>41</sup> Ranta 2016: 426.

<sup>42</sup> Sachs 1998.

<sup>43</sup> Nandy 1989: 270; Serge Latouche 1993: 160-161; Esteva 1985: 78, all cited in Pieterse 1998.

<sup>44</sup> Pieterse 1998: 360.

<sup>45</sup> Said 1978, examines the power of representations, and demonstrates how cultural representations of Middle East and Asia have been constructed on false romanticised notions and prejudices.

<sup>46</sup> Escobar 1995.

development and underdevelopment is coupled even tighter, and in the book for example Gustavo Esteva argues, echoing the views of many Latin American dependency scholars, that underdevelopment is actually a prerequisite for development, not just a result of it.<sup>47</sup>

The main argument of these post-development thinkers is that development is an extension of colonialism, and externally brought development based on Western views can never truly help its recipients. Even when a development project is successful, it contributes to the inherent inequalities and dependencies that underlie the global structures<sup>48</sup>. As well as illustrating the historically build nature of development, these seminal works of post-development emphasise that the concept of development shapes cultural and social identities and space. Discourse and knowledge produced within the development apparatus frame reality and affect people's actions. The concepts 'development' and 'underdeveloped' change the way that people who are labelled thus see themselves. This construction of underdeveloped subjectivity leads to a skewed power balance and secures the status quo.<sup>49</sup> Thus Escobar calls for the end of development, neoliberalism and Western hegemony. He also argues that development is not something that can be exported, but is tied to place and culture, and suggests that instead of the Western development apparatus, society building should be endogenous, and that there needs to be a move beyond one-form-fits-all-blueprints for development.<sup>50</sup>

### **2.1.2 Latin American Transformations: Towards Post-Neoliberalism and Post-Modernisation**

The will to break apart from Western ideals can be seen in practice in Latin American countries and the transformations many of them have gone through in the past ten to fifteen years. As Escobar has analysed, these ongoing transitions can be seen as two-fold: post-neoliberalist and post-modernising, as the turn that is happening is fuelled by a will to break from Western imposed socio-economic ideas (neoliberalism) and Western cultural hegemony (modernisation), both of which I will examine in this

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<sup>47</sup> Esteva 1998.

<sup>48</sup> Escobar 1995.

<sup>49</sup> Escobar 1995; Sachs 1998.

<sup>50</sup> Escobar 1995: 212-226; 2010a.

chapter.<sup>51</sup> It should be noted, however, that the whole idea of a state is originated in the ‘West’, and making divisions of the globally interlinked socio-economic and cultural processes of the contemporary world is complicated. Here the terms ‘West’ and ‘Western’ are intended to refer to the industrialised countries of Western Europe and North America, and should be understood especially in relation to the power imbalances of the world.

Not long ago it was common that Latin American countries except for Cuba operated corresponding to a neoliberal idea of a state. According to David Harvey, the function of the neoliberal state is to ensure freely operating markets and free trade, which will then regulate themselves. The state should intervene as little as possible, and all barriers to the free, global mobility of capital should be erased, thus submitting state sovereignty to the global markets. Neoliberalism assumes that automatic mechanisms such as the ‘trickledown effect’ will take care of social justice, and according to the theory, privatisation is the best way to conserve assets from the ‘tragedy of commons’, while individuals are held accountable for their own welfare.<sup>52</sup>

Neoliberal projects were adopted particularly forcefully in Latin America, and the effects of these practices were diverse. In parts of Latin America neoliberal practices increased unemployment and rates of poverty, as well as produced exceptionally high levels of inequality especially in the 1980s.<sup>53</sup> In the 1990s growth rate of inequality slowed slightly and many non-monetary development indicators continued to improve, although the time period of 1980-2000 is sometimes called the ‘lost decades’. During this time inequality continued to be high especially in relation to ethnicity.<sup>54</sup> According to some evidence, neoliberalism reduced corruption and controlled inflation, but despite these advantages the social debt generated by cutting social spending dramatically had a huge negative impact on many Latin American countries.<sup>55</sup>

In the past ten or so years there has been a notable backlash especially in the Andean region against the hegemonic global processes of neoliberalism, capitalism and Euro-centric modernisation.<sup>56</sup> Dissatisfaction in the ineffectiveness of neoliberalist social

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<sup>51</sup> Escobar 2010a.

<sup>52</sup> Harvey 2005.

<sup>53</sup> Grugel and Riggirozzi 2012.

<sup>54</sup> De Ferranti et al. 2003.

<sup>55</sup> Grugel and Riggirozzi 2012.

<sup>56</sup> Escobar 2010a.

equity coincided and was coupled with growing openness of the political party field<sup>57</sup>, and this gave way to new visions of Latin American states that, at least in theory, have an alternative take on development and modernisation.<sup>58</sup>

The trend in Latin America, and especially the Andean countries of Bolivia, Ecuador and Venezuela, is that the role of the state is reinforced, especially in redistribution of assets, with the understanding that markets are not, in fact, self-regulating.<sup>59</sup> A capitalist system by nature creates inequality, which can be seen in both global and local trends of income distribution: there is an increasing gap between the poorest and the richest of the world<sup>60</sup>. In this context the role of state is also seen as a moral one, and social spending and eradicating inequality are high priorities. A post-neoliberal state as seen in Latin America takes a larger responsibility of the economic activities of the country, and aims at the welfare of the citizens. It views that it is the state's responsibility to ensure its citizens rights.<sup>61</sup>

Thus an important ideological departure from neoliberalism is in the way that the state relates to its citizens, and especially the poor. The state functions on more levels than just the economic one, and a neoliberal framework affected not only the flow of wealth, but culture and political practices as well. Holding economic liberalisation as the number one goal of the state encourages a certain kind of political atmosphere, where decision making becomes more technocratic, centralised and thus more difficult to access by the people. According to Grugel and Ruggirozzi, during the neoliberal era of Latin America democratisation was viewed as consumption and being able to make choices rather than agency. The post-neoliberal leftist state projects have promised a greater inclusion of people in decision making and a wider cultural recognition.<sup>62</sup>

At this juncture it is also relevant to examine the conflicts that have arisen between the new, strong state and decentralisations. In Bolivia a decentralisation reform was implemented from 1994 onward by the Movimiento Nacionalista Revolucionario (MNR), which Kohl argues to have been a response to International Financial Institutions' (IFI) demands for decreasing government spending and also resulted in social stability that better enabled transnational companies' access to Bolivian

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<sup>57</sup> Van Cott 2005.

<sup>58</sup> Grugel and Ruggirozzi 2012.

<sup>59</sup> Escobar 2010a.

<sup>60</sup> Ortiz and Cummins 2011.

<sup>61</sup> Grugel and Ruggirozzi 2012: 3-6.

<sup>62</sup> Grugel and Ruggirozzi 2012: 6.



resources.<sup>63</sup> However, decentralisation led to the strengthening of indigenous and peasant unions and organisations, paving way for the victory of Morales and the MAS. The power balances have thereafter shifted again towards the centre during the recent transformations, which in Bolivia can be seen especially in the strong role the state has taken in governing and redistributing revenues accrued from natural resources. Dickovick and Eaton suggest that this should not be conceptualised as recentralisation, as the processes do not aim at reversing decentralisation processes, but is one form of many different strategies that central governments in Latin America have resorted to in order to mitigate their previously diminished roles.<sup>64</sup> This has led to conflicts especially within natural resource extractions, and I will continue on the characteristics of Latin American transformed political economies in the context of resource extractions in chapter 2.3.

These contradictions are linked to the fact that in reality economic actions of these states are not, to a large extent, dissimilar to those of neoliberal states. Andean countries such as Bolivia and Ecuador, have not actually nationalised their natural resources completely, regardless of what political rhetoric might suggest. In fact, Bolivia, for example, has merely re-negotiated their contracts with private corporations involved in different resource extractions in the country, displaying a sort of economic pragmatism.<sup>65</sup> The MAS has dubbed their form of political economy in Bolivia as ‘Andean-Amazonian capitalism’ and in the Bolivian vice-president and sociologist Alvaro García Linera’s description the MAS’s post-neoliberalism becomes “a form of capitalism which we believe contains a set of forces and social structures which, in time, could become postcapitalist”<sup>66</sup>. According to Escobar, these views remain within established Eurocentric imaginaries of modernisation and developmentalism,<sup>67</sup> and Jeffrey Webber challenges the whole notion of post-neoliberalism, characterising the development model designed by the Bolivian State as ‘reconstituted neoliberalism’. He

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<sup>63</sup> Kohl 2002. Academic discussion on decentralisation is, however, a lively subject. Hadenius (2003) concludes that decentralisation can strengthen democracy, but also breed corruption and mismanagement. Faguet (2006: 125-132) on the other hand suggests that in Bolivia this was a tactic the government used both to recapture voters’ loyalties during a rise of ethnic-based politics, and to deepen structural reform by making the state more efficient.

<sup>64</sup> Dickovick and Eaton 2013.

<sup>65</sup> Grugel and Riggirozzi 2012: 9.

<sup>66</sup> Linera 2007:154, quoted in Escobar 2010a.

<sup>67</sup> Escobar 2010a.

argues that these state policies are neo-structuralist<sup>68</sup> rather than post-neoliberalist.<sup>69</sup> So it would seem that what these contested but at least chronologically post-neoliberal transformations actually mean and entail on the state level is still under process, and whether they offer a meaningful departure from neoliberalism remains to be seen.<sup>70</sup>

On the other hand, the cultural transformation, or departure from modernisation, is perhaps more ideological than concrete, but is –together with post-neoliberalism– linked tightly with the post-development debate. In his article *My Paradigm or Yours* from 1998 Jan Pieterse attests that the core question of post-development is actually modernity.<sup>71</sup> Modernity, an elusive but persistent term, refers to the knowledges and processes originating from European ideas of progress and rationality that produce a dichotomous ontology and precede practices such as colonialism, industrialisation, democratisation, nation-state formation and globalisation.<sup>72</sup> Latin American states are not necessarily venturing for radical changes like for example denouncing modernisation with all its connections *per se*, but are looking for different forms of modernisation. This is connected to indigenous and multicultural ontologies, which are gaining space and long over-due recognition in state policies, while indisputably differing from Western views.<sup>73</sup>

Typically, modernisation and globalisation are thought of in European terms, but for example the Latin American modernity/coloniality –research program researchers propose an alternative narration of modernity as a network of local and global histories from different perspectives. This research program shows that a classical, Europe-derived sense of modernisation continues the hegemony of Euro-centric worldview, and wants to appropriate modernity as they envision a broader sense of what ‘modern’ and ‘global’ mean beyond the categories of Western epistemology.<sup>74</sup>

There are more critical views also about the role of modernisation. According to Mario Blaser, critical theory needs to move beyond one single world history and the all-

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<sup>68</sup> “While granting that the market will remain the central organizing force in society, neostructuralists stress that the competitiveness of the entire system depends upon effective and thoroughgoing state intervention in infrastructure (technology, energy, transport), education, finance, labor-management relations, and the general relationships between public and private spheres, in a way that orthodox neoliberal theory cannot grasp.” Webber 2011: 184.

<sup>69</sup> Webber 2011.

<sup>70</sup> Escobar 2010a.

<sup>71</sup> Pieterse 1998: 345.

<sup>72</sup> Haferkamp and Smelser 1992.

<sup>73</sup> Escobar 2010a.

<sup>74</sup> Escobar 2010b: 35-41.

encompassing conception of modernity. He structures this as a ‘politico-conceptual’ question, where radical alterities cannot be taken seriously as long as they are viewed through the lenses of modernity. One of the solutions he proposes is “-- shrinking modernity to make it something more specific and contrastable, thus liberating the conceptual-ontological space for something else to exist.<sup>75</sup>” He also argues that the fact that indigenous concepts are slowly infiltrating the political sphere in countries like Bolivia indicates a crisis of modernity, further proof of which are the irrefutable social and environmental consequences of modernity. On the other hand though, like Anders Burman notes in his comment on Blaser’s article:

-- modernity selectively assimilates and disarms elements of alterity while simultaneously striving to produce ontological absence where ontological difference is detected, that is, denying the reality of any other reality than the one stipulated by modernity.<sup>76</sup>

I share his scepticism toward the claims of a crisis of modernity as a dominant ontology.

But it cannot be disputed that alternative ontologies are gaining more visibility.

Forty years ago, opposing mining, oil extraction, or the increase of agricultural lands for environmental reasons or because indigenous ways of life would be profoundly disrupted would have been seen as sheer irrationality by most citizens in a Latin American country; not so now. The promise of modernization no longer appears as persuasive (which does not mean totally unpersuasive either).<sup>77</sup>

The emergence of indigenous cosmologies and concepts such as *Vivir Bien*, to which I turn to in the next chapter, in the politics of Bolivia and Ecuador have been enthusiastically welcomed and researched in the academic post-constructivist discourse, and have inspired this work as well. But this does not necessarily equate to a crisis within modernity, and in practice the language and the knowledges of modernity seem to be thriving as vibrant as ever.

In the context of this study, modernity becomes an especially poignant term in its relation to technology. Brey has argued that technology is both a creation of and shapes

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<sup>75</sup> Blaser 2013: 553.

<sup>76</sup> Burman, comment in Blaser 2013: 561.

<sup>77</sup> Blaser 2013: 557.

modernity<sup>78</sup>, but is this relationship infrangible? Does post-development require post-modernisation? Is modernisation an integral part of development, or could these concepts be uncoupled from each other? Lithium industrialisation as a Bolivian state project presents a uniquely interesting case to study through this theoretical framework, as it is at the junction of cutting edge technology, post-neoliberal strong state and an alternative to development, *Vivir Bien*.

## **2.2 Vivir Bien**

There are various different approaches to alternatives to development arising from the global South, such as those constructed on Gandhian ideas of economics and development in India<sup>79</sup>, Bhutan's vision of development as 'Gross National Happiness' based on Buddhist ideals<sup>80</sup>, the notion of 'Ubuntu' and its potential in post-Apartheid South-African nation building<sup>81</sup>, critical feminism and ecofeminism as conceptualised by Mies and Shiva<sup>82</sup>, deep ecology as it is outlined by Næss, and certain strands of the de-growth movement.<sup>83</sup> It is interesting that there appears to be simultaneous trends towards integrating endogenous and traditional concepts to nation building in many parts of the global South, but I will be concentrating on *Vivir Bien*, an alternative to development derived from ontologies of Andean indigenous peoples.

### **2.2.1 Vivir Bien as an Alternative to Development**

Academic interest and discussion around *Vivir Bien* has been wide and lively in the past ten or so years since it was first introduced in the policymaking in Andean countries, especially Bolivia and Ecuador. It originates from indigenous communities' alternative forms of knowledge, and the core idea behind *Vivir Bien*, living well, is a democratic, communal way of living well instead of living better, in which profit and progress are not the measuring sticks for a good life and nature is seen as part of the community, not as an external commodity to be utilised. It endeavours to alter focus from the economic to the humane and the nature. The multiple terms for *Vivir Bien* (*Buen Vivir*, *Sumak*

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<sup>78</sup> Brey 2003. See also Edwards 2003 on the relationship between modern societies and technologies.

<sup>79</sup> Dash 2012: 291-307.

<sup>80</sup> Priesner 1996.

<sup>81</sup> Eliastam 2015.

<sup>82</sup> 1993.

<sup>83</sup> Gudynas 2013: 33.

Kawsay, Suma Qamaña etc.<sup>84</sup>) represent the plural and multicultural nature of the concept or concepts, and one essential aspect of it is the equal and non-hierarchic value of different cultures and histories that Vivir Bien stems from.<sup>85</sup> It is a concept with no single definition, but can be seen as a platform for differing views on development; a place of discussion.<sup>86</sup>

The indigenous traditions as a starting point for Vivir Bien are important, and the relevance of this is emphasised by the fact that in these indigenous languages there are no translations for development or progress. This underlines its stand as an alternative to, not just within the development paradigm. Abandoning the notion of development is easily justifiable if the concept has never existed in that language and cultural context in the first place.<sup>87</sup> These roots give also symbolic meaning to Vivir Bien as a break from Western oppression, especially as it rises from the cultures of those Andean indigenous people whom the practices applied by the Western development apparatus have marginalised and/ or subordinated.<sup>88</sup> Often the indigenous populations are viewed as poor subjects of development aid, and policies that arise from indigenous cultures promote their agency and involvement.<sup>89</sup>

Vivir Bien is also under a lot of critical examination, and it has been accused of being backwards and unpractical. But for example according to Gudynas the point of Vivir Bien is not extricating from all or any technological innovations of the modern age. The key of Vivir Bien is how the commodities of modern life are used, how economic actions are carried out and how the revenues are divided.<sup>90</sup> Although rejection of Western values, modernisation included, is at the root of Vivir Bien, Bolivia is not trying to extract themselves from modernity *per se*; the process could be perhaps better described as re-appropriation to their own particular context.

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<sup>84</sup> Bolivians use the Spanish concept Vivir Bien and Aymara concept Suma Qamaña, whereas the Ecuadorian counterparts are the Kichwa concept Sumak Kawsay and the Spanish concept Buen Vivir. Lalander 2014: 7.

<sup>85</sup> Gudynas 2011a; Villalba 2013; Walsh 2010; Ranta 2016.

<sup>86</sup> Gudynas 2011a; 2011b.

<sup>87</sup> Gudynas 2011a: 441-445.

<sup>88</sup> Villalba 2013.

<sup>89</sup> Ranta 2016: 429.

<sup>90</sup> Gudynas 2011a.

### 2.2.2 Shortcomings of Vivir Bien in Practice

The origin and core values of Vivir Bien differ from Western ideas of development, and this is also visible in the constitution of Bolivia. The implementation and practicalities of Vivir Bien are, however, a popular source for critique.<sup>91</sup> Although the constitution gives rights to nature and aims at securing indigenous peoples' rights, the fact that the State has the last say is also made extremely clear. The constitution gives the Bolivian State the ultimate power over nature, and a right to commercialise its resources, and has a right to resources even where the land has been promised to local indigenous communities. Selling resources and industrialising their development is of top priority,<sup>92</sup> and specifically a task of the central government.

While the new constitution gives the State a strong leash on their natural resources, this has not diminished their commodification as the principles of Vivir Bien would suggest.<sup>93</sup> On the contrary, research has shown that extractions have increased during the Morales government.<sup>94</sup> Bolivia has re-negotiated contracts related to the extractions of resources with higher revenues to the state, and ventured on strongly state-led economics, allocating their increased income to projects that aim at social and economic equality.<sup>95</sup> This is called neo-extractivism, meaning that Bolivia is highly dependent on their natural resources, and builds their economy on state-led extractions, which in turn is justified with social programs.<sup>96</sup> This also underlines the stronger role of the State and the importance of natural resources in constructing it: redistribution of assets is centralised and therefore an effective method for reasserting the significance of the State.

Bolivia has been successful in reducing extreme poverty, distributing wealth more equally, and also expenditure on education and health have increased.<sup>97</sup> The problem is that these improvements in social and economic equality depend on revenues from natural resources, putting environmental sustainability and local communities at risk. This is what Unai Villalba calls the Latin American Paradox: in order to reach Vivir

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<sup>91</sup> Walsh 2010.

<sup>92</sup> Lalander 2014: 15-16.

<sup>93</sup> Arsel 2012: 150.

<sup>94</sup> Lalander 2014: 22.

<sup>95</sup> Rosales 2013: 1449-1452.

<sup>96</sup> Lalander 2014: 3.

<sup>97</sup> Lalander 2014: 23.

Bien the State must compromise the ideologies of Vivir Bien.<sup>98</sup> This also suggests that the constitution of Bolivia contains inherent contradictions. Promoting the rights included in Vivir Bien with profits gained from extractions is at conflict with the rights of indigenous communities and the nature.

As Ranta has shown, these contradictions also demonstrate the fact that although on paper Bolivia is united behind the concept of Vivir Bien, different actors and policymakers who have been involved for example in conjuring the Bolivian constitution of 2009, have varying backgrounds and very divergent views of the State and economic affairs, and not everyone thinks of Vivir Bien as the starting point it is often presented as. The constitution was also a compromise of opposing political parties, the MAS and the right-wing Poder Democrático Social (PODEMOS), producing a mixture of ideologies and concepts.<sup>99</sup>

Ranta further illustrates that there has also been a shift in political vocabulary and the comprehensiveness of Vivir Bien in policies. The first PDN of the Morales government and the constitution of 2009 applied indigenous concepts and were at least to some level based on the concept of Vivir Bien, but in the governmental plan of 2010 the terminology has been switched to that of modernisation and industrialisation, its main focus being 'Gran Salto Industrial', the 'Great Industrial Leap'.<sup>100</sup> This is exemplified in the so-called TIPNIS-conflict, where the Morales government planned on building a highway through the Isiboro Securé National Park and Indigenous Territory (Territorio Indígena y Parque Nacional Isiboro Securé, TIPNIS), a protected natural park and indigenous territory. The proposal garnered intense opposition from various residents of the area, and it accentuates the government's renewed interest in large-scale projects despite their contradictions to the ideals of Vivir Bien.<sup>101</sup>

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<sup>98</sup> Arsel 2012: 154; Villalba 2013: 1436-1437.

<sup>99</sup> Ranta 2016.

<sup>100</sup> Ranta 2016: 434.

<sup>101</sup> Ranta 2016: 434-435; Laing 2014.

## 2.3 Resource Extraction in the Global South in the Age of Globalisation

### 2.3.1 From Extractivism to Neo-Extractivism

Extractivism refers to economic activities that are based on revenues from natural resources. Key issues in this context can be divided in two parts: how something is extracted (including who does it, where, what is extracted and at what environmental and social costs) and how the proceeds are distributed. Relying on natural resources as the basis of economic growth and through that, welfare and development, is fairly synonymous to export-led growth. This usually means that the economy is dependent on foreign direct investments (FDI) and global prices of the commodities exported.

According to critics like Harvard economist Dani Rodrik, export-led growth rarely creates sustainable growth or positive externalities such as larger industrialisation, expertise, jobs or education.<sup>102</sup> Generally extractions are rather technology and capital intensive, and do not employ large numbers of unskilled labour despite of ideologies.<sup>103</sup>

In addition to not creating positive externalities, dependency on natural resources often leads to various economical risks. The Dutch disease is a condition where wealth from one resource increases the value of the currency, rendering other exports less competitive. This is tightly linked with boom-bust cycles, where varying rates of extractions and world prices mean that an economy dependent on only one or few export resources is not stable. The booms in Bolivia have included mining different metals (the plunge in tin prices in 1985 brought the whole mining sector down and consequently led to hyperinflation), natural gas in Chaco region and more recently private mining and agricultural products.<sup>104</sup> Emphasising exportable goods usually also means that other forms of creating value are neglected.<sup>105</sup> Abundant natural resources can even according to some economists be the reason behind poverty, but although there is often correlation between rich natural resources and poor states, the causality is not as simple as that.<sup>106</sup> What is clear though, is that the ailments of export-led economics can be beneficial for industrialised countries. The mechanism of ‘inmiserising growth’

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<sup>102</sup> Rodrik as cited in Ripley and Roe 2012: 9.

<sup>103</sup> Kohl and Farthing 2012: 225-226.

<sup>104</sup> Kohl and Farthing 2012.

<sup>105</sup> Acosta 2013.

<sup>106</sup> Kohl and Farthing 2012; Pegg 2004.



describes the chain of events where a high world price of a certain good will inevitably lead to overproduction, which in turn leads to reduction of value. Lower prices of raw materials are advantageous to industrialised countries who are usually the buyers of primary commodities and value-adders in global production chains.<sup>107</sup>

Many of Latin American states' progressive governments, Bolivia among them, have reacted to these detriments of traditional extractivism by taking a stronger role in the extractivist activities. This is called neo-extractivism, and researchers such as Gudynas<sup>108</sup> and Acosta<sup>109</sup> address the fact that “this nationalist stance<sup>110</sup>” is aimed rather at giving the states a stronger role in the extractive industries, than at restraining ill impacts extractivism causes socially and environmentally. Bolivia has responded to the problem of distribution of benefits by generating social programs with revenues gained from extractions, and social and environmental ailments are treated as a necessary evil for a larger good. With this logic extractivism is “seen as indispensable for combating poverty and promoting development.<sup>111</sup>” This is visible in the NDP, where the role of the State is accentuated in eradicating inequality and poverty, which is to be attained by nationalising and industrialising natural resources.<sup>112</sup>

And the tactics of the government seem to have succeeded. The poverty headcount ratio in Bolivia has gone down from just over 59 percent in 2004 to under 39 percent in 2014, and in the same period the Gini Index declined from 0,60 to 0,47<sup>113</sup>. But Webber challenges the impact of social spending in this equation in his book *From Rebellion to Reform*, noting that social spending remained very moderate during the first Morales administration, and he attributes poverty reduction for the most part to the growth in revenues resource exports have brought the state.<sup>114</sup> It should be taken into consideration, however, that cash transfer programs have probably had an effect on the overall social expenditure after the first term of Morales. In any case, there is support for nationalised extractions, and poverty-reducing activities have made the government popular; no other president in the history of Bolivia has been elected for two

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<sup>107</sup> Bhagwati 1958 as cited in Acosta 2013: 65.

<sup>108</sup> Gudynas 2009; 2010.

<sup>109</sup> Acosta 2013.

<sup>110</sup> Acosta 2013: 72.

<sup>111</sup> Acosta 2013: 72.

<sup>112</sup> Ranta 2016: 431.

<sup>113</sup> At national poverty lines. The World Bank Country Overview of Bolivia 2017.

<<[www.worldbank.org/en/country/bolivia/overview](http://www.worldbank.org/en/country/bolivia/overview).>>

<sup>114</sup> Webber 2011: 154.

consecutive terms, and Morales got re-elected for a third term in 2014 with a landslide victory. For Bolivians the tables have turned in the sense that they are the ones benefitting from practices that have previously added to the wealth of others.<sup>115</sup> It is obvious that poor countries wish to eradicate poverty even if it has a cost on the environment. While as an ideology, Vivir Bien endeavours to alter focus from economic and anthropocentric activities to a bio-cosmic worldview,<sup>116</sup> in the practical application people come first.<sup>117</sup>

This human-first approach brings forward another problematic aspect of growth and development that relies on natural resources. The problems of humanely justified extractive politics are related to the juxtaposing of different groups within the country, and state-led resource extraction projects have negative impacts especially at the point of origin of the natural resources. This means that although painted as a practice meant to generate wealth and equity for all, these policies actually induce inequality, as the adverse effects are felt more strongly in certain areas and in certain groups.<sup>118</sup> There is a risk of marginalising local groups that suffer most of the extractive industries, and tensions between rural and urban areas and their contradicting interests should not be brushed off.<sup>119</sup> There is a dilemma between indigenous communities' territorial sovereignty and state led projects, the revenues of which could be used for the benefit of the very same communities in question.<sup>120</sup> The issues at the heart of the strife are fundamental. Whose rights are more important and who gets to determine what kind of development should be advanced?

Still, it needs to be stated that not all of the current environmentally detrimental projects on-going in Bolivia can be ascribed to the Morales government. In fact, many of them have been issued by previous, neoliberal governments and are under protection of older contracts.<sup>121</sup> Also, global demand for Latin American exports was rising when Evo Morales was first elected, which had a strong positive effect on social expenditure in

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<sup>115</sup> Postero 2013: 87.

<sup>116</sup> Gudynas 2011; Villalba 2013; Walsh, 2010.

<sup>117</sup> Arsel 2012: 154; Villalba 2013: 1436-1437.

<sup>118</sup> Kohl and Farthing 2012: 226.

<sup>119</sup> Fabricant 2013: 172-173.

<sup>120</sup> Laing 2014.

<sup>121</sup> Postero 2013.

Bolivia.<sup>122</sup> Jean Grugel and Pía Riggirozzi suggest that post-neoliberal governance would not had been possible at all without the favourable global economic climate.<sup>123</sup>

There is a long history of colonial extractivism in Bolivia and the underlying economic structures attributing to the ways in which the current government is devising their economic activities are harder to transform than the constitution. This can especially be seen when Morales defends his government's actions by referring to pragmatism: what will Bolivians live off of if not their natural resources?<sup>124</sup> Bolivia's economy has been largely built on natural resources, as this has benefitted the agendas of global powers already from the start of colonial times. As post-development theory construes it: structures that made the underdeveloped world are also hindering its endogenous escape from it. Even while declaring an ideological departure from Western socio-economics and culture, the South continues to be a part of the globalised world, and their options for developing their economies can be quite limited.<sup>125</sup>

In this light, it is not a surprise that through neo-extractivism the governments of South American countries take on the role of the accumulator and the capitalist, which in Western context is usually reserved to transnational companies. Their actions are not dissimilar to those of transnationals, where accumulation of resources is the guiding principle of all activities, despite harms to the environment and local communities. As Gudynas describes, neo-extractivism has been weaved in a South American adaptation of developmentalism, where a contemporary hybrid of culture (modernity) and politics maintain the fable of growth and progress.<sup>126</sup> Alberto Acosta crystallises the dependency at heart:

-- the evolution of these primary export economies is characterised by the fact that their production is subordinated to and motivated by external demand, [and] demand from industrialised countries still dictates the framework of extractive economic activities.<sup>127</sup>

So, although Vivir Bien can be seen as an ideological step away from the North that indicates, like Ranta attests, Bolivia having "more sovereignty to decide over its own

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<sup>122</sup> Lalander 2014: 22; Grugel and Riggirozzi 2012: 6.

<sup>123</sup> Grugel and Riggirozzi 2012: 6.

<sup>124</sup> Postero 2013: 85-87.

<sup>125</sup> Hoogvelt 1997.

<sup>126</sup> Gudynas 2009; 2010.

<sup>127</sup> Acosta 2013: 73.

development paradigms<sup>128</sup>”, the dilemmas of extractivism are global ones. So long as there is growing demand on natural resources, there will be extractivism. Therefore a rethinking of economy in the North is mandatory for the South to move away from production of mere primary materials.<sup>129</sup>

Again, this is an intersection in which lithium presents an interesting case. Often the departure from constant growth and unsustainable development is imagined either through technological innovations or through structural change. Lithium could be a material of the future, and combined with the right structures of production and development, it could provide Bolivia an opportunity to escape the ills of extractivism and neo-extractivism. But at the same time it is a mineral that needs to be extracted, linking it with the problems of extractivism and neo-extractivism described above. And by no means can one substance free a country from the unequal global economic structures.

### **2.3.2 Political Ecology of the Subsoil**

Although my primary interest is in the relationship between *Vivir Bien* and extractivism, lithium production, the case through which I examine this conjuncture, is a concrete operation with environmental and ecological consequences and prerequisites. The political economy of extractivism is tightly linked to the politics of lithium production, or the political ecology of the operation, and although the method of lithium extraction through evaporation differs essentially from other, more disruptive methods of extracting subsoil materials (mining, drilling etc.), it is still a non-renewable resource coupled to the same economic, geographical and political ecological issues as other subsoil materials. I therefore supplement this theoretical framework with literature on the political ecology of the subsoil.

Anthony Bebbington and Jeffrey Bury emphasize the importance of the subsoil, as fossil fuels, minerals and building materials all hold substantial significance in contemporary social life, but also argue that the subsoil has been disregarded in political ecology so far. These natural resources and their extraction have mostly been researched through political economy and resource governance, but the issues linked to extraction

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<sup>128</sup> Ranta 2016: 436.

<sup>129</sup> Acosta 2013: 80.

are clearly much more divergent and should therefore be examined also through the framework of political ecology.<sup>130</sup>

The environmental effects of subsoil extraction are vast and affect the poorest people most. Bebbington and Bury argue that environmental hazards are actually endogenous to the internal basis of capitalism, and due to the very large scale of these operations, the risks and calamities are often difficult to assess. As the political climate surrounding extractions is charged due to scale and value, independent knowledge can be very difficult to attain. The changes that extractions create at extraction sites are also extensive both in time and space, and often stay permanent and can affect future generations in ways yet unknown. These transformations require adaptation and it is therefore important to examine the political economies that drive them. As extractions of the subsoil mostly deal with non-renewables, the territories are usually attained by land enclosures, preventing all other usages of said land areas.<sup>131</sup> This underlines the struggles at heart in “understanding processes of landscape transformation in areas affected by extraction.”<sup>132</sup>

The geographical dimension of extraction indicates interaction with spatially defined identities, both national identities and territorial indigenous and regional identities regardless of national boundaries. Michael Watts and Richard Peet argue that societies carry ‘environmental imaginaries’, in which the nature has socially constructed aspects, but the society is as well constructed by the nature, and reflects history and social and individual practices of particular places.<sup>133</sup> This means that nature and society are enmeshed in a complex and profound way, which paves way for the further argument of Watts that resource extractions<sup>134</sup> generate radicalised identities especially in situations that are already politically unstable or volatile. This is linked closely to the notion of nationalism that often comes up in the crux of nature and extractions.<sup>135</sup> The sense of national identity is invoked both by having to face nonlocal actors taking away goods and in a more profound way when “extracted product is associated with national identity, sovereignty and security” and “the subsoil is somehow more closely tied to

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<sup>130</sup> Bebbington and Bury 2013.

<sup>131</sup> Bebbington and Bury 2013: 7-12.

<sup>132</sup> Bebbington and Bury 12.

<sup>133</sup> Watts and Peet 1996.

<sup>134</sup> Watts examines extractions and reasons behind the “resource curse” through a case of oil production in Niger Delta, but Bebbington and Bury use his findings to argue more general linkages between resource extractions and radicalisation. Bebbington and Bury 2013: 6.

<sup>135</sup> Watts 2004.

nation than is any manufactured product, or even perhaps labour value itself.<sup>136</sup> This resource nationalism is not limited to popular politics, but exists and occurs in professional arenas in resource industries as well. It is therefore important to recognise the role that environment can play in societies beyond being something that is produced and governed.<sup>137</sup>

### 3 Findings and Discussion

As I began the analysis of my transcribed interviews it became quickly apparent that starting lithium production in a country like Bolivia is a theme that operates on different levels, which seemed often to be in contradiction with each other. The way that people spoke of the concrete operations of the state-led industrialisation project differed from how they discussed ideologies surrounding extraction and development, and one person could be at the same time overtly optimistic about the possibilities lithium could bring Bolivia and the department of Potosí, utterly critical of the management of the project and pessimistic of the probability of success.

In order to outline the complex relations between extractivism and building *Vivir Bien* or welfare through the lithium operation, I have identified and divided my findings to three different levels, and the same partition functions as the structure of this chapter. First I will look at the state's lithium project in its concrete form: how did the endeavour start, what is actually happening in the production area, how has the project been managed so far, and what kinds of conclusions or implications can be drawn from these questions. The second level on which the conversations with my informants traversed were the structural restrictions that constrict the ways in which a complex project such as this one can be realised in a country such as Bolivia. The final third level on which my interviewees talked about the lithium production project was the political and ideological level. What could and should happen, what kinds of decisions have and should be made and what do they tell about the contemporary politics of Bolivia?

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<sup>136</sup> Bebbington and Bury 2013, 6.

<sup>137</sup> Bebbington and Bury 2013.

### **3.1 The State-led Lithium Project**

All of my interviewees talked about the concrete different stages of the lithium project. Predictably those who were or had at one point been involved in the project itself put more emphasis in retelling the history, and explaining current developments and both technical and managerial issues in the project. A lot of complaints were made about the slow progress of the project, and the management was criticised heavily. In the next three chapters I will give a brief description of the background of the project, how the project has been executed so far, and the impacts lithium production could have on the environment in Salar de Uyuni.

#### **3.1.1 History of Lithium in Bolivia**

Lithium production and development are not a new subject in the area of Salar de Uyuni, located in the department of Potosí, province of Nor Lipes within the municipalities of Uyuni and Colcha K, which is one of the poorest regions in Bolivia. Lithium was first discovered in 1969, when French institute Office de la recherche scientifique et technique outre-mer (ORSTOM) (Now Institut du Recherche pour le Développement, l'IRD) came to the salt flat to conduct studies in co-operation with the University of San Andrés in La Paz (Universidad Mayor de San Andrés, UMSA). The aim was to determine structures of the Salar as well as to find out which individual components the salt liquid is comprised of.

After ORSTOM and UMSA published the first find of lithium deposits in the end of the 1970s, the Salar started to garner interest from foreign companies.<sup>138</sup> “The whole world wanted to come here”, reminisced David, a retiree who had been involved in studies on lithium in Bolivia, as we met for tea at a crowded little café on a cold evening. As a response to the heightened interest, the Salar was declared a fiscal reserve of the Bolivian State by law 719 in 1985, and a committee, Complejo Industrial de los Recursos Evaporíticos del Salar de Uyuni (CIRESU), was founded to oversee international bidding contests for any foreign concessions.<sup>139</sup>

Due to financial constraints, a typical drawback for countries in the global South, the Bolivian government was unable to exploit the Salar on their own. In the 1990s, Bolivia

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<sup>138</sup> L'IRD en Bolivie, Historique, [www.bolivie.ird.fr/l-ird-en-bolivie/historique](http://www.bolivie.ird.fr/l-ird-en-bolivie/historique); Nacif 2012.

<sup>139</sup> Claros Jiménez 2009: 2; Nacif 2012.

gave concessions to US Lithium Corporation (Lithco, now FMC) in contradiction to the CIRESU law. When this deal became public, people in the department of Potosí and especially the leaders of Potosí Civic Committee (Comité Civico Potosinista, COMCIPO) opposed the terms of the contract vehemently, and organised strikes that paralyzed the department of Potosí, and the leaders of COMCIPO arranged a hunger strike in La Paz. The intensity of opposition to Lithco is not surprising in the context of the history of Potosí. Bolivia, like virtually all of Latin America, as has been traced by Eduardo Galeano<sup>140</sup> in *Open Veins of Latin America*, was forced to serve as a resource base for other nations building their industries and development in the colonial era, and in the 16th and 17th centuries over half of Spanish silver and gold came from Bolivian mines located in Potosí.<sup>141</sup> The *Cerro Rico*, 'Rich Mountain' looming over the city of Potosí remains a constant reminder to the people of the wrongs they have endured, which have made a permanent mark in peoples identities, even more so than in the identities of Bolivians in other parts of the country.

The protests led to the annulation of the contract, an accomplishment of the COMCIPO that was recollected with pride by Walter, a veteran activist whom I interviewed at his auto shop. But soon there was a general election and a new, leftist government was formed by the Movimiento de Izquierda Revolucionaria (MIR). In Bolivian history this was the time of structural adjustments, a response devised by the International Monetary Fund (IMF) and the World Bank to combat hyperinflation in Bolivia in 1985.<sup>142</sup> As a consequence, all political parties implemented the same neoliberalist policies dictated by IMF and World Bank, and after a round of bidding (allegedly just for show) the contract with Lithco, now FMC, was renewed with small alterations compared to the first one, giving the state a slightly bigger role. The second contract was not received well in Potosí, either, but in the end it was FMC that decided to set their lithium operation in the Argentinian Salar de Hombre Muerto instead of Salar de Uyuni. Salar de Hombre Muerto does not contain as vast amounts of lithium as Salar de Uyuni, but it is more easily retrievable, and the political atmosphere for foreign companies was more favourable in Argentina than Bolivia.<sup>143</sup>

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<sup>140</sup> 1973.

<sup>141</sup> Kohl and Farthing 2012.

<sup>142</sup> Thiele 2003.

<sup>143</sup> Nacif 2012.



In one of my interviews with David, whom I met several times to discuss especially the history of lithium production, he lamented that contracts with Lithco were very poorly negotiated, and gave virtually all the rights to Lithco with little revenues to the Bolivian State. The tendency to comply with “bad contracts” was also mentioned by Marco Antonio, a university professor I interviewed at his office, as a recurring fault in Bolivian politics: “We do not know how to make and negotiate a good contract - - if we compare ourselves to Chile, or Argentina, when we started talking about lithium in Bolivia, they did not know anything either. Now they are ahead of us.” This problem was linked with blatant corruption and clientelism. As per the ideals of neoliberalism, the role of the state was diminished, and so during the era of structural adjustments a large part of Bolivian economic activities were privatised.<sup>144</sup> David recounted me the practice of *diezmal*, where parties involved in negotiations would customarily get a ten percent cut of the contract, and suspected this had been the case with Lithco as well. Corruption has often been a pervasive problem throughout the global South and has also been used as justification for privatisations and shrinking roles of ineffective states during neoliberalism, but according to Sanz Galindo, who has traced the role of corruption in Bolivia during the era of privatisations, corruption actually spiralled upwards during the neoliberal era as the role of the state subsequently diminished<sup>145</sup>. The relationship between neoliberalism and corruption remains contested and context-dependent, and Grugel and Riggiozzi for example have suggested that neoliberalism could also have reduced corruption in some instances.<sup>146</sup>

All in all, the early stages of lithium in Bolivia reflect the politics of the neoliberal era and function here as a background against which the current politics and the on-going lithium project can be examined. After the unsuccessful negotiations with Lithco/FMC there were other attempts at getting concessions for the lithium, but nothing concrete ever happened, and it seemed like the lithium was forgotten for a while during the height of privatisations in the late 1990s. The resource was revisited after its value and global markets started to increase after 2000<sup>147</sup>, turning it into a more profitable investment.

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<sup>144</sup> Kapa 2012.

<sup>145</sup> Sanz Galindo 2006.

<sup>146</sup> Grugel and Riggiozzi 2012.

<sup>147</sup> Grosjean et al. 2012.

### 3.1.2 The State-led Lithium Project Today

Lithium re-emerged in political discussions after Evo Morales's election as the first indigenous president in 2006 marked a prominent change in Bolivian politics, and this time it was the federation of rural workers of South-Eastern Potosí, (Federación Regional Única de Trabajadores Campesinos del Sudoeste Potosino, FRUTCAS) that took initiative in proposing lithium industrialisation for the government, acting according to the advice of Belgian engineer Guillaume Roelants. Roelants had originally come to Bolivia with an NGO working with agriculture and had stayed in the Uyuni region selling salt and boric acid, and he was one of Evo Morales's supporters when he first came to power, as well as an important community figure in Uyuni.

There is a pronounced difference in attitudes towards lithium production in Uyuni in the past and now, acceptance seemingly being dependent on the proponents of the actions. While previous proposals met forceful opposition, under the Morales government production was received well in the department.<sup>148</sup> Roelants's personal involvement probably aided this transition, as he was both close to Morales and to FRUTCAS, and in this new, post-neoliberal Bolivia unions held and hold significant power.<sup>149</sup> The change in attitudes towards lithium extraction by locals has also been noted by Revette<sup>150</sup>. According to her, this positive and welcoming stance looks to be unique to lithium, and similar switches have not taken place in other extractive sectors, such as traditional mining or hydrocarbons, where conflicts and protest over government actions have transpired during the Morales government as much as, or even more so than during the neoliberal era.<sup>151</sup>

Initially the government met with experts and the heads of UMSA and the University of Tomás Frías of Potosí (Universidad Autónoma de Tomás Frías, UATF) to begin the development of Bolivian lithium production. UATF had been doing research on lithium in collaboration with the University of Freiburg in Germany, who had experience in lithium treatment. They began their own pilot research project on the subject, which produced a new method for lithium production with two new patents, which were to be

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<sup>148</sup> Nacif 2012.

<sup>149</sup> Webber 2011.

<sup>150</sup> Revette 2016.

<sup>151</sup> Revette 2016: 151-152.

divided equally in three parts between the University of Freiburg, UATF and the Bolivian State.<sup>152</sup>

Co-operation with the universities, however, never really started, and in 2010 lithium was declared a strategic resource, meaning that the state could be the only stakeholder in its production. The project would be carried out with Bolivian money<sup>153</sup> and Bolivian professionals, and GNRE was founded under the Bolivian State's mining company, Corporación Minera de Bolivia (COMIBOL)<sup>154</sup> to develop and control the production, corresponding with other nationalisations the government had implemented. None of my informants who talked about this turn of events knew the exact reasons for not including the universities in the project. Some speculated that the government did not want any foreign involvement in the project. According to David, it was unacceptable to the government that a foreign institution (the University of Freiburg) would have held 33,3 percent of the patents, and he continued saying that one should never mix politics with science and research, because it will only further politics, nothing more. Miguel, an economist who had been involved in the early stages of the project, argued that this was also due to the fact that the technology developed by UATF and the University of Freiburg would not have worked on an industrial level. Even if this was the case, terminating all involvement of Bolivian universities seemed very incongruous, as this would appear to be a prime opportunity for promoting Bolivian know-how, research and innovations. This inconsistency seemed to be a side effect of the reassertion of state power, and suggested of power struggles between the central government and other actors in Bolivia, which I will examine in more detail in chapter 3.2.

Roelants became a key person in promoting and advancing the project, and was appointed head of the lithium pilot plant even though he had no background in chemistry or technology.<sup>155</sup> He left the project in 2013 and since then the project has been led by engineer Luis Alberto Echazú, who was the mining minister of the first Morales government and former principal of Universidad Técnica de Oruro. Both Roelants's and Echazú's appointments highlight the importance of personal ties in Bolivian politics and – as I had come to notice while arranging my interviews – in other

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<sup>152</sup> Claros Jimenez 2009; Nacif 2012.

<sup>153</sup> The state invested 925 million USD in the designing and construction of the lithium production plant in 2015. La Razón 2015.

<sup>154</sup> COMIBOL was reactivated after years of neoliberal rule in 2006. Perreault 2013.

<sup>155</sup> Friedman-Rudovsky 2011.

aspects of Bolivian life as well. Marco Antonio asserted that the leader of GNRE could never be someone who did not have personal connections to the government, and therefore people with technical expertise working at universities were overlooked when deciding on the replacer of Roelants.

The importance of strong personal connections is linked to clientelism, a political strategy with long roots in Latin American history in which electoral support is exchanged for particular benefits.<sup>156</sup> These client-patron-relationships, where elected politicians, or patrons, “are expected to redistribute their wealth, and the wealth of the state, through the provision of jobs to their clients”<sup>157</sup> and votes can be bought with certain favours’ have been an integral part of the Bolivian political system. When Morales first came to power it was supposed to be the end of the politics of patronage, especially because traditionally indigenous and poor groups were usually seen as clients; receivers and objects of political decision making, whose votes could be bought with specific promises. Vertical participation was to be replaced with horizontal, responsive politics with indigenous people in state offices, but translating indigenous forms and practices into the state apparatus that arguably is based on vertical power relations is complicated.<sup>158</sup> At least in relation to GNRE it would seem that even if clientelism was not as prevailing as before, close relationships between elected politicians and the officials they appointed were consequential. This is especially noteworthy due to the criticism that GNRE and its management in particular were subjected to.

The project now in place consists of three parts, as was described to me by José Luis, an engineer of GNRE who I met for a brief interview at the central office of GNRE in downtown La Paz. Phase one of the project, production at pilot level, was on-going during my fieldwork. Phase two, industrial scale was being planned in co-operation with a German company K-UTEK, who are designing the industrial lithium factory, and later a contract has been signed with a French company regarding the lithium production, and a Chinese company is designing a potassium chloride plant. Phase three of the project would be further development of lithium-based products in the future, such as batteries and even electric cars.

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<sup>156</sup> Albro 2007.

<sup>157</sup> Lazar 2004.

<sup>158</sup> Albro 2007: 308-310.

It remained unclear what the current amounts produced were, suggesting that production of the pilot phase still had not reached the planned levels.<sup>159</sup> The very slow advancement of production and industrialisation was a source of much frustration among many of my interviewees, and some, like Ricardo Calla, a former minister of Indigenous Affairs and currently an independent researcher working with environmental politics and economics, expressed concern over whether anything was happening at all in the project right now or if it was paralysed with bad management and technical problems. The contents of these aforementioned contracts had not been made public, which increased the disconcertment Calla and other interviewees conveyed.

Having abandoned the production methods UATF had been developing, GNRE advanced with the conventional method of evaporation pools, and technology that was already in use at the Chilean Salar de Atacama. The problem with this was and is that all salt flats are different and the composition of the minerals in them varies a lot. This means that techniques used in one place are not always applicable in another, necessitating new technical innovations.<sup>160</sup>

Choosing the method of evaporation pools was criticised by people who had experience in lithium production and were familiar with the properties of Salar de Uyuni. One question that was addressed by Calla and Miguel regarded the weather. Salar de Uyuni is an arid desert with very little annual rainfall. The El Niño phenomenon has, however, a notable effect on rainfall in the altiplanos, high plateaus of the Andes, which means that during positive years of the phenomenon rainfall is going to be heavier than in the negative years.<sup>161</sup> Therefore the pools have to be covered and production paused for longer periods.

When I asked about this problem while visiting the production site, I was told that this particular corner of the Salar de Uyuni did not get as much rain and so this would not be an issue. This seemed to be in contradiction to what I had been told by the other researchers. On the other hand, the lack of water is also a problem, because it is required

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<sup>159</sup> By the year 2010 there was supposed to be 500 tons of lithium produced annually, along with 12,000 tons of potassium chloride. Friedman-Rudovsky 2011: 897.

<sup>160</sup> The challenge in Salar de Uyuni is that the salt solution contains a high ratio of magnesium to lithium, and separating them is one of the most difficult technical processes in producing lithium. The ratio in Salar de Uyuni is estimated to be between 18:1-24:1, which is significantly higher than those in Salar de Atacama (6:1) and Argentinian Salar de Hombre Muerto (7:1-8:1). Grosjean et al. 2012; Woong et al. 2012.

<sup>161</sup> Bookhagen and Strecker 2010.

in the treatment of lithium. The inconsistencies in information I was given did not induce trust towards the GNRE, and there remained uncertainties of technical aspects of the current production methods, which, like contents of contracts, had not been made available for popular examination.<sup>162</sup> The possible effects the production could have on the environment are further examined in the next chapter.

In a four of my interviews a lot of emphasis was put on the production of potassium chloride, a by-product in the production of lithium that is commonly used as a fertilizer, and is far simpler to extract, treat and sell than lithium. Although it is clear that the production of different materials in the Salar cannot be uncoupled from one another and therefore it is justified to examine all of them simultaneously, the fact that at some points the production of potassium chloride took centre stage of the interviews seemed to indicate that lithium production was in comparison perceived to be very complicated. Coupled with the sparse information on contracts and production methods, and the very slow progress, the project appeared disorganised and hard to apprehend as a whole. Marco Antonio, who had also been close to the project in its earlier phases, was disappointed that production appeared to concentrate on potassium chloride as a primary product, and lithium as a secondary, which was not the original plan. He also felt that this was one of the reasons why the project was advancing so slowly: it was deviating from the initial objective by a product that was easier to produce, but would not generate technological development or global strategical advances for Bolivia.

On the other hand, potassium chloride and other minerals that the Salar de Uyuni holds were regarded as much more practical targets for production. Potassium chloride for example could be used in improving Bolivian agriculture, and it would be an easy and uncomplicated way of benefitting the nation. Fernando, an Aymara man who I met in Uyuni talked about lithium as something too technical for Bolivians: “I am not going to go to the Moon or Mars, so I am not interested in lithium”, echoing a certain kind of resigned pragmatism that can also be seen in the justification of neo-extractivism. These pessimistic sentiments of Fernando can be seen as an indication of the internalised ‘under developed’ subjectivity that Escobar has identified in his post-development critique. In Fernando’s assessment, lithium was not applicable to what he viewed as the Bolivian realities.

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<sup>162</sup> This has been attributed to pending patents, Hodson 2015.

To conclude, the attitude towards the idea of lithium production was mostly very positive in my interviews, just like could be concluded from the initial welcoming attitude of Potosí workers union FRUTCAS, and conforming to Revette's findings on the subject<sup>163</sup>. However, opinions of GNRE were more negative, and the current project and especially its management were criticised in many ways. People who had initially been very hopeful and had advocated for the project, such as researcher Carlos Arze of Bolivian research centre Centro de Estudios para el Desarrollo Laboral y Agrario (CEDLA) whom I met in La Paz, had become sceptic. The idea of a state-led project with Bolivian money and ownership was welcome to even those of my informants who had more neoliberalist ideals, but the painstakingly slow pace, lack of transparency and digression from lithium to potassium chloride garnered distrust and frustrations towards GNRE and the management, design and execution of the project.

### **3.1.3 Environmental Impacts of Lithium Production in Salar de Uyuni**

In many instances when I asked about possible problems with the project, the environment was brought up, but at times, and particularly when I visited the production area, this felt somewhat rehearsed and like something I was expected to want to hear, even though I never framed my question directly in relation to the environment. It felt like I was presumed to be concerned about the environment, which I obviously am, but as my field of study is not chemistry, engineering or environmental biology, this was not something that I could investigate on a concrete level.

After having brought up the subject of the environment, José Luis at the GNRE and Mario, seemingly repeating GNRE's notices on the subject, convinced me that there could be no problems whatsoever, or if there had been any they had been taken care of, while Calla, Miguel and Marco Antonio talked about masses of toxic waste, polluted waters and unknown effects for the ecosystem. The long-term environmental effects of huge evaporation pools are still mostly unknown, and there is no large-scale research published on the subject. In the Chilean Salar de Atacama, situated less than 400 kilometres south from Salar de Uyuni, lithium extraction from the brine has been in progress for already 30 years, and while geologically and in relation to climate it is not a duplicate of Salar de Uyuni, it offers a suitable point of comparison.

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<sup>163</sup> Revette 2016.

In Salar de Atacama the biggest conflict between mining companies and indigenous communities living in the area has concerned water. When the brine is sucked to the evaporation pools, the hole left will be filled from waters running from higher grounds, depleting wells.<sup>164</sup> The scarce waters in Salar de Atacama have been heavily polluted and “chlorine is used to water down the potentially carcinogenic lithium and magnesium compounds that are commonly found in the water table around lithium deposits.<sup>165</sup>” In other words, impacts on the environment have been notably detrimental. Arze also told me that in Uyuni, some local people believe that the huge pools have an effect on the natural cycles of the environment in the region, and would contribute to worsening floods, but no in-depth scientific studies have been conducted in this matter. In any case, rainfall and very limited water resources in the area remained unresolved and important questions, and according to Meridian Institute, an independent French energy think tank, extraction of lithium from salares will cause irreversible destruction of the environment.<sup>166</sup>

Another worry that was brought up were potential environmental impacts of the method that GNRE planned on using in the treatment of lithium. A study called *Un Presente Sin Futuro- El Proyecto de Industrialización del Litio en Bolivia* co-ordinated by the CEDLA found out, that the conventional method of using chlorides in treating the lithium would result in mountains waste.<sup>167</sup> The research was initially commissioned by GNRE itself, but when it was published and the results were not favourable for them, they condemned the study. After some time though, GNRE announced that the planned method had been replaced. What the new method is, who created it and how it works, was not, however, made public knowledge. The reaction of GNRE to the adverse outcomes did not evoke confidence. According to Arze, the writers were dubbed imperial right-wingers by the GNRE in their response to the publication of the results, implying that GNRE was not ready to examine possible problems in the lithium project in earnest, and the undisclosed new production method was the most prominent example of secretiveness, and principle cause for environmental concerns.

It seemed like every time I tried to get clarifications about whether the production would result in masses of waste, or the water could be polluted or used up, or how

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<sup>164</sup> Hodson 2015.

<sup>165</sup> Espi and Sanz 2013: 31.

<sup>166</sup> Howard 2009 cited in Postero 2013: 84.

<sup>167</sup> Calla et al. 2014.



different methods varied in their effects on the environment, I got contradicting answers. This inconsistency seemed to indicate that the environment or environmental effects were not regarded with the severity that they would merit, and were mainly treated as a necessary evil that should be addressed publicly. Environment did not appear to be a priority in the planning of lithium production, and in the mechanics of the project, the salar was treated as a reserve for natural resources, not as an entity with inherent value like *Vivir Bien* would suggest. This is in contradiction to what Frieberger has found, as he has suggested that because the environment of the Salar is so unique, it could drive the locals and engineers to manage the land in new, less invasive ways.<sup>168</sup>

Although GNRE has since assured that their production methods will not be harmful to the environment, and mostly my informants agreed that if the chloride treatment method will not be applied production could be safe, there will still be effects to the landscape. This might affect tourism, which is the leading form of economic activity in the area. The significant feature of the salt flat is its perfect evenness, which makes the scenery extraordinary. The town of Uyuni is overflowing with backpackers going for three-day jeep-safaris on the salar and its surrounding natural wonders, and the small town centre is full of rows after rows of tourist agencies and pizzerias. The Salar de Uyuni is the world's largest salt flat. It can be seen from space, and in the rainy season, about January through March, the surface of the flat turns into a giant, perfect reflecting mirror, making it a unique travel destination. The parts where lithium production is taking place will not, however, be even anymore, transforming the landscape in a very fundamental way. So far production is taking place in the south-west corner of the flat, which is a remote place and not open to tourists, and hopefully effects will remain localised.

But like three of my interviewees stated, all extractivist activities affect their environment, and hoped impacts will not be too extensive and harmful in this case. The Chilean Atacama does not provide a promising example, as there the huge evaporation pools cut through the landscape endlessly and mountains of white waste disrupt the topography of the salt flat. Some years back a Chilean delegation travelled to Salar de Uyuni in order to share their concerns of the detrimental effects of lithium extraction,

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<sup>168</sup> Frieberger 2011 cited in Postero 2013: 84.

and warned that “the unique landscape of the salt plateau will be destroyed within two decades.”<sup>169</sup>

## **3.2 Structural Challenges for Developing Lithium in Bolivia**

The concrete structural constraints and the circumstances of Bolivian lithium production were talked about a lot as well, and these themes usually explained or gave context to the problems and contradictions that were met on the more practical level of the project. I have divided the main concerns that were brought up into three different categories: the issues arising from centralised decision making and worries over distribution, lack of education and technical know-how, and the global economic issues related to producing a fairly new material.

### **3.2.1 Power Struggles Between Centralisation and Autonomies**

As I have already disclosed, the GNRE was criticised over their lack of transparency concerning production methods with possible ramifications for the environment and contracts with foreign companies. Another topic of contest that emerged strongly in my material was the centralised nature of decision making processes. This was discussed by especially those of my interviewees who were active in the affairs of Potosí department or the municipalities of Uyuni and Colcha K, but also by researchers with no local affiliations that I knew of. After the government deemed lithium a strategic resource, it cut off all and any opportunities of the people of Potosí to take part in the project. In the constitution of 2009 it is clearly stated that strategic natural resources can only be “explored, exploited, industrialised, transported and commercialised”<sup>170</sup> by the state, a testament of Bolivian neo-extractivism. Thus people living right next to the production area have no say in what happens where they live, diminishing local governance in contradiction to the ideals of decentralisation and plurinationality, notions promoted even in the new name of the Plurinational State of Bolivia.

And not only do Potosí residents have no voice in decision making, but the people I interviewed complained also that they were lacking information regarding the project. Ángel, a member of the COMCIPO told me that they were asking for updates in Oruro and La Paz, because notifications about the advancement of the project did not reach

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<sup>169</sup> Espi and Sanz 2013: 31.

<sup>170</sup> Constitución Política del Estado (CPE), art. 351, inc I, cited in Nacif 2012. Translation mine.

Potosí. These forms of inequality are a repetition of similar power disparities in many of the mining projects of Morales's administration, as has also been noted by Revette.<sup>171</sup> Ángel also told me that the COMCIPO has issued a document for modifying the law that currently denies them access to any decision making.

Another aspect straining the relations between the central government and the department of Potosí was that division of revenues had not yet been determined. This meant that no-one apart from GNRE felt ownership of the project, and Miguel, whom I interviewed at a hotel bar in La Paz in two different instances, indicated that this was also a possible reason for the very slow pace of the project. Fernando, a valued community member who seemed to know everyone in his home town, suggested that revenues should be divided the same way as profits from hydrocarbons, where income is distributed to departments and municipalities both by derivation according to the level of production and through a general transfer system that distributes income evenly.<sup>172</sup> According to him the COMCIPO is demanding that 70 percent of the revenues stay in Potosí, because the Salar is situated in Potosí jurisdiction.

Fernando was all in all critical of the way the government was distributing wealth, and felt that the government was not spending enough on social sectors. He claimed with conviction that the biggest items of expenditure of the State were the army and the police, and that the number of officials in the central government had multiplied rapidly during the Morales administration. His exaggerated claims of security expenses being as much as 40—50% of the State's yearly budget<sup>173</sup> appeared to reflect his concern that communities in the Potosí department were not taken into consideration in centralised decision making. There was a clear unanimity with the people I interviewed in the Potosí department that the resulting wealth of increased mining<sup>174</sup> in their department had not translated into social spending in the area. For example, Ángel complained that

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<sup>171</sup> Revette 2016. For other examples of mining conflicts see for example Humphreys Bebbington 2012 and Schilling-Vacaflour 2013.

<sup>172</sup> An 11 percent royalty derived from production is divided by the four departments that produce oil and gas, which means that their share of hydrocarbon profits in total is always higher than that of other departments. Bolivia Revenue Sharing, Natural Resource Governance Institute, 2016.

<sup>173</sup> According to World Bank Database Bolivian military expenditure did increase from 390 million USD in 2007 to a peak of 625,9 million USD in 2014, but still remained at 7,74% of government spending. Military expenditure has been lower on average after 2006 than during 1994-2006. World DataBank, World Development Indicators. Databank.worldbank.org.

<sup>174</sup> The huge open-pit mine in San Cristóbal, located in the same Nor Lipes province as Salar de Uyuni, was taken over by Sumitomo, a Japanese company in 2008. Postero 2013.

in the city of Potosí they were still waiting for a new improved hospital they had been promised years ago.

These concerns and complaints highlight a difficult and on-going debate between the strong, neo-extractivist state and local autonomy. On the one hand, the aim and justification of neo-extractivism is that natural resources will benefit the nation as a whole, and in Bolivia distribution of revenues has led to positive outcomes, as I have discussed in chapter 2.3.1. But on the other hand Morales's popularity has arisen from indigenous and community movements, for whom autonomy is important, and decentralised, localised decision making is also a key component of *Vivir Bien*. The role of Potosí department was mentioned often in many of my interviews, and sympathies seemed to align with the poor department also among people I spoke to in La Paz. Why should the people of Potosí endorse an endeavour that they do not know how they will benefit of, and that in the worst case will bring them harm in the form of environmental impacts and drawbacks for tourism?

Marco Antonio criticised the central government by saying: “At the moment we cannot charge for our own home, it is like the landlord has a house but the result is that the tenant is the one telling what to do and how to do it.” The conflicts in administering and distributing resources have been noted also for example by Ranta, who in an article describes the views of a Vice-Minister in 2008:

According to the Vice-Minister, indigenous peoples were demanding too much when opting for self-determination within their lands and territories. In his opinion, they did not understand the increasing importance of the nation-state in decision-making processes and in the control of natural resources and territories.<sup>175</sup>

The mentality that Ranta presents, where centralised state-actors view indigenous populations as primarily recipients of the state's social actions, not as actors of change, was also apparent in the conflicts my informants expressed, and could be extended from indigenous people to all rural dwellers of the peripheries. The centralised decision making processes were a clear source of dissatisfaction in Potosí and Uyuni.

The strong, centralised line the government had adopted was described as choking, paternalist, and not motivating for furthering local development by Fernando and Ángel.

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<sup>175</sup> Ranta 2016: 434.

This looks to be an especially incongruous political choice in a country famous for its volatile politics and robust activism, characteristics of Bolivian political and social life that also helped pave way for Morales's presidency. The so called gas and water wars of 2001 and 2003 gave momentum to indigenous and labour movements,<sup>176</sup> and Bolivians will protest and hold strikes when they feel injustice, as was seen also with the case of the Lithium Corporation.

Democratisation, decentralisation and a wider opening of the political sphere in Latin America were important factors in enabling Morales's win, but in the last 10 years, as I have discussed in chapter 2.1.2, it seems that the decentralisation progress has halted and the centre – politicians and bureaucrats – are searching for new approaches to reassert the importance of the state. Methods such as declaring natural resources as strategic fiscal reserves are very effective ways of reinstating the power of the state, especially in a country where economy relies heavily on primary material exports.<sup>177</sup> The emergence of potential conflicts were already visible in the lithium project as well, even though it was still in the pilot phase, indicating the volatility of extractivism and its connections to radicalisations, as Watts has argued.<sup>178</sup>

Like GNRE, also the current government was criticised for its lack of transparency, and the competence of the Morales government was questioned by some of my interviewees due to the inexperience of its members. Fernando complained that the new constitution created by the first Morales government in 2008 was very poorly written, and in his mind this was directly connected with just Morales and MAS, although in actuality the constitution was constructed by a Constituent Assembly, legislated by the Congress and approved by a popular referendum.<sup>179</sup> I would claim that this is an example of how power and government politics is very strongly personified in Morales, and this type of speech where everything was credited or blamed on the president was fairly common in my interviews. When discussing government and governance of Bolivia, many talked about Evo Morales only, not even as in the Morales government, but about him personally as the one making all the decisions, further underlining the re-invigorated clientelism and patronage of Bolivian politics.

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<sup>176</sup> Bebbington 2009: 9; Escobar 2010a; Spronk and Webber 2007.

<sup>177</sup> Dickovick and Eaton 2013.

<sup>178</sup> Watts 2010.

<sup>179</sup> Wolff 2012: 185.

Critiques voiced against the current government in my interviews ranged from corruption and lack of transparency to incompetence and egoism. Those of my informants who expressed these critical views also deemed the lithium production project a prime example of the worst kinds of methods of action of the government, and Ángel compared the secrecy surrounding the lithium project to the relative openness of other state companies, such as the state gas company Yacimientos Petrolíferos Fiscales Bolivianos-Corporación (YPFB), who have information on their finances, contracts and current and past activities readily available for anyone on their website.<sup>180</sup>

At a different, very concrete level of development the project was, however, also welcomed enthusiastically, and even actively invited. The small community of Rio Grande situated right next to the production area is a dry, poor and isolated place. The road leading there would not be described a road by Western standards and telephone and internet connections are unreliable at best, although nowadays they at least exist. To the people living there the pilot plant has brought employment in the form of chauffeuring, construction, cooking and cleaning. There is a small hostel in Rio Grande that is constantly full, and the people are hoping to get paved roads and better network connections. Their vision for the future is that a fully industrialised lithium plant as a neighbour could help the community grow and create better education and healthcare opportunities.

For people in marginalised communities such as Rio Grande these improvements in their day-to-day life were, at least for the time being, enough to compensate for the lack of power in and information of decision making, although Revette and Humphreys-Bebbington are cautious of the longer term power dynamics that such imbalanced situations entail and create.<sup>181</sup> It is possible that if adverse effects witnessed in the Chilean Salar de Atacama recur in Salar de Uyuni and/or positive externalities do not actualise according to the hopes of the local people, conflicts following the patterns of other mining industries are repeated with lithium.

### **3.2.2 Lack of Technical Proficiency and Education**

It became apparent in discussing the concrete development of the lithium project that in this area of specified expertise, Bolivia lacked a lot of concrete prerequisites for

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<sup>180</sup> << <http://www.ypfb.gob.bo/es/>>>

<sup>181</sup> Humphreys Bebbington 2012: 445; Revette 2016: 156.

devising such a complex enterprise. This was mentioned often. The situation was described by Miguel: “for what we have planned you would need at least 100 specialised chemical engineers in Bolivia. Four years ago there were five.” The lack of know-how seemed also to be a key issue from which the potential threats to the environment emerged.

Many of my interviewees held the opinion that the reasons for the lack of expertise and proficiency stemmed from poor education and ignorance. There was a certain frustration expressed by especially those who themselves had higher education, although it did not for the most part appear to be necessarily directed towards the current government or Morales per se, but at the slow pace of improvements. Marco Antonio did, however, criticise the government for discarding “technical and professional hierarchy”, meaning that formal education was no longer a prerequisite for leadership positions (as was seen in the case of Guillaume Roelants being named as the chief of GNRE), and in his view, scientific research and expertise of officials was given less importance than before. This corresponds with Ranta’s analysis of the new processes of government in Bolivia that challenge “the technical expert regimes and authority of public servants by condemning them as remnants of neoliberal colonialism”<sup>182</sup>.

The issue of education was especially emphasised by the people I interviewed in the province of Nor Lipes, who perceived it also as a regional policy affair. Fernando and Mario, both active community members in the neighbouring municipalities of Uyuni and Colcha K, wished there were better educational opportunities where they lived, so that young people would not have to move away in order to get an education. This is at the same time a feature of a society where grown up children habitually live with their parents far into adulthood, making the decision of moving away for studies a significant life choice, and to the larger issue of providing services for people living in the peripheries. The latter is yet another facet of conflicts between a strong state and the autonomy of municipalities and communities, but refers also to the far larger processes of urbanisation of life everywhere in the world, indicating of the conflicts between modernity and indigenous and/or rural ways of life.

In few of my interviews the current education system in Bolivia was also criticised for its allegedly introverted nature. This was especially linked to the level of English skills,

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<sup>182</sup> Ranta 2014.

which was considered one of the main obstacles for high-quality research in the universities, as English has become a fairly universal academic language. Marco Antonio, who worked at one of the larger universities in Bolivia, was even of the opinion that English should be taught at the expense of Quechua, Aymara and other indigenous languages, as they do not help Bolivians become globally competitive. This view, although singular in its extremity in my material, illustrates nonetheless how Bolivia is still a country divided in different fractions even as it seems more unanimous than before now that indigenous people and other marginalised movements have achieved political positions.<sup>183</sup> Marco Antonio also suggested that the government's lack of interest for improving education and especially university education could be attributed to their wish for people to remain ignorant, so they will not start questioning current policies. These views expressed are not consistent with the government's achievements in, for example, literacy programs, which have been one of the successes of Morales's government, adult literacy rate being now at over 95 percent,<sup>184</sup> but again unveil dissatisfaction rising from the slow pace of changes and inconsistencies of the government's actions.

Also the quality of education in Bolivia was criticised in all of the interviews where it was brought up, and Miguel expressed a view that the government should actually be more involved with the universities in forming their curriculums, especially in technical careers, where research should be coupled with the State's plans for industrialising and technical development. So although Bolivia can be described as a strong state with a lot of involvement in many arenas, it could still be seen as weak in steering education and research. The UATF had previously had a subject specifically on evaporitics, and they still had a department on primary material processes, among which non-metals were taught. Cooperating with the university located in the same department as the lithium deposit would seem logical, but as this was not the case, it looked like centralised sovereignty in governing the project was in actuality more important to the state than furthering Bolivian technical expertise in the area.

In light of the emphasis that my interviewees – people involved and interested in furthering lithium production in Bolivia – put on education, the incongruity of GNRE

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<sup>183</sup> The elite of the lowlands and the departments with richest natural resources still wield substantial power in Bolivia. Webber 2011.

<sup>184</sup> World Bank Database, Development Indicators. <<Databank.worldbank.org>>



severing ties to Bolivian universities was even more pronounced. The three-phase plan of entering the lithium market with ultimately end products such as lithium-ion batteries and even electric cars would seem to necessitate improving technical capabilities, which cannot happen without investments in education and collaboration with the universities – at least not as a Bolivian enterprise. Yet Bolivian economy should not continue to rely on primary resource exports, as is also underlined in the newest PND.

This leads to the importance of outside help and cooperation with transnational companies, which contravenes with prior clashes with foreign private corporations and the strong sense of resource nationalism according to which Bolivian resources should benefit only Bolivians, not anyone else, a prevailing subject that I will focus more on in chapter 3.3.2. There lies a contradiction in the way that the State emphasises nationalisation and at the same time does not seem willing to cooperate with different Bolivian sectors, centralising decision making and technical planning, and viewing them as a purely governmental process, to which researchers, universities, local communities and activists seemed to have little access.

### **3.2.3 Economics of Lithium**

Due to the restrictions described in the previous chapters, it will still take time before industrial scale lithium production can commence in Bolivia. One cycle of the evaporation pool method requires five years to complete. The plans for the lithium plant will not be ready until 2018, and the construction of the plant will take years more. But in regard to the economics of lithium, timing is essential. Carlos Arze and Miguel highlighted the importance of the economics of producing lithium, and had very clear views of different risks and factors that should be taken into consideration in the project, which they felt GNRE had not done to a sufficient extent thus far.

Lithium is not a commodity with a set world price but the price must be negotiated between producer and buyer. This requires contracts to be at place already before industrial production, and links the project at once to the global arena. The going price for lithium is defined by its producers, of which there are already many on the market. Commencing lithium industrialisation is a costly operation, and therefore the scale of production is essential: production must be large enough and operated cost-effectively so other producers cannot force the price too low for Bolivia to compete with. This requires technical efficiency. On the other hand, if Bolivia enters the market with too

much produce at once, the price will plummet. There is a certain kind of vicious circle, where in order for lithium products to be worth producing there needs to exist an adequate amount of lithium on a fair price on the world market, but Bolivia cannot enter the market before there is sufficient demand.

Waiting for too long could also mean that the whole lithium boom comes and goes before Bolivia even gets their production started. Miguel asserted that there is a strategic window in the market that Bolivia should aim to; when demand is starting to get higher, but Bolivian production is also at a profitable level. The risk is that battery- and other technology where the growing demand for lithium exists, advances to other materials, such as hydrogen. This risk could be considerable, especially taking into consideration the high costs of the project. Miguel gave the following comparison: “if there is no vision of demand and supply, this project could be an alternative technology like - - the cassettes, the DVDs, like past technology.” So far the GNRE did not seem to have taken this into deliberation.

All in all, the volume of lithium that Bolivia would be able to produce becomes a critical factor. Estimates of the amount of lithium in Bolivia span from 8 to 100 million tonnes, which is an enormous variation.<sup>185</sup> The newer estimates done by COMIBOL are at the high end of the range, and if these highest estimates were to be true, Bolivia would not have to worry about its competitors, and could dominate the market. It seems that the government is relying heavily on the sheer volume of lithium in Bolivia as a deciding factor, as the project is still at its pilot stage 10 years after its initialisation.

No matter what the actual amount of lithium in the Salar de Uyuni is, Bolivia has a lot of potential in lithium. But world leader or not in the quantity of lithium, producing just a raw material will not create economic transformation in Bolivia. This is also understood in the GNRE, where the third phase of the lithium project is manufacturing products with added value. The long history of Bolivia as a producer of raw materials, nothing more, was a pervasive theme of many interviews. There was a lot of emphasis on the need to produce end products and to industrialise, because it has been clear that

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<sup>185</sup> So far the deepest perforation that has been done in order to determine the composition of the Salar has been 220 metres, done by a US geological investigation. This perforation was done, however, on the edge of the Salar, and the Salar is formed as a huge upside-down cone, so its deepest point in the centre could be much deeper. Friedman-Rudovsky 2011: 896.

producing primary materials has not brought lasting economic development for the country.

The production of batteries in Bolivia was so far the most concrete example or option for a Bolivian end product, and was mentioned in several interviews. The difficulty of the battery industry is, however, that there are no standards in phones or electric cars, which means that whatever kinds of batteries Bolivia is going to produce, it needs to be done in cooperation with a manufacturer of whichever appliance that battery is going to power. Ángel painted a picture of a future where “if we work together with other countries, we can cooperate even in vehicles here in Bolivia, why not? The materials exist. There is steel, there is iron, there is silver, there is everything for producing, you only need to industrialise.”

Another feature speaking for the necessity of further industrialisation is that without it, the employment effects of lithium production are very small. When I asked about the potential benefits of lithium production, those with less academic background talked about job opportunities, and it is true that for a small habitation like Rio Grande, or the other communities in the municipalities of Uyuni and Colcha K, even just a few positions in manual labour make a noticeable difference. But in terms of the larger scale, most of the jobs generated will be short-term in the building of the facilities, and once production commences, it will be highly automatic and there will be next to no effect on employment in Bolivia. Further development of lithium products could generate more steady employment opportunities.

All of this relates lithium to the global markets, which arguably function according to the ideas of neoliberalism with little regard to post-development or post-neoliberalism narratives of the South. As a primary export lithium is dependent on its external demand from industrialised countries, which means, like Acosta has attributed, that Bolivian economy as well is dependent on the West.<sup>186</sup> Also, as a substance with high-tech connotations, lithium is interlinked with technology and modernity, and although this study material is too narrow to make conclusions of possible departures from Euro-centric modernity within Bolivian lithium endeavours, the impressions I was left with reflected traditional attitudes towards progress and modernisation.

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<sup>186</sup> Acosta 2013: 73.

### 3.3 Politics, Rhetoric and Ideologies

The final, largest level underlying all other discussion surrounding lithium production was the ideological and political preconditions at place in Bolivia. This chapter presents both findings from the interviews as these issues were discussed, and draws linkages and conclusions from previous, more concrete themes. It is divided in three parts that analyse the three principal concepts of this study: extractivism, resource nationalism and Vivir Bien, and offers the central findings of the research.

#### 3.3.1 Extractivism and the Morales Government

In terms of extractivism all informants agreed that the Morales government has been even more vigorous than previous, neoliberal governments, complying with the neo-extractivist models that existing research shows many Latin American countries are following.<sup>187</sup> Arze, Calla and Miguel felt that the extractivist actions of the Morales government have been in practice very similar to those of prior governments of the neoliberal era, and that corruption and centralised decision making persisted as substantial problems, complementing to critiques conveyed by Escobar and Webber.<sup>188</sup> Although studies have shown a marked poverty reduction<sup>189</sup> in Bolivia as a result of different cash transfer programs<sup>190</sup>, and taxation on hydrocarbon exports has ensured that Bolivia is not as dependent on donor money as before, few of my informants expressed a worry that the only thing that has changed after Morales came to power is the political rhetoric.

It might be that the extent of improvements had gone undetected by these critics of the government, but it is also true that extra funds for social programs were provided by the hydrocarbon price bonanza back when Morales first came to power in 2006, not by a pronounced shift in wealth distribution models.<sup>191</sup> Calla, with whom I discussed the dissatisfaction that he and his colleagues shared over the government's actions in this arena, explained that they had first been very happy of Morales's election, but now, at the third term, they felt that execution of transformations had fallen short from the big ideals Morales and MAS had initially advocated. He was of the opinion that the people

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<sup>187</sup> Acosta 2013; Gudynas 2009; 2010; 2011.

<sup>188</sup> Escobar 2010a; Webber, 2011.

<sup>189</sup> World Bank Database, World Development Indicators. <<Databank.worldbank.org.>>

<sup>190</sup> Postero 2013; Weisbrot et al. 2009: 15.

<sup>191</sup> Webber: 2011.

who were now in power had gotten accustomed to their status and were not doing as radical changes for the people as had been promised.

These views point towards a troubling challenging of the fulfilment of the main justification of neo-extractivism in comparison to extractivism: the emphasis on social spending. If the structures remain the same, and difference in the state's expenditure relies solely on heightened levels of extractivism, does neo-extractivism truly offer any ideological departure from traditional extractivism? In this conjuncture it would seem neo-extractivism is rendered to mere political rhetoric; a tactic for legitimising intensified extractions while economic actions continue according to the neoliberal agenda.

It is understandable for a country to monetise on their natural resources when their price is peaking, but if this is done on the expense of other economic activities, it is unsustainable. The prices for hydrocarbons have declined steeply after 2009, even so much that incentives that the government has previously put in place to increase hydrocarbon production during years of high prices are, according to calculations of Arze, at current prices effectively nullifying the nationalisation decree.<sup>192</sup> But the previous favourable global price situation in hydrocarbons has strengthened a conviction that extractions are the pathway to affluence, a positive attitude towards extractivism that Bebbington argues is common in most parts of Latin America.<sup>193</sup> Although a source of much contradiction between different groups within Bolivia, there is a lot of support for extractivism, which I will further examine in the next chapter. To this those of my informants who had a background in economics stated that continuing as a provider of primary materials through extractivism without any added value, would mostly benefit foreign transnational big companies, pertaining to the mechanism of immiserising growth. They advocated for a change of mentality in the Bolivian economic model, only through which could lithium truly benefit Bolivia.

As Bolivian economy leans heavily on extractivism, and has done even increasingly so in the last ten years, Arze was concerned that attention to other economic arenas, such as agriculture and especially domestic food security had decreased during the Morales government, a worry that has also been raised in a CEDLA report on food

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<sup>192</sup> Arze 2016.

<sup>193</sup> Bebbington 2009.

sovereignty.<sup>194</sup> Arze criticised that the only kind of agriculture the government seemed to envision for the future of Bolivia is agroindustry aimed for exports, such as soya, ethanol and sugar cane. These actions would concur with extractivism, as both are economic strategies of generating income through exports, and worries expressed were linked to the general critique on relying too much on hydrocarbons, especially now that the boom had busted.

There were also claims raised that manufacturing was not promoted sufficiently, which seemed to be in contradiction to the government's new development plan of "The Great Industrial Leap". Arze was especially concerned of the fact that in the 2000s, the composition of Bolivian exports was roughly 50 percent primary materials and 50 percent other industries and agricultural products, whereas today the share of primary materials is 80 percent and other exports make up only 20 percent.<sup>195</sup> This formidable change is not explained only by the increase in volume of hydrocarbon exports; the volumes of other exports have declined at the same time. For example the value of textile and clothing exports has decreased from 56 million USD to 34 million USD between 2000 and 2015<sup>196</sup>, which indicates a significant drop in volume when inflation is taken into account. Bolivia has started importing certain foods such as corn and fruits from Peru that have previously been produced in Bolivia, and a large textile factory has been shut down.<sup>197</sup>

I also asked what my interviewees thought could be an alternative economic action to bring Bolivia and Potosí prosperity if the lithium endeavour would not succeed in that, and the most common answers were quinoa, camelids and textile industry. Both quinoa and camelids are grown and herded in the same region where lithium production is located, and as these are also water-dependent activities in a semi-desert area, disputes over water resources could become an issue.<sup>198</sup>

The critique conveyed by economists and other researchers I interviewed that the government was focusing too much on primary material exports and especially

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<sup>194</sup> Ormachea 2009.

<sup>195</sup> According to the World Integrated Trade Solution Database of World Bank, fuels, minerals, metals, stone and glass composed 80,41 percent of Bolivian exports in 2015, compared to 45,15 percent in 2000. The most pronounced changes happened gradually between 2003-2008.  
<<wits.worldbank.org>>

<sup>196</sup> World Integrated Trade Solution Database of World Bank. <<wits.worldbank.org>>

<sup>197</sup> Arze 2015.

<sup>198</sup> On the environmental and economic consequences of quinoa production, see Jacobsen 2011.

hydrocarbons was also linked to a certain type of pessimism regarding the lithium industrialisation project. The problems within it described in the previous chapters gave an impression that this was not highest on the government's list of priorities, and while it is mentioned in government development plans<sup>199</sup> it is clear that hydrocarbons are given preference in economic planning. In the context of extractivism, lithium is simultaneously connected to the contradictions and conflicts of it, and on the other hand remains overlooked within the framework of political economy devoted to easy exports.

### 3.3.2 Resource Nationalism

“This is clearly the last opportunity for Bolivia to escape poverty”, stated Miguel when I met him for the first interview. The theme of resource nationalism was the most common one to emerge in interviews without any encouragement on my part. I had read about resource nationalism before starting my fieldwork, but did not expect it and just plain nationalism to be so concrete both in my interviews and also visible in the everyday life in Bolivia. The text *Orgullosamente Boliviano*, ‘Proudly Bolivian’ was printed in many Bolivian packaged goods, such as drinks and foodstuffs, and being Bolivian was emphasised in every turn possible. Nationalism and patriotism are of course very common global phenomena and wrappings advertising local origins are an everyday sight all over the world. In Bolivia this seemed in some ways even more pronounced, though, which can be traced back to long struggles to having indigenous and other marginalised identities accepted and acknowledged on the state level, and also to the fairly recent reclaim of control of state economic activities after years of IMF and World Bank dictated privatisations.

In my interviews this could be seen in a few different ways. Lithium was talked about as a gift to Bolivians, and the importance of the revenues for Bolivians was emphasised in all interviews, even by those who expressed more scepticism over who the reserves would advantage in reality. All occasions where Bolivians had been the ones working or studying something were stressed to a great extent. For example, when I visited the production area I was shown the pilot plant for potassium chloride, and proudly told which parts of the machinery were built by Bolivians and of Bolivian steel, and that all personnel employed by the plant were Bolivian, even though the machinery was

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<sup>199</sup> There are two noteworthy plans in which the role of lithium is referred to: Plan de Desarrollo Económico y Social 2016-2020 (Economic and Social Development Plan 2016-2020) by the Ministry of Development, and Agenda Patriótica 2025 (Patriotic agenda 2025) by the Ministry of Autonomies.

standardised foreign technology and the plant itself was very small, with only a handful of people working there during my visit. In other words, it was not a revolutionary industrialisation effort generating significant employment, but every smallest Bolivian achievement was worth mentioning.

When it came to the subject of cooperation with foreign companies, a necessity noted in previous chapters, almost all interviewees acknowledged this prerequisite, although with certain stipulations. Those of my interviewees who had an academic background had usually the most pragmatic stance, and the importance of cooperation was especially recognised in discussions of visions for operations in the third phase, the value adding operations of lithium. As I have displayed in my prior discussion, it was acknowledged that technical knowledge and expertise to carry out these enterprises was lacking, even if a will to be autonomous was reflected strongly in most interviews.

The most enthusiastic proponent for foreign companies was Marco Antonio, who told me when I interviewed him at his spacious office: “to go forward from [the basic chemical lithium bicarbonate] there needs to be a society with foreign companies, obviously big transnationals, who have markets for vehicles etc., and this is still very far away.” He was the only one of my interviewees who deemed unequivocally that governments prior to Morales had been better than the current one, and he was very sceptic of Bolivian competence in producing lithium. He commented the nationalism surrounding all natural resources, lithium included, by lamenting that finding new deposits and starting new extraction projects has never been done in Bolivia by Bolivians, as all current extraction projects have been started, and the deposits found, by foreigners, first Spanish conquerors and later North American corporations.

According to him this necessitated stronger links with transnational companies, and the unfavourable climate that the government actions had created for foreign investments in Bolivia was a completely wrong tactic. Bolivia will not be producing batteries and other products for mere domestic consumption, and the strict conditions Bolivia is stipulating for foreign companies is creating wariness in potential associates; Bolivia is not considered a secure country to invest in.<sup>200</sup> He believed this to be a mistake, and suggested that large companies should be given guarantees and protection in order to attract better investments and collaborations. In his opinion a country that is poor like

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<sup>200</sup> Friedman-Rudovsky 2011: 896; Grosjean et al. 2012.



Bolivia cannot block foreign investors, because they do not have the money to invest themselves.

While Marco Antonio's view in this regard was the strongest, other people I interviewed also mitigated between ideological resource nationalism and pragmatism. No country in the current age of globalisation is truly self-sufficient, but many interviewees still emphasised the importance of ownership. This was in repetition of how the government and the GNRE have talked of the project especially in its early phases to the media, accentuating Bolivian money and Bolivian expertise.<sup>201</sup>

Fernando explained that the relationship with foreign companies had to be reversed of what it had been in the past. Before, corporations had been the *dueños*, (master, owner, host), and now either Bolivians should be the *dueños* whose interests would be served, or Bolivians and foreign companies needed to become *socios*, equal partners. But in order to be equal with their business partners, the importance of education was again repeated by many informants. One cannot be *socios* with someone they do not share a level of skills and knowledge with. "They will teach us the technology, and we will provide the products" envisioned Miguel, and according to a newspaper article, the German company K-UTEC contracted with the designing and construction of the lithium production plant, will also educate workforce and engineers to manage the plant once it starts operating.<sup>202</sup>

With these kinds of preconditions, the ideal of resource nationalism was fitted with the pragmatic necessity of reliance on cooperation with corporate actors. Related to this was the theme of autonomy in decision making, which was common especially among people in the Potosí department, and was talked about both in relation to the government and to foreign companies. It was regarded very important that no-one should make decisions on behalf of those who would be affected, and that no other form of cooperation would be tolerated than one where Bolivians or people of Potosí get an equal say.

Politics of identities became an important facet in these conversations. Identity seemed to be rooted in region and territory, and when talking at different scales, sometimes the 'other' who was unfairly trying to take something of 'ours' was identified as the central

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<sup>201</sup> Friedman-Rudovsky 2011: 896.

<sup>202</sup> La Razón, 2015.

government in La Paz coming to rob the people in Potosí, and sometimes it was the transnationals coming for Bolivian goods. While this reflects the power struggles between the central government and departments and municipalities, it also demonstrates how integral natural resources are to identities, not only as commodities but as an important building block for autonomous entities and social connections.

Natural resources are a “source of national dignity”<sup>203</sup> in Bolivia, and there is a potent belief in the powers of them in solving economic problems and alleviating poverty – after all, it is the single most important sector Bolivia’s economic history is built on. Natural resources are very prominently on display in politics, bound profoundly with the idea of national sovereignty, and Kohl and Farthing argue that leftist rhetoric relies widely on “defending natural resources”.<sup>204</sup> In addition to the long history of exploitation by others, this discourse also reflects two wars, in which Bolivia lost their access to the sea to Chile (in 1879-1883)<sup>205</sup> and land in Chaco to Paraguay (in 1932-1935). Both these wars have left scars to Bolivian sovereign identity, and explain why conceptualising nationalising resources as defending them is politically very effective.<sup>206</sup>

This could be noticed when I asked who would benefit most of lithium production in Bolivia, and what kinds of impacts it could bring either Bolivia, the region of Potosí or more specifically Uyuni (depending on who I was talking to and where). Especially those with no or less academic background, and greater ties to the area of Potosí, became quite patriotic, and Ángel summed these sentiments with the following statements: “We need to protect the reserve that is going to help all Bolivians.” “All us Bolivians need knowledge of the theme of lithium, and we also thank God the creator for giving us this richness.” “There will not be any problems because all of us have one common vision.” These excerpts illustrate a strong idea of shared Bolivian identity, which was tightly linked to the natural resources. The same notion can be seen reversed in how the government and GNRE responded to criticism against the project; the critics were accused of being imperial right-wingers. The project was for the good of Bolivia, and anyone opposing it was unpatriotic and not thinking of the best of their country.

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<sup>203</sup> Revette 2016: 156.

<sup>204</sup> Kohl and Farthing 2012: 228.

<sup>205</sup> The dispute with Chile over access to sea is still in progress now, 130 years later, as in 2015 the International Court of Justice ruled in Bolivia’s favour that Chile is obligated to negotiate with Bolivia of their sovereign access to the Pacific Ocean. Reuters 2015.

<sup>206</sup> Kohl and Farthing 2012: 229; Ripley and Roe 2012: 5.

Those with background in economics had a more pessimistic view of the beneficiaries of the lithium project, and suspected that it would probably further European and Northern American interests, because that is where the current markets for sustainable energy and electric vehicles are. According to them, lithium will benefit those who develop the new technologies that use lithium, because the end products are where the money accumulates, not the primary material. Fernando exclaimed quite passionately at the end of our interview: “the lithium is not going to benefit us at all, because in what can I use lithium? Nothing. Many people say: but in your watch! But this watch is Swiss, meaning that I did not make it, the Swiss did.”

A battery factory operating in Palca, Potosí was often mentioned as the only concrete example of Bolivian added value in lithium production, the phase three of the project. But when asked of more specifically, the role of it was always quickly dismissed. Although it was usually first called a factory, it became soon apparent that it only assembles batteries, and that none of the parts are actually made in Bolivia, but come from China. Marco Antonio called the factory a fraud that was only meant to make people think that there was value adding production going on, even though this was not the case. This further highlighted the role of nationalism; informants talking about the battery factory were aware of the importance of value adding industrialisation and the detriments of remaining a primary produce exporter, which the current government was in their view focusing too much on, but there were no other concrete projects or plans of this kind of activity they could refer to.

The paradox of emphasising the importance of Bolivians doing everything while at the same time excluding Bolivian universities seemed to indicate that while resource nationalism is a complex political, economic and social phenomenon, it is also used as political rhetoric tool, and due to a long history of exploitation by foreign powers and struggle against privatising resources, it is very persuasive. Miguel commented this by saying that what the government talks about and what the government actually does are two different things. When the government uses words such as ‘protecting’ and ‘defending’ the national natural resources, they appeal strongly to the identities of the people. These are also concepts that are linked with environmental protection, working therefore well together with an environmentally conscious image Bolivia is constructing on a global arena. ‘Defending’ in this instance does not, however refer to defending the nature from exploitation, but to defending the resources from others, outsiders,

exploiting them first. Thus although according to Vivir Bien there should be no dichotomy between human and nature, using resource nationalism as a tool to gain support for extractivism reduces nature to a commodity – which is exactly what Vivir Bien on the other hand is fundamentally against.

### **3.3.3 Vivir Bien**

Although Vivir Bien and its relation to extractions was one of my initial points of interest, it became quickly evident in my interviews that Vivir Bien would not come up naturally in discussing lithium extraction and its possible benefits and impacts to Bolivia. This already of itself alluded to Vivir Bien not being a pervasive notion or topic in the everyday life in Bolivia. Only Mario brought up Vivir Bien on his own, and in the rest of the interviews I asked whether they were familiar with the concept and if they felt that it was in any way related to lithium production and/ or extractions in general. Responses to my question of the linkages between lithium production and Vivir Bien varied a lot: those who were more pro-government also saw lithium as a means to an end and hoped it would bring prosperity to the people of Bolivia and Potosí. These more optimistic interviewees rationalised that if the riches of Bolivia are utilised well, they can help provide a good life for all Bolivians, and therefore lithium could be used to promote Vivir Bien. Those who were more critical of the government saw lithium as a capitalist project that would primarily benefit those in power and European and North American interests, and therefore to them it was not at all compatible with Vivir Bien. When I brought up Vivir Bien with José Luis at the GNRE, his response was a stiff “I would rather not take part in politics.”

There was no coherent view of what Vivir Bien is and entails, which is not surprising as the concept is derived from a conglomerate of indigenous cosmologies. According to Gudynas, “the term Buen Vivir is best understood as an umbrella for a set of different positions”<sup>207</sup>, or like Arze said: “Everyone has their own theory about Vivir Bien.” Some people described Vivir Bien through leftist rhetoric as a set of equal opportunities for life, and others did not relate to it at all, viewing it as something concerning only indigenous people. “It is ethics and a view based on indigenous ideas of living in harmony with the nature, an ethic value. It is a romanticised idea of the indigenous

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<sup>207</sup> Gudynas 2011: 444.

people as inherently good, who are not ambitious or could not be described as consumers”, characterised Marco Antonio, giving the concept moral attributes as well. Those interviewees who understood Vivir Bien in the most practical manner also saw least contradiction in coupling extractivism to Vivir Bien. “We hope that these economic resources will be invested in our communities in basic construction, sewage systems, health, energy, communications, roads and all our products, like quinoa”, said Walter. It was also recognised by him, Mario and Ángel that lack of these basic functions hindered industrialisation and other development outside of cities and larger centres. Without proper roads, no local produce could be distributed and without electricity and energy no plants could be powered.

These same active community members also argued that even if Vivir Bien and extractivism do have some conflicts, they are not inherent, and therefore can be conquered with development and technology. They felt that being in harmony with the nature does not necessarily require refraining from utilising any of its reserves; producing lithium in an environmentally sustainable way could be seen as living in balance with and of the nature. This was linked with the resource nationalist view of lithium as something that has been given to Bolivians to utilise.

Others with views of Vivir Bien as a more ideological set of values rather than as basic measures of human development were less optimistic of its applicability in lithium production. Marco Antonio, the university professor with anti-government leanings, talked of how

Vivir Bien should be about Mother Earth, about protecting her, but Mother Earth is being treated badly by Bolivians themselves. There is no real discourse for protecting the environment, only on an ideological level which looks good for people looking at Bolivia and the government from the outside.

Apart from few very pro-government interviewees everyone else expressed in some way a view that Vivir Bien is not fulfilled. “It is only a word that is not realized”, lamented Ángel, even though he had expressed a rather pragmatic understanding of Vivir Bien. There was especially frustration expressed in the fact that the government has had ten years to bring about concrete development, but many felt that little change had happened. One researcher described Vivir Bien as a discourse that is masking a “capitalist form of destruction without law”. He continued explaining his view that the

acts of destroying the nature and building highways on indigenous lands<sup>208</sup> are the same as before, but because the foreign investor is China instead of US this is disguised as non-capitalist. He and many other interviewees expressed the view that natural resource extraction will always be in contradiction to *Vivir Bien*, because in order to reach *Vivir Bien* one would have to change the mentality of producing things completely, and this had not happened.

Another interesting way of viewing development and alternatives to development in Bolivia was brought up by Miguel: because Bolivia was not as developed on Western standards as other countries in Latin America, this could actually be very beneficial to them. He felt that in other countries there had been a clearer change in national identity towards global citizenship, and that this had led to “bad development”. Bad development in his view could be seen for example in how a lot of population had concentrated in megalopolises like Lima in Peru, and that pursuing a dream of a Western way of modern life only lead to growing inequality and disparity between the cities and the countryside. He argued that so far Bolivia had avoided the identity-changing bad development, and therefore had more of a *tabula rasa* on which to start building a better version of development.

The relationship between *Vivir Bien* and resource extractions is complex, and even though some of my interviewees did not perceive these to be inherently opposing, the lithium project as it was being actualised did not seem to conform to the ideals of *Vivir Bien*. As Gudynas attests, the key of *Vivir Bien* in the modern age is to conduct economic actions and divide revenues according to the ideals of it.<sup>209</sup> In the current project decision making was centralised, the environment was not a priority in the development of the project, and distribution of proceeds was not yet determined. These findings confirm claims in existing academic literature, according to which *Vivir Bien* is yet to be realised in practice, and like Villalba asserts, the policies are actually closer to human development agendas than *Vivir Bien*.<sup>210</sup> The fact that social welfare is tightly coupled with natural resource extractions means that nature is in fact an economic asset, not a part of the community as *Vivir Bien* envisions.<sup>211</sup>

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<sup>208</sup> The TIPNIS conflict has been referred to in chapter 2.2.2.

<sup>209</sup> Gudynas 2011.

<sup>210</sup> Villalba 2013: 1436.

<sup>211</sup> Arsel: 2012.

All in all, Vivir Bien, as seen through the lithium project, resembles distinctly traditional development financed by state-led natural resource extractions, which does not set the Bolivian State as far apart from capitalism as they wish. They are, in fact, dependent on it. The extractions are valuable only as long as they will be consumed, and commoditise nature just as much as if these actions were carried out solely by private corporations. Within these contested relations, the functioning of resource nationalism becomes essential: as a rhetoric tool, it allows discourse to divert from the inconsistencies of the current government to nationalism and common enemies from the past. Ideologically and as a concept explaining strong links between identities and the nature, both resource nationalism and Vivir Bien arise from the same will to depart from Western oppression. Therefore, I argue that within this intersection resource nationalism has the ability to form an effective, if rickety bridge between extraction and an ideal that is inherently against extraction.

I would also like to argue, that regardless of the practical successfulness of Vivir Bien it is a concept that has power to disassociate Bolivia of their seeming ‘underdeveloped’ status. According to Escobar developmentalism is harmful both when it accomplishes its tasks and when it does not, because it forms identities and frames the world in a way that is beneficial only to the Western rule<sup>212</sup>. Similarly, Vivir Bien can have the power of creating an encompassing cultural space from a distinctly Andean/ indigenous/ multicultural point of view that is relatable for Bolivians, and does not aim at the profit of an exogenous force. While a breach away from neoliberalism seems to be harder to achieve, by conducting development from their own set of values, if not in practice, then at least in theory, Bolivia is culturally breaking away from developmentalism no matter how well or badly these ideologies translate to action.

## 4 Conclusions and Further Implications

### 4.1 Linking Lithium Production, Extractivism and Vivir Bien

This thesis has examined the contested relations between resource extractivism and Vivir Bien as an alternative to development through the case of lithium development in Bolivia. The theoretical foundation for the analysis is based on post-development

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<sup>212</sup> Escobar 1995.

critique, extractivism and political ecology of the subsoil, and the two central concepts through which I have aimed to explain the linkages and dissonances visible in my empirical findings are neo-extractivism and resource nationalism, the latter of which I have also connected to conflicts that emerge from the struggles between decentralisation and a strong state.

Extractivism has undeniably accelerated during the Morales government, and even though it is justified with the framework of neo-extractivism, there is a stated understanding that in order to develop a more sustainable economic system, Bolivia needs to move beyond exporting primary materials. At the same time, it is eminent that a switch away from hydrocarbon-based energy and transportation in the world is required, to which lithium could provide a solution. Lithium could be the material of the future and very prosperous for Bolivia, and there has been a lot of hyperbole surrounding the potential of lithium, especially in relation to Bolivia due to their large reserves.<sup>213</sup> But so far lithium is not yet produced on an industrial scale in Bolivia, and it will not happen in a good while either. The slow pace of the project has subdued enthusiasm and there appear to be many kinds of difficulties and inconsistencies within the project that can be linked to conflicts of extractivism.

Extractivism is an integral part of Latin American political economies<sup>214</sup>, and to understand current dissonances within Bolivian neo-extractivism and the progress of lithium production, it is crucial to examine it within the historical framework of Latin America. Centuries of pillage both by colonisers and foreign and transnational companies have shaped Bolivian identities, and this is heightened within indigenous groups especially when coupled with concepts such as *Vivir Bien*, which do not make a dichotomous division between human and nature. The burden of plunder is particularly felt in Potosí, one of Bolivia's poorest departments that has seen its mineable riches disappear overseas. In this light it is no wonder that lithium production by foreign companies was originally rejected vehemently, which led to the situation that Bolivia hosts the world's largest known reserves of lithium, the worth of which has multiplied manifold after their initial discovery, but which are yet to be industrially exploited.

The presidency of Evo Morales marked a new leaf in Bolivian politics, and a process of democratisation and decentralisation along with popular uprisings in the gas and water

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<sup>213</sup> Fletcher 2011; Friedman-Rudovsky 2009; 2011; Hodson 2015; Power 2010; Wright 2010.

<sup>214</sup> Bebbington 2009.



wars paved way for the victory of MAS. In the 90s Bolivia was one of the countries where IFI dictated structural adjustments were implemented most profoundly, and since then politics have taken a sharp turn to the left, towards post-neoliberal economics. Morales's governments have also brought indigenous concepts into state politics, and while Vivir Bien should not be reduced to political rhetoric, the notion does function in that capacity as well. There is a clear will in Bolivia to depart from Western ideals and the neoliberal era, and Vivir Bien offers a concrete alternative to development.

Within this new political atmosphere lithium production has been much better received in Potosí, but the empirical findings of this research show that frictions between the central government and department and community autonomies have risen due to the State's declaration of the lithium reserve as a strategic resource, a tactic for increasing the state's role and importance in an age of decentralisation. This has led to conflicts with the interests of Potosí people and the State's plans, and power imbalances that could prove volatile especially if environmental or other problems should arise.

Problems of previous governments, such as clientelism and corruption are not history, either, and social ties play a great part in assigning people to different state posts. These issues were reflected in criticism over poor management of the project. Also, the government's will to reassert their power has led to practices and approaches that appear illogical and incongruous. A critical condition of the lithium project was that it must be developed with Bolivian money and the benefits must come first and foremost to Bolivians, yet GNRE is not collaborating with Bolivian universities, opting for contracting foreign companies instead, and undisclosed particulars of technical processes and contracts have led to environmental concerns. The government seems to rely on nationalist rhetoric, but does not include other parts of the society, such as the academic community, within its version of 'nationalism'.

In addition to the conflict between reasserting state power after years of decentralisation, these dissonances have ties to neo-extractivism and point to the inherent contradictions of the political practice. Ills that extractivism cause to the environment and to local communities are not erased with a neo-extractivist approach, and even the fulfilment of the most important distinction from traditional extractivism, emphasis on social spending, was challenged in my findings, in accordance to Webber's critique<sup>215</sup>. The issues of extractivism might not be as strongly present in lithium

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<sup>215</sup> Webber 2011.

evaporitics as they are for example in conventional mining and hydrocarbon extractions, as so far the scope and reach of environmental effects are less known, but evidence from the Chilean Salar de Atacama is not promising, and decision making and distribution of revenues were active sources of dispute.

It is generally agreed that Bolivia should try to move towards producing infrastructure and productivity generating jobs<sup>216</sup>, but it is difficult to make changes to structures that have been at place for decades for the sole purpose of export-led economics. When it comes to explaining the contested relationship of extractivism and Vivir Bien, this research conforms to the claims in existing academic literature that Vivir Bien is not actualised in practice. In this conjuncture, resource nationalism emerges as a crucial concept explaining the findings. Formerly colonised South American countries view nationalising their natural resources as a way of taking back power that first colonisers, then foreign and multinational companies have had over their assets. Natural resources have strong ties to identities, and in Bolivia they form an important building block of national patrimony. In the empiric material this can be seen in the conflicts between the centralised state and the local levels of decision making, and in the nationalist outbursts that appeared in discussions of how lithium would benefit Bolivia. I therefore argue that resource nationalism operates both as a rhetoric tool for justifying extractivism and as a tie between extractivism and Vivir Bien, as it stems from the same will to depart from Western oppression as Vivir Bien itself.

To conclude, at the centre of the research and analysis are dissonances within Bolivian politics and practices. The most notable findings of the thesis are its contributions to the academic conversation surrounding Vivir Bien, neo-extractivism, and its central argument that resource nationalism can be understood as a bridging tool between resource extractivism and Vivir Bien. The latter also points towards the value of using political ecology in the study of subsoil resource extractions, an arena that is traditionally approached through political economy and resource governance.

## **4.2 Final Remarks**

The problems surrounding the relationship between resource extractions, export-led growth and welfare building are manifold, and further framed by the underlying global

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<sup>216</sup> Kohl and Farthing 2012.

power structures. At the nation level these issues are economic, structural, environmental, and cultural, and in Bolivia they are to a great extent the result of a history of extractivist economics. This means that the structures in place that favour export-led, extractivist economics and politics are difficult to dismantle or even revise, in addition to which nationalising resources has powerful connotations regarding Bolivians sense of sovereignty and pride. It seems difficult to forgo this economic path that Bolivia is on, but revising it in relation to its environmental effects and ensuring that local communities are heard and taken into account as well as sufficiently compensated for losses, while gradually lessening the dependency on raw material exports would be advisable in mitigating the adverse effects and risks while trying to build economic growth with which to develop welfare and equity.

With regard to lithium, it remains to be seen what the balance between potential ills and advantages will be to Bolivia and more specifically Potosí and Salar de Uyuni and its surrounding communities. After all this boils down to the question: can a poor state that lacks infrastructure and has a very volatile political history utilise its natural resources in a way that truly benefits the state, yet is sustainable at the same time? Lithium with its connections to clean tech and promises of reducing global dependency on hydrocarbons sounds promising and certainly carries potential, but on the other hand, it requires very high technical expertise and strategic economic planning that might just not be viable for Bolivia in the current juncture.

The tones of my interviews ranged from utopia-level optimism to “nothing will ever change and each government is worse than the last one”-depths of despair, often within one interview. This describes the project well: on one hand, everyone recognises the potential of lithium; optimally, lithium could help free the world of a dependency of hydrocarbons, producing it is not (allegedly) intrinsically harmful to the nature, and if industrialisation is coupled with education, it could foster technological growth in Bolivia. Revenues from lithium could be allocated to social development. On the other hand, in reality so far the project had been advancing on slow motion, environmental concerns were responded to tersely and local communities had no say in matters relating to them.

The world needs to advance to alternative energy sources, but it is not easy. At the same time, it is apparent that countries like Bolivia should advance from being mere primary material producers, but that is not easy either. The current global power structures are

severely tilted to the benefit of the industrialised countries. Although Vivir Bien presents an ideological departure from Western practices, Bolivia must exist in a global arena, where the dilemmas of extractivism are interlinked with centuries of dependencies, value chains benefitting the industrialised countries and the powerful cultural hegemony of modernity. As long as there is demand for natural resources in the West, there will be extractivism.<sup>217</sup>

Therefore, a restructuring of economy in the North seems to be a prerequisite for the South to become something more than a producer of primary materials. This in a way boils down to the paradox of modernity and its claim of rationality, which Watts and Peet crystallize well: “[it]is displayed in society’s demonstrated ability to destroy its natural conditions of existence”<sup>218</sup>. They argue that this dissonance should be approached in the following manner:

the response to unreason has to be a different kind of reasoning, to guide a different social order of practice on nature, with a knowledge of natural processes, and the effects of human activity on them, consciously integrated into the very relations that make up society.<sup>219</sup>

Lithium has potential in this regard, and if technological innovations were coupled with structural change, then maybe a departure from constant growth and unsustainable development could just be attainable globally. The social and political linkages of technology present a very interesting avenue for further research as well, and studying the relations between post-development alternatives and products of modernity, such as technology, that this thesis has brushed on, could provide interesting insights in this arena.

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<sup>217</sup> Acosta 2013: 80.

<sup>218</sup> Watts and Peet 1996: 261.

<sup>219</sup> Watts and Peet 1996: 261.

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# Appendices

## Appendix 1: Map of Bolivia



Source: United Nations, Department of Peacekeeping Operations, Cartographic Section. Map No. 3875 Rev.3, August 2004. Available at <<[www.un.org/Depts/Cartographic/map/profile/bolivia.pdf](http://www.un.org/Depts/Cartographic/map/profile/bolivia.pdf)>>, accessed 3.5.2017.

## Appendix 2: Map of Salar de Uyuni and surrounding areas



Map from Google Maps, additional markings by author.

### Appendix 3: Pictures of Salar de Uyuni



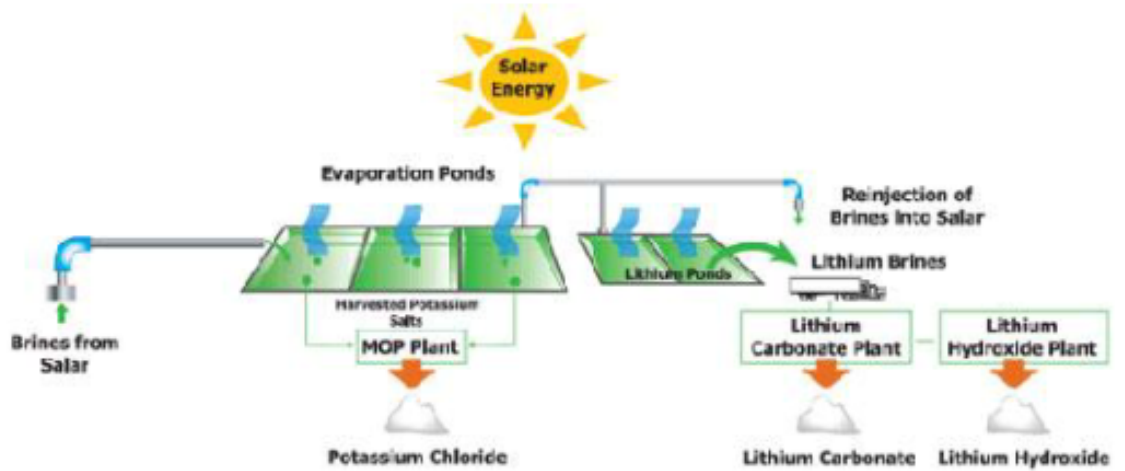
Salar de Uyuni during rainy season. Picture from Sudamericahoy.com  
<<[sudamericahoy.com/turismo/salar-de-uyuni-caminar-en-un-desierto-de-bolivia/](http://sudamericahoy.com/turismo/salar-de-uyuni-caminar-en-un-desierto-de-bolivia/)>>  
Accessed 25.4.2017.



Salar de Uyuni during dry season. Picture from GNRE Memoria 2013.



## Appendix 4: Traditional evaporation pool method



The lithium-potash brine production via solar evaporation.

Focus on Quality Lithium Brine Explorers, prepared by Genuity, in Espí Rodriguez and Sanz Contreras 2013: 5.

## Appendix 5: Evaporation pools in Salar de Uyuni



Evaporation pools in Salar de Uyuni. Picture from GNRE Memoria 2013.

## Appendix 6: List of interviews

<b>Name</b>	<b>Description</b>	<b>Date</b>
Carlos Arze Vargas	Researcher at CEDLA	30.11.2015
“José Luis”	Engineer at GNRE	1.12.2015
“Miguel”	Economist and docent in a Bolivian University	3.12.2015 and 4.1.2016
Ricardo Calla	Former minister of Indigenous Affairs and independent researcher in environmental politics and economics	4.12.2015
“Mario”	Active member of his community in the municipality of Colcha K	9.12.2015
“Walter”	Veteran activist in his community in the municipality of Colcha K	9.12.2015
“Fernando”	Active member of his community in the municipality of Uyuni	10.12.2015
“David”	Researcher who had been involved in the early stages of lithium discussions in Bolivia	15.12.2016, 16.12.2016 and 17.12.2016
“Marco Antonio”	University professor	16.12.2016
“Ángel”	A member of COMCIPO	21.12.2016

## **Appendix 7: Interview guide and questions (translated in English)**

### **Interview guide**

- 1) Background
- 2) General conceptions
- 3) Pros
- 4) Cons
- 5) Power
- 6) Future
- 7) Vivir Bien

### **Interview questions**

#### Background

1. What is your role regarding lithium development/ production?
2. How did you end up/ get in the position you are at now? / How did you become the (what the person is)?
3. What drives you in what you do?
4. What motivates you in your job/ activism?
5. What are your concrete tasks?

#### General Conceptions

6. What are your own experiences of lithium production?
7. Do you think lithium will bring prosperity to your area?
8. Or more widely in Bolivia?

#### Pros

9. What kinds of advantages does lithium production bring to your area?
10. How about to Bolivia more widely?
11. Who do you think will benefit most from lithium production?

#### Cons

12. Do you think there are problems linked with lithium production?
13. What kinds of problems?
14. What do you think should be done about these issues?

#### Power

15. Have you been heard in decision making?
16. Who gets to take part in decision making?
17. Who makes final calls?
18. What do you think has changed between the current government and the last one?

#### Future

19. How do you see the future of your area?
20. Do you think lithium production has an impact to the future of your area?

21. How do you see the future of lithium?
22. How do you see the future of Bolivia?

#### Vivir Bien

23. The government has used the term Vivir Bien in its development plans, are you familiar with the term?
24. Does the term Vivir Bien mean something to you?
25. What do you think is good life?
26. Do you think Vivir Bien is related to lithium production in some way?